

***FINAL***

**ENVIRONMENTAL CONDITION OF PROPERTY  
REPORT**

**SFC E.L. COPPLE  
U.S. ARMY RESERVE CENTER (ID IL009)  
904 E. MARTIN LUTHER KING JR. DRIVE  
CENTRALIA, ILLINOIS, 62801**

***Prepared For:***

**U.S. Army Corps of Engineers – Louisville District  
Engineering Division – Environmental Engineering Branch  
600 Dr. Martin Luther King, Jr. Place  
Louisville, Kentucky 40202-2232**

**FEBRUARY 2007**

## CERTIFICATION

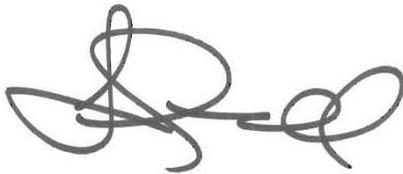
All information/documentation provided accurately reflects the environmental condition of the property. This ECP Report is in general accordance with the U.S. Department of Defense (DoD) requirements for completion of an Environmental Condition of Property (ECP) Report.

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**DAVID L. MOORE**  
**Chief, Environmental Division**  
**88<sup>th</sup> Regional Readiness Command**

DATE

The undersigned certifies the contents of this report are in general accordance with DoD policies for the completion of an ECP.



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**LENARD GUNNELL, P.G.**  
**Project Geologist**  
**U.S. Army Corps of Engineers**

DATE

# Executive Summary

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CH2M HILL, under contract to the U.S. Army Corps of Engineers, Louisville District, prepared this Environmental Condition of Property (ECP) Report for the SFC E.L. Copple U.S. Army Reserve (USAR) Center (Facility ID IL009), hereafter referred to as the "Property" or "USAR Center." The Property is in Marion County, on the east side of the City of Centralia, Illinois, located at 904 E. Martin Luther King Jr. Drive and encompasses approximately 4.32 acres.

This ECP Report was conducted in conformance with the Department of Defense's Base Redevelopment and Realignment Manual (BRRM), DoD 4165.77-M, Army Regulation 200-1, and the American Society for Testing and Materials (ASTM) Designation D6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys*.

This ECP Report details the history of the property, including USAR and any prior tenant uses of the Property and the resulting environmental condition of the Property.

The USAR Center is on approximately 4.32 acres of land with two permanent structures: a 11,142-square-foot administration building and a 2,676 square-foot organizational maintenance shop (OMS) building. The site is currently occupied by USAR soldiers under the 88th Regional Readiness Command.

Based on a review of aerial photographs and U.S. Geological Survey topographical maps, land use at adjacent properties has changed over the years. USGS topographical maps and aerial photographs show a gradual increase of residential development to the north, south, and west of the Property. Development to the east has been light commercial and residential over time. The Property has always served as a USAR Center since the U.S. Government acquired the property in 1957. The administration and OMS buildings on the Property were constructed in 1958.

Areas of potential environmental concern were reviewed and CH2M HILL found no specific findings relating to the release of hazardous substances, munitions and explosives of concern, or radioactive materials relating to the USAR use of this property. However, an underground storage tank formerly containing #2 fuel oil and 170 cubic yards of petroleum-impacted soil were removed in 1995 and a no further remediation letter was issued by the Illinois Environmental Protection Agency for the Property.

In accordance with Department of Defense policy defining the classifications (see Sherri Goodman Memorandum dated 21 October 1996), the Property has been classified as Type 2. This classification does not include categorizing the property based on *de minimis* conditions that generally do not present material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

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# Abbreviations and Acronyms

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The following is a comprehensive list of abbreviations and acronyms that are used throughout this report.

ACM	asbestos-containing material
AMSA	Area Maintenance and Support Activity
AR	Army Regulation
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CAT	category list
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
CESQG	conditionally exempt small-quantity generator
CES	Centralia Environmental Services
CFR	Code of Federal Regulations
CORRACTS	corrective actions
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
ECII	Environmental Contractors of Illinois, Inc.
ECP	environmental condition of property
ERNS	Emergency Response Notification System
ESGN	Engineer Support Group North
EDR	Environmental Data Resources, Inc.
FEMA	Federal Emergency Management Agency
FESOP	Federally Enforceable State Operating Permit
ICL	Illinois Category List
IDNR	Illinois Department of Natural Resources
IPC	Illinois Power Company

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IEPA	Illinois Environmental Protection Agency
kg	kilogram
LBP	lead-based paint
LQG	large-quantity generator
LUST	leaking underground storage tank
MEC	munitions and explosives of concern
MEP	military equipment parking
MR	Multiple Family Residential
msl	mean sea level
NFA	no further action
NFR	no further remediation
NPL	National Priorities List
NR	Natural Resources
NRHP	National Register of Historic Places
NRS	Natural Resources Survey
OMS	organizational maintenance shop
OWS	oil/water separator
PCBs	polychlorinated biphenyls
pCi/L	picoCuries per liter of air
POL	petroleum, oil, and lubricant
POV	privately owned vehicle
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
RCRIS	RCRA Information System
RRC	Regional Readiness Command
SHWS	state hazardous waste sites
SQG	small-quantity generator
SRP	site remediation database
SSU	State Site Unit
STATSGO	State Soil Geographic Database
TSD	treatment, storage, or disposal

USACE	U. S. Army Corps of Engineers
USAR	U. S. Army Reserve
USEPA	U. S. Environmental Protection Agency
USFWS	U. S. Fish and Wildlife Service
USGS	U. S. Geological Survey
UST	underground storage tank
VWR	vehicle wash rack
WWES	WW Engineering & Science, Inc.

# 1 Introduction

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CH2M HILL, under contract to the U.S. Army Corps of Engineers (USACE) Louisville District Engineering Division was authorized to conduct an Environmental Condition of Property (ECP) report for SFC E.L. Copple U.S. Army Reserve Center (IL009). The facility is located at 904 E. Martin Luther King Jr. Drive, Centralia, Marion County, Illinois, 62801 and is hereafter referred to as the "Property" or "USAR Center." CH2M HILL prepared this ECP report under contract number W912QR-04-D-0020, Task Order No. 0018, with the Louisville District USACE.

A visual non-intrusive reconnaissance of the Property was conducted on August 1, 2006 in support of the ECP. The reconnaissance purpose was to obtain visual information indicating the likelihood of recognized environmental conditions associated with the Property or adjacent properties.

In preparing this ECP report, CH2M HILL gathered information from the available records and previous work from others; interviews with individuals purporting to be familiar with the Property; and observations from a site reconnaissance. The accuracy of the information obtained from these sources was not verified by CH2M HILL. As such, CH2M HILL will make no warranty, expressed or implied, relative to the accuracy, completeness, or reliability of the information used to create the reports.

## 1.1 Purpose of Environmental Condition of Property

The Military Department with real property accountability shall assess, determine, and document the environmental condition of all transferable property in an ECP Report. This ECP Report is based on readily available information. Pursuant to the Department of Defense's (DoD) policy, set forth in the Base Redevelopment and Realignment Manual (BRRM) (DoD 4165.66-M, March 1, 2006) Section C8.3, the primary purposes of the ECP Report include the following:

- Provide the Army with information it may use to make disposal decisions.
- Provide the public with information relative to the environmental condition of the property.
- Assist in community planning for the reuse of Base Realignment and Closure (BRAC) property.
- Assist federal agencies during the property screening process.
- Provide information for prospective buyers.
- Assist prospective new owners in meeting the requirements under U.S. Environmental Protection Agency's (USEPA) "All Appropriate Inquiry" regulations.
- Provide information about completed remedial and corrective actions at the property.

- Assist in determining appropriate responsibilities, asset valuation, and liabilities with other parties to a transaction.

The ECP Report contains the information required to comply with the provisions of 40 Code of Federal Regulations (CFR) Part 373, which require that a notice accompany contracts for the sale of, and deeds entered into, for the transfer of federal property on which any hazardous substance was stored, released, or disposed of. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 120(h) stipulates that a notice is required if certain quantities of designated hazardous substances have been stored on the property for 1 year or more—specifically, quantities exceeding 1,000 kilograms (kg) or the reportable quantity, whichever is greater, of the substances specified in 40 CFR 302.4 or 1 kg of acutely hazardous waste as defined in 40 CFR 261.30. A notice is also required if hazardous substances have been disposed of or released on the property in an amount greater than or equal to the reportable quantity. Army Regulation (AR) 200-1 requires that the ECP Report address asbestos, lead-based paint (LBP), radon, and other substances potentially hazardous to human health.

This ECP Report used the American Society for Testing and materials (ASTM) Designation D6008-96 (2005), *Standard Practice for Conducting Environmental Baseline Surveys*, the BRRM, CERCLA § 120, and AR 200-1.

## 1.2 Scope of Services

This ECP report covers the 4.32-acre Copple USAR Center located at 904 E. Martin Luther King Jr. Drive, Centralia, Illinois. The Property is bounded by E. Martin Luther King Jr. Drive and residential development to the south, and Franklin Avenue and residential development to the west. The Property is bounded by a residential apartment complex to the east and by an industrial contracting company and residential development to the north. All site maps, figures, and aerial photographs referenced herein are provided in Appendix A, while Appendix B contains the photographs taken during the July 31, 2006 site reconnaissance. Appendix C contains the Property warranty deeds and chain of title information, and lease or permit agreements if applicable. Relevant historical environmental documents and reports are provided in Appendix D, while Appendix E contains the Environmental Data Resources, Inc. (EDR) radius search reports commissioned for this effort.

This ECP report classifies the Property into one of seven DoD Environmental ECP categories as defined by the DoD policy defining the classifications (see Sherri Goodman Memorandum dated 21 October 1996). The property classification categories are as follows:

- ECP Area Type 1 – An area or parcel of real property where no release or disposal of hazardous substances or petroleum products or their derivatives has occurred (including no migration of these substances from adjacent properties).
- ECP Area Type 2 – An area or parcel of real property where only the release or disposal of petroleum products or their derivatives has occurred.

- ECP Area Type 3— An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.
- ECP Area Type 4— An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred and all remedial actions necessary to protect human health and the environment have been taken.
- ECP Area Type 5— An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred and removal or remedial actions, or both, are underway, but all required actions have not yet been taken.
- ECP Area Type 6— An area or parcel of real property where release, disposal, or migration, or some combination thereof, of hazardous substances has occurred, but required response actions have not yet been initiated.
- ECP Area Type 7— An area or parcel of real property that is unevaluated or requires additional evaluation.

Areas classified as Area Types 1 through 4, as defined above, are suitable for deed transfer to a non-federal recipient, with respect to CERCLA 120(h) requirements.

## 2 Site Location and Physical Description

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### 2.1 Site Location

The SFC E.L. Copple USAR Center is in Marion County, on the east side of the city of Centralia, Illinois, located at 904 E. Martin Luther King Jr. Drive. The 4.32-acre parcel is situated on a small side street (Martin Luther King Jr. Drive) at the south boundary and is surrounded on other property boundaries by Franklin Avenue to the west, residential to the east, and an industrial contracting company and residential to the north. Figure 1 in Appendix A shows a general site location map for the USAR Center.

### 2.2 Asset Information

Facility Name and Address:	SFC E.L. Copple U.S. Army Reserve Center 904 E. Martin Luther King Jr. Drive Centralia, Illinois
Property Owner:	U.S. Government
Date of Ownership:	May 17, 1957
Current Occupant:	88 <sup>th</sup> Regional Readiness Command
Zoning:	MR, Multiple Family Residential (MR)
County, State:	Marion, Illinois
USGS Quadrangle(s):	Centralia East, Centralia West
Section/Township/Range:	Section 17, Township 1 North, Range 1 East
Latitude/longitude:	38° 31' 44.4" N; 89° 07' 25" W

#### Legal Description:

The USAR Center includes one parcel of land, described in the warranty deed as Tract A-100 and in the Historical Chain of Title Report as Assessor's Parcel number 14-17-00-043 (NETR-Real Estate Research & Information, 2006). A copy of the warranty deed and historical chain-of-title report, which includes an accurate legal description, is provided in Appendix C.

### 2.3 Physical Description

The USAR Center is located on a 4.32-acre parcel on the east side of Centralia, Illinois. The Property is located on the USGS 7.5-minute Centralia East Quadrangle map, at an average elevation of 500 feet mean sea level (msl). The topography is generally flat, with a gradual decrease in elevation running from the north toward the south and southwest of the parcel.

The USAR Center contains two permanent structures and two parking lots. A site plan for the Property is provided as Figure 2 in Appendix A. Construction of the 11,142-square-foot administration building and 2,676 square-foot organizational maintenance shop (OMS) building was completed in 1958. Both of these structures are on concrete foundations and consist of concrete block walls covered with a brick veneer. A military equipment parking (MEP) area and a privately owned vehicle (POV) parking area are also contained within the Property. Chain-link security fencing topped with barbed wire encloses the entire Property, including the MEP area and OMS building.

Approximately one-third of the Property is covered by impervious surface features such as concrete parking areas, driveways, concrete walkways, and building footprints. The remaining land is grassed with trees and shrubs throughout the property.

The USAR Center is a rectangular structure consisting of a one-story administrative section and a 1.5-story drill/assembly hall. The building's interior consists of office space, classrooms, and storage. A floor plan showing the interior layout of the administration building is included as Figure 3 in Appendix A. The OMS building is a two-bay, one-story rectangular structure currently used for storage.

Before 1987, the USAR Center's address was 904 E. McCord Street. Development in the area surrounding the USAR Center during this time period included road construction and traffic reconfigurations. East McCord Street was renamed Martin Luther King Jr. Drive. East McCord Street was relocated south of the Property and became part of SR 161. SR 161 is a major east-west route that runs through Centralia and is called East McCord Street as it passes through the city on the east side of Centralia. The USAR Center's address was changed to 904 E. Martin Luther King Jr. Drive, which has been the current address since 1987.

## 2.4 Site Hydrology and Geology

Copple USAR Center and Centralia are located within the Mt. Vernon Hill Country Physiographic Section. The area is characterized by nearly level plains to gently rolling hills. Surface elevations range from 550 feet msl to 450 feet msl in the area.

Both Centralia and the Copple USAR Center are found on the U.S. Geological Survey (USGS) 7.5-minute Centralia East and Centralia West maps. As shown on these maps, ground surface elevations at the center average 500 feet msl.

### 2.4.1 Surface Water Characteristics

Figure 4 in Appendix A provides a portion of the 1970-1981 Centralia East, Illinois USGS topographic map, which includes the Property. As shown, the Property is situated at an elevation of approximately 500 feet above msl and is relatively flat. In the immediate vicinity of the Property, the land surface gently slopes from north to the south and southwest.

Storm water flows overland across the site to storm drains located offsite on the perimeter of the Property. Storm water flows across the site generally from the north to the south and southwest. There is a small ditch running north to south parallel to Franklin Avenue on the west side of the Property.

No surface water features are located in the immediate vicinity of the Property. The 88<sup>th</sup> Regional Readiness Command (RRC) Natural Resources (NR) Survey (January, 2005) indicated that no wetlands were identified on the Property and the closest offsite wetlands and open water bodies are located 3,000 feet east of the Property. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Community Panel 1704530005C, the Property is not included in the 100-year floodplain elevation. Figure 11 in Appendix A provides a map depicting the extent of the nearest 100-year floodplain in relation to the Property.

## 2.4.2 Hydrogeological Characteristics

According to information acquired from the Soil Conservation Service's State Soil Geographic Database (STATSGO) for Marion County, specific types of soil at the Property are from the CISNE Series. The CISNE Series meets the requirements for a hydric soil.

The surface soil generally is silty loam and silty clay loam. These soil types have slow infiltration rates with layers impeding downward movement of water, and are characterized as soil with fine textures. In a typical profile, the surface layer is approximately 8 inches thick and is a silty loam. The subsoil is approximately 62 inches thick and ranges from a silty loam to a silty clay loam. During removal of USTs in February, 1995, brown, dense clay and sandy clay were observed from 4 feet below land surface to a depth of 13 feet.

Potable water for the area is supplied by the Centralia Reservoir (Raccoon Lake) located approximately 1.5 miles northeast of the Property.

Groundwater flow direction and depth to groundwater at the Property are unknown.

## 2.5 Site Utilities

**Water Service**—The City of Centralia (618-533-7625) provides potable water service to the Property.

**Sanitary Sewer System**—The City of Centralia (618-533-7625) provides sanitary sewer service to the Property. The primary source of wastewater that is directed to the city sewer system includes non-process wastewater (bathrooms, sinks, etc.).

**Gas and Electric**—The gas and electric vendor for the Property is AMEREN-IP (1-800-363-6805).

## 2.6 Water Supply Wells and Septic Systems

Based upon a review of available historical site and agency records and interviews with site personnel, neither a water supply well nor a septic system is or was located at the Property. Potable water is supplied by the City of Centralia.

A search of Federal and State water well databases identified 8 water supply wells located within a 1-mile radius of the Property. The wells are reportedly used for farming and commercial purposes.

## 3 Site History

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### 3.1 History of Ownership

Warranty deeds for the Property, which are included in the chain-of-title report in Appendix C, were available back to 1957. The report did not identify any leases or environmental liens against the USAR Center Property.

According to historical documentation, the U.S. Government purchased the USAR Center in December, 1957. A City Directory provided by EDR and dated September 8, 2006, indicates that the address of the USAR Center (904 E. McCord Street) was first listed in the research source (Johnson's City Directory) in 1959 and again in 1966. Subsequent city directory searches do not list the Property at that address. The address of the Property changed in the late 1980s to 904 E. Martin Luther King Jr. Drive when East McCord Street was relocated to the south. Historical documentation supports the 1958 construction date of the USAR Center. A copy of the City Directory is included in Appendix E.

### 3.2 Past Uses and Operations

In 1957, the U.S. Government purchased the 4.32 acres of land for construction of the USAR Center. Construction of the administration building and OMS buildings occurred in 1958. The Property always has served as a reserve and mobilization center for the U.S. Army Reserve since the U.S. Government acquired the land and built the facility in 1957.

The Property primarily functioned as an administrative, logistical, and educational facility, with limited maintenance of military vehicles occurring in the OMS building. The Property was historically used by reservists for drill activities on various weekends throughout the year. Currently, USAR soldiers under the 88<sup>th</sup> RRC occupy the facility. The facility provides a mobilization site, headquarters, office space, training site, and maintenance support. At the time of the site reconnaissance, the administration building contained various items, including desks, office furniture, and folding tables.

The OMS building was used to perform limited maintenance activities on military equipment. Activities inside the OMS building were limited to preventative maintenance checks, including checking vehicle fluids such as motor oil, water, and antifreeze, and light maintenance activities. Any equipment requiring heavier maintenance activities was sent to an Area Maintenance Support Activity (AMSA) shop located at one of the other Reserve Centers in Illinois. Equipment requiring major overhaul also was sent offsite.

At the time of the site reconnaissance, the OMS building was being used for storage. Five flammable storage cabinets were observed along the south wall of the OMS building. One cabinet was dedicated for spill prevention. Three cabinets contained petroleum, oil and lubricant (POLs), refrigerant, paints, adhesives, corrosive inhibitors and cleaners, aerosols, etc., necessary for building maintenance (see Photographs 1, 2 and 3 in Appendix B). The other cabinet contained several bags of calcium chloride pellets used for deicing. On the

south wall next to the cabinets, shelves were observed containing refrigerant, light bulbs, and other maintenance supplies (see Photograph 4 in Appendix B). Two 55-gallon drums, labeled "non PCB," were observed on the south wall containing light ballasts and fluorescent light bulbs stored for recycling (see Photograph 5 in Appendix B). In the middle of the OMS building, a pallet with a pool of an unknown, viscous liquid surrounding it was observed (see Photograph 5 in Appendix B). The liquid appeared to be leaking from the pallet (not from the contents on the pallet – Ice No Mor™ used for deicing) and was migrating toward both bay doors of the building (see Photograph 6 in Appendix B). The liquid had not migrated outside the building.

Vehicle washing historically occurred near the OMS building. A vehicle wash rack (VWR) formerly was located on the north side of the OMS. Photograph 7 in Appendix B shows the asphalt patch and location of the former wash rack. Rinse water flowed to an oil/water separator (OWS) located in the grass southwest of the wash rack, which ultimately discharged to the municipal sanitary sewer. Photograph 8 in Appendix B shows the concrete patch for the piping leading from the vehicle wash rack to the former OWS that was located in the grass next to the administration building. No storage tanks were associated with the OWS.

Historical aerial photographs and topographic maps were the primary source of information on the past use and operations at the Property. Figures 4, 5, and 6 in Appendix A provide USGS topographical maps of the Property and surrounding areas. Figures 7 and 8 in Appendix A provide aerial views of the Property and surrounding areas in 1959 and 1982.

The 1914 USGS topographical map (Figure 4, Appendix A) shows the Property and areas to the north and east as undeveloped. Residential development is visible south and west of the Property.

The 1970–1981 and 1969–1981 USGS topographical maps (Figures 5 and 6 in Appendix A) show additional residential development to the north (including a school), west, and south of the Property. A park and light commercial development (including a hospital) are visible to the east of the Property. The USAR Center can be seen on the Centralia East Quad map (Figure 5).

The 1959 aerial photograph (Figure 7, Appendix A) shows the Property with the administration and OMS buildings on it. Military vehicles are visible in the MEP area between the administration and OMS buildings. Residential development is visible adjacent to the south and west Property boundaries. An office storage building is visible adjacent to the north Property boundary, with a school and light residential development to the north. Tracts of land east and southeast of the Property remain undeveloped. St. Mary's Hospital can be seen east of the USAR Center.

The 1982 aerial photograph (Figure 8, Appendix A) shows increased residential, commercial, and street development south of the Property. Additional residential development has occurred north and northeast of the Property. A park with softball fields is adjacent to the east Property boundary, with several commercial properties farther east. Additions and renovations made to the hospital, located east of the USAR Center, are visible.

## 3.3 Past Use, Storage, Disposal, and Release of Hazardous Substances

### 3.3.1 Past Use and Storage of Hazardous Substances

Information related to the past use and storage of hazardous substances at the Property was compiled through review of available site records, search of Federal and State environmental databases, and interviews with Army Reserve personnel. Chemicals formerly used and stored at the Property were associated with vehicle and facility maintenance activities and janitorial services. Janitorial chemicals and building-maintenance-related products were stored in the designated storage area within the janitorial closet located in the administration building. Vehicle maintenance products and small amounts of POL products also were stored within designated areas within the OMS building. No reasonably available evidence was identified indicating that hazardous substances above reportable quantities were stored for 1 year or more at the Property.

### 3.3.2 Past Disposal and Release of Hazardous Substances

Information related to past disposal and potential release of hazardous substances at the Property was compiled through review of available site records, a search of Federal and State environmental databases, and interviews with U.S. Army Reserve personnel. Disposal of hazardous materials/hazardous waste had been accomplished through the Defense Reutilization and Marketing Office (DRMO) or an authorized vendor such as Safety-Kleen. No stained soil or stressed vegetation was observed during the August 2006 site reconnaissance. The concrete MEP and gravel POV parking areas showed no signs of staining. No noxious or foul odors were noted during the site reconnaissance. No reasonably available evidence was identified indicating that hazardous substances above reportable quantities were released or disposed of at the Property.

## 3.4 Past Presence of Bulk Petroleum Storage Tanks

Based on a review of available site records, a search of Federal and State environmental databases, and interviews with Army Reserve personnel, one 6,000-gallon underground storage tank (UST) and one 1,500-gallon UST containing diesel (#2 fuel oil) were located at this facility, but they were removed in 1995. In addition, 170 cubic yards of petroleum impacted soils were removed from the 1,500-gallon UST excavation. Environmental Contractors of Illinois, Inc. (ECII) determined there was no release from the 6,000-gallon UST (ECII, 1995). Illinois Environmental Protection Agency (IEPA), in a letter dated July 27, 1995, stated the above leaking underground storage tank (LUST) incident (#941953) will not require any further remediation.

## 3.5 Review of Previous Environmental Reports

A review of site records produced several reports pertaining to the Property. The following subsections provide a brief summary of these reports. Copies of the reports, unless otherwise specified, are provided in Appendix D.

### **3.5.1 1995 – 45-Day Report and Request for Site-Specific Cleanup Objectives, UST Removal Memorandums, and Illinois EPA NFR letter**

These reports and memorandums document the removal of 2 USTs and 175 cubic yards of petroleum-impacted soils at the Property including a 45-Day Report and Site-Specific Cleanup Objectives (ECII, 1995). Documentation includes a letter from IEPA requiring no further remediation (NFR) at the Property related to the UST removals (IEPA, 1995).

### **3.5.2 1989 – 1990 Asbestos Abatement**

Memos, contracts, health monitoring, certifications, etc., document the asbestos abatement performed by Republic Industries, Inc., which took place at the USAR Center in 1989 through 1990. Documents mention the removal and disposal of asbestos materials and the re-insulating of piping and joints, but do not give details. Specific areas and the extent of the asbestos abatement at the USAR Center could not be determined from reasonably available documentation.

### **3.5.3 1998 Oil/Water Separator (OWS) Engineering Study (Evaluation) Report**

Terracon, as a subcontractor to Harza Environmental Services, prepared an OWS evaluation report for various USAR sites under the 88<sup>th</sup> Regional Support Command, including the USAR Center. As part of the reporting process, Terracon was responsible for documenting and locating each OWS located at the USAR facilities. The report states that a vehicle wash rack is located on the north side of the OMS building. A catch basin in the approximate center of the wash rack carries rinse water to an OWS located in the grass approximately 20 feet southeast of the southeast corner of the administration building. Sections of the report, including conclusions and recommendations, were missing, but Terracon observed, “the OWS appeared to be in generally sound condition, although the observations were limited because of the size of the OWS and the presence of the baffles.” Terracon also stated, “The concrete wash rack and associated catch basin also appeared to be in good condition” (Terracon, 1998).

### **3.5.4 2003 OWS Closure Report**

Jones Technology, Inc., prepared an OWS closure report for the Property, dated February 2004, documenting the removal of an OWS, vehicle wash rack, and associated grit trap at the Property in May 2001 (Jones Technology, 2001). The structures were in good condition, and no contamination was encountered during the closures. Jones Technology, Inc. recommended no further action for this site in its report. Figure 11 in Appendix A shows the location of the former OWS and vehicle wash rack.

### **3.5.5 1995 Title V Air Emissions Study Report**

WW Engineering & Science, Inc. (WWES) assisting Environmental Protection Specialists at Fort McCoy prepared air emission inventories for various USARC facilities located in the state of Illinois, including the USAR Center. An air emission inventory was necessary to determine whether the USAR Center was required to obtain either a Title V operating permit under the Illinois Clean Air Act Program or a Federally Enforceable State Operating Permit (FESOP). Additionally, the emission inventory was used to determine if any state air permits were required. “Based upon the outcome of this study, it appears as though

potential emissions are below major source thresholds. Therefore, the USAR is not required to obtain either a Title V permit or a FESOP. Additionally, it appears as though no state air permits are required" (Amy L. Dean, Project Air Quality Scientist, WWES).

### 3.5.6 Environmental Compliance Assessment Report

The Engineer Support Group North performed an internal survey in 1997, listing and evaluating areas on the Property where environmental concerns were apparent and were noted as needing correction (ESGN, 1997).

### 3.5.7 Cultural Resources Report

A Section 110 cultural resources survey report for the facility was prepared for the 88th RRC by the Fort McCoy Archaeological laboratory in November 1998-March 2000. The purpose of the survey and subsequent report was to inventory all properties controlled or leased by the 88th RRC in the state of Illinois. Historical information, setting and landscape, cultural resources, security, architectural information, and structure descriptions are included for each property. Each site was also assessed for its eligibility to the National Register of Historic Places (NRHP). No facilities at the Copple USAR Center were eligible for listing on the NRHP (Fort McCoy Archaeological Laboratory, 2000).

### 3.5.8 2005 Environmental Survey Report: Asbestos, PCB, Lead Based Paint, and Radon Survey

ITI of South Florida, Inc. prepared an Environmental Survey Report in April 2005 for the USAR Center. Potential types, quantities, locations, and conditions of asbestos, PCBs, LBP, and radon was examined in the report. The following conclusions were made (ITI, 2005):

- Confirmed and presumed asbestos was indicated to be present in the administration building.
- Presumed asbestos was indicated in the OMS building on the Property.
- Confirmed LBP was found to be present in both the administration and OMS buildings.
- Light ballasts containing labels stating "No PCB's" were observed during the PCB survey in the administration building.
- Some ballasts did not contain labeling indicating the absence or presence of PCBs.
- Ballasts leaking a brown fluid were observed in the Orderly and Operations rooms of the Administration building.
- Light ballasts in the OMS building were inaccessible.
- Three transformers mounted on one pole on the Property and one transformer located on a pole at the right edge of the Property outside the fence had no labels (assumed to contain PCBs), as observed by ITI at the USAR Center.
- All measured radon levels were below USEPA's recommended action level of 4 pCi/L.

### 3.5.9 2005 Natural Resources Survey (NRS) Report

Parsons prepared a Natural Resources Survey (NRS) report dated January, 2005 for the facility identifying land use, geologic, water, and biological resources. The NRS reported no endangered or threatened species or wetlands identified on the Property.

# 4 Adjacent Properties

Adjacent property land uses are significant to the ECP process, as these current or past uses may have an environmental impact on the USAR Center. Adjacent properties were included in the EDR report review for this reason. Typically adjacent properties within 0.25 mile of the USAR Center property boundaries are reviewed and visually surveyed. For the purposes of this ECP, the adjacent property reconnaissance was performed from the USAR Center property boundaries and from public access points. Historical aerial photographs and topographic maps are also reviewed for conditions or activities that may have had an environmental impact on the Property.

## 4.1 Land Uses

Land use around the USAR Center is as follows:

- North is an industrial contracting company with residential development to the north.
- South is residential and light commercial.
- East is a residential apartment complex.
- West is residential.

Table 1 summarizes the current adjacent properties, their owners, and zoning.

TABLE 1  
 Adjacent Properties

Name/Type of Property	Address	Distance and Direction from Property	Zoning
Industrial Mechanical Contractors LTD	501 N Franklin Ave. Centralia, IL 62801	Approx. 700 ft. north	MR, Multi Residential Family Residences
Hickory Ridge Apartments	920 M L King Jr. Dr. Centralia, IL 62801	Adjacent to east property boundary	MR, Multi Residential Family Residences
Residential		Approx. 100 ft. west	MR, Multi Residential Family Residences
Heneghan & Assoc.	838 M L King Jr. Dr. Centralia, IL 62801	Approx. 100 ft. northwest	MR, Multi Residential Family Residences
Residential/Vacant land		Approx. 100 ft. south	MR, Multi Residential Family Residences

## 4.2 Findings

The EDR database search results were reviewed for any evidence that adjacent properties may have past or present environmental issues that would impact the USAR Center, and none were found.

Water well databases at the Federal and State level were reviewed to identify any water supply sources near the Property. The databases identified 8 water supply wells (one was reported to be a dry production well) located within a 1-mile radius of the Property. The wells are reportedly used for farming and commercial purposes.

Land use at adjacent properties has changed gradually over the years, based on a review of available aerial photographs. The aerial photograph for 1959 shows the Property adjacent to a small residential community with residential development to the north, south, and west, and undeveloped tracts of land to the east and southeast. The aerial photograph for 1982 shows residential growth to the north and new road construction to the south. A park with softball fields is adjacent to the east Property boundary, with light commercial developments east of the park.

## 5 Review of Regulatory Information

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An essential component of an ECP is the review of records and databases containing information on the Property and adjacent properties. The review includes reasonably obtainable federal, state, and local government records, and is intended to identify a release or likely release of any hazardous substance or any petroleum product, which is likely to cause or contribute to a release or threatened release of any hazardous substance or any petroleum product to the Property.

The majority of the regulatory information for this ECP was obtained from EDR on July 19, 2006. EDR provides a regulatory database summary that consolidates standard federal, state, local, and tribal environmental record sources based on ASTM recommended minimum search distances from the Property.

All findings reported in Sections 5.1, 5.2, and 5.3 below are from the EDR report unless otherwise noted. A copy of the complete EDR report is included in Appendix E.

### 5.1 Federal Environmental Records

#### 5.1.1 Federal National Priorities List Sites within 1 Mile

USEPA maintains a record of the nations' worst uncontrolled or abandoned hazardous waste sites, known as the National Priorities List (NPL). Sites on the NPL undergo long-term remedial action under CERCLA. The USAR Center is not an NPL site, nor were any such sites located within 1 mile of the Property.

#### 5.1.2 Federal Comprehensive Environmental Response, Compensation and Liability Act Information Systems Sites within 0.5 Mile

The CERCLA Information System (CERCLIS) contains data on potentially hazardous waste sites that have been reported to USEPA by state, municipalities, private companies, and private persons, pursuant to Section 103 of the Act. CERCLIS contains sites that are either proposed to be or are on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL.

The USAR Center is not a CERCLIS site and there are no CERCLIS sites located within 0.5 mile of the USAR Center.

#### 5.1.3 Resource Conservation and Recovery Act Corrective Action Sites within 1 Mile

The Resource Conservation and Recovery Act (RCRA) corrective action (CORRACTS) sites represent facilities that have generated or managed hazardous wastes and require corrective action. The USAR Center is not a CORRACTS site nor were there any CORRACTS sites identified within 1 mile of the USAR Center.

### 5.1.4 RCRA Transport, Treatment, and/or Disposal Sites within 0.5 Mile

RCRA defines and regulates sites that generate, transport, treat, store, or dispose (TSD) of hazardous wastes. The RCRA Information System (RCRIS) includes selective information on these sites.

The USAR Center is not a RCRIS-TSD site, and there are no sites located within 0.5 mile of the USAR Center.

### 5.1.5 Federal RCRA Small- and Large-Quantity Generators List within 0.25 Mile

Conditionally exempt small-quantity generators are defined as facilities generating less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. RCRA small-quantity generators are defined as facilities generating between 100 kg and 1,000 kg of hazardous waste per month. A facility generating more than 1,000 kg of hazardous waste or more than 1 kg of acutely hazardous waste per month is defined as a large-quantity generator.

The USAR Center is listed as a RCRA-registered conditionally exempt, small-quantity generator (CESQG). No RCRA violations are associated with the USAR Center.

One site within 0.25 mile of the USAR Center was identified as a RCRA-large quantity generator (LQG):

Fairview Super K, at 700 W. Broadway (1,284 feet SSW of the USAR Center). No violations were reported for the site (EDR, 2006).

Three sites within 0.25 mile of the USAR Center were identified as RCRA-small quantity generators (SQGs):

- Caseys General Store, at 908 E. Noleman St. (433 feet SW of the USAR Center)
- Centralia Ford, Inc., at 848 E. Noleman St. (790 feet WSW of the USAR Center)
- Centralia Terminal Co., at 650 W. Noleman St. (1,285 feet W of the USAR Center)

No violations were reported for the above sites (EDR, 2006).

### 5.1.6 Federal Emergency Response Notification System List

The Emergency Response Notification System (ERNS) List maintains information on reported releases of oil and hazardous substances. The USAR Center is not on this notification list.

## 5.2 State and Local Environmental Records

Most of the information presented in this subsection was obtained from the EDR report. Additional information was also obtained from online database searches of the State of Illinois's Web site during August and September, 2006. Occasionally state and local agency personnel were interviewed via telephone to answer questions about any database issues.

### 5.2.1 State Lists of Hazardous Waste Sites within 1 Mile

State hazardous waste site records are the states' equivalent to CERCLIS.

The USAR Center is not on the list of state hazardous waste sites (SHWS).

Three sites within 1 mile of the USAR Center were identified as SHWS sites:

- Centralia Environmental Services, at S. Perrine St. (663 feet E of the USAR Center)
- Prior Blackwell Landfill, at Perrine Ave. (5,207 feet SSE of the USAR Center)
- Prior 1, 2, 3, 4, at RR5 (Perrine Ave.) ( 5,207 feet SSE of the USAR Center)

The EDR database reports the three sites listed above as landfills. EDR indicates the three sites are in the State Site Unit (SSU) Program and lists their status in the program as being completed in 2003.

Further information regarding the three referenced landfills was obtained from the IEPA Bureau of Land Division website on September 19, 2006. The three former landfills are located approximately 3 miles south of the Property. Centralia Environmental Services (CES), Prior Blackwell and Prior 1, 2, 3, 4 landfills were located adjacent to each other in the area of South Perrine Avenue and Greenview Road. CES operated from 1986 to 1989. Prior 1, 2, 3, 4 operated from 1975 to 1987. Prior Blackwell operated from 1981 to 1986. All three landfills were operated by the same owner and were reported abandoned. Corrective action was taken by the state, with CES's status listed as being completed in 2002 and the two Prior sites completed in 2003.

As part of the August 1, 2006, site reconnaissance, a windshield survey was conducted in the area surrounding the Property. This included the area around the intersection of Martin Luther King Jr. Drive and N. Perrine Ave. This was the location of the CES landfill reported by EDR. The IEPA website reports the landfill as being 35 acres in size. The entire area adjacent to the Property has been historically residential (dating back at least to the 1950s), with no indication of a landfill that size being located in the area. The windshield survey confirmed that the residential area mostly consisted of older homes that would pre-date the CES landfill (1986 to 1989).

### 5.2.2 Illinois Category List within 1 Mile

Sites on the Illinois Category (CAT) list are: Notice of Response Action, NPL, Pre/proposed NPL, Completed Remedial Action, Site Remediation Program, Federal Facilities, and Cleanup Started and/or Completed Sites (EDR 2006). The USAR Center is not on the Illinois CAT site list.

One site within 1 mile of the USAR Center was identified as an Illinois CAT site. Burlington Northern Santa Fe Railroad Company is located on the corner of Chestnut Street and Johnson Street, approximately 4,213 feet NW of the USAR Center. The site is listed being in a Site Remediation Program.

### 5.2.3 State-Registered Landfills or Solid Waste Disposal Sites within 0.5 Mile

The USAR Center does not have a solid waste landfill, incinerator, or transfer station within the Property boundaries.

No properties within 0.5 mile of the Center have a solid waste landfill, incinerator, or transfer station.

## 5.2.4 State-Registered Leaking Underground Storage Tank Sites within 0.5 Mile

In addition to information obtained from the EDR report, the IEPA maintains a comprehensive database of LUST sites. The USAR Center is listed in the State LUST database, as discussed in Section 3.4. The two USTs were removed in 1995 and a status of NFR required for the USAR Center was issued to the Department of the Army (IEPA, 1995).

Within 0.5 mile of the Center, 15 LUST sites in various stages of closure were identified. Table 2 summarizes their information relative to the USAR Center, and provides the status of their corrective action.

TABLE 2  
 Leaking Underground Storage Tank Sites  
 Near SFC E.L. Copple USAR Center, Centralia, Illinois

Company/Site	Address	Distance and Direction from Property	Regulatory Status	Elevation Relative to Property
Centralia Terminal and Storage	640 W. Noleman St. Centralia, IL 62801	875 feet SW	45 Day Report received 7/11/02. NFA/NFR status not reported.	Equal
Buck-A-Roo Car Wash	1001 W. Broadway Centralia, IL 62801	1,153 feet SSE	Status not reported.	Higher (by 1 foot).
Jim's Auto Service	100 N. Lincoln Centralia, IL 62081	1,229 feet SSW	NFA/NFR dated 8/2/2000.	Equal
Wilson Service Center	420 E. Noleman St. Centralia, IL 62801	1,232 feet WSW	NFA/NFR dated 3/3/95.	Equal
Keller Oil Co.	700 W. Broadway Centralia, IL 62801	1,284 feet SSW	45 Day Report received 1/12/00. NFA/NFR status not reported.	Equal
EMRO Marketing Number 7344	638 W. Broadway Centralia, IL 62801	1,333 feet SW	Non LUST Determination Letter dated 10/21/93.	Equal
Speedway Super America LLC	638 W. Broadway Centralia, IL 62801	1,333 feet SW	45 Day Report received 7/9/99. NFA/NFR status not reported	Equal
AR-DON Realty, Inc.	802 E. 2 <sup>nd</sup> St. Centralia, IL 62801	1,414 feet south	Status not reported.	Equal
Martin & Bayley	803 E. 2 <sup>nd</sup> St. Centralia, IL 62801	1,414 feet south	NFA/NFR dated 12/6/01.	Equal
Clark Oil 848	625 N. Elm St. Centralia, IL 62801	2,267 feet NW	45 Day Report received 5/31/05. NFA/NFR status not reported	Equal
Smith Standard Station #5309	135 S. Elm St. Centralia, IL 62801	2,405 feet WSW	NFA/NFR dated 11/10/93.	Equal
J.D. Streett & Co. Inc.	304 N. Poplar St. Centralia, IL 62801	2,424 feet west	Status not reported.	Equal
J.D. Streett	304 N. Poplar St. Centralia, IL 62801	2,424 feet west	45 Day Report received 1/31/97. NFA/NFR status not reported	Equal
CVS Centralia #6921	203 Poplar St. Centralia, IL 62801	2,535 feet west	NFA/NFR dated 2/15/05.	Equal

**TABLE 2**  
 Leaking Underground Storage Tank Sites  
 Near SFC E.L. Copple USAR Center, Centralia, Illinois

<b>Company/Site</b>	<b>Address</b>	<b>Distance and Direction from Property</b>	<b>Regulatory Status</b>	<b>Elevation Relative to Property</b>
1st Christian Church	205 Elm St. Centralia, IL 62801	2,602 feet WSW	Status not reported.	Equal

### 5.2.5 State-Registered UST Sites within 0.5 Mile

Review of the EDR report and the Illinois State Fire Marshal’s STC database, eight UST sites were identified within 0.5 mile of the USAR Center. Table 3 lists the sites, along with the tank(s) status. The Property itself (two USTs removed) was listed in the State UST database, as discussed in Section 3.4.

Based on EDR records, none of the eight properties are considered to present an environmental risk to the USAR Center.

**TABLE 3**  
 Underground Storage Tank Sites  
 Near SFC E.L. Copple USAR Center, Centralia, Illinois

<b>Company/Site</b>	<b>Address</b>	<b>Distance and Direction from Property</b>	<b>Tank Status</b>	<b>Elevation Relative to Property</b>
Caseys General Stores, Inc.	908 E. Noleman Centralia, IL 62801	828 feet SSE	2 Tanks currently in use. No status or enforcement reported.	Higher (by 1 foot).
J. Kavanaughheva	517 E. McCord Centralia, IL 62801	842 feet west	1 Tank-removed.	Equal
Beck Bus Transportation	640 W. Noleman Centralia, IL 62801	875 feet SW	4 Tanks-3 Tanks removed. Status of 1 Tank not reported. No enforcement reported.	Equal
Wilson Service Center	430 E. Noleman St. Centralia, IL 62801	1,194 feet WSW	1 Tank-status not reported. No enforcement.	Equal
Wilson Service Center	430 E. Noleman St. Centralia, IL 62801	1,194 feet WSW	1 Tank-status not reported. No enforcement.	Equal
James Brenton	100 N. Lincoln Centralia, IL 62801	1,229 feet SSW	2 Tanks-removed. No other status reported.	Equal
Wilson Service Center	420 E. Noleman St. Centralia, IL 62801	1,232 feet WSW	4 Tanks-removed. No other status reported.	Equal
Fairview Super K	700 W. Broadway Centralia, IL 62801	1,284 feet SSW	4 Tanks-3 Tanks removed. Status of 1 Tank not reported. No enforcement reported.	Equal

### 5.2.6 Records of Contaminated Public Wells

The City of Centralia does not own or operate any municipal water supply wells within 0.5 mile of the USAR Center.

### 5.2.7 Voluntary Remediation Program Sites within 0.5 Mile

The USAR Center is not listed in Illinois's Brownfields Program (the successor to the Voluntary Cleanup Program). No sites located within 0.5 mile of the USAR Center are listed as being in the Brownfields Program.

### 5.2.8 State Registered Bulk Fertilizer and Pesticide Storage Facilities within 0.25 Mile

The USAR Center is not registered with the state as a bulk fertilizer and pesticide storage facility. Additionally, no adjacent properties within 0.25 mile were registered as one of these facilities.

### 5.2.9 Sites within 0.5 Mile with Institutional Controls

Legal or administrative restrictions on land use and/or other activities (for example, groundwater use restrictions) that effectively limit exposure to contamination may be employed as alternatives to removal or treatment of contamination (EDR, 2006).

The USAR Center is not listed on the state Institutional Control List. EDR reported one Institutional Control Site within 0.5 mile of the USAR Center. Buck-A-Roo Car Wash is located at 1001 W. Broadway and 1,153 feet SSE of the USAR Center. The institutional control was reported to be a groundwater use restriction.

Buck-A-Roo Car Wash was also listed in the state Site Remediation Database (SRP). This database identifies the status of all voluntary remediation projects administered through the pre-notice site cleanup program (1989 to 1995) and the site remediation program (1996 to present) (EDR, 2006).

## 5.3 Unmapped Sites

Some sites within the databases EDR searches have the same zip code as the USAR Center, but no street address. These sites, known as unmapped or orphan sites, cannot be mapped from the EDR results alone. Additional efforts described herein were made to locate these sites and assess their environmental importance to the USAR Center.

Using local telephone books and the mapping utility provided at [maps.google.com](http://maps.google.com), some of the locations of the orphan sites were identified and mapped. One of the orphan sites identified was located within the corresponding ASTM search radius distance of 0.5 mile for state-listed LUST sites. Dickerson Petroleum is located at 1515 E. 2nd Street and approximately 2,250 feet SE of the Property. No other information was reported.

## 5.4 Summary of Properties Evaluated to Determine Risk to the Property

To summarize Subsections 5.1 through 5.3, 27 separate properties, near or adjacent to the USAR Center, were evaluated as potential risk properties to the Property. These adjacent properties evaluated were identified as a result of information obtained during area reconnaissance, interviews, and regulatory database searches, and are summarized below in Table 4.

Based on an evaluation of available site information and details concerning the properties listed in Table 4, none of the facilities evaluated exhibit significant environmental conditions that have a reasonable probability of adversely affecting the environmental conditions at another site.

TABLE 4  
 Properties Evaluated for Potential Environmental Risks  
 SFC E.L. Copple USAR Center, Centralia, Illinois

Company/Site	Database	Elevation Relative to Property?	Potential Impact on the Property?	Comments
Fairview Super K	RCRA-LQG, UST	Equal	No	Located approximately 0.25 mile from the Property. 3 out of 4 USTs removed. No violations or enforcement reported.
Caseys General Store	RCRA-SQG, UST	Higher (by one foot)	No	Located 828 feet SSE of Property. 2 USTs reported currently in use. 1 UST removed. No enforcement or violations reported.
Centralia Ford, Inc.	RCRA-SQG	Equal	No	Located 703 feet south from the Property. No violations reported.
Centralia Terminal Company	RCRA-SQG	Equal	No	Located 868 feet SW from the Property. No violations reported.
Centralia Environmental Services	SHWS	Equal	No	Located 633 feet east of the Property (EDR, 2006). IEPA website reports landfill as being approximately 3 miles to the south of the Property. Landfill under State Site Unit (SSU) Program. SSU corrective action status reported completed in 2003 (EDR 2006).
Prior Blackwell Landfill	SHWS	Higher	No	Located approximately 1 mile SSE from the Property (EDR 2006). IEPA website reports landfill as being approximately 3 miles to the south of the Property. Landfill under State Site Unit (SSU) Program. SSU

**TABLE 4**  
 Properties Evaluated for Potential Environmental Risks  
 SFC E.L. Copple USAR Center, Centralia, Illinois

Company/Site	Database	Elevation Relative to Property?	Potential Impact on the Property?	Comments
				corrective action status reported completed in 2003 (EDR, 2006).
Prior 1, 2, 3, 4 (Landfills)	SHWS	Higher	No	Located approximately 1 mile SSE from the Property (EDR, 2006). IEPA website reports landfill as being approximately 3 miles to the south of the Property. Landfill under State Site Unit (SSU) Program. SSU corrective action status reported completed in 2003 (EDR, 2006).
Burlington Northern Santa Fe Railway	CAT	Equal	No	Located 4,213 feet NW from the Property. Listed By EDR as on the CAT Site Remediation Program.
Centralia Terminal and Storage	LUST	Equal	No	Located 875 feet SW from the Property. 45 Day Report received in 2002. NFA/NFR not reported.
Buck-A-Roo Car Wash	LUST, Institutional Controls, SRP	Higher (by 1 foot).	No	Located 1,153 feet SSE from the Property. SFR/ Institutional Controls – NFR letter date recorded 09/22/1997. No status reported pertaining to LUST incident.
Jim's Auto Service	LUST	Equal	No	Located 1,229 feet SSW from the Property. NFA/NFR letter dated 08/02/2000.
Wilson Service Center (430 E. Noleman St.)	UST	Equal	No	Located 1,194 feet WSW from the Property. 2 USTs-1 reported merged, 1 reported exempt. No status reported.
Wilson Service Center (420 E. Noleman St.)	LUST, UST	Equal	No	Located 1,232 feet WSW from the Property. 2 LUST incidents- 1 NFA/NFR letter dated 03/30/1995. 4 USTs removed.
Keller Oil Co.	LUST	Equal	No	Located 1,284 feet SSW from the Property. 45 Day Report received in 2000. NFA/NFR not reported.
EMRO Marketing Number 7344	LUST	Equal	No	Located 1,333 feet SW from the Property. Non LUST Determination Letter dated 10/21/1993.
Speedway Super America LLC	LUST	Equal	No	Located 1,333 feet SW from the Property. 45 Day Report received in 07/09/1999. NFA/NFR not reported.

**TABLE 4**  
 Properties Evaluated for Potential Environmental Risks  
 SFC E.L. Copple USAR Center, Centralia, Illinois

<b>Company/Site</b>	<b>Database</b>	<b>Elevation Relative to Property?</b>	<b>Potential Impact on the Property?</b>	<b>Comments</b>
AR-DON Realty, Inc.	LUST	Equal	No	Located 1,414 feet south of the Property. No status reported.
Martin & Bayley	LUST	Equal	No	Located 1,414 feet south of the Property. NFR date recorded 12/21/2001.
Clark Oil 848	LUST	Equal	No	Located 2,267 feet NW from the Property. 2 LUST incidents. 2-45 Day Reports received. NFA/NFR status not reported.
Smith Standard Station #5309	LUST	Equal	No	Located 2,405 feet south of the Property. NFA/NFR letter dated 11/10/1993.
J.D. Streett & Co. Inc.	LUST	Equal	No	Located 2,424 feet west of the Property. No status reported.
J.D. Streett	LUST	Equal	No	Located 2,424 feet west of the Property. No status reported.
CVS Centralia #6921	LUST	Equal	No	Located 2,535 feet west of the Property. NFR date recorded 07/27/2005.
1 <sup>st</sup> Christian Church	LUST	Equal	No	Located 2,602 feet WSW from the Property. Status not reported.
J. Kavanaughheva	UST	Equal	No	Located 842 feet west of the Property. UST removed.
Beck Bus Transportation	UST	Equal	No	Located 875 feet SW from the Property. 4 USTs – 3 removed, 1 no status reported.
James Brenton	UST	Equal	No	Located 1,229 feet SSW from the Property. 5 USTs – all removed.

## 6 Site Investigation and Review of Hazards

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Findings documented in the following subsections are based on the August 1, 2006, site reconnaissance, a review of available site records, and information obtained from U.S. Army Reserve personnel.

### 6.1 USTs/ASTs

Two fuel oil USTs associated with this facility were removed in 1995. In addition, 170 cubic yards of petroleum-impacted soils were removed from the 1,500-gallon UST excavation. It was determined there was no release from the 6,000-gallon UST (ECII, 1995). A 45-Day Report and Request for Site-Specific Cleanup Objectives, dated June 19, 1995, was submitted to IEPA by ECII. The IEPA in a letter dated July 27, 1995, to the Department of the Army stated the above LUST incident (#941953) would not require any further remediation.

### 6.2 Inventory of Chemicals/Hazardous Substances

Records pertaining to hazardous substances were reviewed in addition to interviews and the site reconnaissance to develop the inventory for this Property. Information related to the past use and storage of hazardous substances at the Property was compiled through review of available site records, a search of federal and state environmental databases, and interviews with U.S. Army Reserve personnel. Available records indicate that chemicals formerly used and stored at the Property were associated with vehicle and facility maintenance activities and janitorial services. Janitorial chemicals and building maintenance-related products are stored in the designated storage area within the janitorial closet located in the administration building. Vehicle maintenance products and small amounts of POL products were also stored within designated areas within the OMS building.

Certain types of chemical products used and stored at the Property would have contained CERCLA hazardous substances and would have been stored on a rotational basis in amounts necessary to support the unit through direct support level maintenance. However, there is no indication that CERCLA hazardous substances were stored at the Property for 1 year or more, release, or disposed of in excess of corresponding reportable quantities.

Available records indicate that hazardous materials and/or POLs had been stored at this facility. These materials include batteries, acids, adhesives, paints, solvents (parts degreaser) and lubricating oils.

Pesticides are applied at this facility by a licensed applicator.

## 6.3 Waste Disposal Sites

Available records and interviews did not indicate the practice of onsite waste disposal other than through managed storage and offsite disposal. No waste disposal sites were observed during the site reconnaissance, nor were any signs of past onsite waste disposal (such as stressed vegetation or suspicious depressions in the landscape) observed.

## 6.4 Pits, Sumps, Drywells, and Catch Basins

An OWS was present outside and west of the OMS Building at one time. The OWS was installed in 1958 when the USARC buildings were constructed. The unit consisted of a 9.5-foot-long by 4-foot-wide by 4-foot-deep OWS with associated piping that discharged into the sanitary sewer. The OWS was located in the grass southwest of a vehicle wash rack located on the north side of the OMS building. The OWS and vehicle wash rack were removed in May, 2001 by Jones Technology, Inc. The structures were in good condition, and no contamination was encountered during the closures. Jones Technology, Inc. recommended no further action for this site in its closure report.

## 6.5 Asbestos-Containing Material

An asbestos abatement was performed by J F Walton and Company, Inc., in the Administration Building at the Reserve Center during 1989 through 1990.

Based on an asbestos-containing material (ACM) survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI concluded there was confirmed asbestos in the tile mastic (non friable), thermal system insulation for piping (friable), and the exterior window caulking (non friable) located in the administration building, -and all three were reported in good condition. The survey presumed there was asbestos in the roofing materials (non friable), fire doors (all in good condition), and electrical wiring at both the administration and OMS buildings.

## 6.6 Polychlorinated Biphenyl-containing Equipment

Based on a polychlorinated biphenyl (PCB) survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI found three transformers mounted on a pole at the Property. The transformers had no labels; therefore, the transformers should be treated in the same manner as if the transformers are known to contain PCBs. There is one transformer with no label mounted on a pole outside the fence on the right side of the Property. It also was assumed to contain PCBs.

In a letter dated February 1, 1999, Illinois Power Company (IPC) identified itself as the owner of the three transformers located on the USAR Center. The letter stated "pieces of equipment that are unlabeled must be assumed to be PCB-Contaminated (i.e., containing 50-499 parts per million [ppm] PCB) as provided in 40 CFR 761.3." A copy of the letter is provided in Appendix D.

In the same report, ITI of South Florida, Inc. indicated that some of the light ballasts in the Administration Building may contain PCBs. The lights in the OMS building were not accessible.

Based on observations made during a 2002 site visit, ITI reported that ballasts in the Orderly and Operations rooms were leaking a brown fluid, and these are assumed to contain PCBs. A JMWA contractor supporting the 88<sup>th</sup> RRC reported the leaking light ballasts were properly disposed of through Everlights and a small spill of brown fluid associated with the leaking ballasts appropriately was cleaned up and the materials properly disposed of.

During the August 1, 2006, site reconnaissance, no leaking transformers or ballasts were observed, including in the Orderly and Operations rooms of the Administration building.

## 6.7 Lead-based Paint

Based on an LBP survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI concluded there was LBP in the doors (garage door plates, jambs and casings), window wells and aprons, and exterior columns (fair condition) of the administration building and in the door casings and columns (fair condition) of the OMS building.

## 6.8 Radon

Based on a radon survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI concluded that no sampling locations exhibited radon levels above USEPA's residential action level of 4 picoCuries per liter of air (pCi/L).

## 6.9 Munitions and Explosives of Concern (MEC)

Based on a review of available records, the site reconnaissance, and interviews with USAR Center personnel, there are no indications that munitions and explosives of concern (MEC) is or was present at the Property.

## 6.10 Radioactive Materials

Based on a review of available records, the site reconnaissance, and interviews with USAR Center personnel, there is no indication that radioactive materials were stored, used, or released at the USAR Center.

## 7 Review of Special Resources

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### 7.1 Land Use

The City of Centralia's Planning and Zoning Department has designated the USAR Center and the adjacent properties as MR. The site is located in a mixed-used area that combines residential and light commercial land uses.

### 7.2 Coastal Zone Management

The Illinois Department of Natural Resources (IDNR) is the lead agency for the Illinois Coastal Management Program. This Property is not included in the coastal zone management program, nor is it in a coastal zone.

### 7.3 Wetlands

According to the NRS (January, 2005) and the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory map, no jurisdictional wetland areas are identified on the Property or on adjacent properties. The nearest wetland is located approximately 3,000 feet east of the Property and is classified as a freshwater pond. Figure 10 in Appendix A provides a map of wetlands in the immediate vicinity of the Property.

### 7.4 100-year Flood Plain

A review of the FEMA digital Flood Hazard Area map indicates that the Property lies outside the 100-year floodplain. Figure 11 in Appendix A provides a map of the 100-year floodplain elevations located in the immediate vicinity of the Property.

The NRS (January, 2005) did not identify the Property being located within a 100-year floodplain. The NRS reported the closest 100-year floodplain was located 3,300 feet northeast of the site.

### 7.5 Natural Resources

The NRS (January, 2005) did not identify any endangered or threatened species (plant or animal) on or in the immediate vicinity of the Property.

### 7.6 Cultural Resources

A Section 110 cultural resources survey report for the Property was prepared for the 88th RRC by the Fort McCoy Archaeological Laboratory in November 1998–March 2000. The purpose of the survey and subsequent report was to inventory all properties controlled or leased by the 88th RRC in the State of Illinois. Historical information, setting and landscape, cultural resources, security, architectural information, and structure descriptions are

included for each property. Each site was also assessed for its eligibility to the NRHP. Overall, none of the buildings at the Property was found to meet the criteria for inclusion in the NRHP. Appendix D provides a copy of the Section 110 survey report.

## 8 Conclusions

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The following information was obtained after conducting an environmental record search including records for adjacent properties, reviewing available historical information, conducting interviews with knowledgeable parties connected with the Property or with state and local agencies, and conducting a reconnaissance of the Property and adjacent properties.

**Hazardous Substances.** CERCLA hazardous substances are used and stored at the Property in amounts necessary to support unit-level vehicle and building maintenance activities. However, no reasonably available evidence was identified indicating that hazardous substances above reportable quantities were stored for 1 year or more, released, or disposed of at the Property. There is no evidence that the chemicals used or stored were released or disposed at the Property.

**USTs/ASTs.** Available records do not indicate any aboveground storage tanks (ASTs) currently or formerly located at this facility. Two USTs containing fuel oil were located at this Property and were removed in 1995. In addition, 170 cubic yards of petroleum-impacted soils were removed from the 1,500-gallon UST excavation. It was determined there was no release from the 6,000-gallon UST (ECII, 2005). The IEPA in a letter dated July 27, 1995, to the Department of the Army stated the above LUST incident (#941953) would not require any further remediation (NFR).

**Non-UST/AST Petroleum Storage.** POLs and other petroleum-based materials necessary to for building maintenance and drilling on the Property were stored in containers and cabinets designed for that purpose. No reasonably available evidence was identified indicating that quantities of POLs in excess of 55 gallons were stored at the Property.

**PCBs.** Based on a PCB survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI found three transformers mounted on a pole at the Property. The transformers had no labels. There is one transformer with no label mounted on a pole outside the fence on the right side of the Property. The transformers, therefore, were assumed to contain PCBs.

IPC identified itself as the owner of the three transformers located on the Property and stated "pieces of equipment that are unlabeled must be assumed to be PCB-Contaminated (i.e., containing 50 - 499 ppm PCB) as provided in 40 CFR 761.3."

In the same report, ITI of South Florida, Inc. indicated that some of the light ballasts in the Administration Building may contain PCBs. The lights in the OMS building were not accessible.

**ACM.** An asbestos abatement was performed by J F Walton and Company, Inc., in the Administration Building at the Reserve Center during 1989 through 1990.

Based on an ACM survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI concluded there was confirmed asbestos in the tile mastic (non friable), thermal

system insulation for piping (friable), and the exterior window caulking (non friable) located in the administration building, and all three were reported in good condition. The survey presumed there was asbestos in the roofing materials (non friable), fire doors (all in good condition), and electrical wiring at both the administration and OMS buildings.

**LBP.** Based on an LBP survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI concluded there was LBP in the doors (garage door plates, jambs and casings), window wells and aprons, and exterior columns (fair condition) of the administration building and in the door casings and columns (fair condition) of the OMS building.

**Radiological Materials.** Based on available records review, interviews, and a site reconnaissance, there is no evidence of any radiological materials storage or releases at the Property.

**Radon.** Based on a survey performed by ITI of South Florida, Inc., in a report dated April 13, 2005, ITI concluded that no sampling locations exhibited radon levels above USEPA's residential action level of 4 pCi/L.

**MEC.** Available records do not indicate any MEC currently or formerly located at this Property. No evidence of MEC was observed during the site reconnaissance.

**Surrounding Properties.** Potential environmental sites of concern, located within the ASTM search radius distance from the Property, were evaluated through database review and site reconnaissance. None of the adjacent properties evaluated exhibited environmental conditions that had or have the potential to adversely affect environmental conditions at the Property.

**Wetlands and Flood Plain.** According to the NRS (January, 2005) and USFWS National Wetlands Inventory map, no jurisdictional wetland areas are identified on the Property or on adjacent properties. The nearest wetland is located approximately 3,000 feet east of the Property and is classified as a freshwater pond. Figure 10 in Appendix A provides a map of wetlands in the immediate vicinity of the Property. The NRS (January, 2005) did not identify the Property being located within a 100-year floodplain. The NRS reported the closest 100-year floodplain located 3,300 feet northeast of the site.

**Threatened and Endangered Species.** The NRS (January, 2005) did not identify any threatened or endangered plant or animal species on the Property.

**Archaeological and Historical Resources.** The Section 110 cultural resources survey concluded that no facilities at the USAR Center were eligible for listing on the NRHP (Fort McCoy Archaeological Laboratory, 2000).

## 8.1 ECP Category

Findings of this ECP report were based on readily available environmental information, interviews with site and state and local personnel, review of previous environmental studies and federal and state database and file information related to the storage, release, treatment, or disposal of hazardous substances or petroleum products. Results also were based on visual observations of the Property and adjacent properties.

In accordance with DoD policy defining the classifications (see Sherri Goodman Memorandum dated 21 October 1996), the Property has been classified into one of seven property types. Based on the results of this ECP study, the property has been assigned an overall DoD Environmental Condition Type 2. The property type is based on the following major findings.

## 8.2 Major Findings

- A 1,500-gallon UST formerly containing #2 fuel oil and 170 cubic yards of petroleum-impacted soil northeast of the OMS building were removed in 1995 (LUST incident 941953). The IEPA, in a letter dated July 27, 1995, granted a NFR letter for the above LUST incident.

## 9 References

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### Persons Contacted

- Ms. Chauncey Stone, SFC E.L. Copple USARC, Facility Manager, (618-532-5666), August 1, 2006
- Mr. Tony Bridges, JMWA Contractor, Illinois State Environmental Manager - Support 88<sup>th</sup> RRC, (612-290-0946), August 1, 2006
- Ms. Lisa Gulbranson, JMWA Contractor, 88<sup>th</sup> Regional Readiness Command, Environmental Planner, (612- 713-3752), July 24, 2006
- Mr. Garret Anderson, City of Centralia Planning Director, (618-533-7623), September 5, 2006
- Mr. Nate Rothschild, Centralia Historical Museum, (618-545-0657), August 2, 2006

### Resources Consulted

- Aerial Photographs provided by Illinois Department of Transportation dated 1959 and 1982
- USGS 7.5-Minute Topographic Maps, Centralia East and Centralia West, Illinois
- USEPA Map of Radon Zones, <http://www.epa.gov/radon/zonemap.html>
- IEPA, <http://www.epa.state.il.us/land/cleanup-programs/33-abandoned-landfills-book/landfill-site>
- Illinois Coastal Management Program
- Illinois State Geological Survey
- FEMA Flood Hazard Insurance Map, <http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView>
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory Maps
- Federal Regulatory Databases
- State and Local Regulatory Databases
  - Office of the Illinois State Fire Marshall, Division of Petroleum and Chemical Safety
  - Illinois Environmental Protection Agency, Division of Land Pollution Control

### Agencies Contacted

- City of Centralia, Illinois
- Illinois Department of Transportation, Office of Surveys and Photo Engineering, Springfield, Illinois

- Illinois Environmental Protection Agency, Springfield, Illinois
- Illinois State Water Survey, Champaign, Illinois

### Works Cited

Environmental Contractors of Illinois, Inc., 1995. 45 Day Report and Request for Site Specific Cleanup Objectives. June.

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Environmental Data Resources, Inc. (EDR). 2006. The EDR-City Directory Abstract.

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Goodman, Sherri. 1996. Memorandum. October.

Illinois Environmental Protection Agency, 1995. No Further Remediation letter to Scott Murrell, Department of the Army dated July 27, 1995 regarding LUST Incident #941953. July.

Illinois Power Company. 1999. Correspondence regarding ownership and PCB content of power transformers on Property.

ITI of South Florida, Inc., 2005. Environmental Survey Report – Asbestos, PCB, Lead Based Paint, and Radon Survey – 88<sup>th</sup> Regional Support Command, Centralia, Illinois (IL-009), Administration Building and OMS Building. April.

Jones Technologies, Inc., 2004. Final OWS System Closure Report, SFC E.L. Copple USARC (IL009), Centralia, Illinois. February.

NETR-Real Estate Research & Information, 2006. Historical Chain of Title Report.

Parsons, 88th RRC Natural Resources Survey – Illinois, 2005. Natural Resources Survey, SFC E.L. Copple USAR Center. January.

Republic Industries, Inc. 1989–1990. Asbestos Abatement Documentation.

Terracon, 1998. Oil/Water Separator Engineering Study, 904 Martin Luther King Jr. Drive, Centralia, Illinois (IL058). May.

WW Engineering & Science, Inc., 1995. Title V Determinations, Illinois USARC Facilities. November.

**Appendix A**  
**Figures**

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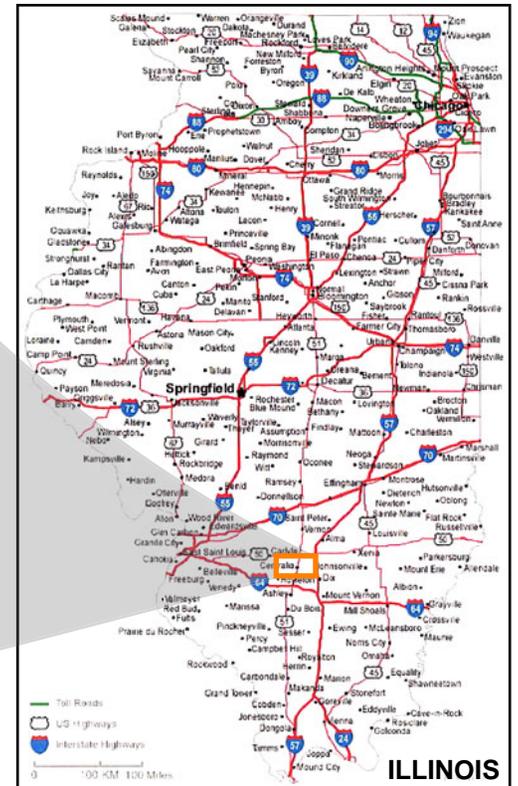
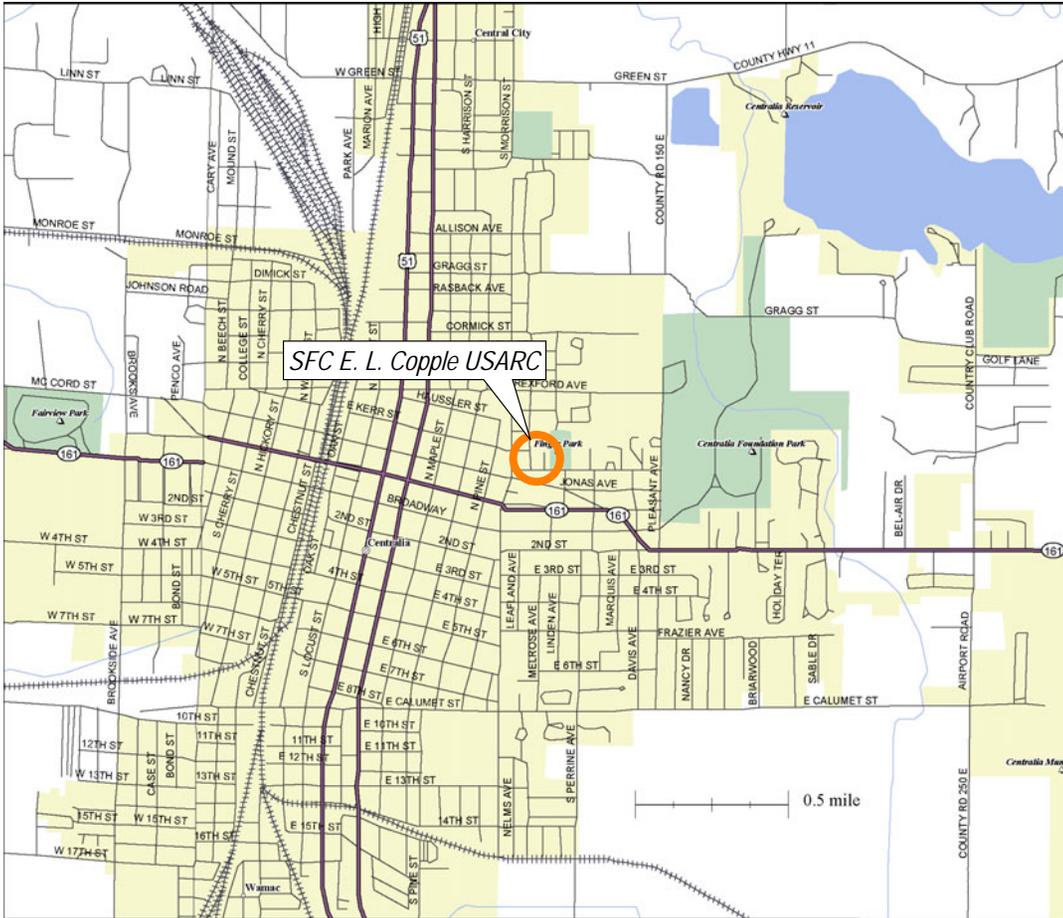
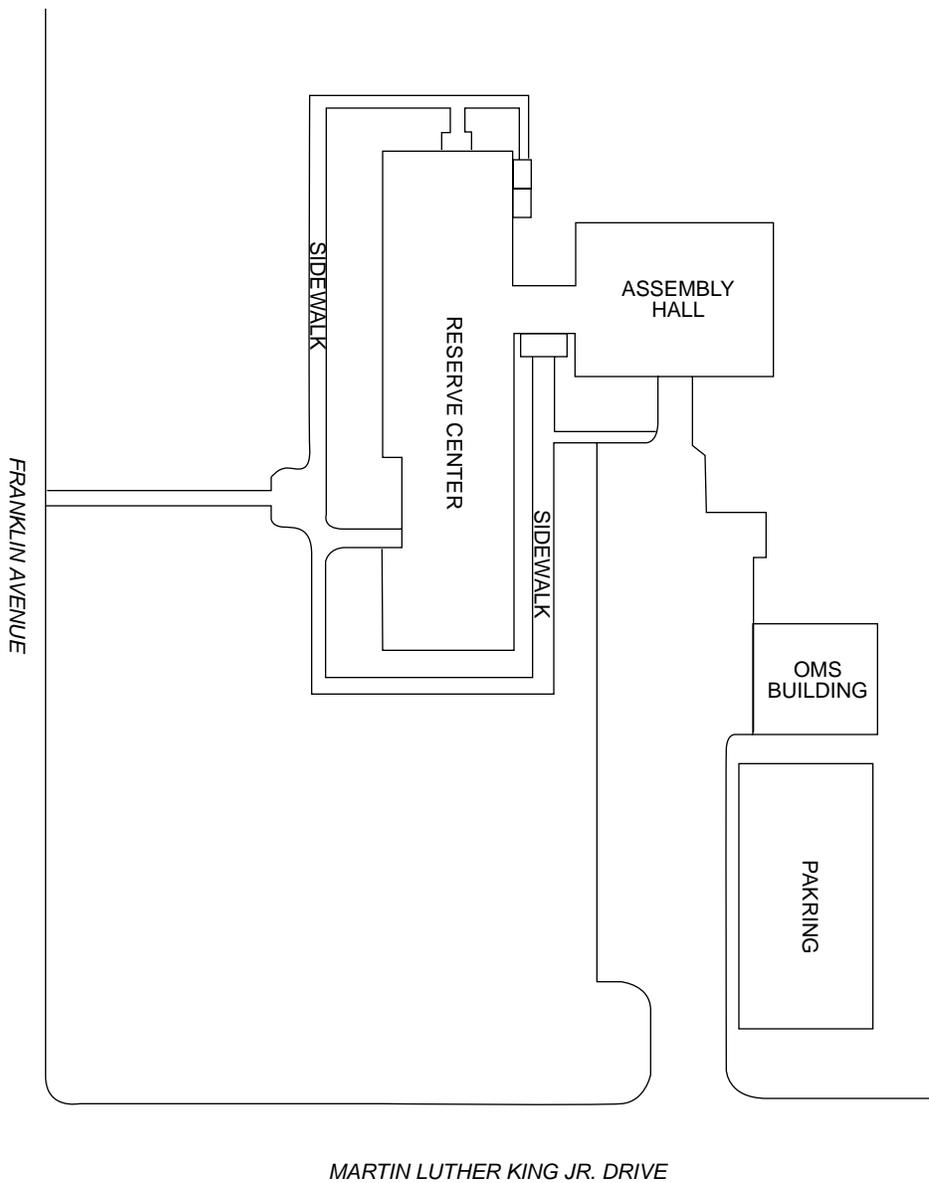


FIGURE 1  
Site Location Map  
Phase I ECP Report

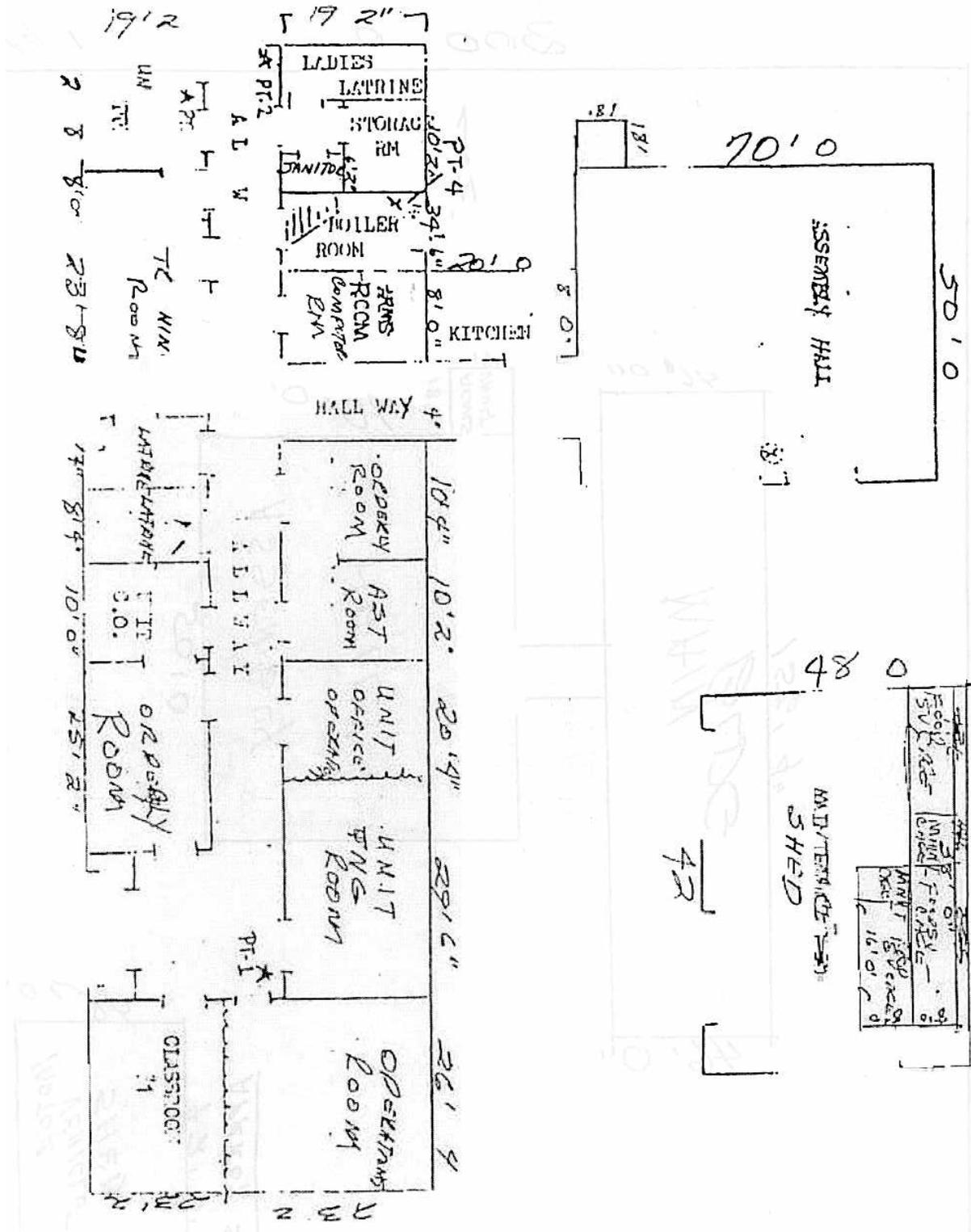


North



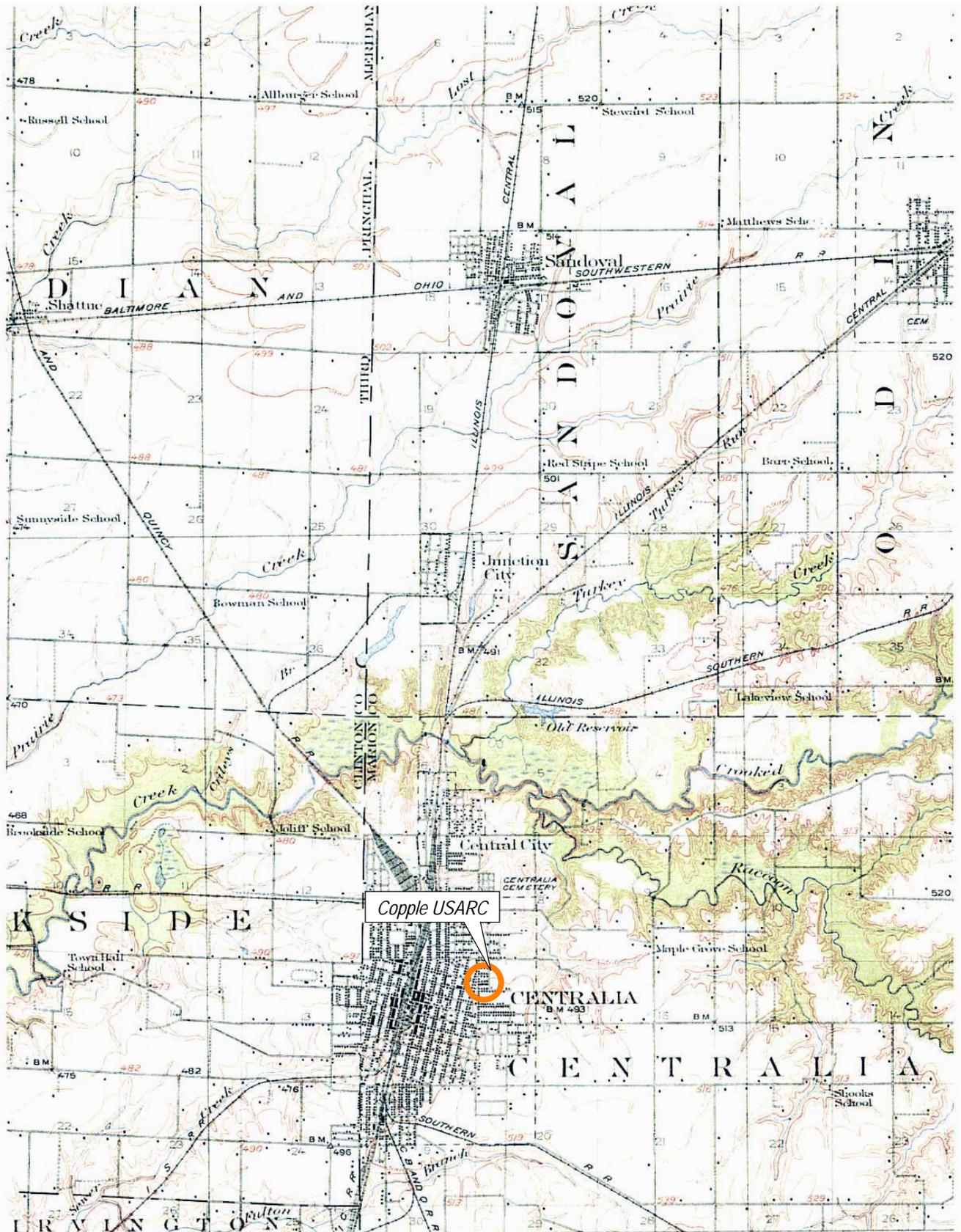
North  
Not to Scale

**FIGURE 2**  
Site Layout Plan  
Centralia, Illinois  
*Phase I ECP Report*



Not to Scale

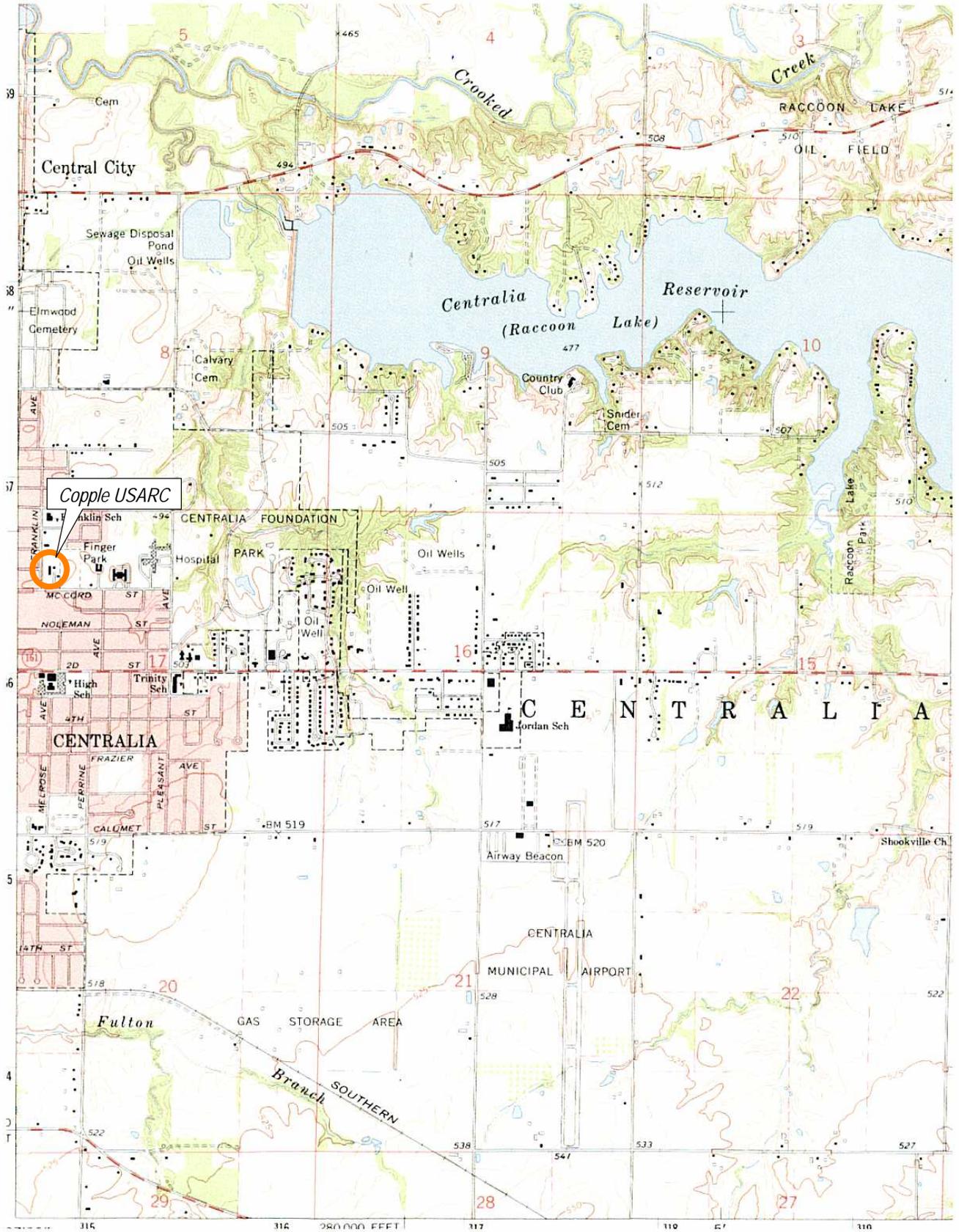
FIGURE 3  
 Interior Layout, Administration Building  
 Centralia, Illinois  
 Phase I ECP Report



N^ EDR INQUIRY# 1714247.82 TARGET QUAD: CENTRALIA YEAR: 1914 Series: 15' Scale: 1:62,500

FIGURE 4  
 1914 USGS 15-Minute Topographic Map  
 Centralia, Illinois  
 Phase I ECP Report

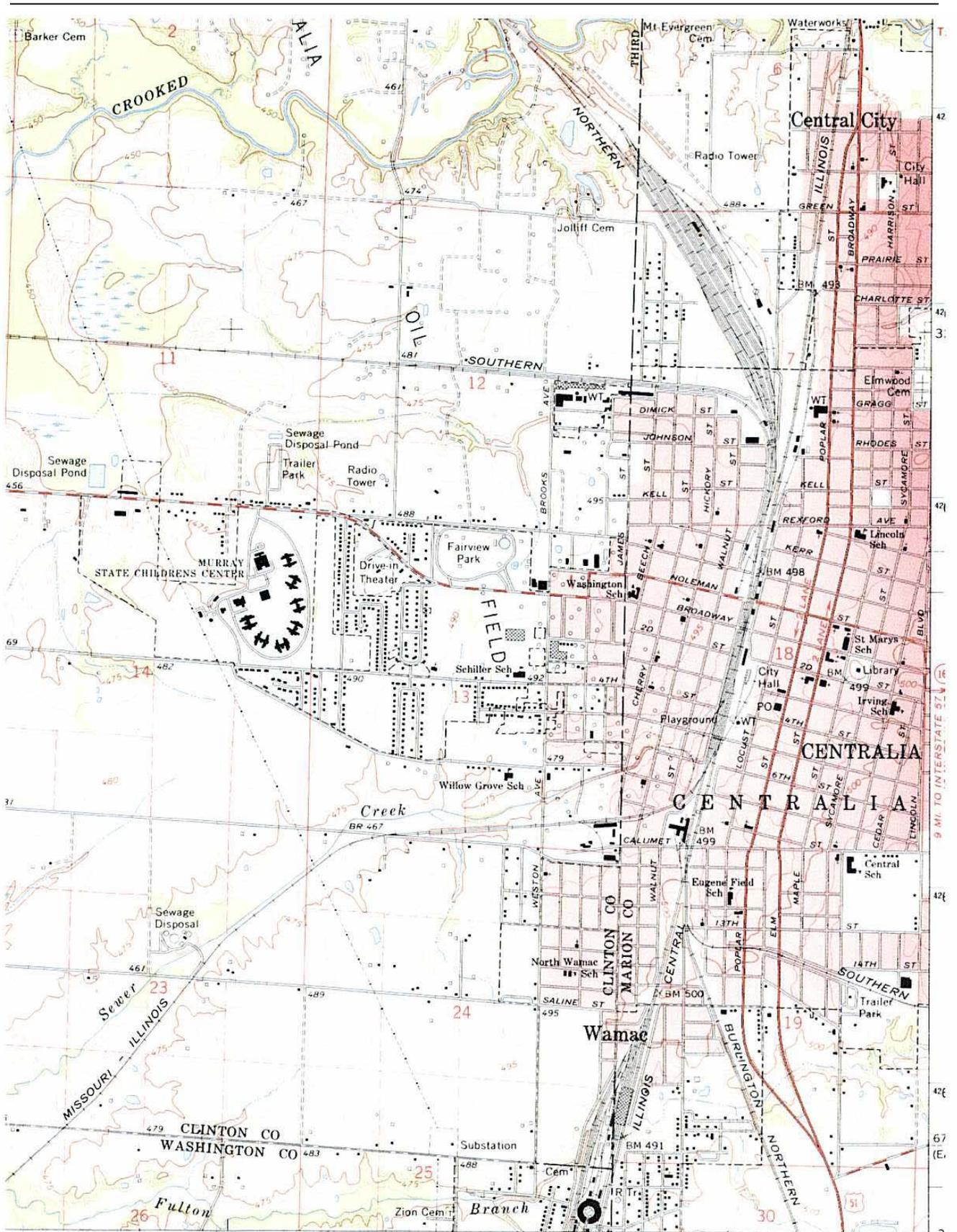




N ^ EDR INQUIRY# 1714247.82 TARGET QUAD: CENTRALIAEAST PhotoInspected: 1970-1981 Series: 7.5' Scale: 1:24,000

FIGURE 5  
 1970 USGS 7.5-Minute Topographic Map  
 Centralia, Illinois  
 Phase I ECP Report





N ^ EDR INQUIRY# 1714247.82 ADJOINING QUAD: CENTRALIAWEST Photolnspected: 1969-1981 Series: 7.5' Scale: 1:24,000

FIGURE 6  
 1969 USGS 7.5-Minute Topographic Map  
 Centralia, Illinois  
 Phase I ECP Report





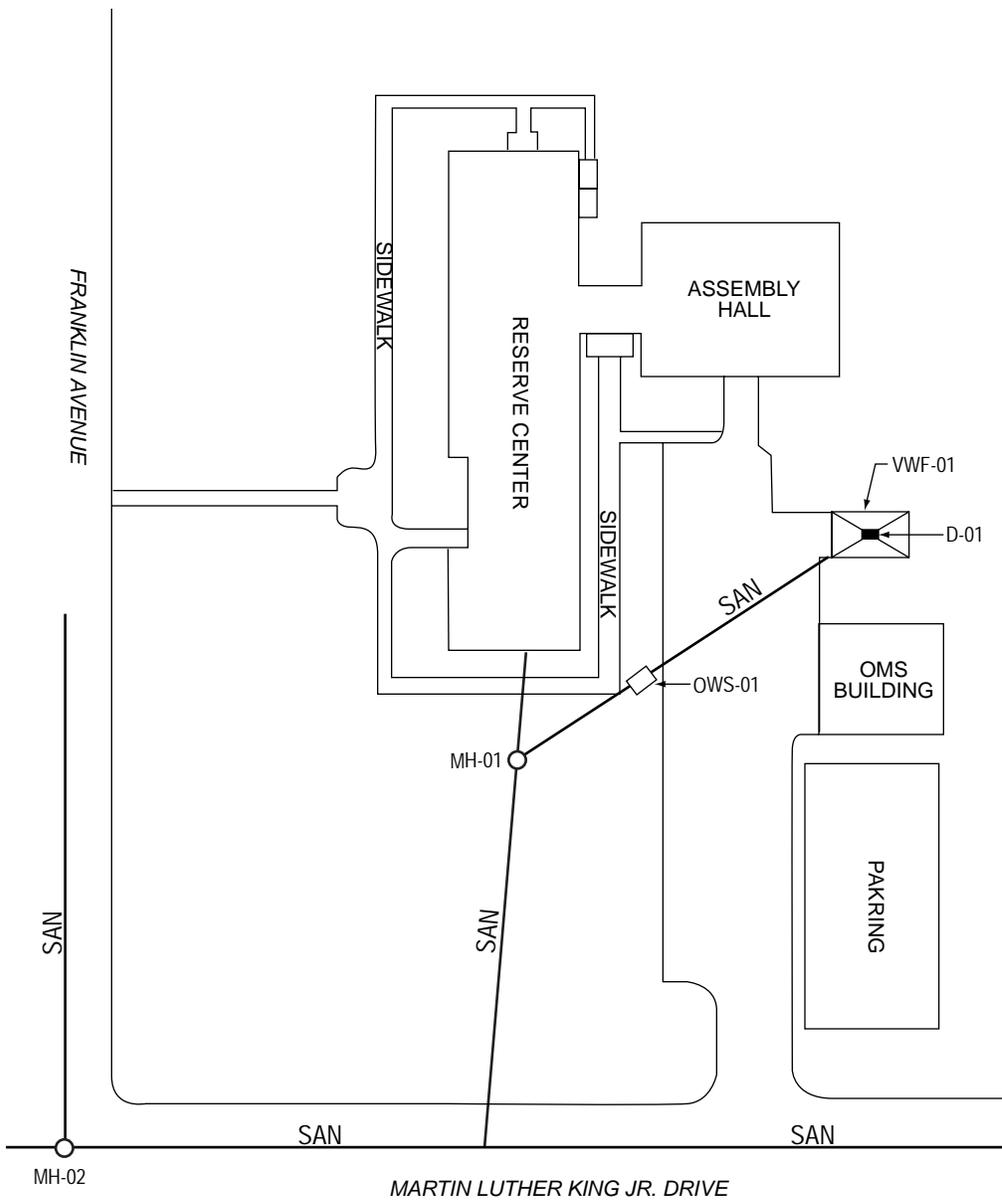
FIGURE 7  
1959 Aerial Photograph  
Centralia, Illinois  
*Phase I ECP Report*





North

FIGURE 8  
1982 Aerial Photograph  
Centralia, Illinois  
*Phase I ECP Report*



  
 North  
 Not to Scale

LEGEND:

- SAN - Sanitary Line
- VWF-01 - Vehicle Wash Facility
- D-01 - Drain
- OWS-01 - Oil/Water Separator
- MH-01 - Manhole

**FIGURE 9**  
 Former Location of OWS and Vehicle Wash Rack  
 Centralia, Illinois  
*Phase I ECP Report*

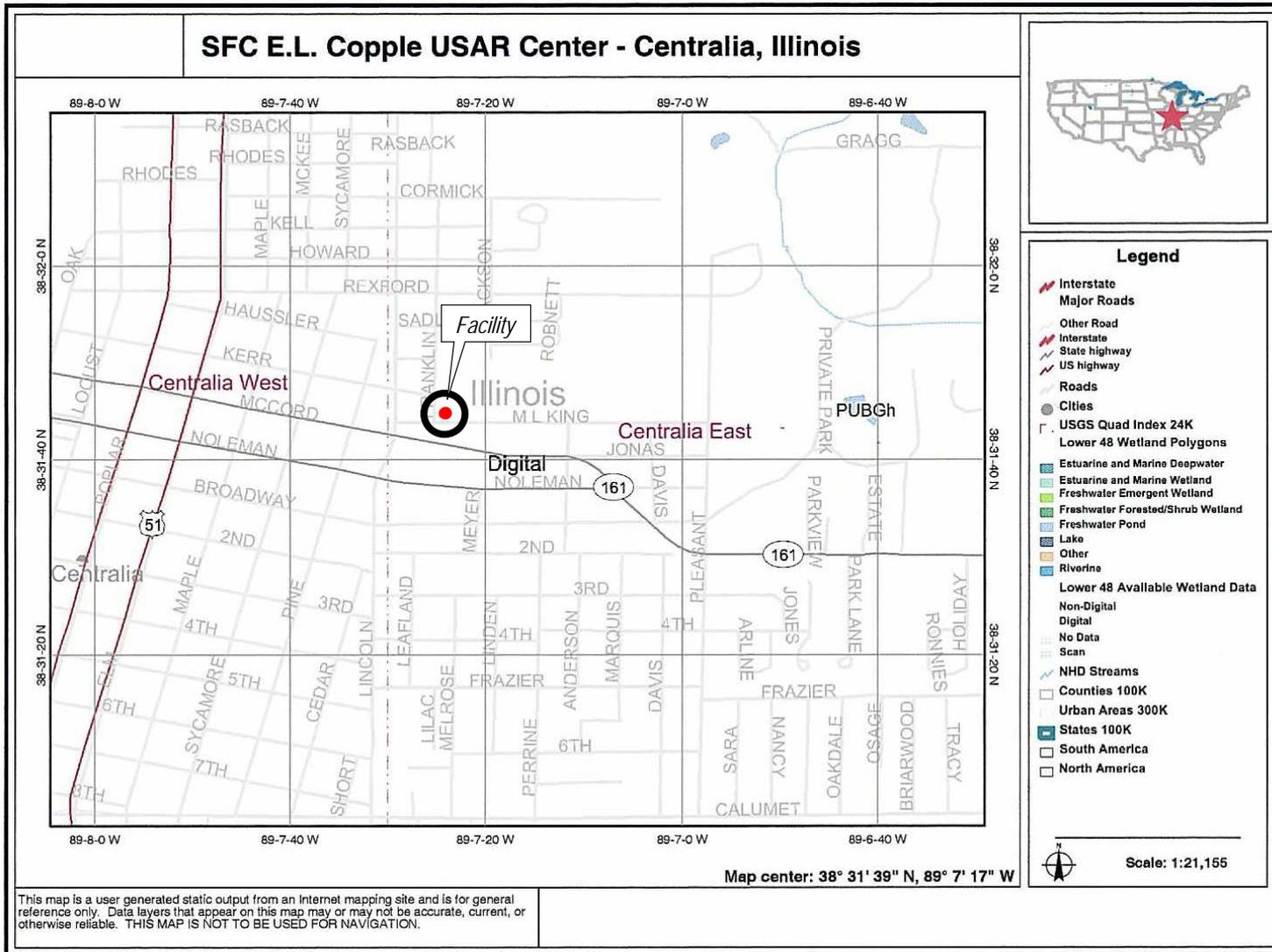


FIGURE 10  
National Wetlands Inventory Map  
Centralia, Illinois  
Phase I ECP Report

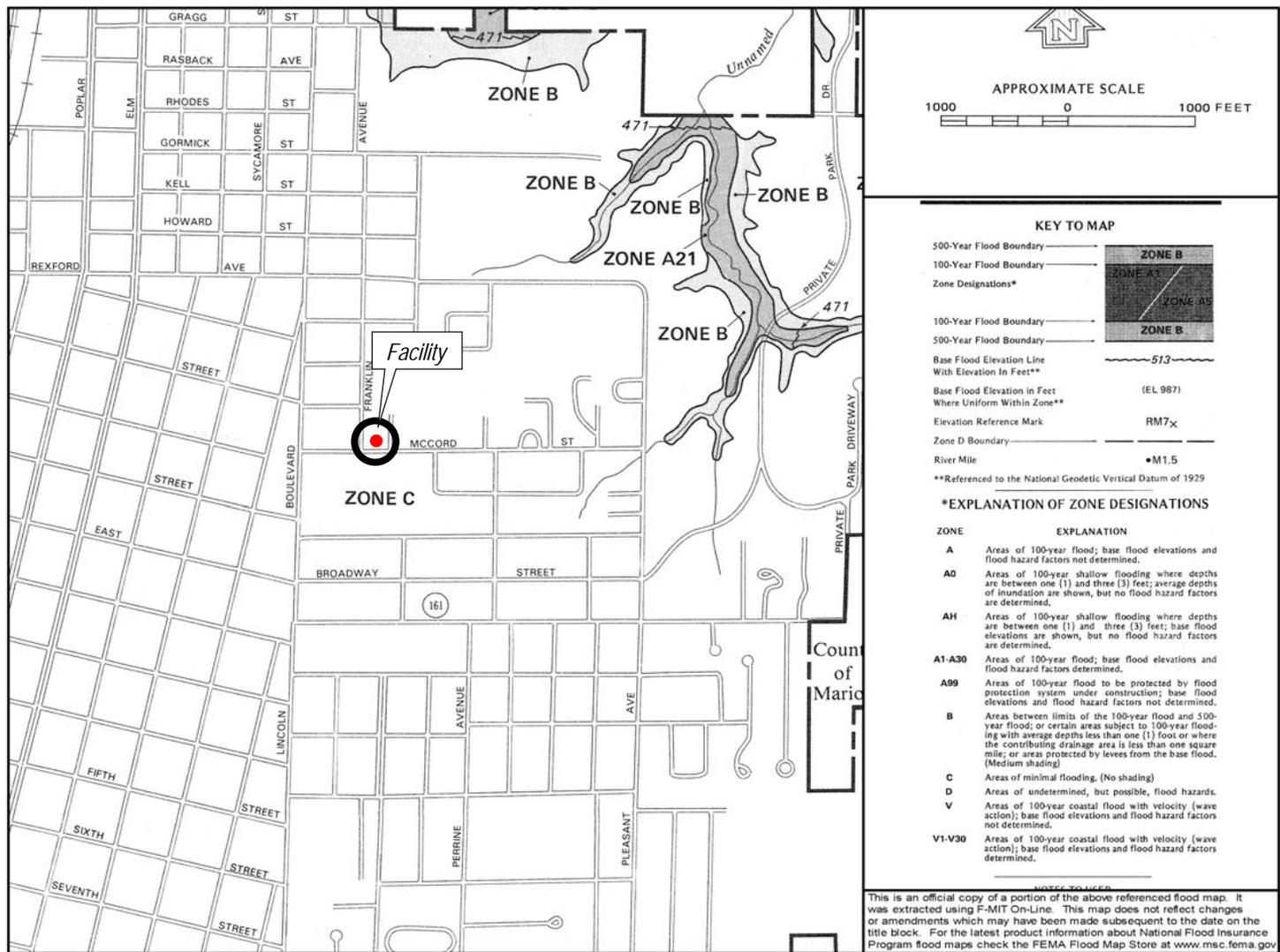


FIGURE 11  
Flood Plain Map  
Centralia, Illinois  
Phase I ECP Report

**Appendix B**  
**Site Reconnaissance**  
**Photographs**

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APPENDIX B

# Site Reconnaissance Photographs

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1. View looking at south wall of OMS building. Flammable storage cabinet with paints, refrigerants, adhesives, POLs, etc.



2. View looking at south wall of OMS building. Flammable storage cabinet with building maintenance supplies.



3. View looking at south wall of OMS building. Flammable storage cabinet with POLs, hydraulic fluid, etc.



4. View looking at south wall of OMS building. Shelves with refrigerant, building maintenance supplies.



5. View looking at south wall of OMS building. Drums used to store light ballasts and fluorescent lights for recycling. Building maintenance supplies.



6. View looking west in middle of OMS building. Pallet saturated with unknown viscous liquid. Liquid is pooling around pallet and migrating towards bay doors. Liquid does not appear to be originating from bags of ice melter (solid) on top of the pallet.



7. View looking east inside OMS building from bay door. View of viscous liquid migrating from pallet towards bay door. Liquid has not migrated outside OMS building.



8. View looking southeast at north side of OMS building. Asphalt patch on north side of OMS building showing location of former vehicle wash rack.



9. View looking southwest from location of former vehicle wash rack. Concrete patch showing location of piping that led from catch basin of the former vehicle wash rack to the former OWS located in grass west of the OMS building and next to the southeast corner of the administration building.

Appendix C  
**Property Acquisition Documents  
and Chain-of-Title Report**

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2055 East Rio Salado Parkway, Suite 201  
Tempe, Arizona 85281  
Phone: (480) 967-6752  
Fax Number: (480) 966-9422  
Web Site: [www.netronline.com](http://www.netronline.com)

## **HISTORICAL CHAIN OF TITLE REPORT**

**SFC E. L. COPPLE ESARC, IL  
904 MARTIN LUTHER KING DRIVE  
CENTRALIA, ILLINOIS**

**Submitted to:**

**ENVIRONMENTAL DATA RESOURCES, INC.  
C/O  
CH2M HILL  
1569 Stampmill Way  
Lawrenceville, Georgia 30043  
(770) 338-1589**

**Attention: Mary Jacques**

**Project No. N06-5546**

**Saturday, September 16, 2006**

**NETR- Real Estate Research & Information** hereby submits the following ASTM historical chain-of-title to the land described below, subject to the leases/miscellaneous shown in Section 2. Title to the estate or interest covered by this report appears to be vested in:

UNITED STATES OF AMERICA

The following is the current property legal description:

Being that parcel or tract of land, situated and lying in the South ½ of the Northwest ¼ of the Northwest ¼ of Section 17, Township 1 North, Range 1 East of the 3<sup>rd</sup> Principal Meridian, in the City of Centralia, Marion County, State of Illinois

Assessor's Parcel No: 14-17-00-043

## **1. HISTORICAL CHAIN OF TITLE**

1. Records were researched at the Marion County Recorders' Office back to 1940. Based on our research, C. H. Robinett & Caroline M. Robinett acquired title to the property prior to 1940

### 2. WARRANTY DEED:

RECORDED: 05-17-1957  
GRANTOR: Caroline M. Robinett, a widow  
GRANTEE: United States of America  
INSTRUMENT: Bk 208, Pg 167

## **2. LEASES AND MISCELLANEOUS**

1. No environmental liens, institutional controls or engineering controls were found of record.

### **3. LIMITATION**

This report was prepared for the use of Environmental Data Resources, Inc., and CH2M Hill, exclusively. This report is neither a guarantee of title, a commitment to insure, or a policy of title insurance. NETR- Real Estate Research & Information does not guarantee nor include any warranty of any kind whether expressed or implied, about the validity of all information included in this report since this information is retrieved as it is recorded from the various agencies that make it available. The total liability is limited to the fee paid for this report.

Tract No. A-100

WARRANTY DEED

THE GRANTOR, CAROLINE M. ROBNETT, <sup>A Widow,</sup> /of the County of Marion in the State of Illinois, for and in consideration of the sum of SIX THOUSAND (\$6,000.00) DOLLARS, and other valuable considerations in hand paid, the receipt and sufficiency of which are hereby acknowledged CONVEY AND WARRANT to the UNITED STATES OF AMERICA AND HIS ASSIGNS the following described real estate:

Located in the South One half (S1/2) of the Northwest Quarter (NW 1/4) of the Northwest Quarter (NW 1/4) of Section Seventeen (17), Township one (1) North, Range One (1) East of the 3rd Principal Meridian, in the City of Centralia, Marion County, Illinois, more particularly described as follows:

Beginning at the intersection of the Northerly line of East McCord Street and the easterly line of Franklin Avenue, thence Northerly 627.00 feet along the Easterly Line of Franklin Avenue; thence Easterly 300.00 feet along a line parallel with and 627.00 feet distant Northerly from the Northerly Line of East McCord Street; thence Southerly 627.00 feet along a line parallel with and 300 feet distant Easterly from the Easterly line of Franklin Avenue to a point on the Northerly Line of East McCord Street; thence Westerly 300.00 feet along the Northerly Line of East McCord Street to the Point of beginning, containing 4.32 acres, more or less.

The Grantor further conveys and quitclaims to the United States of America and its assigns all right, title and interest which the Grantor may have in the banks, beds and waters of any streams opposite to or fronting upon said land, also all interest in any alleys, roads, streets, ways, strips, gores, or railroad rights-of-way abutting or adjoining said land and in any means of ingress or egress appurtenant thereto.

The Grantor releases and waives all rights under and by virtue of the Homestead Exemption Laws of the State of Illinois.

SIGNED, SEALED AND DELIVERED this \_\_\_\_\_ day of \_\_\_\_\_, A.D., 1957

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Caroline M. Robnett (SEAL)



STATE OF ILLINOIS )  
                          ) SS  
COUNTY OF /      )

I, the undersigned, a Notary Public, in and for said County and State aforesaid, DO HEREBY CERTIFY THAT Caroline M. Robnett, <sup>A Widow,</sup> personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that she signed, sealed and delivered the said instrument as her free and voluntary act for the uses and purposes therein set forth, including the release and waiver of the right of homestead.

GIVEN under my hand and notarial seal this \_\_\_\_\_ day of \_\_\_\_\_  
A. D., 1957.

\_\_\_\_\_  
Notary Public



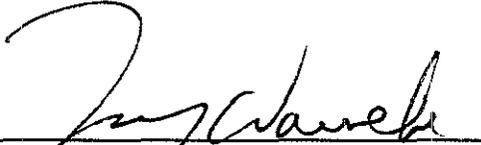
Filed for record on the 17th day of May A. D. 1957 at 2:30 P. M.  
*3219* Wesley Griffin, Recorder

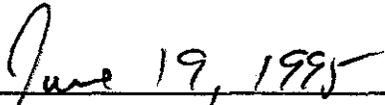
Appendix D  
**Previous Environmental  
Site Assessment Reports**

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**45 DAY REPORT AND  
REQUEST FOR SITE SPECIFIC  
CLEANUP OBJECTIVES  
SFC E.L. COPPLE U.S. ARMY RESERVE CENTER  
LPC 1214225064 - MARION  
IEMA INCIDENT #941953  
904 E. MARTIN LUTHER KING JR. DRIVE  
CENTRALIA, ILLINOIS 62801**

**PREPARED BY:  
Environmental Contractors of Illinois, Inc.  
5290 Nimtz Road  
Loves Park, Illinois 61111**

  
Matthew J. Warneke

  
Date



State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

**JUL 27 1995**

Dept. of the Army  
Attn: Scott Murrell  
U.S. Army Engineer School  
Fort Leonard Wood, MO 65473-6600

Re: LPC #1214225084 -- Marion County  
Centralia/86th U.S. Army Reserve Command  
904 E. Martin Luther King Drive  
LUST Incident No. 941953  
LUST Technical File

Dear Mr. Murrell:

The Illinois Environmental Protection Agency has reviewed the P.E. Certification which has been submitted for the above referenced LUST incident. This information was dated July 11, 1995, was received by the Agency July 17, 1995, and was prepared by Environmental Contractors of Illinois, Inc.

The Corrective Action Completion Report and the Professional Engineer Certification submitted pursuant to 35 IAC Section 732.300(b)(1) and Section 732.409(b) have demonstrated that the remediation objectives set forth in 35 IAC Section 732.408 have been met.

Based upon (a) the certification by Chuck Howard, a registered Professional Engineer of Illinois, it appears that all corrective action requirements of Title XVI of the Act and 35 Illinois Administrative Code Part 732 for the release of petroleum from the underground storage tank(s) have been satisfied.

For purposes of appeal, this constitutes the Agency's final decision regarding the above matters. Please see Appendix 1 for an owner or operator's appeal rights.

Please note, this plan or report has been reviewed and approved for purposes of Title XVI only, the activities approved may not be sufficient to satisfy USEPA's requirements under 40 CFR 280.

Page 2

If you have any questions or require further assistance, please contact Valerie Davis of my staff at 217/782-6761.

Sincerely,

*Clifford L. Wheeler*

Clifford L. Wheeler, Manager  
Southern Unit  
Leaking Underground Storage Tank Section  
Division of Remediation Management

CLW:VD:dks/597x, 1-2

Appendices: 1

cc: ECI, Inc.

## Appendix 1

An underground storage tank owner or operator may appeal this final decision to the Illinois Pollution Control Board (Board) pursuant to Section 57.8(i) and Section 40 of the Illinois Environmental Protection Act. An owner or operator who seeks to appeal the Agency's decision may, within 35 days after the notification of the final Agency decision, petition for a hearing before the Board; however, the 35-day period may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Agency within the 35-day initial appeal period.

For information regarding the filing of an appeal, please contact:

Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
State of Illinois Center  
100 West Randolph, Suite 11-500  
Chicago, Illinois 60601  
312/814-3620

For information regarding the filing of an extension, please contact:

Illinois Environmental Protection Agency  
Division of Legal Counsel  
2200 Churchill Road  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544



State of Illinois  
**ENVIRONMENTAL PROTECTION AGENCY**

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

CERTIFIED MAIL

2922917877

**JUL 05 1995**

Department of the Army  
Attn: Scott Murrell  
U.S. Army Engineer School  
Fort Leonard Wood, MO 65473-6600

Re: LPC #1214225084 -- Marion County  
Centralia/86th U.S. Army Reserve Command  
904 E. Martin Luther King Drive  
Incident #941953  
LUST Technical File

Dear Mr. Murrell:

The Agency has completed its review of the corrective action completion report submitted pursuant to 35 Illinois Administrative Code (IAC) Section 732.300(b)(1). The completion report was dated June 22, 1995, was received by the Agency June 28, 1995, and was prepared by ECI.

Pursuant to 35 IAC Section 732.300(b)(1) owners or operators subject to 35 IAC Part 732 may proceed without conducting site classification activities pursuant to 35 IAC Part 732 Subpart C if the owner or operator chooses to conduct remediation sufficient to satisfy the remediation objectives in 35 IAC Section 732.408. Upon completion of the remediation, the owner or operator shall submit a corrective action completion report demonstrating compliance with the required levels. Pursuant to 35 IAC Section 732.409(b), the corrective action completion report shall include a certification from a Licensed Professional Engineer that the information presented in the report is accurate and complete, that the groundwater monitoring or corrective action have been completed in accordance with the requirements of the Act and Subpart D of Part 732, and that no further remediation is required at the site.

Pursuant to 35 IAC Section 732.503(b), the Agency is notifying the owner or operator that the report is being rejected. The report submitted fails to demonstrate compliance with the above requirements for the reason(s) described below:

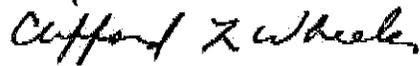
1. A Professional Engineer Certification form was not provided.

For purposes of appeal, this constitutes the Agency's final decision regarding the above matters. Please see Appendix 1 for an owner or operator's appeal rights.

Page 2

If you have questions please contact Valerie Davis of my staff at 217/782-6761.

Sincerely,



Clifford L. Wheeler, Manager  
Southern Unit  
Leaking Underground Storage Tank Section  
Division of Remediation Management

CLW:VD:ct.474x.94

Appendices: 1

cc: Environmental Contractors of Illinois

## Appendix 1

An underground storage tank owner or operator may appeal this final decision to the Illinois Pollution Control Board (Board) pursuant to Section 57.8(1) and Section 40 of the Illinois Environmental Protection Act. An owner or operator who seeks to appeal the Agency's decision may, within 35 days after the notification of the final Agency decision, petition for a hearing before the Board; however, the 35-day period may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Agency within the 35-day initial appeal period.

For information regarding the filing of an appeal, please contact:

Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
State of Illinois Center  
100 West Randolph, Suite 11-500  
Chicago, Illinois 60601  
312/814-3620

For information regarding the filing of an extension, please contact:

Illinois Environmental Protection Agency  
Division of Legal Counsel  
2200 Churchill Road  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544



State of Illinois  
**ENVIRONMENTAL PROTECTION AGENCY**

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

CERTIFIED MAIL

APR 12 1995

2250058985

86th Army Reserve Command  
Attn: William J. Hawes  
7402 West Roosevelt Road  
Forest Park, Illinois 60130-2587

Re: LPC #1214225084 -- Marion County  
Centralia/86th Army Reserve  
904 East Martin Luther King Drive  
LUST Incident #941953  
LUST TECHNICAL FILE

L.U.S.T. COMPLIANCE INQUIRY LETTER

Dear Mr. Hawes:

The purpose of this letter is to address the status of the above-referenced facility in relation to the requirements of the Illinois Environmental Protection Act Title XVI and 35 Illinois Administrative Code part 732 and to inquire as to your position with respect to the apparent violations identified in Attachment A and your plans to correct these apparent violations. The Agency's findings of apparent non-compliance listed in Attachment A are based on a review of documents submitted to the Agency to demonstrate compliance with the requirements of the Illinois Environmental Protection Act Title XVI and 35 Illinois Administrative Code Part 732. This review was completed on April 10, 1995.

Please submit in writing, within fifteen (15) calendar days of the date of this letter, the reasons for the identified violations, a description of the steps which have been taken to correct the violations and a schedule, including dates, by which each violation will be resolved. The written response and two copies of all documents submitted in reply to this letter should be submitted to the following:

Illinois Environmental Protection Agency  
Bureau of Land  
Division of Remediation Management  
Leaking Underground Storage Tank Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, Illinois 62794-9276

Further, take notice that non-compliance with the requirements of the Illinois Environmental Protection Act and the rules and regulations adopted thereunder may be the subject of enforcement action pursuant to the Illinois Environmental Protection Act, 415 ILCS 5 et seq. or the federal Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sec. 6991 et seq.

In addition, please be advised that this letter constitutes the notice required by Section 31(d) of the Illinois Environmental Protection Act prior to the filing of a formal complaint. The cited Section of the Illinois Environmental Protection Act requires the Agency to inform you of the charges which are to be alleged and offer you the opportunity to meet with the appropriate officials within thirty days of this notice date in an effort to resolve such conflict which could lead to the filing of formal action. Contact Valerie Davis within 7 days of receipt of this letter if you want to meet with the appropriate officials in an effort to resolve the conflicts.

If you have any questions regarding the above, please contact Valerie Davis at the above number.

Sincerely,

*Clifford L. Wheeler*

Clifford L. Wheeler, Manager  
Southern Unit  
Leaking Underground Storage Tank Section  
Division of Remediation Management

CLW:VD:dks/293x, 38-39

Attachment(s)

Attachment A

1. Pursuant to 35 Illinois Administrative Code Section 732.202(e), within 45 days after confirmation of the release, owners and operators shall submit the information collected in compliance with subsection (d) [of 732.202] to the Agency, in a manner that demonstrates its applicability and technical adequacy. You are in apparent violation of 35 Illinois Administrative Code Section 732.202(e) for the following reason(s): Failure to submit the required information within 45 days.
2. Pursuant to 35 Illinois Administrative Code Section 732.100(c), owners and operators shall proceed expeditiously to comply with all requirements of the Act and the regulations to obtain the "no Further Remediation" letter signifying final disposition of the site.

You are in apparent violation of Section 732.100 for the following reason(s): Failure to proceed with the requirements of the Act and Section 732.

3. Pursuant to 35 Illinois Administrative Code Section 732.105(b) and Section 57.12(d) of the Act, the Agency has the authority to require the owner or operator, or both, of an underground storage tank to undertake preventive or corrective action whenever there is a release or substantial threat of a release of petroleum from such tank.

You are in apparent violation of Section 732.105(b) and Section 57.12(d) of the Act for the following reason(s): Failure to submit a Site Classification Work Plan to the Agency upon request and within the specified time frame.

4. Pursuant to 35 Illinois Administrative Section 732.305(a), prior to conducting any site evaluation activities, the owner or operator shall submit to the Agency a site classification plan, including but not limited to a physical soil classification and groundwater investigation plan, satisfying the minimum requirements for site evaluation activities as set forth in Section 732.307.

You are in apparent violation of Section 732.305(a) for the following reason(s): Failure to submit a Site Classification Work Plan to the Agency.

November 22, 1994

Office of the Engineer

Ms Valerie Davis  
Illinois Environmental Protection Agency  
Leaking Underground Storage Section  
Division of Remediation Management  
2200 Churchill Road  
Springfield, IL 62794-9276

Re: LPC #1214225084 -- Marion County  
Centralia/86th U.S. Army Reserve  
904 East Martin Luther King Drive  
LUST Incident #941953  
LUST/Technical Report File

Dear Ms Davis,

In reference to the above UST and your letter of November 16, 1994, a 45 Day Report was not submitted because the leaking tank at this site has yet to be removed. A contract to remove this tank has been awarded, and we expect it to be removed within the next two months. It is our intention to excavate all contaminated soil, and replace it with clean fill. A site assessment estimated that about 400 cubic yards of soil would have to be removed. This assessment did not note any groundwater contamination.

Since this an Army facility, we will not be participating in the reimbursement program. If you have any questions, please call Dave Jennings at (708) 209-2597.

Sincerely,

ROBERT M. DONNICK, SR  
Command Executive Officer

Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
45 Day Report

A. SITE IDENTIFICATION

IEPA Generator Number (10 Digit): 1214225064  
(leave blank if unknown)

IEMA #: 941953

Site Name: SFL E.L. COPPLE U.S. ARMY RESERVE CENTER

Site Address (Not a P.O. Box): 904 E. MARTIN LUTHER KING JR. DRIVE

City: CENTRALIA County: MARION

OWNER U.S. ARMY ENGINEER CENTER

Name: AND FORT LEONARD WOOD

Address: P.O. BOX 140

FORT LEONARD WOOD, MO 65473-5000

Contact: KEITH OLIGSCHLAEGER

Phone: 314/596-0907

OPERATOR (if different than Owner)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

B. SITE INFORMATION

1. Will the owner/operator be seeking reimbursement for costs from the Underground Storage Tank Fund? (Check One): YES  NO
2. Has the site been deemed eligible to seek reimbursement for corrective action cost from the Underground Storage Tank Fund?  
YES  NO  GOVERNMENT FACILITY
3. What was the material released: #2 FUEL OIL  
Was the material released a petroleum product: YES  NO

C. EMERGENCY ACTION

1. Was the tank system removed, and/or abandoned in place: YES  NO  (if YES then the Agency will require that the following be attached: legible copy of the Office of the State Fire Marshal Permit for Removal and Abandonment in Place; a discussion on how the tank was cleaned; a discussion on how the product still in the tank, the tank sludges, and the tank rinse water were handled and disposed)
2. Was the tank system repaired: YES  NO  (if yes then the Agency will require that a legible copy of the Fire Marshal Permit be included)
3. The volume (in cubic yards) of backfill material removed: 130  
(if any backfill material was removed and disposed of off-site attach a legible copy of the manifest(s) to dispose of the soil)
4. Was any soil, other than backfill excavated and disposed from the site: YES  NO  (if yes, then what was the volume, in cubic yards, disposed from the site: 40 c.y.)
5. Was any groundwater with a sheen removed from the excavation: YES  NO  (if yes, then what was the volume, in gallons, removed from the site: \_\_\_\_\_ . Also please include a legible copy of the manifest(s))
6. Was free product encountered: YES  NO  (if YES, then the owner/operator must submit a free product removal report within 45 days of reporting the release)

D. ENCLOSURES

Please refer to the INSTRUCTIONS for direction on what information must be attached to this form.

E. SIGNATURES

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Name: Scott Murrell

Title: Chief Environmental Div.

Signature: Scott Murrell

Date: 20 June 95

Operator (if different from Owner) Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

ILCS 22  
LPC 503 Oct-93

# 45 DAY REPORT

**C.1. DESCRIBE THE PROCEDURES USED FOR CLEANING THE TANK:**

See Attachment C.1.a. for a copy of the OSFM Removal Permit. Tank cleaning operations were conducted by Tank and Industrial Cleaning Services (TICS) of Rockford, Illinois. Prior to tank removal activities, approximately 1,600 gallons of wastewater (rainwater or surface water that had entered the UST systems through an opening in the manhole leading to the fill pipe) had been removed from the 6,000 gallon tank and approximately 100 gallons of wastewater from the 1,500 gallon UST. The wastewaters were manifested/transported by TICS to a licensed wastewater treatment facility.

Once the UST system was relatively empty, the tanks were inerted with carbon dioxide until the percent oxygen level was below 5 percent. Entrance to the tanks was obtained with a hand torch. The tanks were scrubbed with a solution of trisodium phosphate and triple rinsed with high pressure water. TICS pumped out and transported the rinse waters to Interstate Pollution Control (IPC) in Rockford, Illinois. Approximately 200 gallons of tank rinse water was generated. The rinse waters and wastewaters (1,900 gallons) were treated at IPC's facility under their permit number 000217.

For any of the following that were removed or generated during the UST system removal, describe the procedures for management and storage, treatment of disposal of this material.

Product: Had Been Removed.

Tank Sludges: N/A

Tank Rinse Waters: Disposed of at IPC, 4430 Boeing Drive,  
Rockford, Illinois.

See Attachment C.1.b. for a copy of the manifest.

**C.3/4. CONTAMINATED SOIL REMOVED FROM THE SITE INCLUDING BACKFILL:**

An estimated total of 170 cubic yards of LUST contaminated soil was removed from the site on February 7 and 8, 1995. This estimate is based on a 26' x 20' and 13' deep excavation minus the clean topsoil and tank void. A total of 10 truckloads were hauled to Wayne County in Fairfield, Illinois. Each truck had a 15 cubic yard trailer box. Licensed special waste hauler trucks transported the contaminated soil. Each truckload was accompanied by a Illinois EPA uniform waste manifest.

The contamination was evident by visual inspection, smell, and by field screening with a photoionization detector (PID). Contaminated soil was excavated in areas around and below the UST system which appeared contaminated. This was performed as corrective action activities as directed by the U.S. Army Engineer Center and Fort Leonard Wood.

See Attachment C.3. for copies of the EPA uniform waste manifests.

**D.a. STEPS TAKEN TO PREVENT ANY FURTHER RELEASE OF THE REGULATED SUBSTANCES INTO THE ENVIRONMENT:**

The actions taken to prevent further release of product were the removal of the tank, the removal of all piping associated with the tank, and the excavation/disposal of contaminated soil. The excavation areas were backfilled with pea gravel and clean dirt.

**D.b. STEPS TAKEN TO IDENTIFY AND MITIGATE FIRE, EXPLOSION AND VAPOR HAZARDS:**

During excavation of contaminated soil, site control points were established for safety purposes. No eating, smoking or drinking were allowed in the work area (exclusion zone). The use of spark producing equipment was prohibited in the work area. The tank atmosphere and the excavation was regularly monitored with a combustible gas indicator (GSI) for flammable or combustible vapor concentrations until the tank was removed from both the excavation and the site.

**D.c. DATA ON THE NATURE AND ESTIMATED QUANTITY OF RELEASE:**

According to observations made by OSFM Inspector Wayne Sensel, the cause of the release for the 1,500 gallon #2 fuel oil UST system was determined to be a result of overfill. Stained soil was evident around the fill pipe. No holes or leaks were evident in the UST system.

The quantity of the release could not be determined.

**D.d. DATA FROM AVAILABLE SOURCES OR SITE INVESTIGATIONS CONCERNING THE FOLLOWING FACTORS:**

**i. SURROUNDING POPULATIONS:**

The site is located in a residential area on the northeast part of Centralia in Section 17, Township 1 North, Range 1 East in Marion County. Centralia consists of a population of 14,274 people. See Attachment D.d.i. for a topographic map and a Centralia street map.

ii. WATER QUALITY:

ECI requested information from the Illinois State Water Survey (ISWS). ISWS provided ECI with copies of private well logs/permits for one site. The site was located at 1615 Morrison Road in Centralia. The site has a 16 foot deep dry well.

No potable water wells exist in Centralia. ECI obtained information on the public water supply system from Kenny of the Centralia Water Department. Kenny indicated that the Water Department services all residents in Centralia. Centralia receives potable water from Raccoon Lake (Centralia Reservoir). The water is treated with potassium permanganate, filtered and further treated/adjusted with alum, a polymer, fluoride, a chlorine/aqua ammonia mixture, and caustic.

iii. USE AND APPROXIMATE LOCATION OF WELLS POTENTIALLY AFFECTED BY THE RELEASE:

Based on the information provided above in Section ii., Water Quality, no potable water wells exist in Centralia. Therefore, no wells are affected by the release. The Centralia Reservoir is located over one mile from the subject site. This is too great a distance to have an effect on the Reservoir and the water quality.

See Attachment D.d.i. for a site map displaying the site location in relation to the Centralia Reservoir.

iv. SUBSURFACE SOIL CONDITIONS:

According to the soil survey of Marion County, the soil in this area consists of Hoyleton-Darmstadt Silt Loams. These nearly level, somewhat poorly

drained soils are on low ridges on till plains. The two soils occur as areas so closely intermingled or so small that mapping them separately is not practical. Typically, the Hoylton soil has a surface layer that is dark brown, friable silt loam about 9 inches thick. The subsurface layer is brown and yellowish brown, friable silt loam about 5 inches thick. The mottled subsoil extends to a depth of 60 inches or more. The upper part is brown, firm silty clay loam. The next part is light brownish gray, firm silty clay loam. The lower part is grayish brown, firm clay loam. Permeability is slow. A seasonal high water table is at depths of 1 to 3 feet from March to June in most years. Available water capacity is high. Typically, the Darmstadt soil has a surface layer that is dark grayish brown, friable silt loam about 6 inches thick. The subsurface layer is grayish brown and light brownish gray, friable silt loam about 8 inches thick. The mottled subsoil is about 35 inches thick. The upper part is brown and pale brown, very firm silty clay and silty clay loam. The lower part is light brownish gray firm silty clay loam and friable silt loam. The subsoil has a high content of sodium. The substratum to a depth of 60 inches or more is light brownish gray, mottled, friable silt loam. Permeability is very slow. A seasonal high water table is at a depth of 1 to 3 feet from February through May in most years. Available water capacity is moderate.

Field observations revealed brown dense clay and sandy clay between 4 and 13 foot depths. The impermeable soil condition allowed surface water to pool within the excavation during tank removal and contaminated soil removal activities.

v. CLIMATOLOGICAL CONDITIONS:

During the tank removal and excavation of contaminated soil, the weather conditions were extremely cold with below zero temperatures including high

easterly winds of 20 miles per hour. Periods of snow accumulation occurred in the morning of February 7, 1995. The climatological conditions of the site are typical of the midwest with seasonal temperature and precipitation fluctuations.

vi. **LAND USE:**

The property is currently used for a U.S. Army Reserve Center. Approximately eight employees work at the facility. The site consists of an administrative building with an attached garage and a maintenance building.

**D.e. RESULTS OF THE SITE CHECK REQUIRED UNDER 35 ILLINOIS ADMINISTRATIVE CODE SECTION 731.162(a)(5):**

Soil samples were obtained from below the tank and from the excavation walls. The samples were field screened with a PID in addition to being submitted to a laboratory for analysis of BETX and PNAs. All samples from beneath each UST system resulted in low PID readings below 10 ppm. See Attachment D.e. for copies of the laboratory results.

- i. The contents within the UST system had been removed. The UST system was removed, cleaned, and properly disposed of.
- ii. The soils around the UST system were inspected visually along with a PID. Contaminated materials were excavated, loaded onto licensed special waste hauler trucks, transported to Wayne County Landfill located in Fairfield, Illinois for disposal.
- iii. Taking into consideration the physical/chemical nature of the product, the release of #2 fuel oil did not pose any direct fire or safety hazards. Samples

collected from excavation walls in the areas of underground utilities did not display the presence of contaminants (in the field or following laboratory analysis). Therefore, it is unlikely that the utility (gas line) provides a path for contaminant migration.

- iv. During the excavation, placement and disposal of contaminated soils, workers avoided direct contact with contaminated materials. If direct contact could not be avoided, workers wore protective equipment such as coveralls, gloves and boots. Disposal activities were in compliance with 35 IL Adm. Code 722, 724, 725, 807 and 809.
- v. Soil samples were obtained from below each tank, and from the side walls of the excavation. The samples were field screened with an photoionization detector. All closure soil samples collected displayed low PID readings (less than 10 ppm). Separate soil samples were collected for lab analysis of BETX and PNAs. Sampling protocol was performed in accordance with IEPA LUST closure guidelines. A total of 12 samples were collected for lab analysis.

See Attachment D.g. for a site map showing soil sample locations.

- vi. No indications of free product were apparent.

**D.f. SITE MAP TO SCALE AND ORIENTED NORTH SHOWING:**

See Attachment D.f.

- i. UST system and excavation.
- ii. Product and dispenser lines.
- iii. Pump and islands.
- iv. Sewer, gas, water and electrical utility lines.

- v. Nearby buildings, roads, etc.
- vi. Soil borings.  
N/A
- vii. Monitoring well(s) (if required). N/A

**D.g. A CROSS SECTION, TO SCALE, WITH DIMENSIONS SHOWING THE UST(S) AND THE EXCAVATION:**

See Attachment D.g. for cross section drawings with soil sample locations.

**D.h. TANK INFORMATION INCLUDING THE TOTAL NUMBER OF TANKS ON SITE, THE VOLUME OF THE TANKS (IN GALLONS), THE MATERIAL STORED IN THE TANK, WHICH TANK SYSTEM HAD A RELEASE:**

The total number of tanks on site is one 1,500 gallon and one 6,000 gallon #2 fuel oil USTs.

According to OSFM Inspector Wayne Sensel, the release from the 1,500 gallon UST was determined to be a result of overfill. Stained soil was apparent around the fill pipe and migrated east toward the property line. The quantity of the release could not be determined. A slight amount of overfill was apparent around the fill pipe of the 6,000 gallon UST. Gray stained soil with a slight fuel odor was limited to the fill pipe.

Field screening consisted of placing approximately 8 ounces of split soil sample into a labeled Ziploc bag, sealing the bag, and allowing the bag to warm to approximately 70°F inside a field vehicle. Field screening was conducted using a Thermo Environmental Instruments Organic Vapor Meter (OVM), a type of photoionization detector (PID), with a 10.6 eV lamp. The PID was calibrated on a daily basis or as needed according to manufacturer's instructions. The probe of the PID was inserted into the Ziploc bag and the highest reading was recorded.

Soil samples were collected from the excavation. The U.S. Army Engineer Center and Fort Leonard Wood required that six samples be collected from each UST excavation; two bottom samples (one from each end of the tank) and four wall samples (two from the side walls and two from the end walls).

Soil samples were collected February 7 and 8, 1995 from within the tank excavation. Six soil samples were collected from each tank excavation: two bottom samples and four wall samples were collected. These soil samples were analyzed for B.T.E.X. and PNAs by Environmental Monitoring and Technologies, Inc. (EMT) of Morton Grove, Illinois.

See Attachment D.e. for analytical results.

#### Sampling Protocol

- Only grab samples are accepted by IEPA.
- Sampling equipment was washed with a solution of trisodium phosphate and rinsed with deionized water between samples to prevent cross-contamination.
- Samples were collected using disposable gloves. Gloves will be changed between samples.
- Samples from side/end walls were collected from points along the wall which are parallel to the lower third of the tank(s).
- Samples collected from the excavation bottom represented the bottom of the tank invert, and as a minimum, include both tank ends.
- Samples were obtained by removing the first few inches of soil to access undisturbed material for collection.
- Samples collected for volatiles were tightly packed leaving no air space between sample and Teflon lid. A headspace sample was taken for photoionizer monitoring.
- All sampling equipment was decontaminated prior to storage.

- Samples were labeled and placed in an insulated container along with the chain-of-custody document. The container maintained a temperature of 4°C.

**D.i. PHOTOGRAPHS DOCUMENTING THE REQUIRED ACTIONS:**

See Attachment D.i.

**D.j. A TIMETABLE AND NARRATIVE OF THE WORK PERFORMED:**

*JANUARY 18, 1995*

ECI personnel collected a soil sample from the east end of the 1,500 gallon #2 fuel oil tank with a rubber tire backhoe. The sample was submitted to Environmental Monitoring and Technologies, Inc. for analysis of disposal profile parameters.

*FEBRUARY 6, 1995*

Mobilized to Centralia and surveyed site to verify J.U.L.I.E. locates, etc.

*FEBRUARY 7, 1995*

Tank and Industrial Cleaning Services (TICS) removed approximately 1,900 gallons of non-hazardous wastewater (including wash water) from both UST systems. Environmental Contractors of Illinois, Inc. (ECI) excavated and removed both USTs from the ground. OSFM Inspector Wayne Sensel witnessed each tank pull (one 1,500 gallon and one 6,000 gallon #2 fuel oil USTs). Two truckloads of contaminated soil were hauled to Wayne County Landfill for disposal. Both tanks were cut and cleaned. TICS obtained entrance to the tank and scrubbed the interior with a solution of trisodium phosphate and rinsed the tank interior with high pressure water. TICS pumped out and transported the rinse waters to Interstate Pollution Control (IPC) in Rockford, Illinois. The rinse waters were treated at IPC's facility under their permit number 000217. The site was secured with fencing and barricades prior to departure.

Inspector Wayne Sensel determined by visual inspection that no holes were present in either tank. Wayne Sensel determined by visual inspection and odor that a release had occurred from the fill pipe area from the 1,500 gallon UST. The Illinois Emergency Management Agency (IEMA) had been formerly contacted and issued incident number 941953 for the site. The vent and fill piping were uncovered with the backhoe, and lifted out. A portion of the fill piping for the 1,500 gallon UST was capped in place due to the risk of undermining a natural gas line.

*FEBRUARY 8, 1995*

Eight (8) truckloads of contaminated soil were removed from the 1,500 gallon UST excavation (east end). Closure soil samples were collected and submitted to a laboratory for analysis of BETX/PNAs.

A Clean Tank Certificate was issued by TICS for both tanks. The tanks were disposed of at White Brothers Salvage, 500 S. Chestnut, Centralia, Illinois. The excavations were backfilled with clean dirt and clean self-compacting pea gravel. Approximately 1 foot of topsoil was replaced on the surface and compacted to match existing grade.

*FEBRUARY 9, 1995*

The chain-link fence was replaced. The excavation areas (backfilled) were fenced off until spring when they could be re-seeded. ECI demobilized from the site.

Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
Request for Site Specific Cleanup Objectives

DRAFT

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): 1214225064  
(leave blank if unknown)

IEMA # 941953

Site Name: SEC. E. L. COPPLE U. S. ARMY RESERVE CENTER

Site Address (Not a P.O. Box): 904 E. MARTIN LUTHER KING JR. DRIVE

City: CENTRALIA County: MARTON

**B. THE REQUEST FOR SITE SPECIFIC CLEANUP OBJECTIVES IS DUE TO:**

1.  A release from an UST system containing used oil.
2.  A release from an UST system containing a hazardous substance as defined in 35 Ill. Adm. Code, Subtitle G, Section 731.112.
3.  A release from an UST system containing a specific chemical.
4.  A release from an UST system for which generic or site-specific objectives have been established BUT DUE TO SITE-SPECIFIC FACTORS, THE OWNER IS REQUESTING THAT NO FURTHER ACTION BE REQUIRED.

**C. ENCLOSURES**

Please check the enclosures attached to this form:

1.  Media of concern
2.  Amount of media remaining above cleanup objectives
3.  Description of facility operations
4.  Identification of adjacent businesses or facilities
5.  Description of the site area
6.  Identification of sensitive receptors
7.  Summary of site geology/hydrogeology
8.  Identification of conduits for migration of contamination
9.  Identification of risks and hazards/options for minimizing these risks or hazards
10.  Type and depth of pavement
11.  Justification for this request/alternate technologies
12.  Site maps
13.  Analytical summaries

If you checked #4 on Part B of this form then all of the enclosures (1 through 13) must be provided with this form.

**D. SIGNATURES**

Owner  
Name: Scott Murrell  
Title: Chief/Environmental Div.  
Signature: Scott Murrell  
Date: 22 June 95

Operator (if different from Owner)  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**REQUEST FOR SITE SPECIFIC  
CLEANUP OBJECTIVES —  
SFC E.L. COPPLE U.S. ARMY RESERVE CENTER  
LUST INCIDENT #941953**

**C.1,2 MEDIA OF CONCERN AND AMOUNT REMAINING ABOVE CLEAN-UP OBJECTIVES:**

In the 1,500 gallon LUST excavation, the contamination exists in soil from the west wall of the UST system excavation. The soil sample collected from this location displayed a Total Carcinogenic PNA (TC PNA) concentration of 75.4 ug/kg or ppb. The former LUST clean-up objectives for TC PNAs were 4 ppb. The level in this area of the former UST excavation area is approximately 19 times the former acceptable level. The west bottom sample displayed a concentration of toluene at 8 ppb, far below the former cleanup standards. All other soil samples analyzed resulted in concentrations below detection limits.

**C.3 DESCRIPTION OF FACILITY OPERATIONS:**

The facility is used as a U.S. Army Reserve Center. No more than 10 employees work at the facility. The property consists of an administration building and an adjacent garage/shop along with a separate maintenance building.

**C.4 IDENTIFICATION OF ADJACENT BUSINESSES OR FACILITIES:**

The adjacent properties belong primarily to single family residences. They are located to the north, south, and west. However, the Army Reserve Center sits on a relatively large piece of property which is buffered from the residential areas. Finger Park is located to the east.

**C.5 DESCRIPTION OF THE SITE AREA:**

The U.S. Army Reserve Center is located in a primarily residential area on the northeast side of Centralia. Residential areas are located to the north, south, and west. Finger Park is located immediately east followed by a hospital and Centralia Foundation Park. The Centralia Reservoir (Racoon Lake) is located approximately

1.5 miles northeast. The U.S. Army Reserve Center is located in the City of Centralia, Section 17, Township 1 North, Range 1 East of the Third Principal Meridian, Marion County, Illinois. See Attachment D.d.i. of the 45 Day Report for a city map and a U.S.G.S. Topographical Map.

**C.6 IDENTIFICATION OF SENSITIVE RECEPTORS:**

The contamination is not surficial, hence there are no effects on vegetation, wildlife or people. Potable water is provided to this area by the Centralia Water Department. Potable water is obtained from Raccoon Lake (Centralia Reservoir) which is located over one mile northeast of the site.

**C.7 SUMMARY OF SITE GEOLOGY/HYDROGEOLOGY:**

GEOLOGY

According to the United States Department of Agriculture Soil Survey of Lee County Illinois, the soil type in the area is Hoylton-Darmstadt. These nearly level, somewhat poorly drained soils are on low ridges on till plains. The two soils occur as areas so closely intermingled or so small that mapping them separately is not practical. Typically, the Hoylton soil has a surface layer that is dark brown, friable silt loam about 9 inches thick. The subsurface layer is brown and yellowish brown, friable silt loam about 5 inches thick. The mottled subsoil extends to a depth of 60 inches or more. The upper part is brown, firm silty clay loam. The next part is light brownish gray, firm silty clay loam. The lower part is grayish brown, firm clay loam. Permeability is slow. A seasonal high water table is at depths of 1 to 3 feet from March to June in most years. Available water capacity is high. Typically, the Darmstadt soil has a surface layer that is dark grayish brown, friable silt loam about 6 inches thick. The subsurface layer is grayish brown and light brownish gray, friable silt loam about 8 inches thick. The mottled subsoil is about 35 inches thick.

The upper part is brown and pale brown, very firm silty clay and silty clay loam. The lower part is light brownish gray firm silty clay loam and friable silt loam. The subsoil has a high content of sodium. The substratum to a depth of 60 inches or more is light brownish gray, mottled, friable silt loam. Permeability is very slow. A seasonal high water table is at a depth of 1 to 3 feet from February through May in most years. Available water capacity is moderate.

Based on field observations, a brown dense clay and sandy clay were apparent between 4 and 13 foot depths. The soil was relatively impermeable to water.

#### HYDROGEOLOGY

In southern Illinois, the water table roughly parallels the surface topographic, rising under the uplands and intersecting the ground surface along perennial streams, lakes, swamps, and springs. At these points of intersection, groundwater is discharged to surface water bodies by gravity flow from adjacent areas where the water table is higher. The position of the water table and the amount of discharge of groundwater to streams fluctuate from season to season and from year to year.

According to information supplied by the Illinois State Water Survey (ISWS), their records show only one (a dry well) located in Section 17, Township 1 North, Range 1 East. Potable water is supplied by the Centralia Reservoir (Raccoon Lake) located approximately 1.5 miles to the northeast. Groundwater is not used for potable water in this area due to contamination from oil fields and oil wells. Therefore, no potable wells (private or public) are located in this area. Groundwater depth and flow direction are unknown.

**C.8 IDENTIFICATION OF CONDUITS FOR MIGRATION OF CONTAMINATION:**

The contaminant, being at a depth of approximately 7 feet is unaffected by wind activity. Direction of groundwater flow is unknown. A gas service runs east/west then cuts back south along the south side of the former excavation. A soil sample collected from the south wall of the excavation displayed analytical results below detection limits. Because of this, it is unlikely that the gas service provides a conduit for migration of contamination.

**C.9 IDENTIFICATION OF RISKS AND HAZARDS/OPTIONS FOR MINIMIZING THESE RISKS OR HAZARDS:**

Benzo(a)Anthracene

Safety

Profile: Confirmed carcinogen with experimental carcinogenic, neoplastigenic, tumorigenic data by skin contact and other routes. Poison by intravenous route. Human mutation data reported it is found in oils, waxes, smoke, food, drugs. When heated to decomposition, it emits acrid smoke and irritating fumes.

Benzo(a)Pyrene

CAS: 50-32-8

OSHA PEL: TWA 0.2 mg/m<sup>3</sup>

Safety

Profile: Suspected carcinogen with experimental carcinogenic, neoplastigenic, and tumorigenic data. A poison via subcutaneous, intraperitoneal and intrarenal routes. Experimental teratogenic and reproductive effects. Human mutation data reported. A common air contaminant of water,

food, and smoke. When heated to decomposition it emits acrid smoke and fumes.

Benzo(b)Fluoranthene

CAS: 205-99-2

Safety

Profile: Confirmed carcinogen with experimental carcinogenic and tumorigenic data. Mutation data reported. When heated to decomposition it emits acrid smoke and irritating fumes.

Due to the low concentration present of the total contaminants (75.4 ppb) and it's location (approximately 7 feet below grade) this contaminant poses little risk to the environment. The U.S. Army Reserve Center and the surrounding area are serviced by Centralia Water Department public water supply system. No private or public wells are located in Centralia. This is because groundwater is contaminated from oil drilling and recovery operations. Potable water is obtained from Raccoon Lake.

**C.10 TYPE AND DEPTH OF PAVEMENT:**

Following the removal of the UST system and visibly contaminated soil, the excavation was backfilled with pea gravel and black dirt. Shortly thereafter, it was reseeded and restored to its original condition.

**C.11 JUSTIFICATION FOR THIS REQUEST:**

Three carcinogenic PNA compounds (benzo[a]anthracene, benzo[a,c]pyrene, and benzo[b]fluoranthene) were detected in only one sample at a total carcinogenic (TC) PNA concentration of 75.4 ppb, which is 19 times over the former clean-up objective of 4 ppb established by the IEPA for TC PNAs. The contaminants are at a depth of

approximately 7 feet. Approximately 170 cubic yards of visibly contaminated soil were landfill disposed following the tank removal. The excavation area was backfilled and restored to its original condition with black dirt and seed. The following factors support our request for site specific clean-up objectives:

- (1) No underground utilities or conduits were identified which are likely to provide a pathway for off-site migration of contaminants. A gas line is located south of the excavation. However, soil samples collected from that area were negative for petroleum contamination.
- (2) Because of the nature of the pollution source (#2 fuel oil used for heating), no threats of fire or explosion exist. No. 2 fuel is not as flammable as a volatile substance such as gasoline. No. 2 fuel oil has a higher flashpoint, boiling point and viscosity. The chances of fires, explosions, and migration are significantly reduced because of these properties. In addition, no underground structures such as a basement, vault, or manway are located near the excavation area.
- (3) Because of the depth of the contaminant (7 feet), it poses no risk to contaminating surface water or wildlife.
- (4) Furthermore, the contaminant poses no risk to the potable water source, Raccoon Lake, which is located over 1.5 miles northeast of the site. Additionally, groundwater is not suitable for potable use because of oil drilling and recovery operations in the Centralia area and southern Illinois.

- (5) Finally, 170 cubic yards of soil has been remediated. The low levels of contamination which remain will naturally biodegrade with time. The contamination does not pose enough of a risk to expend further time/finances/resources for remediation.

**C.12 SITE MAPS:**

Please see Attachment D.d.i, D.f and D.g.

**C.13 ANALYTICAL SUMMARIES:**

Please see Attachment D.e.

ARMYIL\COPPLE.45

**C.1.a. OSFM REMOVAL PERMIT**



## DEPARTMENT OF THE ARMY

UNITED STATES ARMY ENGINEER SCHOOL  
FORT LEONARD WOOD, MISSOURI 65473-8800



REPLY TO  
ATTENTION OF

June 22, 1995

Directorate of Public Works

Illinois Environmental Protection Agency  
Division of Land Pollution Control #24  
Leaking Underground Storage Tank Section  
State Sites Unit  
2200 Churchill Road, P.O. Box 19276  
Springfield, IL 62794-9276

Re: 45 Day Report/Request for Site Specific Cleanup Objectives  
LPC 1214225064 - Marion County  
IEMA Incident #941953  
SFC E.L. Copple U.S. Army Reserve Center  
904 E. Martin Luther King Jr. Drive,  
Centralia, IL

Dear Sir/Madam:

Enclosed are two copies of the 45 Day Report/Site Specific Request for the above referenced project. Environmental Contractors of Illinois, INC. (ECI) served as the environmental contractor and consultant on this project.

One 1,500 gallon and one 6,000 gallon #2 fuel oil UST's were removed on February 7, 1995. Prior to the tank pull, visibly contaminated soil was discovered around the east end of the tank. Approximately 170 cubic yards of contaminated soil were excavated for landfill disposal. The excavation area was backfilled and the site was restored to its original condition.

Only two soil samples collected from the excavation area displayed low levels of PNA compounds. A request for site-specific cleanup objectives is contained within the report.

U.S. Army Engineer Center and Fort Leonard Wood would like to proceed under 732.300(b) and complete remediation without first classifying the site.



Center for Excellence

Any questions regarding content of these reports can be directed to Matt Warneke, Environmental Contractors of Illinois, INC., (815) 654-4726.

*Scott Murrell*  
 SCOTT MURRELL  
 Chief, Environmental Division



2 208 678 765  
**Receipt for Certified Mail**  
 No Insurance Coverage Provided  
 Do not use for International Mail  
 (See Reverse)

PS Form 3800, March 1993

Sent to IL EPA, DIV of LAND Pollut	
CNTRI #24, LUST Sec, State Site	
4200 Churchill RD POBOX 19276	
Springfield, IL 62794-9276	
Postage	\$4.00
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt (Showing to Whom Delivered)	1.10
Return Receipt (Showing Date, and Addressee Address)	
TOTAL Postage & Fees	\$6.20
Postmark or Date	MAR 1995



Division of Petroleum and Chemical Safety  
 1035 Stevenson Drive  
 Springfield, Illinois 62703-4259

Facility #: 6-017647  
 Permit #: 0004-95 REA

Application for Permit to REMOVE  
 Underground Storage Tanks for Petroleum and Hazardous Substances

to be completed and filed with the Division of Petroleum and Chemical Safety, 1035 Stevenson Drive, Springfield, Illinois 62703-4259 (217/785-5878) or (217/785-1020)

1) (Owner of tanks) - Corporation, partnership or other business entity: (Must Be Mailing Address)

USAEC & FT. LEONARD WOOD  
 Name

ATTN: ATZT-DPW-EE  
 Street Address

FORT LEONARD WOOD MO 65473-5000  
 City State Zip

TINA ANDERSON 314/596-0956  
 Contact Person Phone

2) (Contractor) - person, firm or company performing work:

ENVIRONMENTAL CONTRACTORS OF ILLINOIS INC.  
 Name

5290 NIMTZ ROAD  
 Street Address

LOVES PARK IL 61111 WINNEBAGO  
 City State Zip County

815/654-4726 363692550  
 Phone Registration No.  
4-30-95

you must notify ESDA 1-800-782-7860 within 24 hours of leaks or contaminated soil. Removal must be in accordance with acceptable closure requirements and procedure such as API Bulletin 1604. A site assessment must be conducted to determine if a release has occurred.

2) (Facility) - name and address where tanks are located

US ARMY RESERVE CENTER  
 Name

904 E. MARTIN LUTHER KING JR. DRIVE  
 Street Address

CENTRALIA IL 62801 MARION  
 City State Zip County

ROBERT SMITH 618/532-5666  
 Contact Person Phone

Facility Registration I.D. Number  
6-019647 Warren Beckwith  
SEM A II

FOR OFFICE USE ONLY

Permission to remove underground storage tank(s) is hereby granted. Such removal shall not commence until AS DIRECTED. A seventy-two hour (3 working day) notice to this office is required to confirm final date of removal for our inspector to be on site.

1-4-95 W. Dale Tanker  
 Approval Date Approved

7-4-95  
 Permit Expires

3) Removal of Tanks:

- a) Number and size of tanks being removed: TWO 1,500 GALLON
- b) Total number of all tanks removed: TWO
- c) Reason for removal of tanks: TANK LEAKING
- d) If tank is leaking, give ESDA incident number: 941953
- e) What products were stored in each tank? #2 FUEL OIL
- f) If tanks contain products other than petroleum products, please indicate here: \_\_\_\_\_
- g) Date each tank was last used? UNKNOWN
- h) A written notice of removal of tanks shall be given to the Office of the State Fire Marshal at least 30 days prior to the removal, giving location, number and size of tanks. This application will constitute that 30 day written notice. The 30 day period commences with this application appropriately completed and the fee received in our office.

- 5) Insufficient information supplied for permit review or omission of permit fee is grounds for application rejection. No work is to commence without a granted permit in hand and must be available upon request by inspectors. All work must be done by contractors registered with the State Fire Marshal's Office or by the owner only.
- 6) A permit fee of \$100 for each facility must accompany this application. (Checks or money orders are to be made payable to Office of the State Fire Marshal, do not send cash.)  Check  Money Order
- 7) For each facility, [REDACTED] - Notification of Underground Storage Tanks must be completed and submitted to the Office of the State Fire Marshal after tanks are removed.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that all submitted information is true, accurate and complete.

Name of Authorized Representative: LYNNE PAULLI Title and Company Represented: PROJECT MANAGER - ENVIRONMENTAL CONTRACTORS OF ILLINOIS, INC.

Signature of Authorized Representative: [Signature] Date: 12-23-94

The Office of the State Fire Marshal is requesting information that is necessary to accomplish the statutory purpose outlined in Illinois Revised Statutes, Chapter 127 1/2, Paragraph 9. Disclosure of this information is REQUIRED. Failure to provide any information will result in this form not being processed. This form has been approved by the Management Center. (Rev. 04/92) #3552

For Office Use:  
 DPCS Specialist Sensej  
 Fire Department  
 Division File GB  
 Dale Tanke  
 Office Associate

**C.1.b. MANIFEST**



### **C.3. EPA UNIFORM WASTE MANIFESTS**



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (Rev. 6-89)

Form Approved. OMB No. 2050-0039, Expires 9-30-94

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1 Generator's US EPA ID No.		Manifest Document No. 53601	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address <b>U.S. ARMY RESERVE CENTER 904 E. MARTIN LUTHER KING JR. DR. CENTRALIA, IL 62801</b>				Location If Different		A. Illinois Manifest Document Number <b>IL 6525831</b>	
4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* <b>815/654-4726</b>						B. Illinois Generator's ID <b>1214225064</b>	
5. Transporter 1 Company Name <i>Banker Truck Service</i>		6. US EPA ID Number		C. Illinois Transporter's ID <b>215712</b>		D. Transporter's Phone	
7. Transporter 2 Company Name		8. US EPA ID Number		E. Illinois Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address <b>DAUBS LF #3 ROUTE 15 WEST FAIRFIELD, IL 62837</b>				10. US EPA ID Number		G. Illinois Facility's ID <b>1008040000</b>	
						H. Facility's Phone <b>618-842-4254</b>	
11 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers		13. Total Quantity	
a. <b>NON-HAZARDOUS, NON-REGULATED SOIL BY D.O.T.</b>				No. Type		14. Unit Wt/Vol	
				0 0 1 DT		0 0 0 1 5 Y	
b.							
c.							
d.							
J. Additional Description for Materials Listed Above <b>LUSTY SOIL - INCIDENT # 941953 PAINT FILTER - IGNITABILITY -</b>				K. Handling Codes for Wastes Listed Above In Item #14 <b>G = Gallons Y = Cubic Yards</b>			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name <b>ROBERT SMITH</b>				Signature <i>Robert Smith</i>		Date <b>0205/95</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name <b>X Beryl Driley</b>		Signature <i>Beryl Driley</i>	
						Date <b>01-10-17-95</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
						Date	
19. Discrepancy Indication Space							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.							
Printed/Typed Name				Signature		Date	
						Month Day Year	

This Agency is authorized to require, pursuant to Illinois Revised Statutes, 1989, Chapter 111 1/2, Section 1004 and 1021 that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

ILLINOIS DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF ENFORCEMENT, RESPONSE AND COMPLIANCE, 1001 S. WASHINGTON ST., SPRINGFIELD, IL 62762-1001



PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1 Generator's US EPA ID No.		Manifest Document No. <b>5024</b>	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address <b>U.S. ARMY RESERVE CENTER</b> <b>904 E. MARTIN LUTHER KING JR. DR.</b> <b>CENTRALIA, IL 62801</b>				Location If Different <b>815/654-4726</b>		A. Illinois Manifest Document Number <b>IL 6525835</b> FEE PAID IF APPLICABLE	
4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS				B. Illinois Generator's ID <b>1 2 1 4 2 2 5 0 5 4</b>		C. Illinois Transporter's ID	
5. Transporter 1 Company Name		6. US EPA ID Number		D. ( ) Transporter's Phone		E. Illinois Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		F. ( ) Transporter's Phone		G. Illinois Facility's ID <b>1 2 1 4 2 2 5 0 5 4</b>	
9. Designated Facility Name and Site Address <b>DAUBS LF #3</b> <b>ROUTE 15 WEST</b> <b>FAIRFIELD, IL 62837</b>				10. US EPA ID Number		H. Facility's Phone <b>618 842-4294</b>	
11 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. <b>NON-HAZARDOUS, NON-REGULATED SOIL BY D.O.T.</b>				<b>0 0 1</b>	<b>DT</b>	<b>0 0 0 1 5 Y</b>	<b>XX</b>
b.							<b>XX</b>
c.							<b>XX</b>
d.							<b>XX</b>
J. Additional Description for Materials Listed Above <b>LOST SOIL - INCIDENT # 941953</b> <b>PAINT FILTER- PAINT FILTER- PAINT FILTER- PAINT FILTER-</b> <b>IGNITABILITY- IGNITABILITY- IGNITABILITY- IGNITABILITY-</b>				K. Handling Codes for Wastes Listed Above In Item #14 <b>G = Gallons Y = Cubic Yards</b>			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name <b>ROBERT SMITH</b>				Signature <i>Robert Smith</i>		Date <b>11/11/85</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature <i>Virginia B. Fisher</i>		Date <b>11/11/85</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Date	
19. Discrepancy Indication Space				Signature		Date	
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.				Signature <i>Robert Smith</i>		Date <b>11/11/85</b>	

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021 that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1 Generator's US EPA ID No.	Manifest Document No. 5312	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address U.S. ARMY RESERVE CENTER 904 E. MARTIN LUTHER KING JR. DR. CENTRALIA, IL 62801 4. *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* 815/654-4726			Location If Different		A. Illinois Manifest Document Number IL 6593101 FEE PAID IF APPLICABLE	B. Illinois Generator's ID 1 2 1 4 2 2 5 0 0 4
5. Transporter 1 Company Name K. K. Truck Service		6. US EPA ID Number		C. Illinois Transporter's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone		
9. Designated Facility Name and Site Address BAUBS LF #3 ROUTE 15 WEST FAIRFIELD, IL 62837		10. US EPA ID Number		E. Illinois Transporter's ID		
				F. Transporter's Phone		
				G. Illinois Facility's ID 1 9 1 8 0 4 0 0 0 3		
				H. Facility's Phone 815 842-4294		
11 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol
a. NON-HAZARDOUS, NON-REGULATED SOIL BY D.O.T.				0 0 1 DT	0 0 0 1 5 Y	XX EPA HW Number Authorization Number 74234
b.						XX EPA HW Number Authorization Number
c.						XX EPA HW Number Authorization Number
d.						XX EPA HW Number Authorization Number
J. Additional Description for Materials Listed Above LOST SOIL - INCIDENT # 941953 PAINT FILTER- PAINT FILTER- PAINT FILTER- PAINT FILTER- IGNITABILITY- IGNITABILITY- IGNITABILITY- IGNITABILITY-				K. Handling Codes for Wastes Listed Above in Item #14 G = Gallons Y = Cubic Yards		
15. Special Handling Instructions and Additional Information						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.						
Printed/Typed Name ROBERT SMITH		Signature <i>Robert Smith</i>		Date Month Day Year 02 07 95		
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name P. A. Klaban		Signature <i>P. A. Klaban</i>		Date Month Day Year 02 07 95		
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature		Date Month Day Year		
19. Discrepancy Indication Space						
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.						
Printed/Typed Name		Signature		Date Month Day Year		

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021 that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 5. GENERATOR MAIL TO IEPA (RCRA AND PCB WASTES)



PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1 Generator's US EPA ID No.		Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address <b>U.S. ARMY RESERVE CENTER 904 E. MARTIN LUTHER KING JR. DR. CENTRALIA, IL 62801</b>				Location If Different <b>815/654-4726</b>		A. Illinois Manifest Document Number <b>IL 6525834</b> FEE PAID IF APPLICABLE	
4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS				B. Illinois Generator's ID <b>1214225064</b>		C. Illinois Transporter's ID	
5. Transporter 1 Company Name		6. US EPA ID Number		D. Transporter's Phone		E. Illinois Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		F. Transporter's Phone		G. Illinois Facility's ID <b>1918040003</b>	
9. Designated Facility Name and Site Address <b>DAUBS LF #3 ROUTE 15 WEST FAIRFIELD, IL 62837</b>		10. US EPA ID Number		H. Facility's Phone <b>(618) 342-4294</b>			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. <b>NON-HAZARDOUS, NON-REGULATED SOIL BY D.O.T.</b>				001	DT 00015	Y	XX EPA HW Number Authorization Number <b>070804</b>
b. " " " " " "							XX EPA HW Number Authorization Number
c. " " " " " "							XX EPA HW Number Authorization Number
d. " " " " " "							XX EPA HW Number Authorization Number
J. Additional Description for Materials Listed Above <b>LUST SOIL - INCIDENT # 941953 PAINT FILTER- PAINT FILTER- PAINT FILTER- PAINT FILTER- IGNITABILITY- IGNITABILITY- IGNITABILITY- IGNITABILITY-</b>				K. Handling Codes for Wastes Listed Above In Item #14 <b>G = Gallons Y = Cubic Yards</b>			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.  If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name <b>ROBERT SMITH</b>				Signature <i>[Signature]</i>		Date <b>2/11/85</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name <b>FRANK THER</b>		Signature <i>[Signature]</i>	
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
19. Discrepancy Indication Space							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.				Printed/Typed Name		Signature	
						Date <b>2/11/85</b>	

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021 that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.



PLEASE TYPE

(Form designed for use on elite (12-pitch) typewriter.)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1 Generator's US EPA ID No.		Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address <b>U.S. ARMY RESERVE CENTER 904 E. MARTIN LUTHER KING JR. DR. CENTRALIA, IL 62801</b>				Location If Different <b>815/654-4726</b>		A. Illinois Manifest Document Number <b>IL 6525833</b> FEE PAID IF APPLICABLE	
4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS				6. US EPA ID Number		B. Illinois Generator's ID <b>1214225064</b>	
5. Transporter 1 Company Name				8. US EPA ID Number		C. Illinois Transporter's ID	
7. Transporter 2 Company Name				10. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address <b>DAUBS LF #3 ROUTE 15 WEST FAIRFIELD, IL 62837</b>				11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		E. Illinois Transporter's ID	
						F. Transporter's Phone	
						G. Illinois Facility's ID <b>1918040003</b>	
						H. Facility's Phone <b>618 842-6294</b>	
				12. Containers		13. Total Quantity	
				No. Type		Unit Wt/Vol	
G E N E R A T O R  a. <b>NON-HAZARDOUS, NON-REGULATED SOIL BY D.O.T.</b>				001 DT		00015 Y	
b.				661 DT		211 Y	
c.							
d.							
J. Additional Description for Materials Listed Above <b>LEST SOIL - INCIDENT # 941953 PAINT FILTER- PAINT FILTER- PAINT FILTER- PAINT FILTER- IGNITABILITY- IGNITABILITY- IGNITABILITY- IGNITABILITY-</b>				K. Handling Codes for Wastes Listed Above In Item #14 <b>G=Gallons Y=Cubic Yards</b>			
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name <b>ROBERT SMITH</b>				Signature <i>Robert Smith</i>		Date 11/9/94	
17. Transporter 1 Acknowledgement of Receipt of Materials							
Printed/Typed Name <i>Robert Smith</i>				Signature <i>Robert Smith</i>		Date 11/9/94	
18. Transporter 2 Acknowledgement of Receipt of Materials							
Printed/Typed Name				Signature		Date	
19. Discrepancy Indication Space							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.							
Printed/Typed Name <i>Robert Smith</i>				Signature <i>Robert Smith</i>		Date 11/9/94	

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021 that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

COPY 5. GENERATOR MAIL TO IEPA (RCRA AND PCB WASTES)

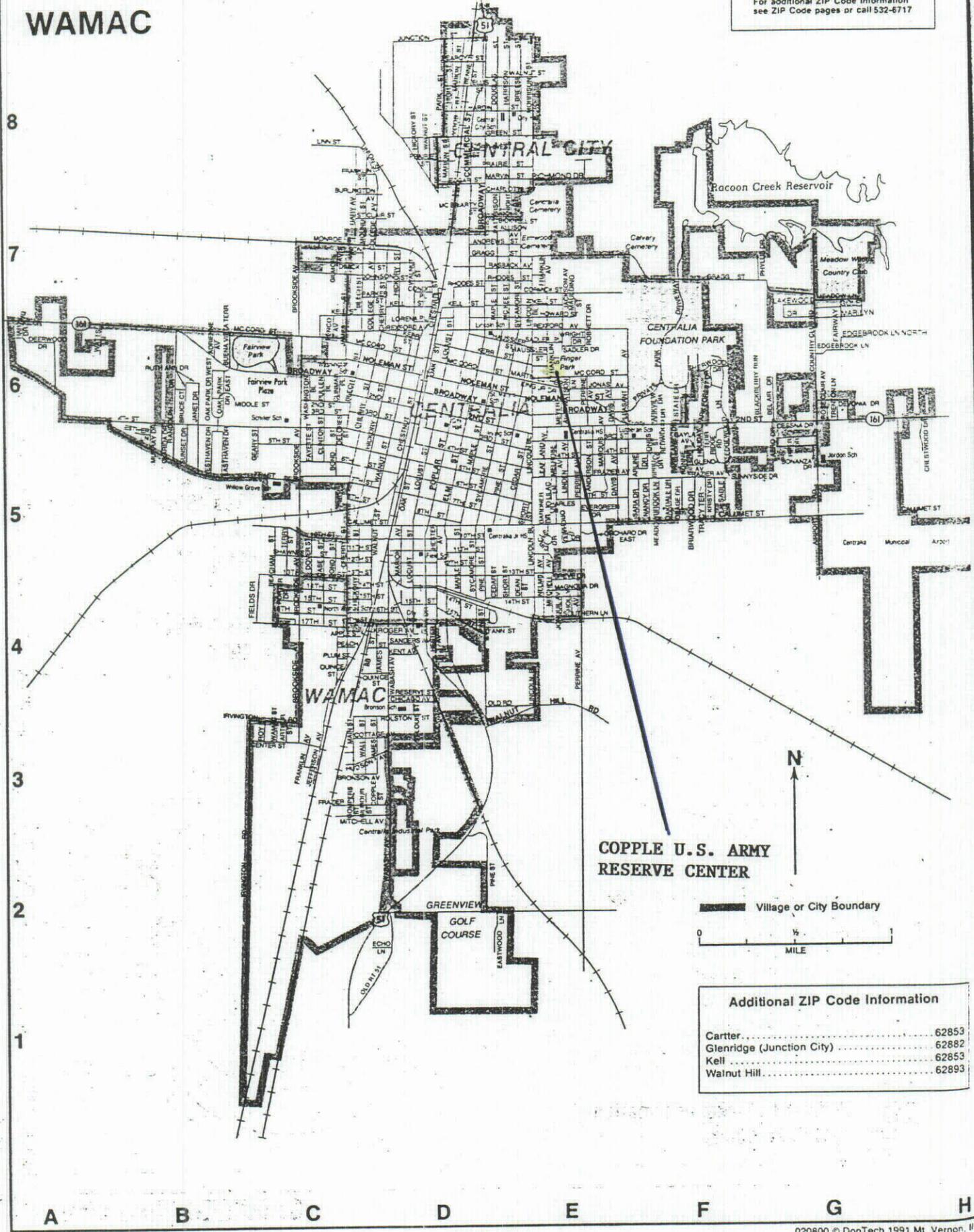
IN CASE OF A SPILL CALL THE ILLINOIS OFFICE OF EMERGENCY RESPONSE AT 217/782-6700 OR THE NATIONAL RESPONSE CENTER AT 800/424-9300



**D.d.i. CENTRALIA STREET MAP  
SITE MAP  
TOPOGRAPHIC MAP**

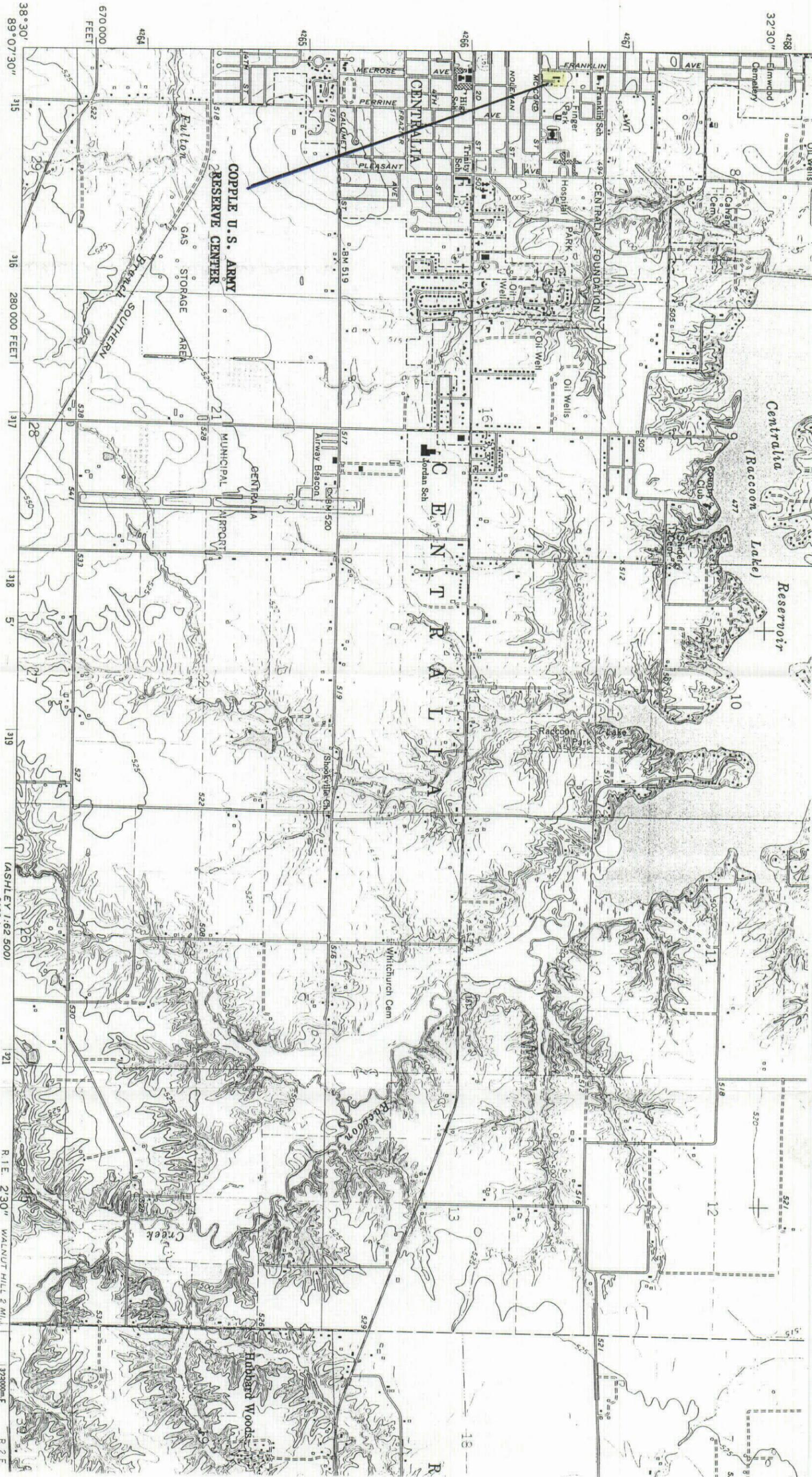
# CENTRALIA CENTRAL CITY WAMAC

Postal ZIP Code Information  
**ZIP Code 62801**  
 For additional ZIP Code information  
 see ZIP Code pages or call 532-6717



**Additional ZIP Code Information**

Carter.....	62853
Glenridge (Junction City).....	62882
Kell.....	62853
Walnut Hill.....	62893

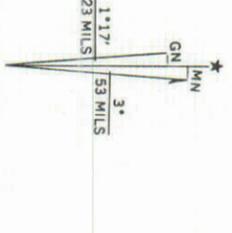


ASHLEY 1:62 500  
1961 E

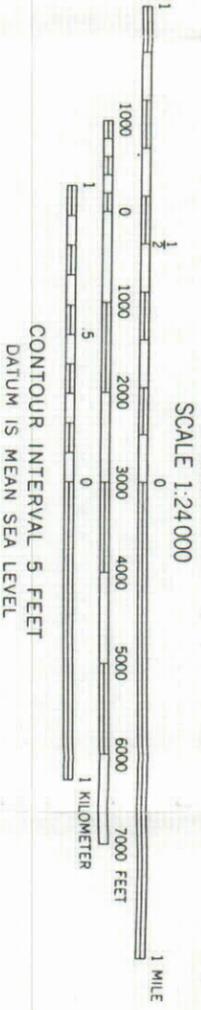
Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1966. Field checked 1970  
Polyconic projection. 1927 North American datum  
10,000-foot grid based on Illinois coordinate system, east zone  
1000-meter Universal Transverse Mercator grid ticks, zone 16, shown in blue

Red tint indicates areas in which only landmark buildings are shown  
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked  
Map photorevised 1981  
No major culture or drainage changes observed

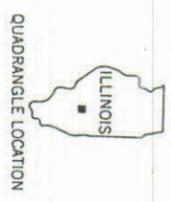


UTM GRID AND 1970 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



THIS MAP COMPLES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
AND ILLINOIS GEOLOGICAL SURVEY, CHAMPAIGN, ILLINOIS 61820  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

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**D.e. LABORATORY RESULTS**



SFC E.L. COPPLE U.S. ARMY RESERVE CENTER  
SOIL SAMPLE RESULTS - 6000 GALLON UST

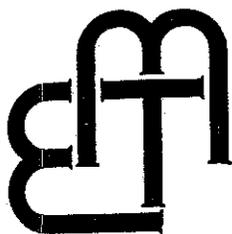
Sample Description Sample Depth PID Reading	01-NW 7 FT. 3	02-EW 7 FT. 2	03-NB 10 FT. 4	04-SB 10 FT. 3	05-SW 7 FT. 3	06-WW 7 FT. 0
<b>PARAMETERS</b>						
Benzene	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1
Toluene	3	<1	<1	<1	<1	<1
Xylene (Total)	1	<1	<1	<1	<1	<1
<b>NON-CARCINOGENIC PNAs</b>						
Naphthalene	<660	<660	<660	<660	<660	<660
Acenaphthene	<1200	<1200	<1200	<1200	<1200	<1200
Anthracene	<660	<660	<660	<660	<660	<660
Fluoranthene	<660	<660	<660	<660	<660	<660
Fluorene	<140	<140	<140	<140	<140	<140
Pyrene	<180	<180	<180	<180	<180	<180
<b>OTHER NON-CARCINOGENIC PNAs (TOTAL)</b>						
Acenaphthylene	<660	<660	<660	<660	<660	<660
Benzo(g,h,i)perylene	<51	<51	<51	<51	<51	<51
Phenanthrene	<660	<660	<660	<660	<660	<660
<b>CARCINOGENIC PNAs</b>						
Benzo(a)anthracene	<8.7	<8.7	<8.7	<8.7	<8.7	21.4
Benzo(a)pyrene	<15	<15	<15	<15	<15	19
Benzo(b)fluoranthene	<11	<11	<11	<11	<11	25.3
Benzo(k)fluoranthene	<11	<11	<11	<11	<11	12.2
Chrysene	<100	<100	<100	<100	<100	<100
Dibenzo(a,b)anthracene	<20	<20	<20	<20	<20	<20
Indeno(1,2,3-cd)pyrene	<29	<29	<29	<29	<29	<29

\*Sample results reported in ug/kg or parts per billion (ppb). Detected compounds in "bold."

SFC E.L. COPPLE U.S. ARMY RESERVE CENTER  
 CLOSURE SAMPLE RESULTS - 1500 GALLON LUST

Sample Description Sample Depth PID Reading	07-WB 13 FT. 2	08-EB 13 FT. 3	09-WW 7 FT. 2	10-NW 7 FT. 9	11-EW 7 FT. 2	12-SW 7 FT. 2
<b>PARAMETERS</b>						
Benzene	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1
Toluene	8	<1	<1	<1	2	<1
Xylene (Total)	<1	<1	<1	<1	<1	<1
<b>NON-CARCINOGENIC PNAs</b>						
Naphthalene	<660	<660	<660	<660	<660	<660
Acenaphthene	<1200	<1200	<1200	<1200	<1200	<1200
Anthracene	<660	<660	<660	<660	<660	<660
Fluoranthene	<660	<660	<660	<660	<660	<660
Fluorene	<140	<140	<140	<140	<140	<140
Pyrene	<180	<180	<180	<180	<180	<180
<b>OTHER NON-CARCINOGENIC PNAs (TOTAL)</b>						
Acenaphthylene	<660	<660	<660	<660	<660	<660
Benzo(g,h,i)perylene	<51	<51	<51	<51	<51	<51
Phenanthrene	<660	<660	<660	<660	<660	<660
<b>CARCINOGENIC PNAs</b>						
Benzo(a)anthracene	<8.7	<8.7	24.9	<8.7	<8.7	<8.7
Benzo(a)pyrene	<15	<15	20.5	<15	<15	<15
Benzo(b)fluoranthene	<11	<11	30	<11	<11	<11
Benzo(k)fluoranthene	<11	<11	<11	<11	<11	<11
Chrysene	<100	<100	<100	<100	<100	<100
Dibenzo(a,h)anthracene	<20	<20	<20	<20	<20	<20
Indeno(1,2,3-cd)pyrene	<29	<29	<29	<29	<29	<29

\*Sample results reported in ug/kg or parts per billion (ppb). Detected compounds in "bold."



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116707

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/13/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 01-NW  
Sample No.: 09495

	<u>Compound Purgeables</u>	<u>Concentration Found In</u>		<u>Method Detection Limit (MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	0.003	<0.001	0.001
4.	Xylene	0.001	<0.001	0.001
	<b>TOTAL BETX</b>	0.004		

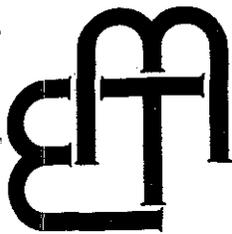
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zehner*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116707-A

Environmental Contractors of IL, Inc.  
5290 Nimtz Road  
Loves Park, IL 61111

Report Date: 2/15/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 01-NW  
Sample No.: 09495

<u>Reportable Compound</u> <u>PNA'S and Naphthalene</u>	<u>Concentration Found IN</u>		<u>ADLS Soil</u> ppb
	<u>Sample</u> ppb	<u>Blank</u> ppb	
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

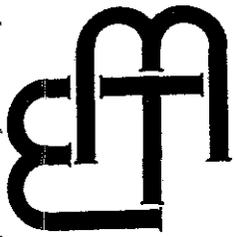
Total Reportable PNA's and Naphthalene

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116804

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 02-EW  
Sample No.: 09496

	<u>Compound Purgeables</u>	<u>Concentration Found In</u>		<u>Method Detection Limit (MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<b>TOTAL BETX</b>	<0.001		

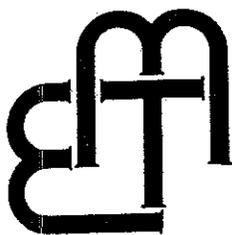
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zuber*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116804-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/21/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 02-EW  
Sample No.: 09496

<u>Reportable Compound</u> <u>PNA'S and Naphthalene</u>	<u>Concentration Found IN</u>		<u>ADLS</u>
	<u>Sample</u> ppb	<u>Blank</u> ppb	<u>Soil</u> ppb
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Naphthalene

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zehner*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116708

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/13/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 03-NB  
Sample No.: 09497

	<u>Compound</u> <u>Purgeables</u>	<u>Concentration</u> <u>Found In</u>		<u>Method</u> <u>Detection Limit</u> <u>(MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<b>TOTAL BETX</b>	<0.001		

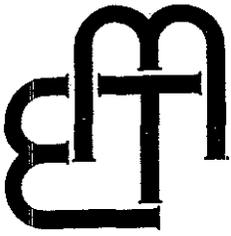
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leslie E. Zehner*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX. 708/967-6735

## LABORATORY REPORT

116708-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 03-NB  
Sample No.: 09497

<u>Reportable Compound</u>	<u>Concentration Found IN</u>		<u>ADLS Soil</u>
	<u>Sample</u>	<u>Blank</u>	
<u>PNA'S and Naphthalene</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Napthalene

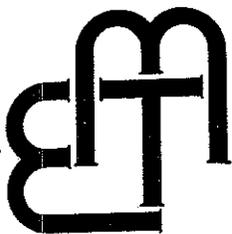
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zuber*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116709

Environmental Contractors of IL, Inc.  
5290 Nimtz Road  
Loves Park, IL 61111

Report Date: 2/13/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 04-SB  
Sample No.: 09498

	<u>Compound</u> <u>Purgeables</u>	<u>Concentration</u> <u>Found In</u>		<u>Method</u> <u>Detection Limit</u> <u>(MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<i>TOTAL BETX</i>	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

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*Leah E. Zuber*

LABORATORY DIRECTOR



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8100 North Austin Avenue  
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## LABORATORY REPORT

116709-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/21/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 04-SB  
Sample No.: 09498

<u>Reportable</u> Compound	<u>Concentration</u> Found IN		<u>ADLS</u> <u>Soil</u> ppb
	<u>Sample</u> ppb	<u>Blank</u> ppb	
<u>PNA'S and Naphthalene</u>			
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Naphthalene

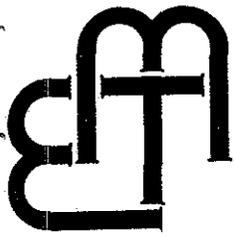
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

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*Leah E. Zuber*

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## LABORATORY REPORT

116805

Environmental Contractors of IL, Inc.  
5290 Nimtz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 05-SW  
Sample No.: 09499

	<u>Compound Purgeables</u>	<u>Concentration Found In Sample Blank</u>		<u>Method Detection Limit (MDL)</u>
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<b>TOTAL BETX</b>	<0.001		

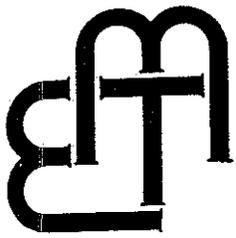
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

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*Leah E. Zehner*

LABORATORY DIRECTOR



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8100 North Austin Avenue  
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## LABORATORY REPORT

116805-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/21/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 05-SW  
Sample No.: 09499

<u>Reportable Compound</u>	<u>Concentration Found IN</u>		<u>ADLS Soil</u>
	<u>Sample</u>	<u>Blank</u>	
<u>PNA'S and Naphthalene</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Naphthalene

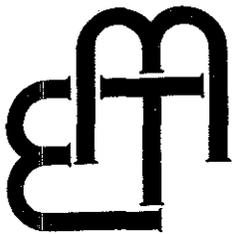
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

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*Leah E. Zehr*

LABORATORY DIRECTOR



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## LABORATORY REPORT

116806

Environmental Contractors of IL, Inc.  
5290 Nimtz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 06-WW  
Sample No.: 09500

	<u>Compound</u> <u>Purgeables</u>	<u>Concentration</u> <u>Found In</u>		<u>Method</u> <u>Detection Limit</u> <u>(MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<i>TOTAL BETX</i>	<0.001		

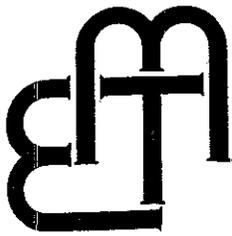
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

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*Leah E. Zelen*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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## LABORATORY REPORT

116806-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 06-WW  
Sample No.: 09500

<u>Reportable Compound</u>	<u>Concentration</u>		<u>ADLS Soil</u>
	<u>Sample</u>	<u>Blank</u>	
<u>PNA'S and Naphthalene</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	21.4	<0.13	8.7
8. Benzo(a)pyrene	19.	<0.23	15
9. Benzo(b)fluoranthene	25.3	<0.18	11
10. Benzo(k)fluoranthene	12.2	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Naphthalene

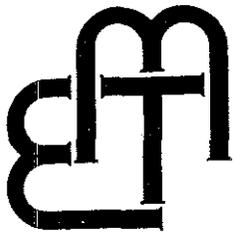
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

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*Leah E. Zehner*

LABORATORY DIRECTOR



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## LABORATORY REPORT

116651

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 07-WB  
Sample No.: 09501

	<u>Compound Purgeables</u>	<u>Concentration Found In</u>		<u>Method Detection Limit (MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	0.008	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<i>TOTAL BETX</i>	0.008		

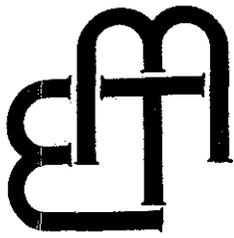
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

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*Leah E. Zuber*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
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## LABORATORY REPORT

116651-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/15/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 07-WB  
Sample No.: 09501

<u>Reportable Compound</u>	<u>Concentration</u>		<u>ADLS Soil</u>
	<u>Found IN</u>	<u>Sample Blank</u>	
<u>PNA'S and Naphthalene</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

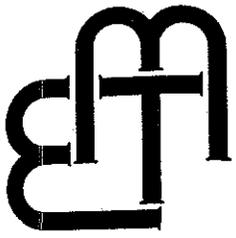
Total Reportable PNA's and Naphthalene

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

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LABORATORY DIRECTOR



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8100 North Austin Avenue  
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## LABORATORY REPORT

116652

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 08-EB  
Sample No.: 09502

	<u>Compound</u> <u>Purgeables</u>	<u>Concentration</u> <u>Found In</u>		<u>Method</u> <u>Detection Limit</u> <u>(MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<i>TOTAL BETX</i>	<0.001		

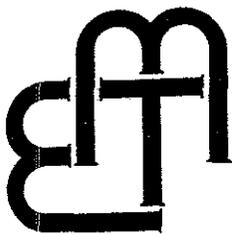
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

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*Leah E. Zelen*

LABORATORY DIRECTOR



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FAX: 708/967-6735

## LABORATORY REPORT

116652-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/15/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 08-EB  
Sample No.: 09502

<u>Reportable Compound</u> <u>PNA'S and Naphthalene</u>	<u>Concentration Found IN</u>		<u>ADLS Soil</u> <u>ppb</u>
	<u>Sample</u> <u>ppb</u>	<u>Blank</u> <u>ppb</u>	
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Naphthalene

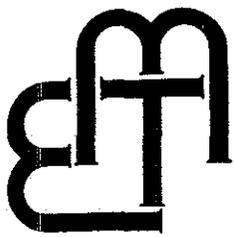
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

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*Leah E. Zuber*

LABORATORY DIRECTOR



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## LABORATORY REPORT

116710

Environmental Contractors of IL, Inc.  
5290 Nimtz Road  
Loves Park, IL 61111

Report Date: 2/13/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 09-WW  
Sample No.: 09503

	<u>Compound</u> <u>Purgeables</u>	<u>Concentration</u> <u>Found In</u>		<u>Method</u> <u>Detection Limit</u> <u>(MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<b>TOTAL BETX</b>	<0.001		

All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

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*Leah E. Zuber*

LABORATORY DIRECTOR

# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116710-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/15/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 09-WW  
Sample No.: 09503

<u>Reportable Compound</u> <u>PNA'S and Naphthalene</u>	<u>Concentration</u> <u>Found IN</u>		<u>ADLS</u> <u>Soil</u> <u>ppb</u>
	<u>Sample</u> <u>ppb</u>	<u>Blank</u> <u>ppb</u>	
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	24.9	<0.13	8.7
8. Benzo(a)pyrene	20.5	<0.23	15
9. Benzo(b)fluoranthene	30	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Napthalene

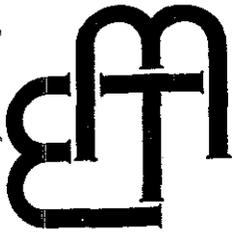
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

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*Leah E. Zehner*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116653

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 10-NW  
Sample No.: 09504

	<u>Compound</u> <u>Purgeables</u>	<u>Concentration</u> <u>Found In</u>		<u>Method</u> <u>Detection Limit</u> <u>(MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<i>TOTAL BETX</i>	<0.001		

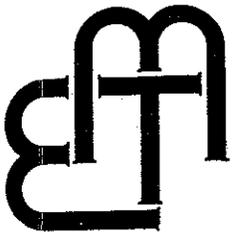
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zuber*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX 708/967-6735

## LABORATORY REPORT

116653-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/15/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 10-NW  
Sample No.: 09504

<u>Reportable Compound</u>	<u>Concentration</u>		<u>ADLS Soil</u>
	<u>Found IN</u>	<u>Blank</u>	
<u>PNA'S and Naphthalene</u>	<u>Sample</u>	<u>ppb</u>	<u>ppb</u>
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Napthalene

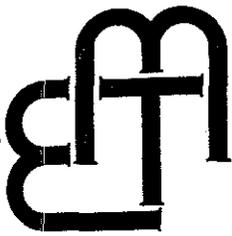
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zehner*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116711-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/21/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 11-EW  
Sample No.: 09505

<u>Reportable Compound</u>	<u>Concentration Found IN</u>		<u>ADLS Soil</u>
	<u>Sample</u>	<u>Blank</u>	
<u>PNA'S and Naphthalene</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Naphthalene

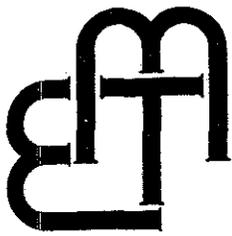
All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zuber*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116711

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/13/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 11-EW  
Sample No.: 09505

	<u>Compound Purgeables</u>	<u>Concentration Found In</u>		<u>Method Detection Limit (MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	0.002	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<i>TOTAL BETX</i>	0.002		

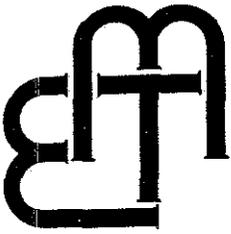
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zuber*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116654

Environmental Contractors of IL, Inc.  
5290 Nimtz Road  
Loves Park, IL 61111

Report Date: 2/14/95  
Sample Received: 2/9/95

Project Name: Cople USARC - Centralia  
Sample Description: Soil, 12-SW  
Sample No.: 09506

	<u>Compound</u> <u>Purgeables</u>	<u>Concentration</u> <u>Found In</u>		<u>Method</u> <u>Detection Limit</u> <u>(MDL)</u>
		<u>Sample</u>	<u>Blank</u>	
1.	Benzene	<0.001	<0.001	0.001
2.	Ethylbenzene	<0.001	<0.001	0.001
3.	Toluene	<0.001	<0.001	0.001
4.	Xylene	<0.001	<0.001	0.001
	<i>TOTAL BETX</i>	<0.001		

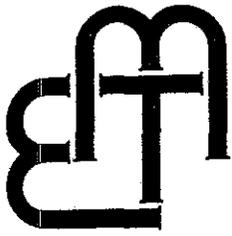
All results expressed as ppm unless otherwise indicated.

Analyses performed using EPA methods 5030 & 8240, in accordance with SW-846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zehner*

LABORATORY DIRECTOR



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203  
708/967-6666  
FAX: 708/967-6735

## LABORATORY REPORT

116654-A

Environmental Contractors of IL, Inc.  
5290 Nimitz Road  
Loves Park, IL 61111

Report Date: 2/15/95  
Sample Received: 2/9/95

Project Name: Copple USARC - Centralia  
Sample Description: Soil, 12-SW  
Sample No.: 09506

<u>Reportable Compound</u>	<u>Concentration Found IN</u>		<u>ADLS Soil</u>
	<u>Sample</u>	<u>Blank</u>	
<u>PNA'S and Naphthalene</u>	<u>ppb</u>	<u>ppb</u>	<u>ppb</u>
1. Naphthalene	<660	<0.5	660
2. Acenaphthene	<1200	<0.5	1200
3. Anthracene	<660	<0.5	660
4. Fluoranthene	<660	<0.5	660
5. Fluorene	<140	<0.2	140
6. Pyrene	<180	<0.4	180
Carcinogenic PNAs (Total)			
7. Benzo(a)anthracene	<8.7	<0.13	8.7
8. Benzo(a)pyrene	<15	<0.23	15
9. Benzo(b)fluoranthene	<11	<0.18	11
10. Benzo(k)fluoranthene	<11	<0.17	11
11. Chrysene	<100	<0.2	100
12. Dibenzo(a,h)anthracene	<20	<0.3	20
13. Indeno(1,2,3,-c,d)pyrene	<29	<0.43	29
Non-Carcinogenic PNAs (Total)			
14. Acenaphthylene	<660	<0.3	660
15. Benzo(g,h,i)perylene	<51	<0.76	51
16. Phenanthrene	<660	<0.2	660

Total Reportable PNA's and Napthalene

All results expressed as ppb unless otherwise indicated.

Analyses performed using EPA method 8270 in accordance with SW 846, Third Edition.

The contents of this report apply only to the sample analyzed. No duplication of this report is allowed except in its entirety.

*Leah E. Zehr*

LABORATORY DIRECTOR



**EMT INCORPORATED**  
**MONITORING AND TECHNOLOGIES, INC.**

8100 North Austin Avenue  
 Morton Grove, Illinois 60053-3203

708-967-6666  
 FAX: 708/967-6735

**Chain of Custody Record**

Due Date: 2-16-95 COC #: 20219

Company: Environmental Contractors of Illinois, Inc.

Address: 5990 Nineteenth Road  
Locke Park, IL 61111

Phone #: 615-654-4726 Fax #: 615-654-4736

P.O. #: 536

Client Contact: Matt Warneke

Project ID / Location: COPEL WARC - CENTRALIA

**Analyses**

**Sample Type: Container Type:**

- 1. Water P - Plastic
- 2. Soil G - Glass
- 3. Sludge V - VOC
- 4. Oil
- 5. Waste

**Other:**

- 1. None
- 2. H2SO4
- 3. HNO3
- 4. NaOH

**Comments**

Sample I.D. (10 Characters ONLY)	Sample Type	Container		Sampling		Preservative	Lab I.D.	Comments
		Size	Type	Date	Time			
01-NW	2	4oz.	G	2/7/95	15:30	1	9495	116707
02-EW					1535		94910	116804
03-NB					1540		9497	116708
04-SB					1545		9498	116709
05-SW					1550		9499	116805
06-WW					1555		9500	116806
07-WB				2/8/95	1400		9501	116651
08-EB					1405		9502	116652
09-WW					1410		9503	116710
10-NW					1415		9504	116653
11-EW					1420		9505	116711
12-SW					1425		9506	116654

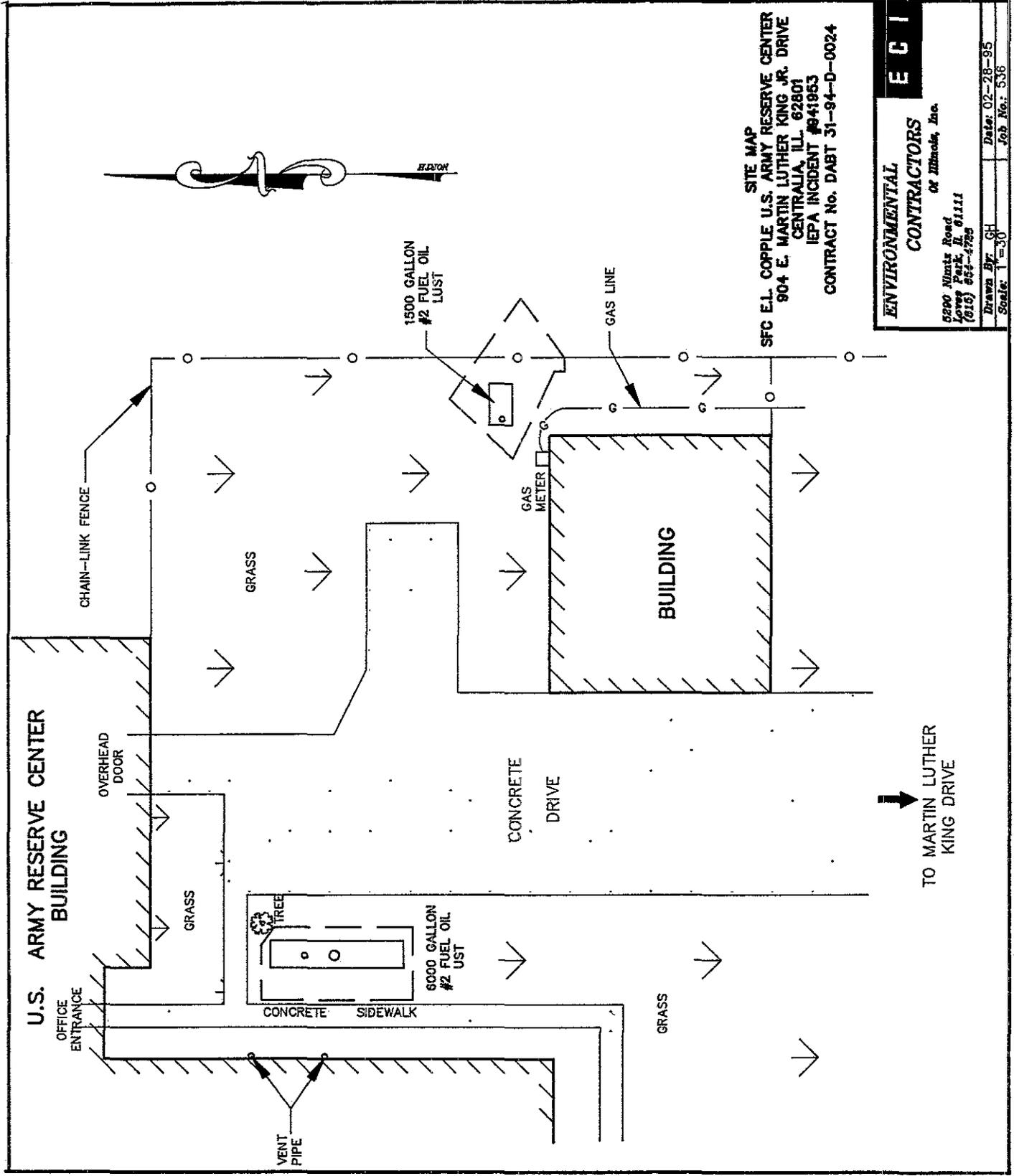
RETX PMS (TL LUST)

**EMT does not accept samples that contain high levels of Cyanide.**

Relinquished By: <u>Matthew Warneke</u>	Date: <u>2-9-95</u>	Received By: <u>Matthew Warneke</u>	Date: <u>2-9-95</u>	Witness:
Relinquished By:	Time: <u>1:36</u>	Received, For Lab By:	Time: <u>1:30</u>	
	Date: -- --		Date: <u>2-9-</u>	
	Time:		Time:	
<input type="checkbox"/> RUSH <input checked="" type="checkbox"/> ROUTINE				TURNAROUND TIME: ___ day turnaround

**SPECIAL INSTRUCTIONS:**

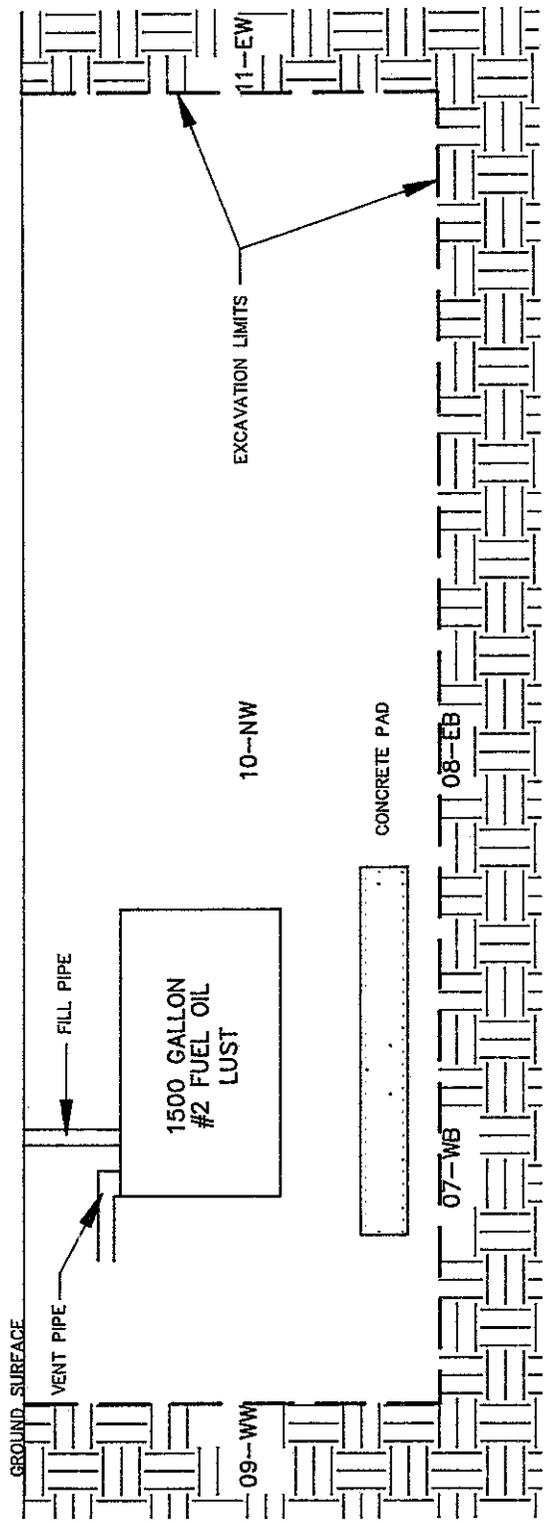
**D.f. SITE MAP**



**SITE MAP**  
 SFC E.L. COPPLE U.S. ARMY RESERVE CENTER  
 904 E. MARTIN LUTHER KING JR. DRIVE  
 CENTRALIA, ILL. 62801  
 IEPA INCIDENT #241953  
 CONTRACT NO. DABT 31-94-D-0024

<b>ENVIRONMENTAL CONTRACTORS</b>	
<i>Of Illinois, Inc.</i>	
5290 Nimick Road Loves Park, IL 61111 (618) 652-4789	
Drawn By: GH	Date: 02-28-95
Scale: 1"=30'	Job No.: 536

**D.g. CROSS SECTION DRAWINGS**

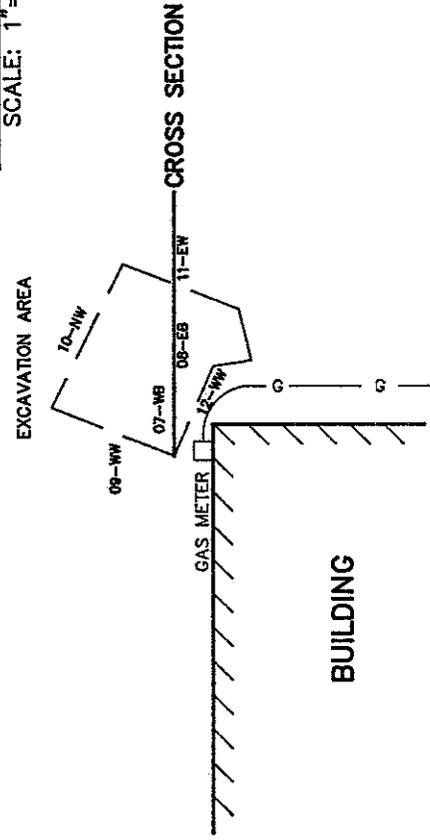


CROSS SECTION FACING NORTH

SCALE: 1"=6'

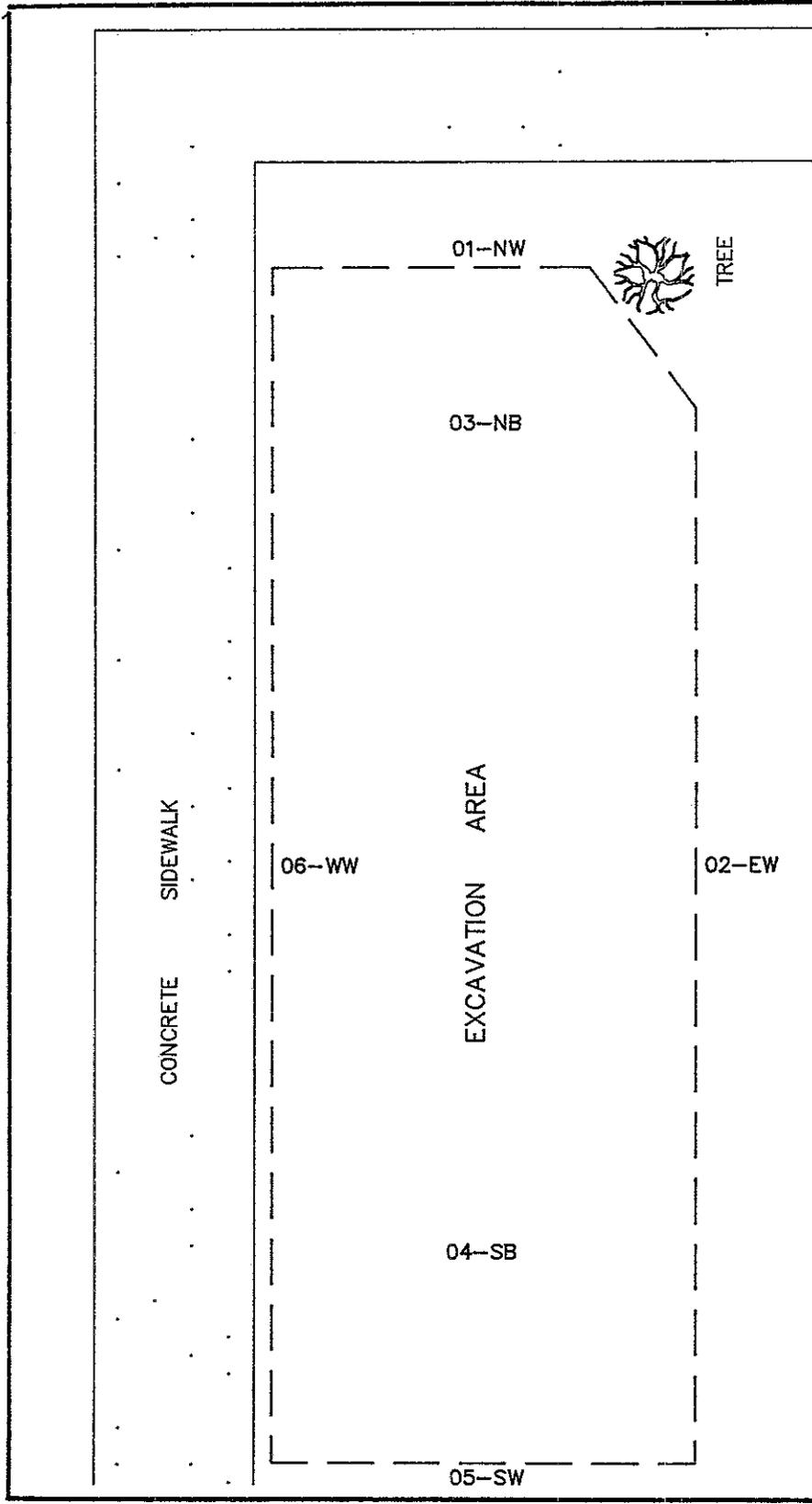
OVERVIEW

SCALE: 1"=30'



SOIL SAMPLE LOCATIONS  
 SFC E.L. COPPLE U. S. ARMY RESERVE CENTER  
 904 E. MARTIN LUTHER KING JR. DRIVE  
 CENTRALIA, ILL. 62801  
 CONTRACT No. DABT 31-94-D-0024

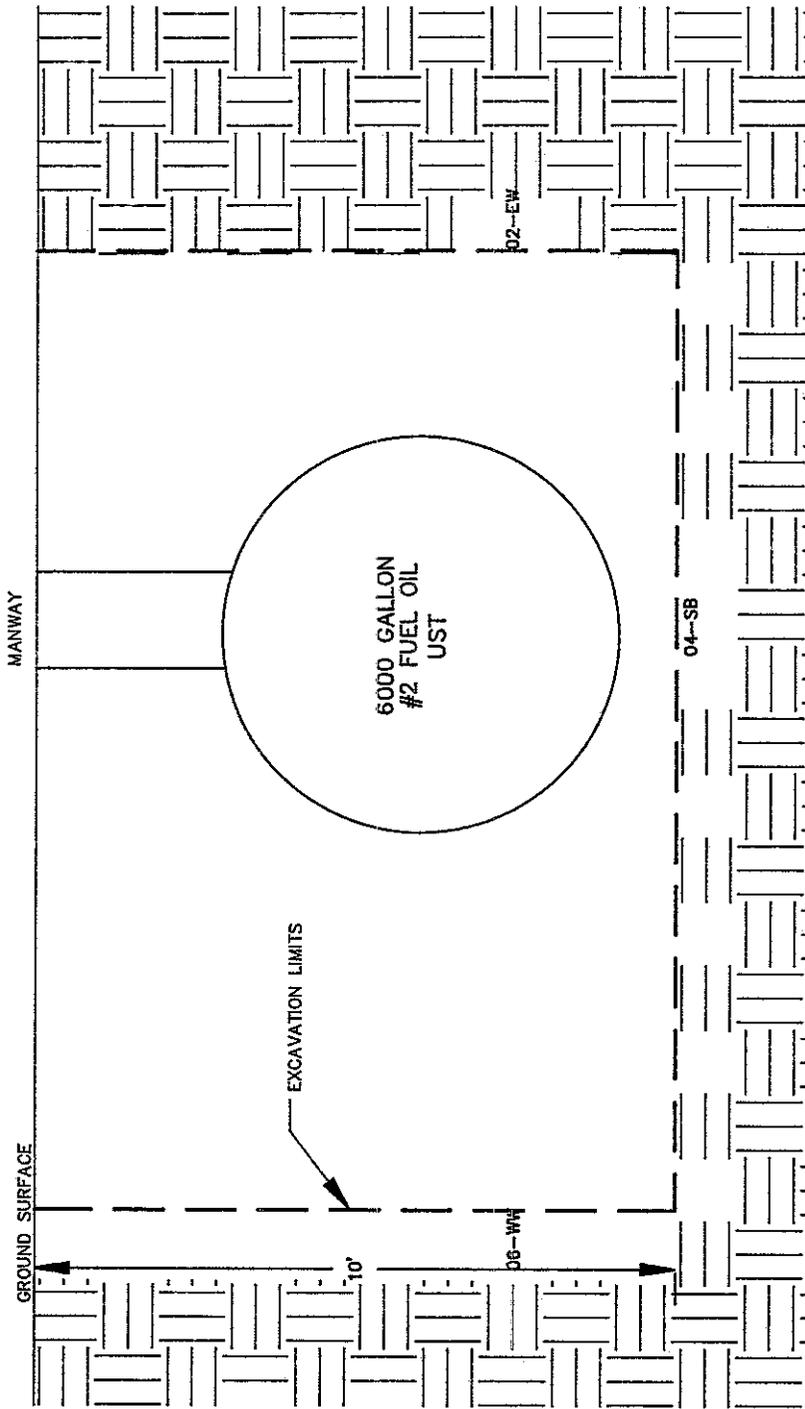
<b>ENVIRONMENTAL CONTRACTORS</b>	
<i>of Illinois, Inc.</i>	
6200 Nimitz Road Loves Park, IL 61111 (815) 654-4726	
Drawn By: GH	Date: 03-02-95
Scale: SEE ABOVE	Job No.: 556



SOIL SAMPLE LOCATIONS  
 SFC E.L. COPPLE U. S. ARMY RESERVE CENTER  
 904 E. MARTIN LUTHER KING JR. DRIVE  
 CENTRALIA, ILL. 62801  
 CONTRACT No. DABT 31-94-D-0024



<b>ENVIRONMENTAL CONTRACTORS</b>	
<i>Of Illinois, Inc.</i>	
5890 Nimitz Road Joplin Park, Ill. 61111 (312) 854-4726	
Drawn By: GH	Date: 02-28-95
Scale: 1" = 5'	Job No.: 536



CROSS SECTION FACING NORTH  
 SFC E.L. COPPLE U. S. ARMY RESERVE CENTER  
 904 E. MARTIN LUTHER KING JR. DRIVE  
 CENTRALIA, ILL. 62801  
 CONTRACT No. DABT 31-94-D-0024

**E C I**

**ENVIRONMENTAL CONTRACTORS**  
 of Illinois, Inc.

6390 Nimitz Road  
 Loves Park, IL 61111  
 (815) 664-4726

Drawn By: GH  
 Date: 03-01-95  
 Scale: 1" = 3'  
 Job No.: 536

**D.i. PHOTOGRAPHS**



**PHOTO #1.** Date: February 7, 1995. Photo taken facing northeast.  
Description: U.S. Army Reserve Center, Centralia, Illinois.



**PHOTO #2.** Date: February 7, 1995. Photo taken facing north.  
Description: Entrance to USARC Centralia Facility off of East Martin Luther King Jr. Drive.



**PHOTO #3.** Date: February 7, 1995. Photo taken facing east.  
Description: TICS van inerting the 1,500 gallon #2 fuel oil UST.



**PHOTO #4.** Date: February 7, 1995. Photo taken facing southwest.  
Description: TICS personnel inerting 1,500 gallon UST with carbon dioxide.



**PHOTO #5.** Date: February 7, 1995. Photo taken facing southwest.  
Description: Exposed 1,500 gallon UST.



**PHOTO #6.** Date: February 7, 1995. Photo taken facing northwest.  
Description: Removal of 1,500 gallon UST from excavation.

**PHOTO #7.**

Date: February 7, 1995

Photo taken facing northwest.

Description: Excavation bottom following the UST removal. Note the stained soil on the bottom of the excavation beneath the former UST system.



**PHOTO #8.**

Date: February 7, 1995.

Photo taken facing east.

Description: Excavation area following the removal of the UST. Note the visible contaminated soil on the east end of the excavation.



**PHOTO #9.** Date: February 7, 1995. Photo taken facing southeast.  
Description: Inerting the 6,000 gallon #2 fuel oil UST with carbon dioxide.



**PHOTO #10.** Date: February 7, 1995. Photo taken facing northwest.  
Description: Loading contaminated soil onto Banker Truck Service licensed special waste hauler trucks.



**PHOTO #11.** Date: February 7, 1995.

Photograph taken facing east.

Description: Excavating contaminated soil from the 1,500 gallon UST excavation area.



**PHOTO #12.**

Date: February 7, 1995.

Photo taken facing north.

Description: Exposing  
the 6,000 gallon fuel  
oil UST.



**PHOTO #13.** Date: February 7, 1995. Photo taken facing west.  
Description: Removal of 7 foot x 7 foot concrete pad over 6,000 gallon UST.



**PHOTO #14.** Date: February 7, 1995. Photo taken facing north.  
Description: Exposing the 6,000 gallon UST.



**PHOTO #15.** Date: February 7, 1995. Photo taken facing south.  
Description: Preparing to remove the 6,000 gallon UST.



**PHOTO #16.** Date: February 7, 1995. Photo taken facing southwest.  
Description: The 6,000 gallon UST partially removed.



**PHOTO #17.** Date: February 7, 1995. Photo taken facing southeast.  
Description: Removal of the 6,000 gallon UST.



**PHOTO #18.** Date: February 7, 1995. Photo taken facing north.  
Description: The 6,000 gallon UST excavation area following removal. Note the water (suspected to be either groundwater or perched surface water) in the excavation.



**PHOTO #19.** Date: February 7, 1995. Photo taken facing north.  
Description: 6,000 gallon UST excavation area.



**PHOTO #20.** Date: February 7, 1995. Photo taken facing west.  
Description: TICS personnel conducting tank cleaning operations (removing sludge and wastewaters from tank).



**PHOTO #21.** Date: February 8, 1995. Photo taken facing east.  
Description: Excavation of contaminated soil toward the east.  
Note the chain link fence which had to be removed.



**PHOTO #22.** Date: February 7, 1995. Photo taken facing west.  
Description: Loading contaminated soil from the 1,500 gallon UST excavation.



**PHOTO #23.** Date: February 8, 1995. Photo taken facing east.  
Description: Breaking up and removing the contaminated concrete pad from the excavation.



**PHOTO #24.** Date: February 8, 1995. Photo taken facing east.  
Description: Collecting soil samples from the excavaton for field screening.



**PHOTO #25.** Date: February 8, 1995. Photo taken facing south.  
Description: Southern wall of excavation following soil removal.  
Note the small pool of water at the bottom and the gasoline along the building.



**PHOTO #26.** Date: February 8, 1995. Photo taken facing east.  
Description: 1,500 gallon UST excavation backfilled and fence temporarily replaced.



**PHOTO #27.** Date: February 8, 1995. Photo taken facing northwest.  
Description: 6,000 gallon UST excavation backfilled and secured with temporary fence.



State of Illinois  
ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6760

November 16, 1994

86th Army Reserve Command  
Attn: William J. Hawes  
7402 West Roosevelt Road  
Forest Park, Illinois 60130-2587

Re: LPC #1214225084 -- Marion County  
Centralia/86th U.S. Army Reserve  
904 East Martin Luther King Drive  
LUST Incident #941953  
LUST/Technical Report File

94 NOV 21 AM 11:31  
86TH U.S. ARMY  
ENGINEERING

Dear Mr. Hawes:

The Agency has not received the 45 Day Report required to be submitted in accordance with 35 Ill. Adm. Code 732.202(e). Please submit the 45 Day Report, in duplicate, to the Agency immediately.

In addition, Section 57 of the Illinois Environmental Protection Act requires the submittal of a physical soil classification and groundwater investigation plan. Pursuant to 35 Ill Adm. Code 732, the Agency is requiring the submittal of this plan (and budget, if applicable) within 30 days of the date of this letter.

Should you have any questions, please contact Valerie Davis at the above number.

Sincerely,

*Clifford L. Wheeler*

Clifford L. Wheeler, Manager  
Southern Unit  
Leaking Underground Storage Tank Section  
Division of Remediation Management

CLW:VD:jab/1492w/3

# *The Centralia Foundation*

---

A Community Benevolent Trust  
Centralia, Illinois 62801

November 8, 1994

USAEC & FLW  
Attention: ATZT-DPW-EE (Anderson)  
Fort Leonard Wood, MO 65473-5000

Gentlemen:

You have The Centralia Foundation's approval to remediate the contamination located on Foundation property known as Finger Park.

Sincerely,

  
Wendell D. Lamblin, Chairman  
Board of Trustees

WDL:pg



# DEPARTMENT OF THE ARMY

UNITED STATES ARMY ENGINEER SCHOOL  
FORT LEONARD WOOD, MISSOURI 65473-6800



REPLY TO  
ATTENTION OF

October 21, 1994

Environmental Office

Mr. Wendell Lamblin  
Chairman, Centralia Foundation  
235 North Elm  
Centralia, IL 62801

Dear Mr. Lamblin:

The Government owns a Army Reserve Center located at 904 East M.L. King Jr. Drive in Centralia, IL. The Centralia Foundation owns property adjacent to this Reserve Center. The Government has discovered that a fuel oil underground storage tank on Reserve Center property has leaked and contamination has migrated onto Foundation property known as Finger Park. A drawing showing approximate locations is enclosed. The extent of contamination is approximately 25 to 30 feet beyond the Reserve Center boundary.

The Government has contracted to remove the leaking underground tank and remediate contamination.

The Government requests permission to remediate the contamination located on Foundation property. Please respond with your reply, as soon as possible, to the following address:

USAEC & FLW  
ATTN: ATZT-DPW-EE (Anderson)  
Fort Leonard Wood, MO 65473-5000

For further information contact Tina Anderson, (314) 596-0956.

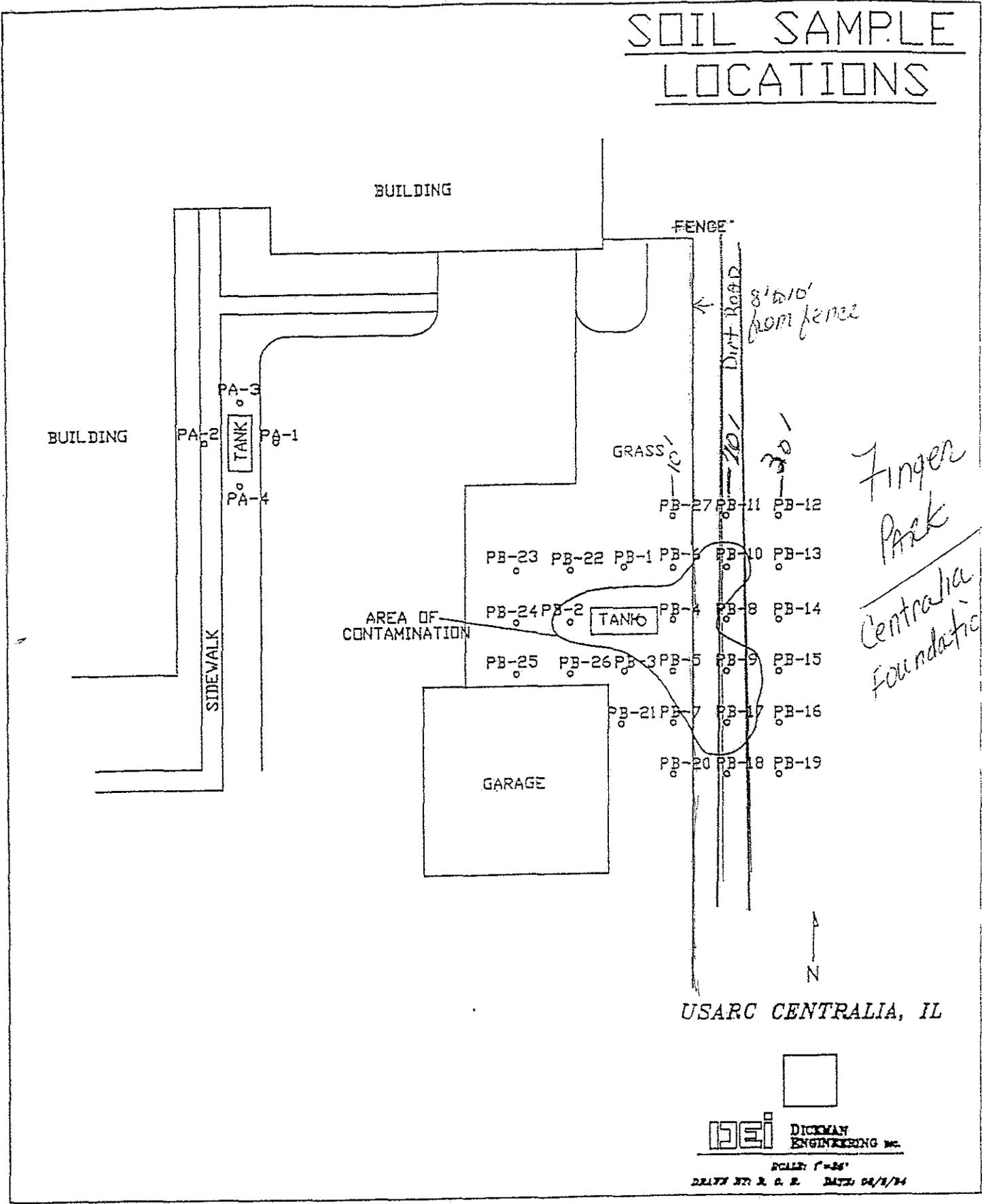
Encl

*Scott Murrell*  
Scott Murrell  
Chief, Environmental Div  
Directorate of Public Works



Center for Excellence.

# SOIL SAMPLE LOCATIONS



USARC CENTRALIA, IL

**DEI** DICKMAN ENGINEERING INC.

SCALE: 1"=20'

DRAWN BY: R. G. R. DATE: 04/1/74

ENCL

Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
20 Day Certification

A. SITE IDENTIFICATION

IEPA Generator Number (10 Digit): 1214225064  
(leave blank if unknown)

IEMA #: 94-1953

Site Name: U.S. Army Reserve Center

Site Address (Not a P.O. Box): 901 E. Martin Luther King Jr Blvd Dr.

City: Centralia IL 62801

County: Marion

B. CERTIFICATION

In accordance with Title 35 Subtitle G, Part 731.162 the following certification is made:

1. I am/we are the owner and operator of the underground storage tank system(s) from which a release was reported under the IEMA incident correctly identified above;
2. That as much of the regulated substance as necessary to prevent further release to the environment, has been removed;
3. That there has been a visual inspection of any aboveground releases or exposed below ground releases;
4. That further migration of the released substance into surrounding soils and groundwater has been prevented;
5. That monitoring and mitigation of any fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into substance structures (such as sewers or basements) will continue;
6. That hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement or corrective action activities will be remediated;
7. That if the treatment remedies include treatment or disposal of soils, the owner/operator will comply with 35 Illinois Administrative Code, Subtitle G and other applicable rules and regulations;
8. That measurement for the presence of a release was where contamination is most likely to be present at the UST site;
9. That in selecting sample types, sample locations and measurement methods, the nature of the stored substance, the type of backfill, depth to groundwater and other factors as appropriate for identifying the presence and source of the release has (or will be) considered;
10. That the appropriate procedures will be used to investigate and determine the possible presence of free-product, and begin free-product removal as soon as possible, if applicable, in accordance with Section 731.164;
11. That a summary of the above activities will be provided within 45 days of the confirmation of a release.

NOTE: At least one copy must contain all original signatures.

C. SIGNATURES

OWNER

name: LTC William J. Hawes  
title: 86th USARCOM Deputy Chief of Staff, Engineer  
signature: [Signature]  
date: 10 SEPT 94

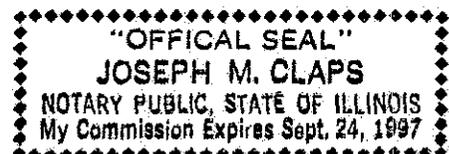
and OPERATOR (if different from Owner)

name: \_\_\_\_\_  
title: \_\_\_\_\_  
signature: \_\_\_\_\_  
date: \_\_\_\_\_

NOTARY PUBLIC

name: [Signature]  
date: 10 Sept 94  
My commission expires 9/29, 1997

Seal:



The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.



**DEPARTMENT OF THE ARMY**  
HEADQUARTERS, 86TH U.S. ARMY RESERVE COMMAND  
7402 WEST ROOSEVELT ROAD  
FOREST PARK, ILLINOIS 80130-2587

September 9, 1994

Illinois Environmental Protection Agency  
Leaking Underground Storage Tank Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, IL 62794-9276

Dear Sir:

The purpose of this letter is to inform you of our intent to proceed with projects to remove underground storage tanks at U.S. Army Reserve Centers in Centralia and Waukegan, Illinois.

We suspect a release of petroleum (heating oil) from one tank at each of these locations, based on exploratory soil sampling done prior to executing a contract for removal. The releases were reported to the ILEMA on August 26 and assigned incident numbers 94-1953 (Centralia) and 94-1954 (Waukegan).

Enclosed are the 20-day reports required for these incidents. The 86th USARCOM support installation, Fort Leonard Wood, MO, is currently working to award a contract to remove these USTs. Although it is our intent to award this contract as soon as possible, it is not expected that removal will be accomplished soon enough to allow for a timely submission of 45-day reports.

It is our intent to remove these tanks in accordance with the objectives set forth for leaking underground storage tanks. Upon removal, 45 day reports for both locations will be submitted to your office.

Please direct any questions regarding these projects to Louise Orders, at (708) 209-2597.

Sincerely;

A handwritten signature in black ink, appearing to read "Will J.", is written over a horizontal line.

William J. Hawes  
Deputy Chief of Staff, Engineer

MEMORANDUM FOR RECORD

22 November 1994

SUBJ: Centralia UST

1. I spoke with Ms Davis regarding the contamination and advised her that it was discovered as a result of our assessment plan and not, as assumed by the regulations, during tank removal or investigation of a known leak. Further, I told her that a 45 day report prior to tank removal would yield no useful information, and that we would submit a report upon removal. (I resisted the temptation to tell her that we had previously said the same thing in our letter of Sept 9, which accompanied the incident report.)
2. Ms Davis requested that we submit a letter outlining our intentions. Also, she said that since we were fully remediating the site, not at state expense, the soil classification and groundwater investigations were not needed.



David M. Jennings  
Environmental Manager

# **SITE ASSESSMENT**

*FOR*

**SFC E. L. Copple US Army Reserve Center  
904 E. M. L. King Jr. Drive  
Centralia, Illinois 62801**

*PREPARED BY:*

**DICKMAN ENGINEERING, INC.  
8460 WATSON ROAD, SUITE 108  
ST. LOUIS, MO 63119**

(314) 842-0032

**DEI** **DICKMAN**  
**ENGINEERING INC.**

*Engineering and Enviromental Services*

August 9, 1994

USAEC & FLW  
ATTN: ATZT-DPW-EE (Ms. Anderson)  
Building 2101  
Fort Leonard Wood, Missouri 65473-5000

Dear Ms. Anderson,

On August 4 and 5, 1994, Dickman Engineering performed a site assessment at the SFC E. L. Copple US Army Reserve Center, 904 E. M. L. King Jr. Drive, Centralia, Illinois 62801

Each soil sample location was numbered and shown on a SOIL SAMPLE LOCATION MAP, Appendix A. The results of the tests are located in Appendix B

Respectfully,

DICKMAN ENGINEERING, INC.



John Dickman, P.E.  
President

## SUMMARY OF WORK PERFORMED

### Layout

Underground utilities and other obstructions were located and/or identified.

An initial sampling grid was established around each tank at ten foot intervals from the centerline of the tank on all four sides as specified.

### Soil Sample Retrieval Method

Four soil samples were retrieved at a depth approximately 2 feet below the bottom of each tank. A precleaned 1 inch ID by 2 feet long geoprobe type sampler using a disposable liner was used to obtain the samples. The sampler was advanced to the desired depth by a hydraulic cylinder, stop pin on the retractable drive point was removed, and sampler was then advanced an additional two feet to collect soil. Sampler and sample are then pulled to the surface. Probe holes were pressure grouted with bentonite after TPH analysis was completed.

### Sampling Handling and Analysis

After soil sample was removed from sampler, the Total Petroleum Hydrocarbons were determined using EPA SW-846 Test Method 418.1. The results were recorded and are in Appendix B.

### Instrumentation

Buck Scientific, Inc. Analyzer  
Model HC-404

### Calibration Procedure

The Buck Scientific, Inc. Analyzer was calibrated according to the Manual for the HC-404 Analyzer and by the recommendations of Dr. DeMenna, Research Scientist for Buck Scientific, Inc. Calibration standards were supplied by the manufacturer.

### Conclusions

#### Tank A

Sampling and analysis indicate that the TPH in the four samples retrieved at in the area of the tank A at this site are below 200 ppm in all cases. Additional sampling and analysis was not performed. Volume of soil with TPH contamination in excess of 200 ppm is estimated to be at or near zero cubic yards for Tank A.

## Tank B

Sampling and analysis indicate that TPH in two of the Four samples retrieved in the area of tank B was above 200 ppm. The grid was expanded in 10 ft intervals until the full extent of the plume was defined.

Volume of soil above the 200 ppm contamination in the area of Tank B is estimated to be 424 cubic yards.

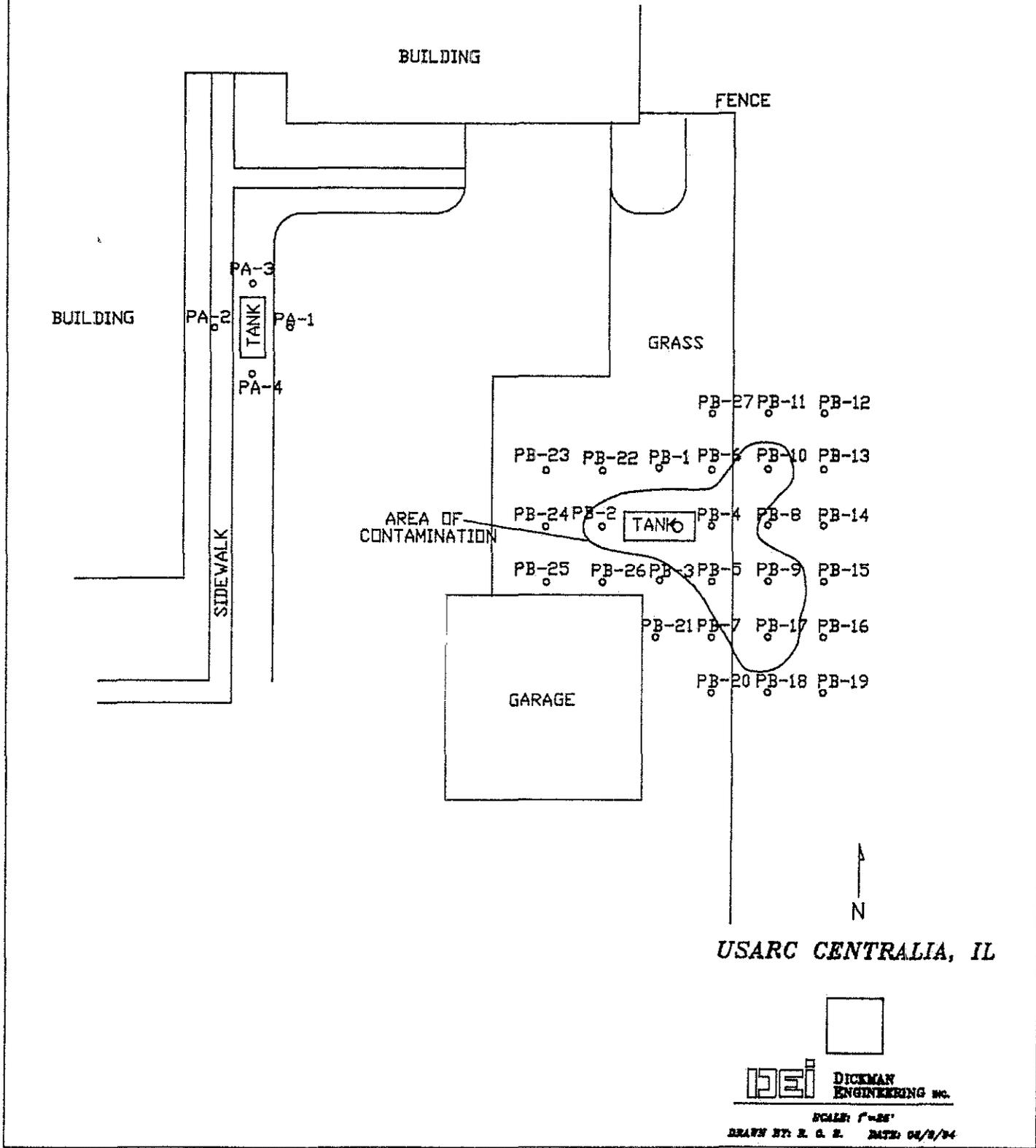
. See Appendix A, Drawings and Appendix B, Sample results.

### CALCULATIONS OF CONTAMINATION VOLUME

The volume of the contamination was determined by computer analysis after drawing plume using Autocad and was checked manually using the Average-End-Area Method with intervals of 10 ft to match the specified grid system

Appendix A  
DRAWINGS

# SOIL SAMPLE LOCATIONS



USARC CENTRALIA, IL

  
**DICKMAN  
ENGINEERING INC.**

SCALE: 1"=50'  
DRAWN BY: R. G. Z. DATE: 04/18/94

## SFC-E.L. COPPLE USARC, CENTRALIA, IL

Results of EPA Method 418 1 analysis on soil				
Test Date	Location	Soil Type/Description	Depth-Ft	TPH(ppm)
8/4/94	PA-1	SANDY CLAY	11	60
8/4/94	PA-2	SANDY CLAY	11	70
8/4/94	PA-3	SANDY CLAY	11	86
8/4/94	PA-4	SANDY CLAY	11	83
8/4/94	PB-1	SANDY CLAY	5	117
8/4/94	PB-1	SANDY CLAY	10	113
8/4/94	PB-1	SANDY CLAY	15	157
8/4/94	PB-1	SANDY CLAY	20	94
8/4/94	PB-2	SANDY CLAY	5	170
8/4/94	PB-2	SAND	10	213
8/4/94	PB-2	SANDY CLAY	15	245
8/4/94	PB-2	SANDY CLAY	20	160
8/4/94	PB-3	SANDY CLAY	5	73
8/4/94	PB-3	SANDY CLAY	10	53
8/4/94	PB-3	SANDY CLAY	15	169
8/4/94	PB-3	SANDY CLAY	20	103
8/4/94	PB-4	SANDY CLAY	5	169
8/4/94	PB-4	SAND	10	659
8/4/94	PB-4	SANDY CLAY	15	233
8/4/94	PB-4	SANDY CLAY	20	180
8/4/94	PB-5	SANDY CLAY	5	173
8/4/94	PB-5	SAND	10	163
8/4/94	PB-5	SANDY CLAY	15	73
8/4/94	PB-5	SANDY CLAY	20	279
8/4/94	PB-6	SANDY CLAY	5	137
8/4/94	PB-6	SANDY CLAY	10	93
8/4/94	PB-6	SANDY CLAY	15	183
8/4/94	PB-6	SANDY CLAY	20	94
8/4/94	PB-7	SANDY CLAY	5	86
8/4/94	PB-7	SANDY CLAY	10	83
8/4/94	PB-7	SANDY CLAY	15	157
8/4/94	PB-7	SANDY CLAY	20	120
8/4/94	PB-8	SANDY CLAY	5	143
8/4/94	PB-8	SANDY CLAY	10	140
8/4/94	PB-8	SANDY CLAY	15	150
8/4/94	PB-8	SANDY CLAY	20	167
8/4/94	PB-9	SANDY CLAY	5	120
8/4/94	PB-9	SAND	10	1079
8/4/94	PB-9	SANDY CLAY	15	360
8/4/94	PB-9	SANDY CLAY	20	93
8/4/94	PB-10	SANDY CLAY	5	250
8/4/94	PB-10	SAND	10	243
8/4/94	PB-10	SANDY CLAY	15	60
8/4/94	PB-10	SANDY CLAY	20	90
8/4/94	PB-11	SANDY CLAY	5	93
8/4/94	PB-11	SANDY CLAY	10	43



State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

CERTIFIED MAIL

2422917800

**JUN 29 1995**

86th Army Reserve Command  
Attn: Louise Orders  
7402 West Roosevelt Rd.  
Forest Park, Illinois 60130-2587

Re: LPC #1214225084 -- Marion County  
Centralia/86th Army Reserve Command  
904 East Martin Luther King Dr.  
LUST Incident No. 941953  
LUST TECHNICAL FILE

Dear Owner/Operator:

The Illinois Environmental Protection Agency has received the 45 Day and Corrective Action Corrective Report (report) submitted for the above referenced incident.

In accordance with 35 Illinois Administrative Code Section 732.503(g)(2), the Agency is notifying you that the report dated June 22, 1995 and received June 28, 1995 has been selected for a full review. Additional correspondence regarding the report submitted will be issued, if necessary, within 120 days of the date the report was received.

The Agency's decision to select a report or plan does not preclude an owner or operator from continuing Site Classification and/or Corrective Action in accordance with 35 Illinois Administrative Code Part 732 at the above referenced site prior to receiving additional correspondence from the Agency pursuant to Section 57.7(e)(1) of the Illinois Environmental Protection Act. A selection notification is only intended to inform an owner or operator that a particular document has or has not been selected for a full review.

Please note this letter does not constitute approval of the above referenced report.

Should you have any questions, please contact the project manager on-call in the Leaking Underground Storage Tank Section at the above number.

Sincerely,

Douglas W. Clay, P.E., Manager  
Leaking Underground Storage Tank Section  
Division of Remediation Management  
Bureau of Land

DWC:GP:rmi/512x/91



State of Illinois  
**ENVIRONMENTAL PROTECTION AGENCY**

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

**JUL 27 1995**

Dept. of the Army  
Attn: Scott Murrell  
U.S. Army Engineer School  
Fort Leonard Wood, MO 65473-6600

Re: LPC #1214225084 -- Marion County  
Centralia/86th U.S. Army Reserve Command  
904 E. Martin Luther King Drive  
LUST Incident No. 941953  
LUST Technical File

Dear Mr. Murrell:

The Illinois Environmental Protection Agency has reviewed the P.E. Certification which has been submitted for the above referenced LUST incident. This information was dated July 11, 1995, was received by the Agency July 17, 1995, and was prepared by Environmental Contractors of Illinois, Inc.

The Corrective Action Completion Report and the Professional Engineer Certification submitted pursuant to 35 IAC Section 732.300(b)(1) and Section 732.409(b) have demonstrated that the remediation objectives set forth in 35 IAC Section 732.408 have been met.

Based upon (a) the certification by Chuck Howard, a registered Professional Engineer of Illinois, it appears that all corrective action requirements of Title XVI of the Act and 35 Illinois Administrative Code Part 732 for the release of petroleum from the underground storage tank(s) have been satisfied.

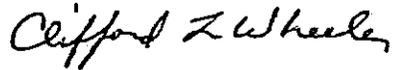
For purposes of appeal, this constitutes the Agency's final decision regarding the above matters. Please see Appendix 1 for an owner or operator's appeal rights.

Please note, this plan or report has been reviewed and approved for purposes of Title XVI only, the activities approved may not be sufficient to satisfy USEPA's requirements under 40 CFR: 280.

Page 2

If you have any questions or require further assistance, please contact Valerie Davis of my staff at 217/782-6761.

Sincerely,



Clifford L. Wheeler, Manager  
Southern Unit  
Leaking Underground Storage Tank Section  
Division of Remediation Management

CLW:VD:dks/597x, 1-2

Appendices: 1

cc: ECI, Inc.

Appendix 1

An underground storage tank owner or operator may appeal this final decision to the Illinois Pollution Control Board (Board) pursuant to Section 57.8(1) and Section 40 of the Illinois Environmental Protection Act. An owner or operator who seeks to appeal the Agency's decision may, within 35 days after the notification of the final Agency decision, petition for a hearing before the Board; however, the 35-day period may be extended for a period of time not to exceed 90 days by written notice provided to the Board from the applicant and the Agency within the 35-day initial appeal period.

For information regarding the filing of an appeal, please contact:

Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
State of Illinois Center  
100 West Randolph, Suite 11-500  
Chicago, Illinois 60601  
312/814-3620

For information regarding the filing of an extension, please contact:

Illinois Environmental Protection Agency  
Division of Legal Counsel  
2200 Churchill Road  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544



State of Illinois  
**ENVIRONMENTAL PROTECTION AGENCY**

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

CERTIFIED MAIL  
 2422917800

**JUN 29 1995**

86th Army Reserve Command  
 Attn: Louise Orders  
 7402 West Roosevelt Rd.  
 Forest Park, Illinois 60130-2587

Re: LPC #1214225084 -- Marion County  
 Centralia/86th Army Reserve Command  
 904 East Martin Luther King Dr.  
 LUST Incident No. 941953  
 LUST TECHNICAL FILE

OPTIONAL FORM 99 (7-90)

**FAX TRANSMITTAL**

# of pages ▶ 1

To <i>TINA</i>	From <i>DAVE JENAVINGS</i>
Dept./Agency	Phone # <i>708-209-2597</i>
Fax # <i>314-596-0882</i>	Fax # <i>-1430</i>
NSN 7540-01-317-7368	5099-101 GENERAL SERVICES ADMINISTRATION

Dear Owner/Operator:

The Illinois Environmental Protection Agency has received the 45 Day and Corrective Action Corrective Report (report) submitted for the above referenced incident.

In accordance with 35 Illinois Administrative Code Section 732.503(g)(2), the Agency is notifying you that the report dated June 22, 1995 and received June 28, 1995 has been selected for a full review. Additional correspondence regarding the report submitted will be issued, if necessary, within 120 days of the date the report was received.

The Agency's decision to select a report or plan does not preclude an owner or operator from continuing Site Classification and/or Corrective Action in accordance with 35 Illinois Administrative Code Part 732 at the above referenced site prior to receiving additional correspondence from the Agency pursuant to Section 57.7(e)(1) of the Illinois Environmental Protection Act. A selection notification is only intended to inform an owner or operator that a particular document has or has not been selected for a full review.

Please note this letter does not constitute approval of the above referenced report.

Should you have any questions, please contact the project manager on-call in the Leaking Underground Storage Tank Section at the above number.

Sincerely,

Douglas W. Clay, P.E., Manager  
 Leaking Underground Storage Tank Section  
 Division of Remediation Management  
 Bureau of Land

DWC:GP:rm1/512x/91



NOTE FOR USER

UNIFORM HAZARDOUS WASTE MANIFEST

6727090186

86 15

Sgt. Paul A. Coppel Army Reserve  
904 M.L. King Jr. Dr.  
Centralia, IL 62801

IL 6727090186

Generator's Phone (618) 997-9350

Illinois Generator's ID: 199055056

Transporter 1 Company Name: Safety-Kleen Corp.

US EPA ID Number: ILD984908202

Illinois Transporter's ID: 217-328-2000

Transporter 2 Company Name

US EPA ID Number

Illinois Transporter's ID

Designated Facility Name and Site Address: Safety-Kleen Corp.  
500 W. Anthony Drive  
Urbana, IL 61801

US EPA ID Number: ILD981088388

Illinois Facility ID: 10198270009  
Facility's Phone: 217-328-2000

US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)

12. Containers No. Type 13. Total Quantity 14. Unit Wt/Vol Waste No.

Waste Oil & Water Mixture (Not USDOT or USEPA Regulated)

001 TT 1,200 G EPA HW Number: XIX 000386

Additional Descriptions for Materials Listed Above

Handling Codes for Wastes Listed Above in Item #14: G = Gallons Y = Cubic Yards

Special Handling Instructions and Additional Information

5-033-01-Refer to A26401 PP#  
Emergency Response 1-708-888-4660 24 Hours SKDOT# A: 1073

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: DONALD R. MARSHALL Signature: [Signature] Date: 6/15/94

Transporter 1 Acknowledgement of Receipt of Materials: Printed/Typed Name: Keith Phillips Signature: [Signature] Date: 6/15/94

Transporter 2 Acknowledgement of Receipt of Materials: Printed/Typed Name: Signature: Date:

Discrepancy Indication Space

Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name: Dawn Stotey Signature: [Signature] Date: 6/15/94

This Agency is authorized to require, pursuant to Illinois Revised Statutes 1989, Chapter 111 1/2, Sections 1004 and 1002, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Environmental Protection Agency.

Illinois Office of Emergency Response at 217/782-3637 and the National Response Center at 800/424-8802 or 202/266-2675





NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH

EPA Form 8700-22 (6-89)

Form Approved OMB No. 2050-0039 Expires 9-30-94

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>IL2210490486</b>		Manifest Document No. <b>86774</b>		2. Page 1 of 1		Information in the shaded areas is not required by Federal law, but is required by Illinois law.	
3. Generator's Name and Mailing Address <b>SFC Earl A Coppel Army Reserve 904 M.L. King Jr. Dr. Centralia, IL 52801</b>						A. Illinois Manifest Document Number <b>IL 5486774</b>			
4. Generator's Phone (618) <b>997-9350</b>						B. Illinois Generator's ID <b>1990155056</b>			
5. Transporter 1 Company Name <b>Safety-Kleen Corp.</b>				6. US EPA ID Number <b>ILD984908202</b>		C. Illinois Transporter's ID <b>1121</b>		D. Transporter's Phone <b>217 328-2000</b>	
7. Transporter 2 Company Name				8. US EPA ID Number		E. Illinois Transporter's ID		F. Transporter's Phone	
9. Designed Facility Name and Site Address <b>Safety-Kleen Corp. 500 W. Anthony Drive Urbana, IL 61801</b>						10. US EPA ID Number <b>ILD981088388</b>			
11. US DOT Description (including Proper Shipping Name, Hazard Class and ID Number) <b>Waste Oil &amp; Water Mixture (Not USDOT or USEPA Regulated)</b>						12. Containers No. <b>001</b>	13. Total Quantity <b>13.70</b>	14. Unit Wt/Vol <b>G</b>	Waste No. <b>000366</b>
									EPA HW Number <b>XIX</b>
									Authorization Number
									EPA HW Number <b>XIX</b>
									Authorization Number
									EPA HW Number <b>XIX</b>
									Authorization Number
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above in Item #11 <b>G = Gallons Y = Cubic Yards</b>			
L. Special Handling Instructions and Additional Information <b>5-033-01-Refer to A26402 PPH Emergency Response 1-708-888-4660 24 Hours SKDOT# A: 1073</b>									
M. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and Illinois regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.									
Printed/Typed Name <b>DONALD R MARSHALL</b>						Signature <i>[Signature]</i>		Date <b>6/10/94</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials						Printed/Typed Name <b>KEITH C PHILLIPS</b>		Signature <i>[Signature]</i>	
								Date <b>06/10/94</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials						Printed/Typed Name		Signature	
								Date	
19. Discrepancy Indication Space									
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest, except as noted in item 19.									
Printed/Typed Name						Signature		Date	
								Month Day Year	

This Agency is authorized to require, pursuant to Illinois Revised Statutes 1989, Chapter 111 1/2 Sections 1004 and 102, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

In case of a spill call the Illinois Office of Emergency Response at 217/782-3637 and the National Response Center at 800/424-9802 or 202/426-2675

Randall Road  
Elgin, Illinois 60123-7857

MANUAL ORDER FORM (USE WITH TRACKING FORM NO. 1380)

WE CARE

D.U.N. S 05106-0408 FED. ID NO. 39-6090019

B90540

Safety-Kleen

SK DOT NO: 1073      MANIFEST NO: 5186774

GENERATOR

CUSTOMER NUMBER: 5033-71  
 NAME: S.F.C. East A Capital Army Reserve  
 ADDRESS: 401 N. L. Hwy. 50. Dr.  
 CITY/STATE: CENTRAVIA IL      ZIP: 62801

RECIPIENT

CUSTOMER NUMBER:  
 NAME:  
 ADDRESS:  
 CITY/STATE:      ZIP:

SERVICE DATE	SALESMAN'S NO.	CUSTOMER P.O. NUMBER	SALES TAX EXEMPTION NO.	NEXT SERVICE	SERVICE TERM	CHANGE SERVICE TERM (WEEKS)	(INITIAL)
06-10-94	9024						

SERVICE SECTION							
SERVICE NUMBER	DESCRIPTION	QUANTITY	UNIT OF MEASURE	PRICE	SERVICE CHARGE	TAX	LINE TOTAL
040	USED OIL PICK UP	1700	G	158.00	158.00	00	158.00
050	OILY WATER DISPOSAL	3000	G	8.15	2300.00	00	2300.00
10066	WASTE ANTIFREEZE						
					TOTAL		2458.00



**PAYMENT RECEIVED SECTION**

CASH       TOTAL RECEIVED:      APPLY PAYMENT TO:

CHECK NUMBER:       TODAY'S SERVICE SALE  
 PREVIOUS BALANCE AS FOLLOWS

INV # \_\_\_\_\_ AMOUNT \$ \_\_\_\_\_  
 INV # \_\_\_\_\_ AMOUNT \$ \_\_\_\_\_  
 INV # \_\_\_\_\_ AMOUNT \$ \_\_\_\_\_

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION.

INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT SAFETY-KLEEN SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES.

GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED SAFETY-KLEEN CORP. HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED-BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS A HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD SAFETY-KLEEN CORP. HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF, OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

GENERATOR/CUSTOMER SIGNATURE: *[Signature]*      PRINT NAME: DONALD R. MARSHALL

**IN EVENT OF EMERGENCY CALL 1-708-888-4660 (24 hours)**



STATE OF ILLINOIS

ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

SAFETY-KLEEN CORP. STATE PRESCRIBED FORM

P.O. BOX 19276

SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

State Form LFC 52 6/81, IL532-0610

EPA Form 8700-22 (6-89)

Form Approved, OMB No. 2050-0039 Expires 9-30-94

NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH

UNIFORM HAZARDOUS WASTE MANIFEST

Generator's US EPA ID No. IL2210490486 Manifest Document No. 85776

Page 1 of 1 Information in the shaded areas is not required by Federal law, but is required by Illinois law.

Generator's Name and Mailing Address: SFC Earl A Coppel Army Reserve, 904 M.L. King Jr. Dr., Centralia, IL 62801-3058

A. Illinois Manifest Document Number: IL 5486776

Generator's Phone: 997-9350

B. Illinois Generator's ID: 1990555056

Transporter 1 Company Name: Safety-Kleen Corp.

C. Illinois Transporter's ID: 1123

Designated Facility Name and Site Address: Safety-Kleen Corp., 500 W. Anthony Drive, Urbana, IL 61801

D. Illinois Transporter's Phone: 217-328-2000

E. Illinois Transporter's ID: (blank)

F. Transporter's Phone: (blank)

US DOT Description: Waste Oil & Water Mixture (NOT USDOT or USEPA Regulated)

12. Containers No. 001 Type TT

13. Total Quantity: X 3500

14. Unit WUVol: G

Waste No. EPA HW Number: XIX, Authorization Number: 000386

Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above in Item 11: G = Gallons, Y = Cubic Yards

Special Handling Instructions and Additional Information: 5-033-DT Refer to A26402 PP#, Emergency Response 1-708-888-4660 24 Hours SKDOT# A: 1073

GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and government regulations, and Illinois regulations.

Printed/Typed Name: DONALD R MARSHALL, Signature: [Signature], Date: 06/09/94

Transporter 1 Acknowledgement of Receipt of Materials: Printed/Typed Name: Keith Phillips, Signature: [Signature], Date: 06/09/94

Transporter 2 Acknowledgement of Receipt of Materials: Printed/Typed Name: (blank), Signature: (blank), Date: (blank)

Discrepancy Indication Space

Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19: Printed/Typed Name: Dawn Stolter, Signature: [Signature], Date: 10/09/94

GENERATOR

TRANSPORTER

FACILITY

This Agency is authorized to require, pursuant to Illinois Revised Statutes 1989, Chapter 111 1/2 Sections 1004 and 102, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator not to exceed \$25,000 per day of violation. Falsification of this information may result in a fine up to \$50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

Case of a spill can the Illinois Office of Emergency Response at 217/782-3637 and the National Response Center at 800/424-8802 or 202/426-2675



1000 North Randall Road  
Elgin, Illinois 60123 - 7857



PLACEMENT FORM (USE WITH TRACKING FORM NO. 1380)

D-U-N-S 05105-0408 FED ID NO. 39-6090019

A 26402

SK DOT NO. 1073 MANIFEST NO. IC 5486716

GENERATOR/LOCATION

BILL TO (IF DIFFERENT FROM LOCATION)

NAME: SFC EARL A COPPEL AVENUE ASK  
 INFORMATION/ATTENTION LINE:  
 DELIVERY ADDRESS:  
908 M. C. KING JR DR  
CENTRALIA IL  
 TAX CODE:  
61801-3058  
 STATE ID NO:  
AL2210890486 STATE ID:  
1990555056

NAME:  
 INFORMATION/ATTENTION LINE:  
 DELIVERY ADDRESS:  
 CITY:  
 STATE:  
 ZIP:  
 TAX CODE:

SERVICE SIGN-UP

SIGN-UP DATE	SALESMAN'S NO.	BUSINESS TYPE	TANK CAPACITY	TERRITORY	CUSTOMER TELEPHONE NO.	SALES TAX EXEMPTION NO.	CUSTOMER P.O. NUMBER	
06-09-94	9024	02			618-997-9350			
CHAIN	SVC/P/S	PROD. P/S	HANDLING CODE	CREDIT CODE	NEXT SVC	SERVICE TERM	BRANCH NO.	COMMENTS
NO	031				06-14-94	26	5-033-71	

SERVICE SECTION

SERVICE NUMBER	DESCRIPTION	QUANTITY	UNIT OF MEASURE	PRICE	SERVICE CHARGE	TAX	LINE TOTAL	
040	USED OIL PICK-UP	3.500	G.	317.75	317.75	.00	317.75	
050	OILY WATER DISPOSAL							
10066	WASTE ANTIFREEZE							
					TOTAL	317.75	.00	317.75

PAYMENT RECEIVED SECTION

CASH  TOTAL RECEIVED: \_\_\_\_\_ APPLY PAYMENT TO:  
 CHECK NUMBER: \_\_\_\_\_  TODAY'S SERVICE SALE  
 PREVIOUS BALANCE AS FOLLOWS  
 INV # \_\_\_\_\_ AMOUNT \$ \_\_\_\_\_  
 INV # \_\_\_\_\_ AMOUNT \$ \_\_\_\_\_  
 INV # \_\_\_\_\_ AMOUNT \$ \_\_\_\_\_

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION.  
 INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM), OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, SAFETY-KLEEN SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES.  
 GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED SAFETY-KLEEN CORP. HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS A HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART 261. GENERATOR AGREES TO INDEMNIFY AND HOLD SAFETY-KLEEN CORP. HARMLESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

GENERATOR/CUSTOMER SIGNATURE: [Signature] PRINT NAME: DOUGLAS R. MARSHALL

IN EVENT OF EMERGENCY CALL  
1-708-888-4660 (24 hours)

CUSTOMER'S COPY



# GENERATOR USED OIL CERTIFICATION/INDEMNIFICATION

## Generator Information

Date 06-09-94

Company S.F.C. EARL A. COPPEL ARMY RESERVE  
 Address 904 M.C. KING JR. DR.  
 City CENTRALIA State IL Zip 62801-3058

S-K Customer No. 5-033-71-NEW  
 S-K  Services Sales Rep WETH C. PHILLIPS  
 S-K Branch No. 5-033-71

### Used Oil Certification (check appropriate box)

- Used oils generated at this facility originate only from automotive sources. Automotive sources include, but are not limited to, commercial service service stations, oil change stations, and truck / automobile fleet maintenance.  
 This facility generates; (check appropriate box)  
 <1001 gal / quarter  >1000 gal / quarter

- Used oils generated at this facility may include oils from sources other than automotive including, but not limited to, industrial lubricating oils, cutting oils, or gear oils.

### Hazardous Waste Certification (check appropriate box)

- This facility generates less than 100 kg of hazardous waste in a calendar month (approximately 27 gallons), and is classified as a CESQG.
- This facility generates between 100 kg and 1000 kg of hazardous waste in a calendar month (approximately 27 to 270 gallons), and is classified as a SQG.
- This facility generates more than 1000 kg of hazardous waste in a calendar month (approximately 270 gallons), and is classified as a LQG.

### Waste Segregation Certification (check if applicable)

- This facility has available on-site the equipment / services necessary to properly segregate all waste streams generated at the facility, and ensure that RCRA hazardous wastes are not mixed into the used oils.

### Total Chlorine Analysis

- Analysis Not Required**  
Automotive Oil Only / CESQG
- Automotive Oil Only and segregates the oil from all hazardous wastes.
- Analysis Required  
(Complete information at right)

### Automotive Oil:

Chlorine: \_\_\_\_\_ <1000 ppm  
 \_\_\_\_\_ >1000 ppm  
 (If >1000 ppm, a sample **must** be sent to the Tech Center for rebuttal)

### Industrial Oil:

Date of Preshipment \_\_\_\_\_  
 Approval: \_\_\_\_\_  
 Chlorine Test: \_\_\_\_\_  
 (must be performed at the time of each service to ensure the oil matches the preshipment analysis)

Generator hereby certifies that the information provided above is true and correct. Generator also certifies that the used oils supplied to Safety-Kleen or its subsidiary will not be mixed, combined, or otherwise blended in any quantity with materials containing polychlorinated biphenyls (PCBs), halogenated solvents, or any other material defined as hazardous waste under 40 CFR Part 261 or applicable State regulations. Generator agrees to indemnify and hold Safety-Kleen or its subsidiary harmless for any damages, costs, attorneys and experts fees, arising out of or in any way related to a breach of any of the above certifications by Generator.

By: Donald R Marshall  
 (Print Customer's Name)  
[Signature]  
 (Signature)  
First Sergeant  
 (Title)

SAFETY-KLEEN CORP  
 777 Big Timber Road  
 Elgin, Illinois 60123



State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6761

CERTIFIED MAIL

2422917800

**JUN 29 1995**

86th Army Reserve Command  
Attn: Louise Orders  
7402 West Roosevelt Rd.  
Forest Park, Illinois 60130-2587

Re: LPC #1214225084 -- Marion County  
Centralia/86th Army Reserve Command  
904 East Martin Luther King Dr.  
LUST Incident No. 941953  
LUST TECHNICAL FILE

Dear Owner/Operator:

The Illinois Environmental Protection Agency has received the 45 Day and Corrective Action Corrective Report (report) submitted for the above referenced incident.

In accordance with 35 Illinois Administrative Code Section 732.503(g)(2), the Agency is notifying you that the report dated June 22, 1995 and received June 28, 1995 has been selected for a full review. Additional correspondence regarding the report submitted will be issued, if necessary, within 120 days of the date the report was received.

The Agency's decision to select a report or plan does not preclude an owner or operator from continuing Site Classification and/or Corrective Action in accordance with 35 Illinois Administrative Code Part 732 at the above referenced site prior to receiving additional correspondence from the Agency pursuant to Section 57.7(e)(1) of the Illinois Environmental Protection Act. A selection notification is only intended to inform an owner or operator that a particular document has or has not been selected for a full review.

Please note this letter does not constitute approval of the above referenced report.

Should you have any questions, please contact the project manager on-call in the Leaking Underground Storage Tank Section at the above number.

Sincerely,

  
Douglas W. Clay, P.E., Manager  
Leaking Underground Storage Tank Section  
Division of Remediation Management  
Bureau of Land

DWC:GP:rmi/512x/91

**FACIMILE HEADER SHEET**



**DIRECTORATE OF PUBLIC WORKS  
ENVIRONMENT, ENERGY, & NATURAL RESOURCE DIVISION  
ATZT-DPW-EE (BLDG 2101)  
FORT LEONARD WOOD, MO 65473-5000**

**DATE:** 7 Mar 95  
**TIME:**  
**PAGES:** 2 + header

**FROM:** Tina Anderson  
**PHONE:** FAX 314.596.0882 / COMM

**TO:** DAVE JENNINGS  
**PHONE:**

**REMARKS:** for your info



Office of the Illinois  
**State Fire Marshal**

**General Office**

217-785-0969

FAX

217-782-1062

**Divisions**

ARSON INVESTIGATION  
217-782-6855

BOILER and PRESSURE  
VESSEL SAFETY  
217-782-2696

FIRE PREVENTION  
217-785-4714

MANAGEMENT SERVICES  
217-782-9889

INFIRS  
217-785-1016

PERSONNEL  
217-785-1009

PERSONNEL STANDARDS  
and EDUCATION  
217-782-4542

PETROLEUM and  
CHEMICAL SAFETY  
217-785-5878

PUBLIC INFORMATION  
217-785-1021

02-24-95

In Re: 6-019647

U.S. Army Reserve Center

904 W Martin Luther King Jr Dr

Centralia, IL 62801

**TO WHOM IT MAY CONCERN:**

You requested a Removal/Abandonment Certificate concerning the above-referenced facility.

Our office will issue a Certificate for a tank that has been removed/abandoned after 8-1-94, only if the site was classified as not having a release by our Storage Tank Safety Specialist. Your site was classified as MAJOR\*; therefore, you are ineligible to receive a Certificate of Removal/Abandonment.

\* This applies only to tank no 2, 1500 gallon heating oil; a Certificate of Removal will be issued for tank no 1, 6000 gallon heating oil, as it was a clean site.

Division of Petroleum and Chemical Safety

f:cert

1035 Stevenson Drive • Springfield, Illinois 62703-4259

Printed on Recycled Paper



State of Illinois

# ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

217/782-6760

November 16, 1994

86th Army Reserve Command  
Attn: William J. Hawes  
7402 West Roosevelt Road  
Forest Park, Illinois 60130-2587

86TH L  
ENCL  
'94 NOV 21 AM 1:31

Re: LPC #1214225084 -- Marion County  
Centralia/86th U.S. Army Reserve  
904 East Martin Luther King Drive  
LUST Incident #941953  
LUST/Technical Report File

Dear Mr. Hawes:

The Agency has not received the 45 Day Report required to be submitted in accordance with 35 Ill. Adm. Code 732.202(e). Please submit the 45 Day Report, in duplicate, to the Agency immediately.

In addition, Section 57 of the Illinois Environmental Protection Act requires the submittal of a physical soil classification and groundwater investigation plan. Pursuant to 35 Ill Adm. Code 732, the Agency is requiring the submittal of this plan (and budget, if applicable) within 30 days of the date of this letter.

Should you have any questions, please contact Valerie Davis at the above number.

Sincerely,

Clifford L. Wheeler, Manager  
Southern Unit  
Leaking Underground Storage Tank Section  
Division of Remediation Management

CLW:VD:jab/1492w/3

<b>IL</b>	<b>Notification for Underground Storage Tanks</b>	<b>OFFICE USE ONLY</b>
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- A separate form must be used for each site.
- If you have more than five tanks, photocopy pages 1-5 and attach to this notification form.
- Please type, or print in ink; the signature under "certification" (section IX) must be signed in Ink.

ID NUMBER _____
DATE RECEIVED _____

Facility I.D. # (if known) \_\_\_\_\_ Owner I.D. # (if known) \_\_\_\_\_

**TYPE OF NOTIFICATION**

New Facility     Amended (Changes/Corrections/Additional Tanks)    Mark all that apply:

_____ Owner Address Change (this facility only)	_____ Tanks Relined (Permit # _____)
_____ Owner Address Change (all facilities owned)	_____ Tanks Installed (Permit # _____)
_____ New Owner	_____ Tanks Upgraded/Repaired (Permit # _____)
_____ Tank(s) Removed (Permit # _____)	_____ Abandonment Notice (Permit # _____)
_____ Other _____	

<b>I. Ownership of Tank(s)</b>	<b>II. Location of Tank(s)</b> (if same as Section I, Mark box) <input type="checkbox"/>
--------------------------------	---

<u>USAEC @ Fort Leonard Wood</u> Owner Name (Corp., Individual., Public Agency or other Entity)	<u>U.S. Army Reserve Center</u> Facility Name or Company Site Identifier, as applicable
<u>ATTN: ATZT-DPW-EE</u> Mailing Address	<u>904 E. Martin Luther King Jr. Drive</u> Street Address or State Road, as applicable (exact address)
<u>Fort Leonard Wood MO 65473-5000</u> City State Zip	<u>Centralia IL 62801</u> City State Zip
<u>Pulaski</u> County	<u>Marion</u> County
<u>Tina Anderson (314) 596-0956</u> Contact Name (Area Code) Phone	<u>Robert Smith 618-532-5666</u> Contact Name (Area Code) Phone

**III. TYPE OF OWNERSHIP (mark all that apply)**

<input checked="" type="checkbox"/> Current Owner of Tanks Date Purchased _____	<input type="checkbox"/> Ownership Uncertain _____
<input type="checkbox"/> Former Owner	<input type="checkbox"/> Other _____

**IV. TYPE OF FACILITY**

Type of Facility: (Circle correct code)

A. Service Station B. Bulk Plant C. Petroleum Distributor D. Convenience Store E. Auto Dealer F. Commercial/Retail	G. Industrial/Manufacturing H. Private Institution I. Residence (Non-Farm) J. Farm K. Airport L. Marina	M. City/Town N. County O. State <input checked="" type="radio"/> P. Federal (Military) Q. Federal (Non-Military) R. School District	S. Port District T. Utility District U. Fire Dept. V. Other Special Service Districts W. Other _____ (Please Specify)
---	--	--	--

**VI. Description of Underground Storage Tanks (Complete entire column for each tank)**

Tank Identification Number	Tank No. <u>1</u>	Tank No. <u>2</u>	Tank No. ___	Tank No. ___	Tank No. ___
<b>1. Material of Construction</b> (mark all that apply) <ul style="list-style-type: none"> <li>Asphalt coated or bare steel <input checked="" type="checkbox"/></li> <li>Cathodically protected steel <input type="checkbox"/></li> <li>Dielectric coated steel <input type="checkbox"/></li> <li>Composite (steel with fiberglass) <input type="checkbox"/></li> <li>Fiberglass reinforced plastic <input type="checkbox"/></li> <li>Lined interior <input type="checkbox"/></li> <li>Double-walled <input type="checkbox"/></li> <li>Secondary containment <input type="checkbox"/></li> <li>Steel STI-P3 <input type="checkbox"/></li> <li>Other (please specify) _____</li> </ul>					
<b>2. Piping Materials</b> (mark all that apply) <ul style="list-style-type: none"> <li>Bare steel <input checked="" type="checkbox"/></li> <li>Galvanized steel <input type="checkbox"/></li> <li>Fiberglass reinforced plastic <input type="checkbox"/></li> <li>Cathodically protected <input type="checkbox"/></li> <li>Double-walled <input type="checkbox"/></li> <li>Secondary containment <input type="checkbox"/></li> <li>Dielectric coating <input type="checkbox"/></li> <li>Other (please specify) _____</li> </ul>					
<b>3. Piping Type</b> (mark all that apply) <ul style="list-style-type: none"> <li>European suction <input type="checkbox"/></li> <li>American suction <input type="checkbox"/></li> <li>Pressure <input type="checkbox"/></li> <li>Gravity feed <input type="checkbox"/></li> <li>Other (please specify) <u>unknown</u></li> </ul>	<u>unknown</u>	<u>unknown</u>	_____	_____	_____

**VII. Certification of Compliance** (Complete for all new, upgraded and relined tanks at this location)

Installation (mark all that apply)					
Installer certified by tank and piping manufacturers	<input type="checkbox"/>				
Installer certified or licensed by implementing agency	<input type="checkbox"/>				
Installer registered by implementing agency	<input type="checkbox"/>				
Installer is the owner of the tank(s)	<input type="checkbox"/>				
Installation inspected by a registered engineer	<input type="checkbox"/>				
Installation inspected & approved by implementing agency	<input type="checkbox"/>				
Manufacturer's installation checklists have been completed	<input type="checkbox"/>				
Another method allowed by state agency (please specify)	_____				

**OATH:** I certify the information that is provided in section VII is true to the best of my knowledge, and certify that the installation was performed in accordance with all applicable state and federal laws and regulations. (THIS SECTION MAY ONLY BE COMPLETED BY THE CONTRACTOR. SEPARATE OATH MUST BE SUBMITTED FOR EACH ACTIVITY PERFORMED BY DIFFERENT CONTRACTOR.)

Tank No. \_\_\_\_\_ Permit No. \_\_\_\_\_

Contractor: \_\_\_\_\_  
 Name Signature (must be original) Date  
 \_\_\_\_\_  
 Position Company

**VIII. Financial Responsibility**

Mark all that apply:

- Self-Insurance       Guarantee       Certificate of Deposit
- Commercial Insurance       Surety Bond       Trust Fund
- Risk Retention Group       Letter of Credit       Other Method Allowed

(please specify) Federal bond.

**IX. Certification (Read and sign after completing all sections)**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

\_\_\_\_\_  
 Name and official title of owner or owner's authorized representative (print)

W. J. [Signature]  
 Signature (must be original)

10 SEPT 98  
 Date Signed

DPW-RJ/SL

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1 CONTRACT ID CODE PAGE OF PAGES  
1 2

2 AMENDMENT/MODIFICATION NO. P00001  
3 EFFECTIVE DATE 08/17/94  
4 REQUISITION/PURCHASE REQ. NO. MIPR94-0000-6107 01  
5 PROJECT NO. (if applicable)  
6 ISSUED BY DIRECTORATE OF CONTRACTING  
7 ADMINISTERED BY (if other than Item 6) DIRECTORATE OF CONTRACTING  
8 NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) Vendor ID: 00017731

9A. AMENDMENT OF SOLICITATION NO. (X)  
9B. DATED (SEE ITEM 11)  
10A. MODIFICATION OF CONTRACT/ORDER NO. DABT31-94-C-0016 (X)  
10B. DATED (SEE ITEM 13) 07/01/94  
11 THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended is not extended  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods  
(a) By completing Items 8 and 15, and returning copies of the amendment (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.  
12. ACCOUNTING AND APPROPRIATION DATA (If required) Mod Obligated Amount US \$10,500.00  
2142080000002424405159960000025G2000000M1PR9400006107BFMM00S47018

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A  
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 43.103(a)3  
D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not is required to sign this document and return 2 copies to the issuing office.

14 DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
The above cited contract for Site Assessment, USARC, Centralia, Illinois, is hereby modified as follows:  
1. Change the estimated quantity and amount of Item No. 0003 to 500 VF and \$12,500.00, respectively  
2. As a result of the above, the total amount of the contract is increased by ~~\$12,500.00~~ from \$4,309.20 to \$14,809.20.  
# 10,500.00

5A. NAME AND TITLE OF SIGNER (Type or print) John J. Dickman, President  
5B. CONTRACTOR/OFFEROR  
5C. DATE SIGNED 8-22-94  
15A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Paul R. Hutsell 009  
15B. UNITED STATES OF AMERICA  
15C. DATE SIGNED 8/23/94

SF 30 CONTINUATION SHEET

All other terms and conditions of this contract and modification thereto,  
remain unchanged.

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
45 Day Report**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
(leave blank if unknown)

IEMA #: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**OWNER**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**OPERATOR (if different from Owner)**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**B. SITE INFORMATION**

1. Will the owner/operator be seeking reimbursement for costs from the Underground Storage Tank Fund? (Check One): YES  NO
2. Has the site been deemed eligible to seek reimbursement for corrective action cost from the Underground Storage Tank Fund:  
YES  NO
3. What was the material released: \_\_\_\_\_  
Was the material released a petroleum product: YES  NO

**C. EMERGENCY ACTION**

1. Was the tank system removed, and/or abandoned in place: YES  NO  (if YES then the Agency will require that the following be attached: legible copy of the Office of the State Fire Marshal Permit for Removal and Abandonment in Place; a discussion on how the tank was cleaned; a discussion on how the product still in the tank, the tank sludges, and the tank rinse water were handled and disposed)
2. Was the tank system repaired: YES  NO  (if yes then the Agency will require that a legible copy of the Fire Marshal Permit be included)
3. The volume (in cubic yards) of backfill material removed: \_\_\_\_\_  
(if any backfill material was removed and disposed of off-site attach a legible copy of the manifest(s) to dispose of the soil)
4. Was any soil, other than backfill excavated and disposed from the site: YES  NO  (if yes, then what was the volume, in cubic yards, disposed from the site: \_\_\_\_\_)
5. Was any groundwater with a sheen removed from the excavation: YES  NO  (if yes, then what was the volume, in gallons, removed from the site: \_\_\_\_\_. Also please include a legible copy of the manifest(s))
6. Was free product encountered: YES  NO  (if YES, then the owner/operator must submit a free product removal report within 45 days of reporting the release)

**D. ENCLOSURES**

Please refer to the INSTRUCTIONS for direction on what information must be attached to this form.

**E. SIGNATURES**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Owner**  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**Operator (if different from Owner)**  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

11 334 4411  
LPC 503 Oct-93

**Illinois Environmental Protection Agency**  
**LEAKING UNDERGROUND STORAGE TANK PROGRAM**  
**Free Product Removal Report**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
(leave blank if unknown)

IEMA #: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P.O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. SITE INFORMATION**

1. The name of the person responsible for implementing the free product removal measures: \_\_\_\_\_
2. Estimated thickness (in inches) of free product: \_\_\_\_\_
3. The estimated volume (in gallons) of free product: \_\_\_\_\_
4. Will any discharge take place on site or off site during the recovery operation? (Check One): YES  NO  If YES, then attach a discussion on where this discharge is located, the steps that have been taken or are being taken to obtain necessary permits for discharge, the type of treatment applied to and the effluent quality expected from this discharge.

**C. ENCLOSURES**

Please check the enclosures attached to this form.

1.  Site map
2.  The type of free product recovery to be used
3.  The free product recovered in a tabular format

The Agency requires that all of the enclosures listed above be attached to this report.

**D. ADDITIONAL REPORTING OF FREE PRODUCT AND FREE PRODUCT RECOVERY**

In accordance with Section 731.166 owners and operators are hereby required to prepare and submit to the Agency additional free product recovery reports in response to the presence or discovery of free product. Subsequent reports must address items in B. and C.

**E. SIGNATURES**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<b>Owner</b>	<b>Operator (if different from Owner)</b>
Name: _____	Name: _____
Title: _____	Title: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

**Person Implementing Free Product Removal Measures (if different from Owner or Operator)**

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
Site Classification Work Plan**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
(leave blank if unknown)

IEMA #: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**OWNER**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**OPERATOR (if different from Owner)**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**B. SOIL BORING AND MONITORING WELL INFORMATION**

1. Indicate the number of soil borings to be advanced on-site. \_\_\_\_\_
2. Are you proposing to install monitoring wells on-site? (Check One): Yes \_\_\_\_ No \_\_\_\_

**C. ENCLOSURES**

Please check the enclosures attached to this form:

1. \_\_\_\_ Soil boring advancement/sampling proposal
2. \_\_\_\_ Groundwater monitoring well sampling proposal
3. \_\_\_\_ Site map(s)
4. \_\_\_\_ A narrative and timetable.

Sites that will be installing monitoring wells must include all enclosures listed above (1 through 4). Sites that will not be installing monitoring wells must include enclosures 1, 3, and 4.

**D. SIGNATURES**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Owner**  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**Operator (if different from Owner)**  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency**  
**LEAKING UNDERGROUND STORAGE TANK PROGRAM**  
**Site Classification Completion Report**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
(leave blank if unknown)

IEMA # \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P.O. Box): \_\_\_\_\_

City: \_\_\_\_\_

County: \_\_\_\_\_

**OWNER**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**OPERATOR (if different from Owner)**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

**B. SITE INFORMATION**

- 1 Will the owner/operator be seeking reimbursement for costs from the Underground Storage Tank Fund? (Check One): YES NO
- 2 Did the Site have a release of petroleum? (Check One): Yes No
- 3 Pursuant to 415 ILCS 5/57.7 this site is to be classified as (Check One):  
NO FURTHER ACTION \_\_\_\_\_ LOW PRIORITY \_\_\_\_\_ HIGH PRIORITY \_\_\_\_\_
- 4 The Site is located in an area designated as High Priority and an indicator contaminant has exceeded the applicable groundwater quality standards or baseline cleanup objectives at the property boundary or 200 feet from the excavation as a result of a UST release. (Check One): Yes \_\_\_\_\_ No \_\_\_\_\_
- 5 There is evidence that migration of petroleum or petroleum vapors poses a health risk or may cause property damage (Check One): Yes \_\_\_\_\_ No \_\_\_\_\_
- 6 The UST(s) system is located within the minimum or maximum setback zone of a potable water supply well or regulated recharge area? (Check One): Yes \_\_\_\_\_ No \_\_\_\_\_
- 7 Class III Special Resource Groundwater is located within 200 feet of the excavation? (Check One): Yes \_\_\_\_\_ No \_\_\_\_\_
- 8 A surface body of water has been adversely affected (i.e visible sheen, free product layer) by a release from a UST(s) system? (Check One): Yes \_\_\_\_\_ No \_\_\_\_\_
- 9 The geology on site is consistent with which Berg Circular Classification? (Check One):
  - a. \_\_\_\_\_ D soil classification
  - b. \_\_\_\_\_ E soil classification
  - c. \_\_\_\_\_ F soil classification
  - d. \_\_\_\_\_ G soil classification
  - e. \_\_\_\_\_ Other soil classification

**C. ENCLOSURES**

Please check the enclosures attached to this form.

1. \_\_\_\_\_ Narrative and timetable
2. \_\_\_\_\_ Soil boring logs
3. \_\_\_\_\_ Groundwater monitoring well logs
4. \_\_\_\_\_ Groundwater analytical results
5. \_\_\_\_\_ Site maps
6. \_\_\_\_\_ The results of the Physical Soil Classification
7. \_\_\_\_\_ Water supply well setback chart

No Further Action sites must include enclosures 1, 2, 5, 6, and 7.

Low Priority or High Priority sites must include enclosures 1 through 7.

**Illinois Environmental Protection Agency**  
**LEAKING UNDERGROUND STORAGE TANK PROGRAM**  
**Groundwater Monitoring Plan for Low Priority Sites**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 digit): \_\_\_\_\_  
*(leave blank if unknown)*

II MA# \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (not a P O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. MONITORING WELL INFORMATION**

- 1 Indicate the number of monitoring wells currently on-site \_\_\_\_\_
- 2 Are you proposing to install additional monitoring wells to supplement those already on site? (Check One): Yes \_\_\_\_\_ No \_\_\_\_\_
- 3 Indicate the appropriate group of sampling parameters for the type of material(s) released.  
\_\_\_\_\_ Benzene/BETX  
\_\_\_\_\_ Polynuclear Aromatic Hydrocarbons (PAHs)  
\_\_\_\_\_ Other(*provide inclusive list in separate attachment*)

**C. ENCLOSURES**

*Please check the enclosures attached to this form:*

- 1 \_\_\_\_\_ Time table with dates for the additional work
2. \_\_\_\_\_ Additional monitoring well information
3. \_\_\_\_\_ Site map
4. \_\_\_\_\_ A discussion of the adequacy of the monitoring wells to determine the migration of groundwater contamination

**For sites that will be adding additional monitoring wells include enclosures 1 through 4. For sites that will not be adding additional monitoring wells provide enclosures 3 and 4 only.**

**D. SIGNATURES**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<b>Owner</b>	<b>Operator (if different from Owner)</b>
Name: _____	Name: _____
Title: _____	Title: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

\_\_\_\_\_  
**Agency Use Only**  
*Do Not Write Below This Line*

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency**  
**LEAKING UNDERGROUND STORAGE TANK PROGRAM**  
**Groundwater Monitoring Result Report for Low Priority Sites**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
*(leave blank if unknown)*

IEMA #: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P.O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. SITE INFORMATION**

1. Will the Owner/Operator be Seeking Reimbursement for Costs from the Underground Storage Tank Fund? (Check One) YES NO
2. Have the applicable groundwater quality standards or groundwater cleanup objectives been exceeded during this sampling period (Check One): YES \_\_\_\_ NO \_\_\_\_
3. The sampling period reported on this form is (Check One):
  - a. \_\_\_\_ The first sampling report
  - b. \_\_\_\_ The second sampling report
  - c. \_\_\_\_ The third sampling report

**C. ENCLOSURES**

*Please check the enclosures attached to this form:*

1. A narrative on how the samples were collected \_\_\_\_\_
2. Analytical results in a tabular format \_\_\_\_\_
3. Laboratory certification(s) \_\_\_\_\_
4. The actual analytical results \_\_\_\_\_

**All of the enclosures listed above must be included in this report.**

**D. SIGNATURES**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<b>Owner</b>	<b>Operator (if different from Owner)</b>
Name: _____	Name: _____
Title: _____	Title: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

\_\_\_\_\_  
**Agency Use Only**  
*Do Not Write Below This Line*

Should this site be reclassified as High Priority due to groundwater objectives being exceeded?: YES NO  
Were the necessary Enclosures included?: YES NO  
Were all of the necessary chemical constituents analyzed?: YES NO

Reviewer's Signature \_\_\_\_\_

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
Low Priority Professional Engineer Certification**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
(leave blank if unknown)

IEMA #: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P.O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. CERTIFICATION**

As a result of an Underground Storage Tank release, the owner/operator has implemented a groundwater monitoring plan in accordance with the plan approved by the Agency. The groundwater sampling results do not confirm an exceedence of the applicable contaminant groundwater quality standards or groundwater objectives.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Professional Engineer**

**P.E. SEAL**

Name: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Illinois Registration No.: \_\_\_\_\_

Signature: \_\_\_\_\_

**Owner**

**Operator (if different from Owner)**

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**NOTE: At least one copy must contain all original signatures.**

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency**  
**LEAKING UNDERGROUND STORAGE TANK PROGRAM**  
**Corrective Action Plan**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
(leave blank if unknown)

IEMA #: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P. O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. SITE INFORMATION**

1. This corrective action plan is being submitted pursuant to 57.7(c)(1)(C) of title XVI. The site is being classified as a High Priority site due to the reasons listed below. The plan has been designed to mitigate any threats to human health or the environment.
- a.  The Site is located in an area designated as High Priority and an indicator contaminant has exceeded applicable groundwater quality standards or baseline cleanup objectives at the property boundary or 200 feet from the excavation as a result of a UST release.
  - b.  The UST is within minimum or maximum setback zone of a potable supply well or regulated recharge area of a potable water supply well.
  - c.  There is evidence that migration of petroleum or petroleum vapors poses a health risk or may cause property damage.
  - d.  Class III Special Resource Groundwater exists within 200 feet of the excavation.
  - e.  A surface body of water has been adversely affected (i.e. visible sheen, free product layer) as a result of the reported UST release.
2. This corrective action plan is being submitted pursuant to 731.166 of the Illinois Administrative Code. Indicate which of the following statements apply:
- a.  a release of petroleum was reported prior to September 13, 1993.
  - b.  the substance released was not a petroleum product.

**C. ADDITIONAL INVESTIGATIONS**

1. Soil investigations were completed to determine the full extent of contamination YES \_\_\_\_\_ NO \_\_\_\_\_
2. Groundwater investigations were completed to determine the full extent of contamination YES \_\_\_\_\_ NO \_\_\_\_\_

**D. PROPOSED METHODS OF REMEDIATION**

1. Soil: excavation  land treatment  vacuum extraction  thermal treatment  bioremediation  other \_\_\_\_\_
2. Groundwater recovery: wells  trenches  other \_\_\_\_\_
- Groundwater treatment: on-site treatment  off-site disposal  other \_\_\_\_\_

**E. ENCLOSURES**

Please check the enclosures attached to this form:

- 1.  Results of soil investigations
- 2.  Results of groundwater investigations
- 3.  Information on proposed method of soil remediation
- 4.  Information on proposed method of groundwater remediation.
- 5.  Explanation of how proposed technologies will mitigate/remediate threats identified in Section B.
- 6.  Description and results of pilot or bench scale study.

**F. SIGNATURES**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<b>Owner</b>	<b>Operator (if different from Owner)</b>
Name: _____	Name: _____
Title: _____	Title: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

LPC 513 Rev Mar-94

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
Corrective Action Completion Report**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
*(leave blank if unknown)*

IEMA #: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P.O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. SITE INFORMATION**

1. Will the owner/operator be seeking reimbursement for costs from the Underground Storage Tank Fund? *(Check One):* Yes \_\_\_ No \_\_\_
2. Did the Site have a release of petroleum? *(Check One):* Yes \_\_\_ No \_\_\_
3. The Site is located in an area designated as High Priority and an indicator contaminant has exceeded the applicable groundwater quality standards or baseline cleanup objectives at the property boundary or 200 feet from the excavation as a result of a UST release? *(Check One):* Yes \_\_\_ No \_\_\_
3. The UST(s) system is within the minimum or maximum setback zone of a potable water supply well or a protected recharge area? *(Check One):* Yes \_\_\_ No \_\_\_
4. There was evidence that migration of petroleum or petroleum vapors posed a human health risk or may have caused property damage? *(Check One):* Yes \_\_\_ No \_\_\_
5. Class III Special Resource Groundwater is located within 200 feet of the excavation? *(Check One):* Yes \_\_\_ No \_\_\_
6. A surface body of water had been adversely affected (i.e visible sheen, free product layer) by a release from a UST(s) system? *(Check One):* Yes \_\_\_ No \_\_\_
7. Type of remedial action chosen
  - a. Soil: excavation \_\_\_ land treatment \_\_\_ vacuum extraction \_\_\_ bioremediation \_\_\_ thermal treatment \_\_\_ other \_\_\_
  - b. Groundwater recovery: wells \_\_\_ trenches \_\_\_ other \_\_\_
  - c. Groundwater treatment: on-site treatment \_\_\_ off-site disposal \_\_\_ other \_\_\_

**C. ENCLOSURES**

*Please check the enclosures attached to this form:*

- |                                |  |
|--------------------------------|--|
| 1. ___ Narrative and timetable | 5. ___ Professional Engineer certification |
| 2. ___ Soil boring logs        | 6. ___ Well logs                           |
| 3. ___ Analytical results      | 7. ___ Other                               |
| 4. ___ Site maps               |  |

**D. SIGNATURES**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

<b>Owner</b>	<b>Operator (if different from Owner)</b>
Name: _____	Name: _____
Title: _____	Title: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

\_\_\_\_\_ Agency Use Only \_\_\_\_\_  
*Do Not Write Below This Line*

Were the necessary Enclosures included?: Yes \_\_\_ No \_\_\_  
 If No, then what enclosures were missing? \_\_\_\_\_  
 Reviewer's signature \_\_\_\_\_

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
High Priority Professional Engineer Certification**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
*(leave blank if unknown)*

IEPA # \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a PO Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. CERTIFICATION**

The work described in the approved Corrective Action Plan has been completed. The information presented in the Corrective Action Completion Report is accurate and complete. The Corrective Action Completion Report demonstrates that the requirements of Title XVI, 57.7 (c) (1) (E) (i) have been satisfied.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Professional Engineer**

**P.E. SEAL**

Name: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Illinois Registration No.: \_\_\_\_\_

Signature: \_\_\_\_\_

**Owner**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Operator (if different from Owner)**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**NOTE: At least one copy must contain all original signatures.**

LPC 508 Rev. Mar-94

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
Request for Site Specific Cleanup Objectives**

**A. SITE IDENTIFICATION**

IEPA Generator Number (10 Digit): \_\_\_\_\_  
(leave blank if unknown)

IEMA # \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Address (Not a P.O. Box): \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_

**B. THE REQUEST FOR SITE SPECIFIC CLEANUP OBJECTIVES IS DUE TO:**

1.  A release from an UST system containing used oil.
2.  A release from an UST system containing a hazardous substance as defined in 35 Ill. Ann. Code, Subtitle 1, Section 731.112.
3.  A release from an UST system containing a specific chemical.
4.  A release from an UST system for which generic or site-specific objectives have been established. **BUT DUE TO SITE-SPECIFIC FACTORS, THE OWNER IS REQUESTING THAT NO FURTHER REMEDIATION BE REQUIRED.**

**C. ENCLOSURES**

*Please check the enclosures attached to this form:*

1.  Media of concern
2.  Amount of media remaining above cleanup objectives
3.  Description of facility operations
4.  Identification of adjacent businesses or facilities
5.  Description of the site area
6.  Identification of sensitive receptors
7.  Summary of site geology/hydrogeology
8.  Identification of conduits for migration of contamination
9.  Identification of risks and hazards/options for minimizing these risks or hazards
10.  Type and depth of pavement
11.  Justification for this request/alternate technologies
12.  Site maps
13.  Analytical summaries

**If you checked #4 on Part B of this form then all of the enclosures (1 through 13) must be provided with this form.**

**D. SIGNATURES**

<b>Owner</b>	<b>Operator (if different from Owner)</b>
Name: _____	Name: _____
Title: _____	Title: _____
Signature: _____	Signature: _____
Date: _____	Date: _____

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
Professional Engineer Certification Form**

The release from the Underground Storage Tank(s) System associated with Incident number \_\_\_\_\_ at the facility described in the attached Corrective Action Completion report dated \_\_\_\_\_, has been remediated in accordance with 35 Ill. Adm. Code, Part 731, Subpart F, and other applicable rules and regulations. The remediation has achieved the clean-up objectives set forth by the Agency in \_\_\_\_\_. I certify under penalty of law that the attached Corrective Action Completion Report supporting documents and all attachments were prepared under my direction or supervision. To the best of my knowledge and belief, the attached Corrective Action Completion Report supporting documents and all attachments are true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of the fine and imprisonment for knowing violations.

**REGISTERED PROFESSIONAL ENGINEER**

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Illinois Registration Number: \_\_\_\_\_

(P.E. Seal)

**OWNER**

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**OPERATOR (if different from Owner)**

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**NOTE: At least one copy must contain all original signatures.**

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

**Illinois Environmental Protection Agency  
LEAKING UNDERGROUND STORAGE TANK PROGRAM  
Laboratory Certification**

**Part A - Sample Collector**

1. I was responsible for sample collection. I certify that samples were collected using approved USEPA or IEPA procedures. \_\_\_\_\_  
(Initial)
2. I certify that chain of custody procedures were followed in the field, that efforts were made to preserve sample integrity and that all samples were properly labeled. \_\_\_\_\_  
(Initial)

**Part B - Laboratory Representative**

1. I certify that proper chain of custody procedures were followed as documented on the chain of custody forms. \_\_\_\_\_  
(Initial)
2. I certify that sample integrity was maintained by proper preservation, and that all samples were labeled. \_\_\_\_\_  
(Initial)
3. I certify that quality assurance/quality control procedures were established and carried out. \_\_\_\_\_  
(Initial)
4. I certify that sample holding times were not exceeded. \_\_\_\_\_  
(Initial)
5. I certify that SW-846 Analytical Laboratory Procedure (USEPA) methods were used for the analysis. \_\_\_\_\_  
(Initial)
6. I certify that the lowest practicable quantitation limit found in SW-846 for soils and groundwater were met for each parameter. \_\_\_\_\_  
(Initial)

I hereby affirm that all information contained in this form is true and accurate to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**SAMPLE COLLECTOR**

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**LABORATORY**

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**NOTE: At least one copy must contain all original signatures.**

The Agency is authorized to require this information under 415 ILCS 5/4 and 21. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

ILCS 242.0/242.01 and 242.020/242.021. Failure to do so may result in a civil penalty up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and imprisonment up to five years. This form has been approved by the Forms Management Center.

LUST Incident No.:		Boring Number:		Page: _____ of _____			
Site Name:		Boring Location:		Date: Start _____			
Address:				Finish _____			
Sample Number	Sample Type	Sample Recovery	Depth (feet)	Detailed Soil and Rock Description	<input type="checkbox"/> Natural Gas Content <input type="checkbox"/> P.L. % 0                      60	Penetration (SP) SPT/PTD/FID	Remarks
<p>Note: Stratification lines are approximate; in-situ transition between soil types may be gradual.</p>							
<b>Groundwater Data</b> <input type="checkbox"/> Depth While Drilling _____ <input type="checkbox"/> Depth After Drilling _____		Auger Depth _____ Rig Type _____ Rotary Depth _____ Driller _____ Geologist _____		 Illinois Environmental Protection Agency			
<p>Note: Boring backfilled unless otherwise noted.</p>							

## MEMORANDUM

**DATE:** October 27, 1993

**TO:** Owners and Operators of Underground Storage Tanks

**FROM:** Harry Chappel, P.E., Manager, LUST Section

**SUBJECT:** Public Act 88-496

On September 23, 1993, Public Act 88-496 was signed into law establishing new requirements for Petroleum Underground Storage Tanks. Owners or Operators of petroleum underground storage tanks reporting a release on or after September 13, 1993 shall comply with these requirements.

In response to these changes, the Illinois EPA, Leaking Underground Storage Tank Section is issuing the attached forms to help tank owners or operators with the preparation and submission of plans and reports. The forms identify the regulatory and statutory requirements applicable to a leaking underground storage tank, and standardize the format of the plans and reports required to be submitted. Listed below are the required plans and reports and how they apply to the three site classifications.

### Report Checklist

No Further Action  
 Low Priority  
 High Priority

20 Day Report	■	■	■
45 Day Report	■	■	■
Free Product Report	●	●	●
Request for Site Specific Objectives	*	*	*
Site Classification Budget	□	□	□
Site Classification Work Plan	■	■	■
Site Classification Completion Report	■	■	■
Groundwater Monitoring Budget		□	
Groundwater Monitoring Plan		■	
Groundwater Monitoring Result Report		■	
Low Priority No Further Remediation P.E. Certification		■	
Corrective Action Budget			□
Corrective Action Plan			■
Corrective Action Completion Report			■
High Priority No Further Remediation P.E. Certification			■

- is required
- is required if free product is encountered, please note that additional reports may be necessary
- \* is required if seeking site specific objectives
- is required if seeking reimbursement

Owners or operators who reported a release of petroleum prior to September 13, 1993 may elect to proceed under the requirements of Public Act 88-496 by submitting a written statement to the Agency stating their intent. Along with or following the submission of this statement, the owner or operator will need to provide a plan for site classification and budget as indicated above. In the event sufficient information has already been obtained to classify the site, the owner or operator will need to submit the site classification report. At this point, the owner or operator will need to proceed as indicated above following the appropriate classification category.

*Please note, you will not need to resubmit reports that were previously submitted should you elect to proceed under Public Act 88-496.*

Owners and operators that reported a release of petroleum prior to September 13, 1993, and do not wish to proceed under the requirements of Public Act 88-496 should proceed with their corrective action activities following the requirements of 35 Ill. Adm. Code, Part 731.

Owners or operators of non-petroleum tanks are required to submit the following reports following the discovery of a release:

1. 20 Day Report
2. 45 Day Report
3. Free Product Recovery Report, if applicable
4. Request for Site Specific Objectives, if applicable
5. Corrective Action Plan
6. Corrective Action Completion Report

*Please Note: The attached forms are intended to assist owners and operators in complying with Public Act 88-496. Use the forms as guidance in the preparation of plans and reports required by the Act, but please refer to the Act and 35 Ill. Adm. Code, Part 731 to ensure all requirements have been met prior to submitting a plan or report. The forms will be revised as necessary to ensure they address all requirements and concerns.*

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## **20 Day Certification form**

35 Illinois Administrative Code Section 731.162 requires that a report be submitted to the Agency **within 20 days** after a reported release. The Agency requires that the owner and operator sign this certification in the presence of a Notary of the Public. The Notary shall sign, seal, and date this certification on the same date that the owner and operator sign.

## **45 Day Report form**

35 Illinois Administrative Code Section 731.163 requires that this report be submitted to the Agency **within 45 days** after a reported release.

### **Section A. - Site Identification**

Every blank in this section should be filled in correctly.

### **Section B. - Site Information**

1. Will the owner/operator be seeking reimbursement for cost from the Underground Storage Tank Fund (Fund)?  
If the owner/operator will be seeking reimbursement for corrective action cost from the Fund then Yes should be marked.
2. Has the site been deemed eligible to seek reimbursement for corrective action costs from the Underground Storage Tank Fund (Fund)?  
If the site has been deemed eligible to seek reimbursement for corrective action cost by either the Office of the State Fire Marshal or the Illinois Environmental Protection Agency then Yes should be marked.
3. What was the material released and was the material released a petroleum product.  
The material(s) released should be listed on this form.

### **Section C. - Early Action**

Answer Yes or No to all of the questions and include all of the necessary attachments for this number.

### **Section D. - Enclosures**

On separate attachments provide the information requested below

- a. Steps taken to prevent any further release of the regulated substances into the environment
- b. Steps taken to identify and mitigate fire, explosion and vapor hazards
- c. Data on the nature and estimated quantity of release
- d. Data from available sources or site investigations concerning the following factors:
  - i. Surrounding populations
  - ii. Water quality
  - iii. Use and approximate locations of wells potentially affected by the release
  - iv. Subsurface soil conditions
  - v. Climatological conditions
  - vi. Land use
- e. Results of the Site Check required under 35 Illinois Administrative Code Section 731.162(a)(5)
- f. Site map to scale and oriented north showing:
  - i. UST system(s) and excavation
  - ii. Product and dispenser lines
  - iii. Pump and islands
  - iv. Sewer, gas, water and electrical utility lines
  - v. Nearby buildings, roads, etc.
  - vi. Soil boring(s)
  - vii. Monitoring well(s) (if required)
- g. A cross section, to scale, with dimensions showing the UST(s) and the excavation
- h. Tank information including the total number of tanks on site, the volume of the tanks (in gallons), the material stored in the tank, which tank system had a release
- i. Photographs documenting the required actions
- j. A timetable and narrative of the work performed

### **Section E. - Signatures**

The owner and operator (if different than the owner) must sign this report.

### **Free Product Report form**

35 Illinois Administrative Code Section 731.164 requires that a report be submitted to the Agency within 45 Days after confirming a release.

#### **Section A. - Site Identification**

Every blank in this section should be filled in correctly.

#### **Section B. - Site Information**

The questions in this section must be answered and all necessary enclosures must be attached.

#### **Section C. - Enclosures**

##### **1. Site map**

Site Map to Scale and Oriented North showing:

- a. UST system(s) and excavation
  - b. Product and dispenser lines
  - c. Pump and islands
  - d. Sewer, gas, water and electrical utility lines
  - e. Nearby buildings, roads, etc.
  - f. Soil boring(s)
  - g. Monitoring well(s) (if required)
  - h. The locations where free product was encountered including the estimated thickness
2. The type of free product recovery to be used on site. Also include a discussion of how this recovery method was chosen and how this method meets the needs of the site better than other methods of free product recovery.
  3. The free product recovered in a tabular format.  
The amount of free product recovered per the dates that the free product was recovered in a table(s).

#### **Section D. - Additional Reporting of Free Product and Free Product Recovery**

If additional free product is encountered, then the product must be recovered and additional reports must be submitted to the Agency within 45 days of discovering the additional free product.

#### **Section E. - Signatures**

The Owner, Operator (if different than the owner), and the person(s) responsible for performing the free product measures (if different than the owner or operator) must sign this report.

### **Site Classification Work Plan form**

415 ILCS 5/57.7 (a) (1) requires that all owner/operators submit a physical soil classification and groundwater investigation plan designed to determine site classification.

#### **Section A. - Site Identification**

Every blank in this section should be filled in correctly.

#### **Section B. - Site Information**

1. Indicate the number of soil borings to be advanced on-site.  
The total number of soil borings to be advanced on site should include the total number of borings and/or soil gas survey sampling points used (on site) to determine the geologic characteristics of the site and the migration of soil and/or groundwater contamination off-site and along natural and/or man-made conduits.
2. Are you proposing to install monitoring wells on-site?  
Yes or No should be checked for this number. For sites where the site classification work plan includes the installation of new monitoring wells, the owner/operator should mark this question yes and include a discussion of under what conditions monitoring wells would be installed. In such a case where monitoring wells may be installed, the owner/operator must include enclosures 1, 2, 3, and 4.

#### **Section C. - Enclosures**

The Agency requires that the information listed below be included in the attachments:

1. Soil boring advancement/sampling proposal:
  - a. A discussion of drilling methods that will be used.
  - b. A discussion of the basis for determining the location and number of soil borings placed both on and off site.
  - c. A discussion of activities that will be taken to prevent cross-contamination during soil boring activities.

- d. A discussion of the basis for determining the soil sampling interval.
- e. A discussion of soil sampling procedures.
- f. A discussion of the activities that will be taken to prevent cross-contamination between soil samples.
- g. A discussion of the geologic test to be performed to determine the physical characteristics of the site.
- h. A discussion of how the existing/proposed final soil boring configuration and boring depths will provide the greatest likelihood of determining the geologic characteristics of the site.

Please note that the Agency requires a minimum of three soil borings to characterize the geology of the site.

2. Groundwater monitoring well installation/sampling proposal:

- a. A discussion of drilling methods that will be used.
- b. A discussion of the basis for determining the location and number of monitoring wells placed at the site.
- c. A discussion of monitoring well installation procedures.
- d. A discussion of activities that will be taken to prevent cross-contamination during well installation.
- e. A discussion of the basis for determining the monitoring well screen depth and screened interval.
- f. A discussion of monitoring well development procedures.
- g. A discussion of monitoring well sampling procedures.
- h. A discussion of the activities that will be taken to prevent cross-contamination between groundwater samples.
- i. Monitoring well construction diagrams.
- j. A discussion of how the proposed final monitoring well configuration will provide the greatest likelihood of detecting the migration of groundwater contamination at the property lines.

Please note that the Agency requires that a minimum of four (4) stainless steel groundwater monitoring wells be installed when monitoring wells are required. These wells must be placed at the property boundary or 200 feet from the excavation, whichever is less. The wells must be installed in such a way that they provide the greatest likelihood of detecting migration of groundwater contamination.

3. Site map

Please submit a site map to scale and oriented north showing:

- a. UST system(s) and excavation
- b. Product and dispenser lines
- c. Pump and islands
- d. Sewer, gas, water and electrical utility lines
- e. Nearby buildings, roads, etc.
- f. Location for the proposed soil boring(s)
- g. Location for the proposed monitoring wells (if required)

4. Narrative and Timetable

The Narrative must include, at a minimum, the following information:

- a. The steps that will be taken to determine the minimum and maximum setback zones for potable water supply wells and regulated recharge areas within 1,000 feet of the site.
- b. The sampling and analysis that will be taken to demonstrate that migration has not occurred.
- c. The steps to be taken that will demonstrate that a surface body of water has not been impacted
- d. The steps taken to demonstrate that a Class III Special Resource Groundwater is not located within 200 feet of the excavation.

The timetable must include dates which the work will be performed.

Section D. - Signatures

The Agency requires the owner, and operator (if different than the owner) sign this form.

**Site Classification Completion Report form**

415 ILCS 5/57.7 (a) (3) requires owners/operators to submit to the Agency the information requested below within 30 days of completion of the physical soil classification and groundwater investigation report.

Section A. - Site Identification

Every blank in this section should be filled in correctly

Section B - Site Information

- 1. Will the Owner/Operator be seeking reimbursement from the Underground Storage Tank Fund?
- 2. Did the Site have a release of petroleum? The owner/operator must answer YES or NO to these questions.
- 3. Site Classification  
The site should be classified using the following checklist;

# Classification Checklist

High Priority  
 Low Priority  
 No Further Action

Site is located within the setback zone of a potable water supply well or regulated recharge area			<input checked="" type="checkbox"/>
A Class III Special Resource Groundwater is located within 200 feet of the excavation			<input checked="" type="checkbox"/>
A surface body of water was adversely affected			<input checked="" type="checkbox"/>
The migration of petroleum or petroleum vapors pose a health risk or may cause property damage			<input checked="" type="checkbox"/>
Groundwater objectives or standards are exceeded at the property boundary or within 200 feet of the excavation which ever is less			<input checked="" type="checkbox"/>
The geology on the site is <u>not</u> consistent with the D, E, F, or G areas of the Berg Circular		<input type="checkbox"/>	
The geology on the site is consistent with the D, E, F, or G areas of the Berg Circular	<input type="checkbox"/>		

if any of the characteristics of high priority exist then the site is High Priority

this classification is correct if the site does not have any High Priority Characteristics

## 4. through 7

Is the UST(s) system located within the minimum or maximum setback zone of a potable water supply well or regulate recharge area?

Is a Class III Special Resource Groundwater located within 200 feet of the excavation?

Has a surface body of water been adversely affected (i.e visible sheen, free product layer) by a release from a UST(s) system?

Is there evidence that migration of petroleum or petroleum vapors poses a human health risk or may cause property damage at present or in the past? The owner/operator must answer YES or NO to each of these questions.

## 8. The geology on site is consistent with which Berg Circular classification.

- a. D is uniform, relatively impermeable sandy till at least 50 feet thick, no evidence of interbedded sand and gravel
- b. E is uniform, relatively impermeable silty or clayey till at least 50 feet thick, no evidence of interbedded sand and grave
- c. F is relatively impermeable bedrock within 20 ft of surface, mostly overlain by till or other fine-grained materials
- d. G is relatively impermeable bedrock within 20 to 50 ft of surface overlain by till or other fine-grained materials
- e. Other is any other geology.

## Section C. - Enclosures

### 1. Narrative and timetable

The narrative must contain at a minimum the steps taken to answer questions 3 thru 7 of Section B and a discussion of any off-site impact that was detected. The time table must include at a minimum the dates that the work was performed and who performed the work on those days.

### 2. Soil boring logs

Soil boring logs must be submitted on standard Agency Boring Logs (attached).

### 3. Groundwater monitoring well logs

Monitoring well logs must be submitted on standard Agency monitoring well logs (attached).

4. Groundwater analytical results  
At a minimum the following information should be submitted in this attachment:
  - a. All of the analytical results in a tabular format
  - b. A legible copy of all actual laboratory reports
  - c. A legible copy of chain of custody reports
  - d. A completed Laboratory Certification
- 5 Site map
  - a. Please submit a site map to scale and oriented north showing:
    - i. UST system(s) and excavation
    - ii. Product and dispenser Lines
    - iii. Pumps and islands
    - iv. Sewer, gas, water and electrical utility lines
    - v. Nearby buildings, roads, etc.
    - vi. Location of the soil boring(s)
    - vii. Location of the monitoring wells (*if required*)
  - b. A horizontal cross section showing the various geologic units and the depth to groundwater.
  - c. An area map showing the site and all of the potable water supply wells and regulated recharge areas within 1,000 feet of the site; in addition, the Agency requires that these wells be numbered. This map must be marked with circles to show the 200, 400, and 800 foot radius from the site.
6. Results of the physical soil classification  
The Agency requires that the results of the Physical Soil Classification be included in this attachment. Also include the legible copies of the actual data and the calculations used to determine the physical characteristics.
7. Water supply well set back chart  
The Agency requires that the following information be submitted in a tabular format.
  - a. The number of the water supply well from the map required in enclosure 5 c.
  - b. The use of the well (industrial, public water supply, private water supply, etc.).
  - c. The set back zone of the well
  - d. The distance from the site to the well

#### Section D. - Signatures

The Agency requires that the Owner and Operator (if different than the Owner) and Professional Engineer sign the report. The Professional Engineer must also place his or her seal on this form.

#### Groundwater Monitoring Plan form

415 ILCS 5/57.7 (c) (B) requires that prior to implementation of groundwater monitoring, the owner or operator shall prepare and submit to the Agency a groundwater monitoring plan.

#### Section A. - Site Identification

Every blank in this section should be filled in correctly.

#### Section B. - Site Information

1. Indicate the number of monitoring wells currently on-site  
This is the total number of monitoring wells on site
2. Are you proposing to install additional monitoring wells to supplement those already on-site?  
If the total number of monitoring wells on site is not enough to determine if groundwater has migrated off-site then additional monitoring wells will be needed.
3. Indicate the appropriate group of sampling parameters for the type of material(s) released.  
The correct indicator parameter should be marked.

#### Section C. - Enclosures

The Agency requires that the information requested below be included in attachments:

1. Time table with dates for the additional work  
This should include dates for the installation and sampling of the new monitoring wells.
2. Additional monitoring well information  
If additional monitoring wells are being proposed, then submit the following information:
  - a. A discussion of drilling methods that will be used.
  - b. A discussion of the basis for determining the location and number of additional monitoring wells placed at the site and if necessary off-site.
  - c. A discussion of monitoring well installation procedures.
  - d. A discussion of activities that will be taken to prevent cross-contamination during well installation.

- e. A discussion of the basis for determining the monitoring well screen depth and screened interval.
  - f. A discussion of monitoring well development procedures.
  - g. A discussion of monitoring well sampling procedures.
  - h. A discussion of the activities that will be taken to prevent cross-contamination between groundwater samples.
  - i. Well construction diagram(s).
3. Site maps  
Please submit a site map to scale and oriented north showing:
- a. UST system(s) and excavation
  - b. Product and dispenser lines
  - c. Pump and islands
  - d. Sewer, gas, water and electrical utility lines
  - e. Nearby buildings, roads, etc.
  - f. Location of the soil boring(s)
  - g. Location of the monitoring Wells
  - h. Location for the proposed monitoring well(s) (if required)
4. A discussion of the how the monitoring well location plan will address groundwater contamination.  
Discuss how the existing/proposed final monitoring well configuration will provide the greatest likelihood of detecting the migration of groundwater contamination.

#### Section D. - Signatures

The Agency requires that the Owner and Operator (if different than the Owner) sign this report.

#### Groundwater Monitoring Result Report form

415 ILCS 5/57.7 (c) (2) (B) (iii) requires that the groundwater be sampled for three years and the submittal of a summary of groundwater sampling results.

The Agency has set the time frame for the submitting these sampling results and the time frame is listed below:

The first sampling report contains the following results:

- 1. Year one (1) first quarter samples
- 2. Year one (1) second quarter samples

The second sampling report contains the following results:

- 1. Year one (1) third quarter samples
- 2. Year one (1) fourth quarter samples
- 3. Year two (2) first biannual samples

The third sampling report contains the following results

- 1. Year two (2) second biannual samples
- 2. Year three (3) annual sample

#### Section A. - Site Identification

Every blank in this section should be filled in correctly.

#### Section B. - Site Information

The correct answer should be checked or answered in this section.

#### Section C. - Enclosures

Provide the following information in the attachments.

- 1. Narrative on how the samples were collected  
Provide a discussion on how the samples were collected and handled. In addition the Agency requires a legible copy of the chain-of-custody forms.
- 2. Analytical results in tabular format  
This enclosure should be a summary of the analytical results in a tabular format.
- 3. Laboratory Certification(s)  
Provide a laboratory certification and enclose it with the report for each round of sampling that this report represents. The first year Groundwater Monitoring Result Report should include two (2) Laboratory Certifications, the second year Groundwater Monitoring Result Report should include three (3) Laboratory Certifications, and the third year Groundwater Monitoring Result Report should include one (2) Laboratory Certifications.
- 4. Actual analytical results  
This enclosure should consist of legible copies of the analytical results.

#### Section D - Signatures

The Agency requires that the Owner and Operator (if different than the Owner) sign this report.

#### Low Priority No Further Remediation Certification form

415 ILCS 5/57.7 (c) (2) (D) states that if, throughout the groundwater monitoring the sampling results do not confirm an exceedance of applicable indicator contaminant groundwater quality standards or groundwater objectives as a result of the underground storage tank release, the owner or operator shall submit to the Agency a P.E. Certification.

#### Corrective Action Plan form

415 ILCS 5/57.7 (c) (1) (A) states that prior to performance of any corrective action the owner/operator shall submit a corrective action plan to the Agency.

#### Section A - Site Identification

Every blank in this section should be filled in correctly.

#### Section B - Site Information

1. (a) through (e) Place a check by #1 IF the corrective action plan is being submitted pursuant to 57.7(c)(1)(C). In addition, indicate which of the five criteria listed served as a basis for determining this site a High Priority site by placing a check in the appropriate space(s).
2. (a) and (b) Place a check by #2 IF the corrective action plan is being submitted in pursuant to 731 166 of the Illinois Administrative Code. In addition, indicate whether statement (a) or (b) applies by placing a check in the appropriate space.

#### Section C - Additional Investigations

1. If additional soil investigations were performed to define the horizontal and vertical extent of contamination, then mark YES, otherwise mark NO
2. If additional groundwater investigations were performed in order to define the plume of contamination then mark YES, otherwise mark NO

#### Section D - Proposed Method(s) of Remediation

Please indicate which of the remedial technologies have been selected by placing a check by the chosen method(s).

#### Section E - Enclosures

##### 1. Soil investigations

If you marked YES for item C.1 then provide the following:

1. A discussion of the drilling methods that were used and why these methods were chosen.
2. A discussion of the activities undertaken to prevent cross-contamination between boreholes/sampling points.
3. A discussion of the approach that was taken to determine the location and number of borings/sampling points required to fully define the plume of contamination on & off-site. (If access to neighboring properties was denied, you must provide documentation of such).
4. A discussion of how the sampling interval for each boring/sampling point was determined and how the sample was collected.
5. A discussion of how the maximum depth of each soil boring/sampling point was determined.
6. A discussion of the activities undertaken to prevent cross-contaminants of soil samples.
7. Copies of boring logs.
8. An analytical summary of sample results in tabular format indicating 1) depth of sample 2) field reading 3) concentration and 4) detection limit.

##### 2. Groundwater investigations

If you marked YES for item C.2 then provide the following:

###### A. Groundwater methodology

1. A discussion of drilling methods that were used and why these methods were selected.
2. A discussion of the basis for determining the location and number of monitoring wells placed at the site and off-site if necessary.
3. A discussion of activities undertaken to prevent cross-contamination during well installation.
4. A discussion of monitoring well installation procedures and monitoring well construction.
5. A discussion of monitoring well development procedures.
6. A discussion of monitoring well sampling procedures.
7. A discussion of the basis for determining the monitoring well screen depth and screened interval.
8. A discussion of the activities undertaken to prevent cross-contamination between groundwater samples.

###### B. Groundwater investigation results

1. Characterization of the geology beneath the site; and

2. The hydrogeologic characteristics of the site such as porosity, permeability, and hydraulic conductivities.
3. Site characterization showing nearby residences, public water wells, private water wells, water ways, etc.
4. Groundwater contour maps showing groundwater flow direction.
5. Stratigraphically correlated hydrogeologic cross section(s) or three dimensional diagram(s) developed from borings at the site which adequately define the spatial relationships between subsurface geology.
6. Groundwater contamination plume depicting the horizontal and vertical extent of contamination exceeding the cleanup objectives and/or groundwater quality standards.
7. Evaluation of the potential impact of the contamination to effect on or off-site water wells, residences, buildings, etc.
8. The proximity, quality and current uses of nearby surface water and groundwater.
9. The effects of residual contamination on nearby surface water and groundwater.
10. Summary of the laboratory results for all groundwater samples and a copies of the laboratory reports.
11. Boring logs and well completion reports.

1. Information on proposed method(s) of soil remediation

Complete each of the sections below which correspond to the technologies proposed.

1. Soil excavation and disposal:

- a. An estimate of the amount of contaminated soil that will be removed (cubic yards) and an explanation of how the amount was determined.
- b. The final destination of the waste.
- c. Proposed method of disposing of/treating any groundwater encountered during excavation activities.
- d. Proposed method(s) of remediating contaminated soil that may not be accessible to excavation equipment.

2. Soil vapor extraction system or active in-situ bioremediation:

- a. Description of site geology and site hydrogeology, including stratigraphic cross-sections from on-site borings and soil classification.
- b. Chemical composition of the contaminant including an evaluation of the effectiveness of the system based on the compounds present and their respective concentrations.
  1. outline of the facility
  2. location of UST System(s)
  3. location of roads and sewers adjacent to property
  4. location of monitoring wells and soil borings
  5. physical boundary of contamination
  6. identification of adjacent property
- d. Design criteria shown on site map to scale:
  1. number of wells (extraction and injection points)
  2. well (extraction and injection) point spacing with radius of influence in both the vertical and horizontal directions
  3. well (extraction and injection) point locations
  4. well (extraction and injection) construction details
  5. extraction or injection system sizing
  6. cross-sections showing the above information
  7. type of bio-mass
- e. Flow path of carrier vapor or media in relation to the location of the contamination.
- f. Mass balance removal rates and time required to achieve the clean-up objectives.
- g. Evaluation of the effectiveness of the proposed system given the facilities soil types.
- h. Design and specification details of the treatment system for extracted vapors or liquids.
- i. Description of sampling and analysis plan to monitor the effectiveness of the system.
- j. Description of groundwater monitoring program. A minimum of one upgradient monitoring well and three downgradient monitoring wells from the area of known contamination will be required.
- k. Description of the operation and maintenance of the system.
  1. Detailed, itemized, cost estimates for the design, installation, capital, maintenance and closure of the proposed system.
- m. Engineering and cost evaluation of the proposed techniques to conventional techniques (i.e. excavation and disposal off-site of contaminated soil).
- n. Detailed plan for final site confirmation sampling to end the remediation.
- o. For soil vapor extraction only:
  1. Vapor flow rates through the unsaturated zone.
  2. Methods used to seal vapor extraction wells.
  3. Methods of handling water vapor collected during system operation.

4. Methods of noise pollution control.

5. Methods of air pollution control.

q. For in-situ bioremediation only:

1. Population counts for total and contaminant-degrading indigenous bacteria. If "cultured" microbes are proposed to be utilized in a bioreclamation process, then a description of how the microbes were selected and cultured should be provided as well as assurances that they are not pathogenic. If indigenous, contaminant-degrading microbes are present, then an explanation should be provided detailing how the addition of the cultured microbes will benefit the bioreclamation cleanup (including time and costs factors).
2. A characterization of the background groundwater quality and also a characterization of the quality of the impacted groundwater. This includes chemical analyses for cations, anions, dissolved oxygen, pH, etc. This is something which should be monitored during and after site cleanup. It is especially important that analyses for nitrogen as nitrate, nitrite, and ammonia be performed as well as for phosphate.  
(If groundwater is part remediation.)
3. A determination of the nutrient requirements (and moisture requirements for unsaturated zone cleanups) necessary for optimal growth of the contaminant-degrading microbes and details of how this determination was calculated. Also include a description of any nutrient solution to be used to enhance microbial growth.
4. The estimated extent and rate of biodegradation that can be expected to be achieved.
5. A determination of any potential adverse geochemical or biological reactions that may result due to the bioreclamation cleanup.
6. Also, perform an assessment to determine if any site-specific toxins are present which could inhibit a bioreclamation cleanup.
7. If aerobic microbes are to be utilized, then provide a detailed description of the methods by which oxygen will be applied to the subsurface. If hydrogen peroxide is to be used, then the results of a hydrogen peroxide stability test must be provided. This test should determine if phosphate pretreatment of the subsurface is needed to precipitate iron in groundwater which will catalyze the decomposition of the hydrogen peroxide.
8. A detailed description of all laboratory studies as well as sample collection, preservation, and analytical methodologies. Documentation on existing microbial and nutrient laboratory studies proposed for the site should be submitted.

3. Thermal treatment

- a. Type of equipment and model number,
- b. Maximum amount of soil to be treated (volume/hour),
- c. Estimated daily amount of soil to be treated,
- d. Operating temperature,
- e. Residence times of soil, gases, and ash,
- f. Description of pollution control devices,
- g. Information on the management of soil prior to treatment and after treatment,
- h. Design specifications.
  1. plan view, elevation view, isometric view of treatment equipment and pollution control equipment,
  2. schematic diagram of the unit and pollution control equipment,
  3. the location of all monitors must be indicated on the above drawings,
  4. minimum, maximum, and nominal operating conditions: CO levels, HCl levels, temperature, combustion gas flow rates, etc.,
  5. detailed description of how the system interlocks and emergency soil feed cut-off system work.

4. Land treatment

- a. Provide a geographic map (or maps) of the area which contains the site or facility, drawn to a scale of one inch equal to no more than 200 feet, containing 5-foot contour intervals where the relief exceeds 20 feet, and 2-foot contour intervals where the relief is 20 feet or less, and reference to a United States Geological Survey datum.
- b. Provide a separate map or plan sheet, using the same scale as the topographic map, showing the outline of the facility (include all essential dimensions and legal boundaries), the location of all storage tanks, process building, transfer facilities, loading and unloading area, access roads, storm, sanitary and process sewer systems, monitoring and injection wells.
- c. Describe the intended operation of the unit:
  1. type of operation - i.e., continuous or batch;
  2. days and hours of operation of the facility (include both "business" and operating hours);
  3. numbers and duties of employees at the facility - include person(s) directly responsible for operation on the unit and the facility;
  4. logistics - describe how wastes are loaded, unloaded and moved within the facility and unit. Provide the estimated traffic volume for this activity, number and type of transporting vehicles and other equipment (i.e. fork lifts, loaders,

- etc.) and identify any safety procedures used to prevent accidents during waste transfer operations;
5. equipment utilized - identify each item's function, physical description, capacity, make and model number and the number of each item used in the operation of each storage or treatment unit;
  6. methods to control dust or odor;
  7. daily cleanup procedures to be used;
  8. security system to prevent unauthorized access to the storage or treatment units; and
  9. frequency of diskings, etc. of the soil in the treatment area.

d. Design information

1. Provide plan view and cross-sections of the treatment areas, storage areas (for incoming waste and treated wastes), containment systems, drainage systems, run-on and run-off control structures.
2. Provide design capacity information (maximum amount of treatment and storage capacity).

e. Pre-construction information:

Provide a sampling and analysis plan to characterize the background level of the constituents of concern in the treatment, storage and run-on/run-off contour areas prior to beginning treatment.

f. Run-on/run-off:

1. Provide design information (drawings, calculations, etc.) on the capacity of the system to contain run-off from any storage areas (treated and untreated) and the treatment system.
2. Provide design information, drawing, etc. on the run-on control system.

g. Operation:

1. Describe frequency and amount of waste receipt.
2. Describe sampling plan for incoming waste and waste in treatment area. (include frequency, location parameters, etc.)

2. Information on proposed method(s) of groundwater remediation

Complete each of the sections below which correspond to the technologies proposed:

1. Geologic and hydrogeologic conditions (i.e. hydraulic conductivity - field determined through slug or pump tests, grain size distribution, porosity, hydraulic gradient, stratigraphy, etc.);
2. Depth to the top of fluids (water and hydrocarbon);
3. Identification of water bearing stratum beneath the site;
4. Direction of groundwater flow;
5. Product characteristics (i.e. density, viscosity, solubility, Henry's law constant, etc.);
6. Estimated range of fluid level fluctuation during recovery operation, if applicable;
7. Aerial extent of floating and dissolved product;
8. Minimum and maximum pumping rates of the designed system;
9. Groundwater monitoring plan to monitor water quality downgradient of the treatment system to determine effectiveness of the corrective action;
10. Sample ports prior to and immediately after the treatment unit to determine when the treatment system can be shut down.
11. For recovery trenches the following items must be provided:
  - a. Provide a description of how the bottom depths of the trenches were chosen;
  - b. Trench design details must include:
    1. open trench or gravel filled,
    2. trench slope,
    3. trench sump depth,
    4. trench pumps - hydrocarbon and explosion resistant,
    5. construction materials, screen size (if applicable),
    6. estimate of amount of water to be discharged and the area of influence from the trench (provide all calculations and equations used),
    7. effects of free product,
    8. location of flow meters.
12. For recovery wells the following additional items must be addressed:
  - a. calculations of well spacing and expected pumping rates (provide equations and calculations used),
  - b. location of the top of the screen in relation to the depth of groundwater and product,
  - c. flow meters for each pumping well,
  - d. types of pumps - vacuum lift, etc.,
  - e. number of pumps, one or two pump recovery.
13. Describe all recovery systems which were considered and justify the type of recovery system which was chosen.
14. Provide a schedule indicating when construction and operation of the system will begin.
15. Provide the date by which it is estimated that remediation will be complete.

16. Describe the operation and maintenance procedures/schedule for the system.
17. Provide a schedule for post-remediation groundwater monitoring to ensure that groundwater quality standards have been met (sample results submitted to demonstrate completion of remediation must be collected from wells having stainless steel only in the saturated zone).
18. Identify all permits which have been issued for the recovery system and any discharge.
19. Complete the Request for Groundwater Management Zone.
5. Explanation of how the proposed technologies will mitigate and/or remediate threats identified in Section B. Provide information to demonstrate that each of the items identified in Section B will be addressed by the proposed method(s) of remediation.
6. Description and results of pilot or bench scale study.  
If a pilot or bench scale study has been completed to determine the effectiveness of a proposed treatment technology then this information must be submitted. If you are proceeding under 415 ILCS 5/Title XVI, then this information must be submitted.

#### Section F - Signatures

The Agency requires that the owner and operator (if different than the owner) sign in the spaces provided.

#### Corrective Action Completion form

415 ILCS 5/57.7 (c) (1) (D) states that within 30 days of completion of the corrective action, the owner or operator shall submit to the Agency a Completion Report.

#### Section A.

Every blank in this section should be filled in correctly.

#### Section B 1. through 6.

Will the owner/operator be seeking reimbursement for costs from the Underground Storage Tank Fund?

Did the site have a release of petroleum?

Was the UST(s) system located within the minimum or maximum setback zone of a potable supply well or regulated recharge area?

Is a Class III Special Resource Groundwater located within 200 feet of the UST(s) system?

Was a surface body of water adversely affected by the release from the UST(s) system?

Is there evidence that migration of petroleum or petroleum vapors pose a health risk or may cause property damage at present or in the past?

Answer Yes or No to these questions.

#### 7. Type of remedial action chosen

The Agency requires that following enclosures be attached to the reporting form as outlined below.

##### a. Soil

**Excavation** - Narrative and timetable, analytical results, volume of soil treated or disposed, manifest, site map, and Professional Engineer certification.

**Land Treatment** - Narrative and timetable, analytical results, volume of soil treated or disposed, site map, Professional Engineer certification, and the additional information requested below;

- i. Steps necessary for the final shut down of the unit at the end of its intended operational life.
- ii. Steps necessary to prevent damage to the environment during temporary suspension of waste acceptance and operation of the system during suspension of waste acceptance at the units without initiating final shut down.
- iii. A description of the steps necessary to decontaminate equipment (including clean up equipment) during final shut down.
- iv. Constituent levels, sampling, and analytical requirements that demonstrate the unit(s) have been restored to background levels (also include appropriate detection limits).
- v. How areas around the unit will be checked for contamination from spills, etc. and if found how, and to what extent will any contaminated areas be remediated.
- vi. How all facility and unit equipment and structure will be cleaned, if necessary.
- vii. How any cleanup equipment or waste generated from the cleaning process will be managed.

**Vacuum Extraction** - Narrative and timetable, soil boring logs, analytical results, site maps, Professional Engineer Certification and the additional information requested below;

- i. Steps necessary for the final shut down of the unit at the end of its intended operational life.
- ii. A description of the steps necessary to decontaminate equipment (including clean up equipment) during final shut down.
- iii. How all facility and unit equipment and structure will be cleaned, if necessary.
- iv. How any cleanup equipment or waste generated from the cleaning process will be managed.

**Bioremediation** - Narrative and timetable, soil boring logs, analytical results, site maps, Professional Engineer Certification, and the additional information listed below;

- i. The oxygen, carbon dioxide, nitrogen, and phosphorous levels remaining in the soil after remediation is complete.

- ii. Steps necessary for the final shut down of the unit at the end of its intended operational life.
- iii. A description of the steps necessary to decontaminate equipment (including clean up equipment) during final shut down.
- iv. How all facility and unit equipment and structure will be cleaned, if necessary.
- v. How any cleanup equipment or waste generated from the cleaning process will be managed.

**Thermal Treatment** - Narrative and timetable, analytical results, volume of soil treated or disposed, site maps, and Professional Engineer Certification.

b. Groundwater recovery

**Recovery Wells** - Well logs (for the recovery wells only) and site map

**Recovery Trenches** - site map

c. Groundwater treatment

**On-Site Treatment** - Analytical results, Professional Engineer Certification (if not already included), and the following information;

- i. A description of the steps necessary to decontaminated equipment (including cleaning equipment) during closure activities.
- ii. How areas around the facility will be checked for contamination from spills during remediation, etc.; and if contamination is found how and to what extent will any contaminated areas be remediated.
- iii. A diagram of the treatment unit.
- iv. What was the volume of water treated and discharged.
- v. A legible copy of the discharge permit.
- vi. What was the volume of free product recovered.
- vii. If free product was recovered the Agency will require manifest for the free product disposed.

**Off-Site Disposal** - Analytical results, Professional Engineer Certification (if not already included), and the following information;

- i. What was the volume of water hauled off site.
- ii. Manifest for the disposal of the water.

**Section C. - Enclosures**

The information requested below be must be included in the attachments:

1. Narrative and timetable

The narrative must contain at a minimum the steps taken to remediate the site. This includes the steps taken to address each of the criteria that indicated that the site is High Priority (Section B, #3 - #6). The time table must include at a minimum the dates that the work was performed and who performed the work on those days.

2. Soil boring logs

Soil boring logs must be submitted on standard Agency Boring Logs (attached) for all borings used to demonstrate that no further remediation is necessary.

3. Analytical results

At a minimum the following information should be submitted in this attachment:

- a. All of the analytical results in a tabular format.
- b. A legible copy of all the actual analytical results
- c. A legible copy of chain of custody reports
- d. A completed Laboratory Certification

For sites using land treatment or low thermal treatment the pre and post treatment sample analysis will also have to be included.

4. Site maps

a. Please submit a site map to scale and oriented north showing:

- i. UST system(s) and excavation
- ii. Product and dispenser lines
- iii. Pump and islands
- iv. Sewer, gas, water and electrical utility lines
- v. Nearby buildings, roads, etc.
- vi. Location of the soil boring(s) used for closure samples (if borings were used)
- vii. Location of the monitoring wells (if required)
- viii. Location of the recovery wells (if required) and also include the radius of influence for the recovery wells
- ix. The recovery trench (if required) and also include the area of influence of the recovery trench.
- x. The direction of groundwater flow (if groundwater was treated).
- xi. The area of groundwater contamination (if groundwater was impacted).
- xii. Area of soil contamination (if soil was treated).
- xiii. The soil sampling locations.

- b. A horizontal cross section showing the various geologic units, the depth to groundwater, the depth of groundwater contamination (if groundwater was impacted) and the cross section of the recovery trench if a recovery trench was used.
5. Professional Engineer Certification  
An Illinois Licensed Professional Engineer must complete and certify this certification and attach it to the report.
6. Well logs  
Monitoring well logs must be submitted on standard Agency monitoring well logs (attached).
- 7 Other  
This would include the additional information required in each remedial action chosen.

#### Section D.

The Agency requires that the Owner and Operator (if different than the Owner) sign the report.

#### Request for Site Specific Objectives form

This form may apply to owner/operators of non-petroleum USTs or owner/operators of petroleum tanks who wish to comply with the requirements of 35 Illinois Administrative Code, Section 731, Subpart F (those sites for which releases were reported prior to September 13, 1993).

#### Section A. - Site identification

Every blanks in this section should be filled in correctly

#### Section B. - Reason for request for site-specific objectives

Indicate the reason(s) why sites-specific objectives are being requested by checking the appropriate blank(s).

*Note: Reasons 1 through 3 apply to situations where there are no baseline cleanup objectives established for the type of release. Reason 4 applies to situations where cleanup objectives exist (baseline or site-specific) however, the objectives could not be met using conventional technologies. This situation will be most common when excavation and off-site disposal (landfilling) has been utilized.*

#### Section C. - Site information

If you have checked number 4 in Section B either alone or with another, then the following information must be provided:

1. The media of concern (such as soil/groundwater)
2. An estimate of the amount of media remaining above cleanup objectives (soil-cubic yards; groundwater- gallons)
3. A brief description of facility operations. Include current and future activities and the degree of public access.
4. Identify adjacent businesses or facilities. Provide a brief description of facility operations.
5. A general description of the site area (commercial, residential, etc.).
6. A brief discussion of potentially exposed populations (human and environmental) and other sensitive receptors.
7. A brief summary of site geology/hydrogeology. Include depth to groundwater, groundwater flow direction, native soil types, nearby surface waters, nearby potable wells.
8. A brief discussion of potential preferential pathways (i.e. utilities) for migration of contamination.
9. Identification of risks are hazards presented by leaving contamination in place AND provide options or recommendations for minimizing these risks or hazards.
10. If the site will be paved over, indicate the type and depth of pavement (asphalt, concrete).
11. Provide technical justification for this request. Include a discussion for the potential use of alternate technologies to reduce contaminant concentrations.

Other attachments - site maps must be to scale and oriented north:

1. Topographic map. Indicate township, section and range. Identify all public wells within 3,000 feet and private wells within 500 feet of the site.
2. Site map showing the contaminant plume in soil or groundwater as well as all underground utilities which may serve as path ways for migration of contaminants.
3. Analytical summaries. Present in tabular form showing the concentration of contaminants in soil and/or groundwater.

#### Professional Engineer Certification form

This form applies to releases of non-petroleum substances and to releases of petroleum reported prior to September 13, 1993 where the owner/operator has proceeded in accordance with Part 731 of the Illinois Administrative Code. In most cases, the appropriate LUST guidance document will be referenced in the third blank. If the Agency provided site-specific cleanup objectives to the owner/operator or if the Agency determined remediation to be adequate despite having not achieved the baseline or site-specific objectives, the date of the Agency's letter(s) informing the owner/operator of this should also be referenced.

All signatures on this form must be original. The Professional Engineer's seal must also be stamped or embossed on the form.

#### Laboratory Certification form

This form should accompany any analytical data that is being submitted to demonstrate completion of remediation. The form itself may be copied however all signatures and initials must be original.



**BUDGET/BILLING FORMS FOR  
REIMBURSEMENT FROM THE  
UNDERGROUND STORAGE TANK FUND**

1. **Instructions for the Budget and Billing Forms**
2. **Budget and Billing Forms**
3. **Owner/Operator Budget Certification Form**
4. **Owner/Operator Billing Certification Form**
5. **Private Insurance Coverage Questionnaire and Affidavit**
6. **Private Insurance Affidavit**
7. **Federal Taxpayer Identification Form**
8. **Summary Sheet for All Time and Material Charges**
9. **Women and Minority Business Enterprises Form**
10. **Personnel Summary Sheet**
11. **Equipment Summary Sheet**
12. **Stock Items Form**
13. **Field Purchases Form**
14. **Subcontractors Form**



## **INSTRUCTIONS FOR THE BUDGET AND BILLING FORMS FOR REIMBURSEMENT FROM THE UNDERGROUND STORAGE TANK FUND**

### **GENERAL INSTRUCTIONS**

On September 13, 1993, Public Act 88-496 was signed into law; Title XVI, Petroleum Underground Storage Tanks was added to the Illinois Environmental Protection Act. In Title XVI, it is stated that budgets must be approved by the Agency for sites which are subject to Title XVI and are seeking reimbursement from the Fund. New budget/billing forms have been developed by the Agency. The same set of forms will be used for both budget and billing packages. When submitting a budget, budget amendment or a billing package, an owner or operator will indicate on the cover page whether the form is being submitted as a budget, budget amendment or billing package. The forms have been grouped into sections by task. Owners or operators will only need to send in the section of the forms for the tasks which will be performed. For example, if a budget form is being submitted for work associated with classifying a site, the following sections will need to be completed: 1) Site Information; 2) Proposed Budget Summary and Budget Total; 3) Investigation Activities; 4) Sampling; 5) Report Preparation; 6) Handling Charges; 7) and, Budget Certification Form. Time and material budget forms and billing forms will be required for costs associated with groundwater remediation and costs associated with alternative technologies. These activities and costs must have prior Agency approval. Time and material billing forms will be required for early action costs and costs associated with defining the extent of contamination for a high priority corrective action plan; however, budgets do not have to be approved by the Agency for these activities. The billing forms which the Agency has used in the past will still be used for activities that require time and material breakdowns..

**Pursuant to 415 ILCS 5/57.8(a)(6), a complete application for payment consists of:**

1. A certification from a Licensed Professional Engineer and acknowledged by the owner or operator.
2. A statement of the amount approved in the plan and the amount actually sought for payment along with a certified statement that the amount so sought shall be expended in conformance with the approved budget.
3. Proof that approval of the payment requested will not result in payment of more than \$1,000,000.00 to an owner or operator for corrective action costs per occurrence; and, indemnification costs will not be approved in excess of

\$1,000,000.00 per occurrence.

4. A federal taxpayer identification number and legal status disclosure certification on a form prescribed and provided by the Agency.
5. A copy of the OSFM eligibility and deductibility decision.

The required information listed in items 1 through 4 above is requested in the portions of the Budget and Billing Form for Leaking Underground Storage Tank Sites as indicated below. A copy of the OSFM eligibility and deductibility decision will have to be submitted to the Agency by the owner or operator.

Item 1 - Owner/Operator and P.E. Billing Certification form for Leaking Underground Storage Tank Sites. This certification is on a separate form.

Item 2 - Owner/Operator Billing Certification on page C-2.

Item 3 - Owner/Operator Billing Certification on page C-2.

Item 4 - Federal Taxpayer Identification Number and Legal Status Disclosure Certification Requirements Form.

When submitting bills, an accounting of all costs must be provided (i.e., bills and receipts). Documentation that the deductible has been paid must also be provided (e.g., canceled check).

The forms may be copied; however, one form with original signatures must be submitted. The form with original signatures and two copies of budget and billing packages should be mailed to:

Illinois Environmental Protection Agency  
Division of Remediation Management - #24  
Leaking Underground Storage Tank Section  
2200 Churchill Road  
P.O. Box 19276  
Springfield, Illinois 62794-9276

#### **A. SITE INFORMATION**

- This section must be completed for every submittal to the Agency.
- A separate form must be completed for every occurrence at the site.
- It should be indicated on every submittal whether the submittal is a budget proposal, budget amendment or billing package.
- If the submittal is for a budget amendment, only costs over the original budget proposal and subsequent submittals should be listed.
- Reimbursement can only be made to an owner or operator and only if an owner or

operator has been deemed eligible to access the Fund. Therefore, the entity which was deemed eligible or is seeking a reimbursement eligibility decision from OSFM to access the Fund should be listed in the "Pay to the order of" subsection.

- The number of incidents reported to IEMA should be incidents reported at the site.
- The type of release should be indicated on the tank listing. Examples of types of releases are tank overfill, piping leak, tank leak, etc.

#### **B. PROPOSED BUDGET SUMMARY AND BUDGET TOTAL**

- This section must be completed for all budget proposals and budget amendments.
- The amounts listed in this section should only be the amount for each submittal, not cumulative if the submittal is a budget amendment.
- The total costs of each task section should be listed and the budget totaled.

#### **C. APPROVED BUDGET SUMMARY AND BILLING SUMMARY**

- This section must be completed for every billing submittal.
- The amounts listed in this section should only be the amounts for the submittal. Previous submittals or subsequent submittals should not be listed.
- The owner or operator should indicate whether a budget or budget amendment was approved for the costs in the billing package.
- The Owner/Operator Billing Certification on page C-2 must be completed for every billing submittal. Either the owner/operator or an authorized representative must sign the certification. An authorized representative is: 1) for a corporation, a principal executive officer (at least at the level of vice-president); 2) for a partnership, a general partner; 3) for a sole proprietorship, the proprietor; 4) for a municipal, state, federal, or other public agency, either a principal executive officer or a ranking elected official.
- The signature of the certification by the owner or operator must be witnessed by a notary public.

#### **D. INVESTIGATION ACTIVITIES**

- This section should be completed for any budget or billing package when drilling costs, monitoring well installation costs and/or physical soil analysis costs may be or were incurred.
- The amounts listed in this section should only be the amounts for the submittal. Previous submittals or subsequent submittals should not be listed.
- Copies of invoices and receipts must be submitted with billings.

## **E. SAMPLING**

- This section should be completed for any budget or billing package when sampling costs may be or were incurred.
- The amounts listed in this section should only be the amounts for the submittal. Previous submittals or subsequent submittals should not be listed.
- Copies of invoices and receipts must be submitted with billings.

## **F. CORRECTIVE ACTION**

### **Subsection 1 - Low Priority Corrective Action**

- This section should be completed for any low priority budget or billing package.
- Three years of groundwater monitoring are required for low priority sites; quarterly sampling for year 1; semiannual sampling for year 2; and, annual sampling for year 3.
- The sampling and analytical costs for each year should be listed in the budget proposal.
- If the form is being submitted as a billing package, the sampling and analytical costs only need to be submitted for the period for which reimbursement is being sought.
- Copies of invoices and receipts must be submitted with billings.

### **Subsection 2 - High Priority Corrective Action**

- This section should be completed for any high priority budget or billing package.
- Time and material breakdowns should be submitted for groundwater remediation, land farming, aboveground bio-remediation, and in-situ soil remediation.
- The time and materials forms which the Agency previously required for all billing submittals will be required for budget and billing time and material submittals.
- Copies of invoices and receipts must be submitted with billings.

## **G. REPORT PREPARATION**

- This section should be completed for any budget or billing package when report preparation costs may be or were incurred.
- The amounts listed in this section should only be the amounts for the submittal. Previous submittals or subsequent submittals should not be listed.

- Copies of invoices and receipts must be submitted with billings.

## **H. OTHER COSTS**

- This section should be completed for any budget or billing package when costs may be or were incurred which are not listed elsewhere in the budget/billing form.
- The amounts listed in this section should only be the amounts for the submittal. Previous submittals or subsequent submittals should not be listed.
- Cost breakdown for this section should be in a time and material breakdown.
- The time and materials forms which the Agency previously required for all billing submittals will be required for budget and billing time and material submittals.
- A description of the costs and purpose of the activities associated with the costs will be required.
- Copies of invoices and receipts must be submitted with billings.

## **I. HANDLING CHARGES**

- This section should be completed for any budget or billing package when handling charges may be or will be requested.
- The amounts listed in this section should only be the amounts for the submittal. Previous submittals or subsequent submittals should not be listed.
- Handling charges are eligible for payment on subcontractor charges or field purchases.
- Copies of invoices and receipts must be submitted with billings.

## **J. JUSTIFICATION FOR BUDGET AMENDMENTS**

- This section only needs to be completed for budget amendments.
- A narrative justifying the need for a budget amendment must be submitted.

## **OWNER/OPERATOR BUDGET CERTIFICATION FORM FOR LEAKING UNDERGROUND STORAGE TANK SITES**

- This certification must be completed for every budget or budget amendment which is submitted to the Agency.
- The type of activities which are being performed at the LUST site should be indicated in blank line 1 of the certification statement.
- The LUST site name should be indicated in blank line 2 of the certification statement.
- Either the owner/operator or an authorized representative must sign the certification. An authorized representative is: 1) for a corporation, a principal executive officer (at

least at the level of vice-president); 2) for a partnership, a general partner; 3) for a sole proprietorship, the proprietor; 4) for a municipal, state, federal, or other public agency, either a principal executive officer or a ranking elected official.

- An Illinois Licensed Professional Engineer must sign the certification.
- The signature of the certification must be witnessed by a notary public.

### **OWNER/OPERATOR BILLING CERTIFICATION FORM FOR LEAKING UNDERGROUND STORAGE TANK SITES**

- This certification must be completed for every billing which is submitted to the Agency
- The type of activities which are being performed at the LUST site should be indicated in blank line 1 of the certification statement.
- The LUST site name should be indicated in blank line 2 of the certification statement.
- Either the owner/operator or an authorized representative must sign the certification. An authorized representative is: 1) for a corporation, a principal executive officer (at least at the level of vice-president); 2) for a partnership, a general partner; 3) for a sole proprietorship, the proprietor; 4) for a municipal, state, federal, or other public agency, either a principal executive officer or a ranking elected official.
- An Illinois Licensed Professional Engineer must sign the certification.
- The signature of the certification must be witnessed by a notary public.

### **TIME AND MATERIAL BUDGET AND BILLING FORMS**

Instructions for these forms are on the back of each time and material form.



# BUDGET AND BILLING FORM FOR LEAKING UNDERGROUND STORAGE TANK SITES

## A. SITE INFORMATION

Site Name: \_\_\_\_\_  
 Site Address: \_\_\_\_\_ City: \_\_\_\_\_  
 County: \_\_\_\_\_ IEPA Generator No. \_\_\_\_\_  
 IEMA Incident No.: \_\_\_\_\_ IEMA Notification Date: \_\_\_\_\_

This form is being submitted as a: \_\_\_\_\_ Budget Proposal  
 \_\_\_\_\_ Budget Amendment (Budget Amendments should include only the costs over the previous budget.) Amendment Number: \_\_\_\_\_  
 \_\_\_\_\_ Billing Package

This form is being submitted for the Site Activities indicated below (check one):

- \_\_\_\_\_ Site Classification
- \_\_\_\_\_ Corrective Action at a Low Priority Site
- \_\_\_\_\_ Corrective Action at a High Priority Site

Date this Form was Prepared: \_\_\_\_\_

If eligible for reimbursement, where should reimbursement checks be sent? Please note that only owners or operators of USTs may be eligible for reimbursement. Therefore, payment can only be made to an owner or operator.

Pay to the order of: \_\_\_\_\_

Send in care of: \_\_\_\_\_

Address: \_\_\_\_\_

City \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_

A-1

**THIS FORM MUST BE SUBMITTED IN DUPLICATE**

Number of Petroleum USTs in Illinois presently owned or operated by the owner or operator; any subsidiary, parent or joint stock company of the owner or operator; and any company owned by any parent, subsidiary or joint stock company of the owner or operator:

Fewer than 101

101 or more: \_\_\_\_\_

Number of USTs at the site: \_\_\_\_\_ (Number of USTs includes USTs presently at the site and USTs that have been removed.)

Number of incidents reported to IEMA: \_\_\_\_\_

Incident Numbers assigned to the site due to releases from USTs: \_\_\_\_\_

Please list all tanks which have ever been located at the site and are presently located at the site.

Product Stored	Size (gallons)	Did UST have a release?		Incident No.	Type of Release
		Yes	No		
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____
_____	_____	Yes	No	_____	_____

**B. PROPOSED BUDGET SUMMARY AND BUDGET TOTAL**

1. Investigation Costs: \$ \_\_\_\_\_
2. Sampling Costs: \$ \_\_\_\_\_
3. Corrective Action Costs: \$ \_\_\_\_\_
4. Report Preparation Costs: \$ \_\_\_\_\_
5. Other Costs: \$ \_\_\_\_\_
6. Handling Charges: \$ \_\_\_\_\_

**TOTAL PROPOSED BUDGET = \$ \_\_\_\_\_**

**C. APPROVED BUDGET SUMMARY AND BILLING SUMMARY**

**1. Amount approved in the Budget**

- 1. Investigation Costs. \$ \_\_\_\_\_
- 2. Sampling Costs \$ \_\_\_\_\_
- 3. Corrective Action Costs: \$ \_\_\_\_\_
- 4. Report Preparation Costs: \$ \_\_\_\_\_
- 5. Other Costs: \$ \_\_\_\_\_
- 6. Handling Charges: \$ \_\_\_\_\_

**TOTAL APPROVED IN THE BUDGET = \$ \_\_\_\_\_**

**2. Actual Amount Spent**

- 1. Investigation Costs: \$ \_\_\_\_\_
- 2. Sampling Costs \$ \_\_\_\_\_
- 3. Corrective Action Costs. \$ \_\_\_\_\_
- 4. Report Preparation Costs: \$ \_\_\_\_\_
- 5. Other Costs: \$ \_\_\_\_\_
- 6. Handling Charges: \$ \_\_\_\_\_

**TOTAL AMOUNT SPENT = \$ \_\_\_\_\_**

\_\_\_\_\_ A budget for the bills included in this billing package was approved by the Agency on \_\_\_\_\_

\_\_\_\_\_ This billing package includes bills which were included in the Budget Amendment dated \_\_\_\_\_, approved by the Agency on \_\_\_\_\_

\_\_\_\_\_ Neither a budget nor a budget amendment were approved by the Agency for the bills included in this package.

Owner/Operator Billing Certification

I, \_\_\_\_\_ the owner or operator of the LUST site for which this claim is being submitted, certify that a corrective action plan for the work included in this billing was approved by the Agency on \_\_\_\_\_; certify that a budget for the work included in this claim was approved by the Agency on \_\_\_\_\_; certify that the amount sought for payment was expended in conformance with the approved budget and approved corrective action plan; and, certify that \$ \_\_\_\_\_ is the amount being sought in this claim for reimbursement, \$ \_\_\_\_\_ has already been reimbursed from the Fund for this occurrence and \$ \_\_\_\_\_ has been sent to the Agency for reimbursement for this occurrence but has not yet been reimbursed.

Owner/Operator: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_.

*(This certification must be notarized when the certification is signed.)*

\_\_\_\_\_  
(Notary Public) Seal:

**D. INVESTIGATION ACTIVITIES**

1. **Drilling Costs** - This includes the costs for drilling labor, drill rig usage, collecting samples during drilling operations, field screening of samples, plugging holes, decontamination for all borings, and 55 gallon drums. This includes borings which are to be completed as monitoring wells.

\_\_\_\_\_ borings to \_\_\_\_\_ feet = \_\_\_\_\_ feet to be bored  
 \_\_\_\_\_ borings to \_\_\_\_\_ feet = \_\_\_\_\_ feet to be bored  
 \_\_\_\_\_ borings to \_\_\_\_\_ feet = \_\_\_\_\_ feet to be bored  
 \_\_\_\_\_ borings to \_\_\_\_\_ feet = \_\_\_\_\_ feet to be bored  
 Total Feet to be Bored: \_\_\_\_\_

Borings: \_\_\_\_\_ feet X \$ \_\_\_\_\_ per foot = \$ \_\_\_\_\_

Mobilization: \$ \_\_\_\_\_

**Professional Services** (e.g., P.E., geologist) - This only includes professional services which are not included in the drilling costs and/or mobilization costs..

\_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
 (Title)

\_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
 (Title)

\_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
 (Title)

**SUBTOTAL: DRILLING COSTS = \$ \_\_\_\_\_**

2. **Physical Soil Analysis** - This includes personnel time for sampling, personnel time for sample preparation, containers, packaging, postage and analysis for classification of soil types at the site.

\_\_\_\_\_ Particle Size Analysis samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Moisture Content samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Hydraulic Conductivity/Permeability samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

Indicate the type of testing to be performed: \_\_\_\_\_

\_\_\_\_\_ Soil Classification samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Sieve Analysis samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

**SUBTOTAL: PHYSICAL SOIL ANALYSIS COSTS = \$ \_\_\_\_\_**

**3. Monitoring Well Installation - The drilling costs should not be included in this item. Costs included in this item should be costs associated with well casing, well screens, filter pack, annular seal, surface seal, well covers.**

a. \_\_\_\_\_ Wells to \_\_\_\_\_ feet

Wells: \_\_\_\_\_ wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

b. \_\_\_\_\_ Wells to \_\_\_\_\_ feet

Wells: \_\_\_\_\_ wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

c. \_\_\_\_\_ Wells to \_\_\_\_\_ feet

Wells: \_\_\_\_\_ wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

d. Well Development (Purging and Surveying): \_\_\_\_\_ wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

Professional Services (e.g., P.E., geologist) - This only includes professional services which are not included in the drilling costs and/or mobilization costs.

\_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_ : \_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

**SUBTOTAL: MONITORING WELL COSTS = \$ \_\_\_\_\_**

4. **Disposal Costs** - This includes the costs for disposing of boring cuttings and any water generated while performing borings or installing wells.

Disposal of Cuttings: \_\_\_\_\_ drums X \$ \_\_\_\_\_ per drum = \$ \_\_\_\_\_

Disposal of Water: \_\_\_\_\_ gallons X \$ \_\_\_\_\_ per gallon = \$ \_\_\_\_\_

**SUBTOTAL: DISPOSAL COSTS = \$ \_\_\_\_\_**

**TOTAL INVESTIGATION COSTS = \$ \_\_\_\_\_**

**E. SAMPLING**

1. **Soil Analysis Costs** - This includes personnel time for sampling, personnel time for sample preparation, containers, packaging, postage and laboratory analysis.

\_\_\_\_\_ BTEX samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ PNA samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ LUST Pollutants samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

**SUBTOTAL: SOIL ANALYSIS COSTS = \$ \_\_\_\_\_**

2. **Groundwater Analysis Costs** - This includes personnel time for sampling, personnel time for sample preparation, containers, packaging and postage.

\_\_\_\_\_ BTEX samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ PNA samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ LUST Pollutants samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

IEMA No. \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

**SUBTOTAL: GROUNDWATER ANALYSIS COSTS = \$ \_\_\_\_\_**

**3. Well Purging - Includes personnel and 55 gallon drums.**

\_\_\_\_\_ Wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

**SUBTOTAL: WELL PURGING COSTS = \$ \_\_\_\_\_**

**4. Disposal of Water: \_\_\_\_\_ gallons X \$ \_\_\_\_\_ per gallon = \$ \_\_\_\_\_**

**SUBTOTAL: WATER DISPOSAL COSTS = \$ \_\_\_\_\_**

**TOTAL SAMPLING COSTS = \$ \_\_\_\_\_**

**F. CORRECTIVE ACTION**

1. **Low Priority Sites - Corrective Action at Low Priority Sites** consists of groundwater monitoring for three years. The costs for this corrective action should include the costs associated with sampling personnel, containers, packaging, postage and laboratory analysis for all three years. Costs associated with report preparation should not be included in these costs..

**1st Year Sampling and Analytical Costs (Quarterly Monitoring)**

Mobilization: \$ \_\_\_\_\_

Well Purging - Includes personnel and 55 gallon drums.

\_\_\_\_\_ Wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

\_\_\_\_\_ BTEX samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ PNA samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ LUST Pollutants samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

Disposal of Water: \_\_\_\_\_ gallons X \$ \_\_\_\_\_ per gallon = \$ \_\_\_\_\_

**2nd Year Sampling and Analytical Costs (Semiannual Monitoring)**

Mobilization: \$ \_\_\_\_\_

Well Purging - Includes personnel and 55 gallon drums.

\_\_\_\_\_ Wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

\_\_\_\_\_ BTEX samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ PNA samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ LUST Pollutants samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

Disposal of Water: \_\_\_\_\_ gallons X \$ \_\_\_\_\_ per gallon = \$ \_\_\_\_\_

**3rd Year Sampling and Analytical Costs (Annual Monitoring)**

Mobilization: \$ \_\_\_\_\_

Well Purging - Includes personnel and 55 gallon drums.

\_\_\_\_\_ Wells X \$ \_\_\_\_\_ per well = \$ \_\_\_\_\_

\_\_\_\_\_ BTEX samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ PNA samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ LUST Pollutants samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

\_\_\_\_\_ Samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

Disposal of Water: \_\_\_\_\_ gallons X \$ \_\_\_\_\_ per gallon = \$ \_\_\_\_\_

**SUBTOTAL LOW PRIORITY CORRECTIVE ACTION COSTS = \$ \_\_\_\_\_**

**2. High Priority Sites - Corrective Action at High Priority Sites** may involve both soil and groundwater remediation. The corrective action costs should include the costs for actually performing the remediation using the system chosen. Costs associated with report preparation, sampling and sample handling should not be included in these costs.

**A. Groundwater Remediation**

System Installation Costs - A time and materials breakdown of installation costs should be attached.

Operation and Maintenance Costs:  
\_\_\_\_\_ Months of O&M X \$ \_\_\_\_\_ per month = \$ \_\_\_\_\_

Permitting Costs = \$ \_\_\_\_\_

**B. Excavation and Disposal**

Excavation: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_  
Transportation: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_  
Disposal: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_ OR  
\_\_\_\_\_ tons X \$ \_\_\_\_\_ per ton = \$ \_\_\_\_\_

**C. Land Farming**

System Installation Costs - A time and materials breakdown of installation costs should be attached.

Excavation Costs: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_  
Transportation: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Operation and Maintenance Costs:  
\_\_\_\_\_ Months of O&M X \$ \_\_\_\_\_ per month = \$ \_\_\_\_\_

Permitting Costs = \$ \_\_\_\_\_

**D. Aboveground Bio-remediation**

System Installation Costs - A time and materials breakdown of installation costs should be attached.

Excavation Costs: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Transportation: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Culture Counts: \_\_\_\_\_ samples X \$ \_\_\_\_\_ per sample = \$ \_\_\_\_\_

Operation and Maintenance Costs:

\_\_\_\_\_ Months of O&M X \$ \_\_\_\_\_ per month = \$ \_\_\_\_\_

Permitting Costs = \$ \_\_\_\_\_

**E. Land Application**

Excavation Costs: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Transportation Costs: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Operation and Maintenance Costs:

\_\_\_\_\_ Months of O&M X \$ \_\_\_\_\_ per month = \$ \_\_\_\_\_

Permitting Costs = \$ \_\_\_\_\_

**F. Low Thermal Treatment**

Excavation: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Treatment: \_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Permitting Costs = \$ \_\_\_\_\_

**G. Backfill Costs - This includes costs for purchasing, hauling and depositing backfill materials at the site.**

Type of Backfill: \_\_\_\_\_

\_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

Type of Backfill: \_\_\_\_\_

\_\_\_\_\_ yards<sup>3</sup> X \$ \_\_\_\_\_ per yard<sup>3</sup> = \$ \_\_\_\_\_

**H. In-situ Remediation of Soils - State the type of remediation:**

\_\_\_\_\_

System Installation Costs - A time and materials breakdown of installation costs should be attached.

Operation and Maintenance Costs:

\_\_\_\_\_ Months of O&M X \$ \_\_\_\_\_ per month = \$ \_\_\_\_\_

Permitting Costs = \$ \_\_\_\_\_

**SUBTOTAL HIGH PRIORITY CORRECTIVE ACTION COSTS = \$ \_\_\_\_\_**

**TOTAL CORRECTIVE ACTION COSTS = \$ \_\_\_\_\_**

**G. Report Preparation** - This includes personnel costs associated with gathering data; preparing and submitting the reports documenting the soil classification activities and groundwater investigation activities; Professional Engineer (P.E.) Certification of site classification; preparing and submitting the annual groundwater monitoring data; preparing and submitting the corrective action plan; preparing and submitting the corrective action completeness report, and, P.E. Certification of corrective action completeness.

\_\_\_\_\_. \_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_: \_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_: \_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_: \_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_: \_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

\_\_\_\_\_: \_\_\_\_\_ hours X \$ \_\_\_\_\_ per hour = \$ \_\_\_\_\_  
(Title)

**SUBTOTAL: REPORT PREPARATION COSTS = \$ \_\_\_\_\_**

**H. Other Costs** - A listing and description of all other costs which will be/were incurred and are not specifically listed on this form should be attached. The listing should include a cost breakdown in the format used above.

**TOTAL OTHER COSTS = \$** \_\_\_\_\_

**I. HANDLING CHARGES** - Handling charges are eligible for payment on subcontractor and/or field purchases only if they are equal to or less than the amounts determined by the following table:

<b>Subcontractor or Field Purchase Cost</b>	<b>Eligible Handling Charges as a Percentage of Cost</b>
\$1 - \$5,000	12%
\$5,001 - \$15,000	\$600+10% of amt. over \$5,000
\$15,001 - \$50,000	\$1,600+8% of amt. over \$15,000
\$50,001 - \$100,000	\$4,400+5% of amt. over \$50,000
\$100,001 - \$1,000,000	\$6,900+2% of amt. over \$100,000

**A. Field Purchases and Subcontractor Costs**

\$ \_\_\_\_\_ of the total budget is/are associated with field purchases and/or subcontractor charges.

**B. Field Purchases**

Field Purchases = \$ \_\_\_\_\_  
 Handling Charges on Field Purchases = \$ \_\_\_\_\_

**C. Subcontractor Charges**

Subcontractor Costs = \$ \_\_\_\_\_  
 Handling Charges on Subcontractor Costs = \$ \_\_\_\_\_

**TOTAL HANDLING CHARGES = \$ \_\_\_\_\_**

**Copies of invoices for subcontractor costs and receipts for field purchases are required for billing submissions.**

**J. JUSTIFICATION FOR BUDGET AMENDMENTS**

If this form is being submitted as an amendment, you must submit a narrative justifying the need for the amendment. If the amendment includes a revision in a corrective action proposal, a new proposal must be submitted.



Owner/Operator Budget Certification Form for Leaking Underground Storage Tanks Sites

In accordance with 415 ILCS 5/57.7, if an owner or operator intends to seek payment from the UST Fund, an owner or operator must submit to the Agency, for the Agency's approval or modification, a budget which includes an accounting of all costs associated with the implementation of the investigative, monitoring and/or corrective action plans.

I hereby certify that I intend to seek payment from the UST Fund for performing \_\_\_\_\_ activities at \_\_\_\_\_ LUST site. I further certify that the costs set forth in this budget are necessary activities and are reasonable and accurate to the best of my knowledge and belief. I also certify that the costs included in the budget are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57.7 and no costs are included in this budget which are not described in the corrective action plan. I further certify that none of the following costs are included in the budget proposal or budget amendment:

- Costs associated with obtaining an eligibility and deductibility decision from the Office of the State Fire Marshal or completing billing forms.
Costs associated with ineligible tanks.
Costs associated with site restoration (e.g., concrete replacement, asphalt).
Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
Costs incurred prior to IEMA notification.
Costs associated with planned tank pulls.
Legal defense costs.
Costs incurred prior to July 28, 1989.

Owner/Operator: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.
(Budget Proposals and Budget Amendments must be notarized when the certification is signed.)

\_\_\_\_\_  
(Notary Public) Seal:

P.E.: \_\_\_\_\_

P E. Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Seal:

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.
(Budget Proposals and Budget Amendments must be notarized when the certification is signed.)

\_\_\_\_\_  
(Notary Public) Seal:

The Agency is authorized to require this information under 415 ILCS 5/1. Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder. This form has been approved by the Forms Management Center



Owner/Operator Billing Certification Form for Leaking Underground Storage Tanks Sites

I hereby certify that the attached bills are for performing ... activities at ... LUST site for the billing period of ... 19... to ... 19... I further certify that the costs included in this billing are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57.7 and no costs are included in this billing which are not described in the corrective action plan. I further certify that none of the following costs are included in this billing:

- Costs associated with obtaining an eligibility and deductibility decision from the Office of the State Fire Marshal.
Costs associated with ineligible tanks.
Costs associated with site restoration (e.g., concrete replacement, asphalt).
Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
Costs incurred prior to IEMA notification.
Costs associated with planned tank pulls.
Legal defense costs.
Costs incurred prior to July 28, 1989.

I further certify that this billing and all attachments thereto were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted therein. I affirm that the information is, to the best of my knowledge and belief, true, accurate and complete and the costs for remediating said LUST site are correct and reasonable. Such affirmation is made under penalty of perjury as defined in Section 32.2 of the Criminal Code of 1961, Ill. Rev. Stat. 1991, ch. 38, par. 32.2. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly committing violations.

Owner/Operator: \_\_\_\_\_ Title: \_\_\_\_\_
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.
(Budget Proposals and Budget Amendments must be notarized when the certification is signed.)

\_\_\_\_\_  
(Notary Public) Seal:

P.E.: \_\_\_\_\_
P.E. Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Seal:

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.
(Budget Proposals and Budget Amendments must be notarized when the certification is signed.)

\_\_\_\_\_  
(Notary Public) Seal:

The Agency is authorized to require this information under 415 ILCS 5/1 Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder. This form has been approved by the Forms Management Center.



UNDERGROUND STORAGE TANK PROGRAM
Private Insurance Coverage
Questionnaire and Affidavit

This form must be completed in full by all owners/operators or their authorized representatives, that have a claim for payment from the State of Illinois Leaking Underground Storage Tank (LUST) program, for the labor, materials, overhead and profit costs related to the study and/or remediation of a LUST site.

1. Name and address of the LUST site: \_\_\_\_\_

2. Name of insurance company providing coverage for this LUST site: \_\_\_\_\_

3. Amount of coverage provided: \$ \_\_\_\_\_

4. Have you or your firm filed a claim against your insurance company for this LUST site?

Yes No

a. If yes, how much is the claim for? \$ \_\_\_\_\_

b. If no, explain why. \_\_\_\_\_

5. Have you or your firm received payment for a claim against your insurance company for this LUST site? Yes No

a. If yes, how much and when? \$ \_\_\_\_\_

Date \_\_\_\_\_

b. If no, explain why. \_\_\_\_\_

6. Are you going to file a claim against your insurance policy? Yes No

a. If yes, how much and when? \$ \_\_\_\_\_

Date \_\_\_\_\_

b. If no, explain why. \_\_\_\_\_



State of Illinois  
**ENVIRONMENTAL PROTECTION AGENCY**

Mary A. Gade, Director

2200 Churchill Road, Springfield, IL 62794-9276

**PRIVATE INSURANCE AFFIDAVIT**

I, \_\_\_\_\_, a duly authorized representative of

\_\_\_\_\_, hereby certify that \_\_\_\_\_  
(owner/operator or firm's name) (owner/operator or firm's name)

\_\_\_\_\_ does, \_\_\_\_\_ does not have private insurance coverage for all or part of the costs  
related to claim for payment of \_\_\_\_\_  
(owner or firm's name)

study and/or remediation costs for work performed at \_\_\_\_\_  
(site name)

located at \_\_\_\_\_  
(address)

I, \_\_\_\_\_, \_\_\_\_\_ of \_\_\_\_\_  
(name) (title) (Owner/operator or firm's name)

certify that as of this date, the above information is accurate and complete.  
Furthermore, I also agree to reimburse the Illinois EPA for any overpayment made by  
my private insurance company in excess of the deductible amount for each site.

Owner/Operator: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.  
(The Private Insurance Affidavit must be notarized when the affidavit is signed.)

\_\_\_\_\_  
(Notary Public) Seal:

The Agency is authorized to require this information under 415 ILCS 5/4 and 21.  
Disclosure of this information is required. Failure to do so may result in a penalty  
up to \$25,000.00 for each day the failure continues, a fine up to \$50,000.00 and  
imprisonment up to 5 years. This form has been approved by the Forms  
Management Center.

IL 532-2008  
LPC 419 Rev. Oct-93



Federal Taxpayer Identification Number and Legal Status Disclosure Certification Requirements

In order to comply with requirements mandated by Internal Revenue Service Rules and Regulations, the tank owner/operator must complete the section entitled TAXPAYER IDENTIFICATION NUMBER AND LEGAL STATUS DISCLOSURE CERTIFICATION below.

Enter your taxpayer identification number (TIN) in the appropriate space. For individuals and sole proprietors, this is your social security number. For other entities, it is your employer identification number. Federal Employer Identification Numbers (FEINs) must not be used for sole proprietorships.

If you do not have a TIN, apply for one immediately. To apply, get Form SS-5, Application for a Social Security Number Card (for individuals) from your local office of the Social Security administration, or Form SS-4, Application for Employer Identification Number (for businesses and all other entities), from your local Internal Revenue Service office.

To complete the certification if you do not have a TIN, fill out the certification indicating that a TIN has been applied for, sign and date the form, and return it to this Agency. As soon as you receive your TIN, fill out another such form including your TIN, sign and date the form, and send it to this Agency.

If you fail to furnish your correct TIN to this Agency, you are subject to an IRS penalty of \$50 00 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

WILLFULLY FALSIFYING CERTIFICATIONS OR AFFIRMATIONS MAY SUBJECT YOU TO CRIMINAL PENALTIES INCLUDING FINES AND/OR IMPRISONMENT.

Please return the completed form to the Bureau of Land, Remedial Projects, Accounting & Procurement Unit, P.O. Box 19276, Springfield, Illinois 62794-9276.

TAXPAYER IDENTIFICATION NUMBER AND LEGAL STATUS DISCLOSURE CERTIFICATION.

Under penalties of perjury, I certify that the FEIN or Social Security Number indicated below is my correct Federal Taxpayer Identification Number. I am doing business as a (please check one):

- Individual, Partnership, Corporation, Trust or Estate, Sole Proprietorship, Governmental Entity, Tax Exempt Organization (IRC 501(a) only), Real Estate Agent, Not-for-Profit Corp., Medical & Health Care Services Provider Corp.

Taxpayer Identification Number Signed Date

Name of Firm (Please print or type)

Note: Original signature required.

This Agency is authorized to request this information under the Illinois Environmental Protection Act, 415 ILCS 5/1 et seq. (formerly Ill. Rev. Stat. Ch. 111 1/2, 1001 et seq.). Disclosure of this information is required. Failure to properly complete this form in its entirety may result in the delay or denial of any payment requested hereunder. This form has been approved by the Forms Management Center.



UNDERGROUND STORAGE TANK PROGRAM
Request for Payment of UST Corrective Action Costs
Summary Sheet for All Charges in this Billing Package

The owner/operator or their representative shall complete this form and place it in the front of the billing package. All charges in this billing package shall be summarized on this form.

Table with 2 columns: PAYMENT ITEM and TOTAL PAYMENT REQUESTED. Rows include PERSONNEL, EQUIPMENT, MATERIALS & EXPENDABLES (In Stock Items), MATERIALS & EXPENDABLES (Field Purchases), SUBCONTRACTORS, and TOTAL PAYMENT REQUESTED.

This Agency is authorized to request this information under the Illinois Environmental Protection Act, 415 ILCS 6/1 et seq. (formerly Ill. Rev. Stat. Ch. 111 1/2, 1001 et seq.). Disclosure of this information is required. Failure to properly complete this form in its entirety may result in the delay or denial of any payment requested hereunder. This form has been approved by the Forms Management Center.



UNDERGROUND STORAGE TANK PROGRAM
Illinois Environmental Protection Agency

The IEPA is required to report State and Federal funds paid to Women's Business Enterprises (WBE) and to Minority Business Enterprises (MBE). Therefore, please provide the required information for all Prime Consultants/Contractors and Subcontractors used to perform the work for this billing:

Name of LUST site
The work for this billing was performed from

Incident No.
to

Prime Consultants and/or Contractors.

Table with 4 columns: FIRM'S NAME, ADDRESS AND TELEPHONE NO.; \*\* IS THIS FIRM A WBE/MBE?; IF YES, WHAT IS THEIR STATE OF ILLINOIS VENDOR NUMBER?; AMOUNT PAID OR DUE THIS BILLING.

Billing Subtotal \$

Subcontractors:

Table with 4 columns: FIRM'S NAME, ADDRESS AND TELEPHONE NO.; \*\* IS THIS FIRM A WBE/MBE?; IF YES, WHAT IS THEIR STATE OF ILLINOIS VENDOR NUMBER?; AMOUNT PAID OR DUE THIS BILLING.

BILLING TOTAL \$

\*\* WBE/MBE = If the firm is a WBE, place the term WBE in the space provided. If the firm is a MBE, place the term MBE in the space provided. If the firm is neither a WBE nor MBE, place the work NO in the space provided.

NOTE: This form may be reproduced if space is not sufficient to include all Subcontractors used on this billing.

This Agency is authorized to request this information under the Illinois Environmental Protection Act, 415 ILCS 5/1 et seq. (formerly Ill. Rev. Stat. Ch. 111 1/2, 1001 et seq.). Disclosure of this information is required. Failure to properly complete this form in its entirety may result in the delay or denial of any payment requested hereunder. This form has been approved by the Forms Management Center.





**SUMMARY SHEET - PERSONNEL  
Usage Instructions**

- a. **JOB NAME** - The contractor will write the name of the job that the billing is for, i.e., Dutch Boy, LaSalle, etc.
- b. **CONTRACTOR** - The Contractor will write its legal company name on this line.
- c. **BILLING PERIOD** - The Contractor will write the beginning and ending dates for the period of time covered in the billing. This will encompass the total period of time covered by the applicable Weekly Work Sheets.
- d. **EMPLOYEE** - List the names of all the employees listed on the weekly sheets that are being submitted for this billing period.
- e. **WORK CLASSIFICATION** - Enter the same work classification for each employee listed as was entered on the weekly sheets.
- f. **ST (straight time)** - Enter the total number of straight time (ST) hours for each employee, as recorded on the weekly sheets for the entire billing period, in the "ST" block.
- g. **OT (overtime)** - Enter the total number of overtime (OT) hours for each employee, as recorded on the weekly sheets for the entire billing period, in the "OT" block.
- h. **"ST" RATE** - List the straight time, time and material hourly rate for this work classification as indicated on the applicable rate sheet.
- i. **"OT" RATE** - List the overtime hourly, time and material rate for this work classification as indicated on the applicable rate sheet.
- j. **"ST" TOTAL** - Multiply the "ST" hours by the "ST" rate and enter that amount in this block.
- k. **"OT" TOTAL** - Multiply the "OT" hours by the "OT" rate and enter that amount in this block.
- l. **TOTAL PERSONNEL** - Add all totals from each category and enter here.





## EQUIPMENT Usage Instructions

- a. **JOB** - The Contractor will write the name of the job that the billing is for, i.e., Dutch Boy, LaSalle, etc.
- b. **CONTRACTOR** - The Contractor will write its legal company name on this line.
- c. **BILLING PERIOD** - The Contractor will write the beginning and ending dates for the period of time covered in the billing. This will encompass the total period of time covered by the applicable Weekly Work Sheets.
- d. **EQUIPMENT USED** - List all the equipment used for the entire billing period as listed on the weekly Equipment Work Sheets.
- e. **TIME USED** - Add the numbers of weeks, days, or hours used for the entire billing period for each piece of equipment.
- f. **UNIT RATE** - Enter the rate and unit by which the rate is charged, i.e. hourly, daily, weekly, etc.
- g. **TOTAL COST** - Multiply the "Quantity" by the "Unit Rate" and enter that amount in this block.
- h. **TOTAL EQUIPMENT COST** - Add all the totals for the equipment and enter the amount in this block.





**MATERIALS AND EXPENDABLES  
STOCK ITEMS  
Usage Instructions**

- a. Job Name - Write the location of the job that the billing is for
- b. Contractor - Write the legal company name of the contractor who performed the work.
- c. Billing Period - The contractor will write the beginning and ending dates for the period of time covered in the billing.
- d. Supplies - List all materials and expendables used for the entire billing period.
- e. Quantity - Enter the total quantity of each item used.
- f. Price/Item - Enter the price per item.
- g. Total Cost/Item - Multiply the "Quantity" times the "Price/Item" for each item and enter that amount in the appropriate "Total Cost/Item" block.
- h. Total Stock Items - add all totals in the "Total Cost/Item" column and enter that amount in the "Total Supplies" block.

*Stock Items include: mileage, visqueen, sample supplies, etc.*



UNDERGROUND STORAGE TANK PROGRAM
REQUEST FOR PAYMENT OF UST CORRECTIVE ACTION COSTS

FIELD PURCHASES

For usage instructions, see reverse

Job Name: \_\_\_\_\_

Contractor \_\_\_\_\_

Billing Period

From: \_\_\_/\_\_\_/\_\_\_

To: \_\_\_/\_\_\_/\_\_\_

Table with 4 columns: Field Purchases\*, Quantity, Price/Item, Total Costs/Item. Multiple empty rows for data entry.

\* Note: Copies of invoices or billings must be attached.

Subtotal Purchases

\*\* Handling Charge

Total Expenditures

Handling charges are eligible for payment only if they are equal to or less than the following amounts:

Subcontract or Field Purchase Cost

Eligible Handling Charges as a Percentage of Cost

- \$1 - \$5,000
\$5,001 - \$15,000
\$15,001 - \$50,000
\$50,001 - \$100,000
\$100,001 - \$1,000,000

- 12%
\$600+10% of amt. over \$5,000
\$1,600=8% of amt. over \$15,000
\$4,400+5% of amt. over 50,000
\$6,900+2% of amt. over \$100,000

This Agency is authorized to request this information under the Illinois Environmental Protection Act, 415 ILCS 5/1 et seq. (formerly Ill Rev.Stat Ch 111 1/2, 1001 et seq.). Disclosure of this information is required. Failure to properly complete this form in its entirety may result in the delay or denial of any payment requested hereunder. This form has been approved by the Forms Management Center.



**MATERIALS AND EXPENDABLES  
FIELD PURCHASES  
Usage Instructions**

- i. **Field Purchases** - List all expendable field purchased items for the billing period in this column. This column is for expendable materials which are needed immediately and the contractor must purchase as needed. All items listed must be accompanied by a legible receipt.
- j. **Quantity** - Enter the quantity of items purchases from the receipt in this column.
- k. **Price/Item** - Enter the price per item from the receipt in this column.
- l. **Total Cost/Item** - Enter a total cost per item purchased from the receipt in this column. If there is more than one item on the receipt, pro rate the tax.
- m. **Total Purchases** - Add the amounts shown in the total cost per item field purchases column and enter here.
- n. **Subcontractor's Name** - List all subcontractors used during the billing period.
- o. **Work Description** - Enter a brief description of work performed by each subcontractor.

*Purchases Sheet includes: phone, shipping, postage, parking, tolls, meals, ice, etc.*



UNDERGROUND STORAGE TANK PROGRAM
REQUEST FOR PAYMENT OF UST CORRECTIVE ACTION COSTS

SUBCONTRACTORS

Job Name: \_\_\_\_\_

Contractor \_\_\_\_\_

Billing Period

From: \_\_\_\_/\_\_\_\_/\_\_\_\_

To: \_\_\_\_/\_\_\_\_/\_\_\_\_

Table with 3 columns: Subcontractor's Name, Work Description, Subcontract Amount. Multiple empty rows for data entry.

\* Note: Copies of invoices or billings must be attached. Some subcontractor invoices and billings may require further time and material itemization.

Subtotal

\*\* Handling Charge

Total Subcontract Cost

Handling charges are eligible for payment only if they are equal to or less than the following amounts:

Table mapping Subcontract or Field Purchase Cost ranges to Eligible Handling Charges as a Percentage of Cost.

This Agency is authorized to request this information under the Illinois Environmental Protection Act, 415 ILCS 5/1 et seq. (formerly Ill Rev.Stat Ch 111 1/2, 1001 et seq.). Disclosure of this information is required. Failure to properly complete this form in its entirety may result in the delay or denial of any payment requested hereunder. This form has been approved by the Formis Management Center.



Owner/Operator Budget Certification Form for Leaking Underground Storage Tanks Sites

In accordance with 415 ILCS 5/57.7, if an owner or operator intends to seek payment from the UST Fund, an owner or operator must submit to the Agency, for the Agency's approval or modification, a budget which includes an accounting of all costs associated with the implementation of the investigative, monitoring and/or corrective action plans.

I hereby certify that I intend to seek payment from the UST Fund for performing \_\_\_\_\_ activities at \_\_\_\_\_

LUST site. I further certify that the costs set forth in this budget are necessary activities and are reasonable and accurate to the best of my knowledge and belief. I also certify that the costs included in the budget are not for corrective action in excess of the minimum requirements of 415 ILCS 5/57.7 and no costs are included in this budget which are not described in the corrective action plan. I further certify that none of the following costs are included in the budget proposal or budget amendment:

- Costs associated with obtaining an eligibility and deductibility decision from the Office of the State Fire Marshal or completing billing forms.
Costs associated with ineligible tanks.
Costs associated with site restoration (e.g., concrete replacement, asphalt).
Costs associated with utility replacement (e.g., sewers, electrical, telephone, etc.).
Costs incurred prior to IEMA notification.
Costs associated with planned tank pulls.
Legal defense costs.
Costs incurred prior to July 28, 1989.

Owner/Operator: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_.

(Budget Proposals and Budget Amendments must be notarized when the certification is signed.)

\_\_\_\_\_  
(Notary Public) Seal:

P E.: \_\_\_\_\_

P E. Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Seal:

Subscribed and sworn to before me the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_.

(Budget Proposals and Budget Amendments must be notarized when the certification is signed.)

\_\_\_\_\_  
(Notary Public) Seal:

The Agency is authorized to require this information under 415 ILCS 5/1. Disclosure of this information is required. Failure to do so may result in the delay or denial of any budget or payment requested hereunder. This form has been approved by the Forms Management Center.



DEPARTMENT OF THE ARMY

HEADQUARTERS  
U.S. ARMY ENGINEER CENTER AND FORT LEONARD WOOD  
FORT LEONARD WOOD, MISSOURI 65473-5000



REPLY TO  
ATTENTION OF

July 6, 1994

Directorate of Contracting

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NOTICE OF AWARD

SUBJECT: Notice of Award - Contract DABT31-94-C-0016

Dickman Engineering, Incorporated  
8460 Watson Road, Suite 108  
St. Louis, Missouri 63119

Dear Gentlemen:

Your bid on Fort Leonard Wood's solicitation number DABT31-94-B-0018 for Site Assessment at U.S. Army Reserve Center, 904 E. M.L. King Jr., Drive, Centralia, Illinois in the amount of \$4,309.20 for Bid Items 0001 through 0003 has been accepted.

Contract Number DABT31-94-C-0016 has been assigned to this project. Attached is one duplicate original copy of the contract for your records.

Please be advised that this letter is not a notification to proceed with work. A separate Notice to Proceed Letter will be issued to you for this contract following your attendance at a Post Award Conference.

The Post Award Conference will be scheduled by Contracting Division, Directorate of Contracting. They will be sending you another letter soon to establish a proposed date for this meeting which will be held at Fort Leonard Wood, Missouri.



DEPARTMENT OF THE ARMY

HEADQUARTERS  
U.S. ARMY ENGINEER CENTER AND FORT LEONARD WOOD  
FORT LEONARD WOOD, MISSOURI 65473-5000



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The Post Award Conference will be scheduled by Contracting Division, Directorate of Contracting. They will be sending you another letter soon to establish a proposed date for this meeting which will be held at Fort Leonard Wood, Missouri.

Your participation in this procurement is appreciated. We look forward to working with your firm for the mutually beneficial completion of this contract.

Copies of this Notice of Award are being furnished to the following:

Safety Management Office (ATZT-S)  
Fort Leonard Wood, Missouri 65473

Directorate of Public Works  
Attention: Assistant Chief of Fire Prevention (ATZT-DPW-F)  
Fort Leonard Wood, Missouri 65473

Directorate of Public Works  
Attention: Environmental Division  
Fort Leonard Wood, Missouri 65473

Directorate of Public Works  
Attention: Inspection Branch (DPW-RJ/SL)  
Fort Leonard Wood, Missouri 65473 (2 Copies)

Directorate of Contracting  
Attention: Paulette Bloch  
Fort Leonard Wood, Missouri 65473

Military Police Command (ATZT-MPC-PS)  
Physical Security Office  
Fort Leonard Wood, Missouri 65473

Sincerely,

THE UNITED STATES OF AMERICA

  
Paul R. Hutsell  
Contracting Officer

Attachments

<b>SOLICITATION, OFFER, AND AWARD</b> (Construction, Alteration, or Repair)	1. SOLICITATION NO. DABT31-94-B-0018	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 05/23/94	PAGE OF PAGES 1/94
	IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.			

4. CONTRACT NO. DABT31-94-C-0016	5. REQUISITION/PURCHASE REQUEST NO. MIPR94-0000-6107	6. PROJECT NO. WOR # AD11061-4J
-------------------------------------	---	------------------------------------

7. ISSUED BY DIRECTORATE OF CONTRACTING BLDG. 606, IOWA AVENUE P.O. BOX 140 FT. LEONARD WOOD MO 65473-0140	CODE DABT31	8. ADDRESS OFFER TO DIRECTORATE OF CONTRACTING FAX# 314-596-0267 P.O. BOX 140 FT LEONARD WOOD MO 65473-0140
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**DUPLICATE ORIGINAL**

9. FOR INFORMATION CALL	A. NAME Princess Fahnestock	C05	B. TELEPHONE NO. (include area code) (NO COLLECT CALLS) (314) 596-0610
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**SOLICITATION**

NOTE. In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder"

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

Invitation for Bids DABT31-94-B-0018, Site Assessment at US Army Reserve Center, 904 E. M. L. King Jr. Drive, Centralia, Illinois

"This project is 100% Set Aside for Emerging Small Business Concerns"

11. The Contractor shall begin performance within 5 calendar days and complete it within 30 calendar days after receiving  award,  notice to proceed. This performance period is  mandatory,  negotiable. (See \_\_\_\_\_.)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	12B. CALENDAR DAYS
--	--------------------

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 1300 (hour) local time 06/17/94 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number and the date and time offers are due.

B. An offer guarantee  is,  is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 90 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code) Dickman Engineering, Inc. 8460 Watson Road, Suite 108 St. Louis, MO 63119		15. TELEPHONE NO. (Include area code) (314) 842-0032
CODE		16. REMITTANCE ADDRESS (Include only if different than Item 14) Same
FACILITY CODE		

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within \_\_\_ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)

**AMOUNTS** ▶ See Section B, Attached

18. The offeror agrees to furnish any required performance and payment bonds.

**19. ACKNOWLEDGMENT OF AMENDMENTS**  
(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.	0001									
DATE	5/26/94									

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print) John Dickman, President	20B. SIGNATURE <i>John Dickman</i>	20C. OFFER DATE 6/16/94
--	---------------------------------------	----------------------------

**AWARD (To be completed by Government)**

21. ITEMS ACCEPTED:  
  
0001-0003

22. AMOUNT \$4,309.20	23. ACCOUNTING AND APPROPRIATION DATA 2142080000002424405159960000025GZ000000MIPR9400006107BFMM00S47018
--------------------------	--

24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM 26	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) ( ) <input type="checkbox"/> 41 U.S.C. 253(c) ( )
--	------------	--

26. ADMINISTERED BY Directorate of Contracting P.O. Box 140 Fort Leonard Wood, MO 65473-0140 Criticality designator C	CODE	27. PAYMENT WILL BE MADE BY Defense Accounting Office ATTN: DFAS-IN/EM-TM-AP Fort Leonard Wood, MO 65473-5000
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**CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE**

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return ___ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input checked="" type="checkbox"/> 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer and (b) this contract award. No further contractual document is necessary.
--	--

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)	31A. NAME OF CONTRACTING OFFICER (Type or print) PAUL R. HUTSELL
--	---

30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY <i>Paul R. Hutsell</i>	31C. AWARD DATE 01 JUL 96
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SECTION B  
SUPPLIES OR SERVICES AND PRICES/COSTS

ITEM	DESCRIPTION	QUANTITY	U/I	UNIT PRICE	AMOUNT
0001	Sample and Test Soil (Initial 4 Samples Per Tank X 2 Tanks) at all Locations in Accordance with Specifications.	8.00	EA	\$257 40	\$2059 <sup>20</sup> 23
0002	Prepare Site Maps and a Final Report in accordance with the specifications.	1.00	JB	Lump Sum	\$250 0
		Estimated			Total Estimated Amt
0003	Required Sampling and Testing Beyond Initial Depth, per Vertical Linear Foot of Depth.	80.00	VF	\$25 00	\$2000 0
TOTAL FOR BID ITEMS 0001 THRU 0003					\$4309 <sup>20</sup> 23

NOTE: The quantities and Total Amount in Bid Item 0003 are Estimates and are not to exceeded without the written approval of the Contracting Officer. The Contractor shall be paid for the actual verified quantities on a per foot of depth basis.

END OF SECTION B

SECTION C

SPECIFICATIONS

WOR# AD11061-4J

C.1. GENERAL:

C.1.1. Scope of Work: The Contractor shall furnish all plant, labor, equipment, materials, supplies, and supervision necessary to perform sampling and testing of soil contents around fuel storage tanks located at the Copple US Army Reserve Center in Centralia, Illinois.

C.1.2. Contractor Qualifications: The Contractor shall be familiar with the application of EPA SW-846 procedures for sampling and testing. Also, the Contractor shall insure that all persons employed in the performance of this contract are properly trained in accordance with OSHA 1910.120 standards and possess the skills and knowledge to satisfactorily perform the requirements of the contract.

C.1.3. Location of Work: The sites involved in this project are as follows:

C.1.3.1. SFC E.L. Copple USARC  
904 East M.L. King Jr. Drive  
Centralia, IL 62801  
POC Robert Smith (618) 532-5666

1 Each - UST, estimated @ 6,000 GAL., #2 diesel heating oil.

1 Each - UST, estimated @ 1,500 GAL., #2 diesel heating oil.

C.1.4. Hours of Work: The Contractor shall plan and schedule all work to be performed under this contract between the hours of 7:30 a.m. and 4:30 p.m., Monday through Friday, except for legal holidays. Any work necessary on Saturdays, Sundays, or legal holidays to maintain Contractor schedules herein, shall be performed without additional cost to the Government. The Contractor shall request approval from the Contracting Officer for work scheduled for periods other than that specified above. This request shall be submitted in writing a minimum of 48 hours in advance of the proposed work. Approval for work during other than normal duty hours will be contingent upon availability of Government personnel to open the affected center for access.

- C.1.5. Supervision of Work: The Contractor shall provide all supervision for work performed by Contractor personnel; the Government will not exercise any supervision or control over Contractor employees performing work under the contract. Such employees shall be accountable solely to the Contractor, not the Government. The Contractor, in turn, shall be accountable to the Government for his employees. The Contractor shall be responsible for ensuring that required supervision for his personnel will be provided at all times.
- C.1.6. Conduct of Personnel: The Contractor and the Contractor's employees shall be subject to the same general rules of conduct while on the installation that apply to Government civilian employees. The Government reserves the right to refuse installation access to any Contractor employee if the Contracting Officer determines it to be in the best interests of the Government (reference AR 600-50). The Contractor shall take appropriate personnel action, as required, in the event employees become involved with civilian or military authorities as a result of misconduct.
- C.1.7. Site Conditions: Vary at each location.
- C.1.8. Coordination:
- C.1.8.1. The Contractor shall coordinate access to the facility with the Facility Manager a minimum of 5 working days prior to the desired date of starting work.
- C.1.8.2. The Contractor shall coordinate the date(s) of work accomplishment with the Contracting Officer and the Fort Leonard Wood Environmental Division (phone 314-596-0869, Ms. Anderson) to allow for a Government representative to be on site during work execution.
- C.1.8.3. The Contractor shall coordinate with the Facility Manager and local utility companies to determine the locations of existing utilities that may be encountered during the work under this contract.
- C.1.9. Damage to Personal Property: The Contractor shall be responsible for all damage to Government and occupant personal property caused by the negligent acts or omissions of his employees, sub-contractors or agents, during contract performance.
- C.1.10. Damage by Negligence: Damage resulting in gas leaks, electrical outages, loss of heat during cold weather, water leaks, unsecured facilities, weather damage, or oil/hazardous waste spills shall be responded to by the Contractor within 2

hours and repaired within one workday. If the Contractor fails to comply with these requirements, the Government reserves the right to repair the damage and charge the cost to the Contractor. Contractor shall protect all areas through which he will be transporting demolition debris or renovation materials.

C.1.11. Safety Requirements: During progress of work, the Contractor shall protect all personnel, whether government or civilian, from any and all safety hazards caused by the construction operations.

C.2. DEFINITIONS AND ACRONYMS:

CFR	Code of Federal Regulations
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
DPW	Directorate of Public Works
EPA	Environmental Protection Agency
FLW	Fort Leonard Wood (US Army)
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyl
POC	Point of Contact
PNA	Polynuclear Aromatic Hydrocarbons
SW	Solid Wastes
TCLP	Toxic Characteristic Leachating Procedure
TPH	Total Petroleum Hydrocarbons
USAEC	US Army Engineer Center
USARC	US Army Reserve Center
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

C.3. GOVERNMENT-FURNISHED PROPERTY, SERVICES, AND SUPPLIES: Not applicable.

C.4. CONTRACTOR FURNISHED PROPERTY, SERVICES, AND SUPPLIES: The Contractor shall provide labor, equipment, materials, and supplies necessary to perform the requirements of this contract.

C.5. SPECIFIC TASKS:

C.5.1. Sampling and Testing: The Contractor shall provide all equipment and labor necessary to collect and analyze soil samples on site. All samples shall be analyzed for Total Petroleum Hydrocarbons (TPH). The Contractor shall clean all sampling equipment after each sample is taken to prevent the spread of any possible contamination. The Contractor shall be responsible for the proper disposal of cleaning materials and contaminated soil samples.

C.5.1.1. The Contractor shall establish a sampling grid around each tank at ten (10) foot intervals from the centerline of the tank on all four sides, or as permanent obstructions allow.

Initial four (4) samples for aboveground tanks shall be taken at a depth of 5 FT below finish grade. Initial four (4) samples for underground tanks shall be taken at approximately two (2) foot below the bottom of the tank.

C.5.1.2. If contamination is discovered in the initial four samples, sampling shall continue on a vertical plane in five (5) foot intervals until hydrocarbons of less than 200 parts per million are detected or a depth of 20 feet is reached. Sampling grid shall be expanded at ten (10) foot intervals until the full plume of contamination is determined.

C.5.2. The contractor shall grout all probe holes with bentonite pressure injection. Grouting shall be accomplished by

C.5.3. The contractor shall provide a scaled site map with sampling locations and principal structures for each location. Site maps shall show location and estimated size of tanks. If contamination is determined to exist, site maps shall show entire plume of contamination.

C.5.4. The contractor shall prepare a final report and summarize the extent of any contamination found, including the estimated volume of contaminated soil in cubic yards.

C.5.5. Submission of Test Results: A copy of all test results shall be submitted to:

USAEC & ELM  
ATTN: ATZT-DPW-EE (Ms. Anderson)  
Building 2101  
Fort Leonard Wood, Missouri 65473-5000

All samples shall be analyzed in accordance with required analytical methods as prescribed by U.S. EPA SW-846 as follows:

Analytical Parameters	Method
TPH	SM-846
	418.1

C.5.6. Chain of Custody Records: Chain of custody procedures shall be employed for all samples. Records shall be made available to the Contracting Officer on request. The chain of custody records shall contain, as a minimum, the following information:

- \* Sample number(s)
- \* Name and signature of person taking samples
- \* Date/time when samples were taken

- \* Address of site where samples were taken
- \* Specific location where samples were taken (to include a sketch of the site)
- \* Description of sample(s)
- \* Size of sample(s) taken
- \* Signature by every party having possession of the sample(s)
- \* Inclusive dates of each parties' possession

C.6. APPLICABLE TECHNICAL ORDERS, SPECIFICATIONS, REGULATIONS, AND MANUALS: Documents applicable to this contract are listed below and have been identified as mandatory. Supplements and/or amendments to these publications may be issued during the life of the contract and shall be considered to be in full force and effect as to the effective date of the supplement and/or amendment unless it affects the cost of this contract. In such an event, the Contractor shall notify the Contracting Officer prior to implementing any changes. Performance in these cases shall begin only upon receipt of a Change Order issued by the Contracting Officer.

U.S. EPA 40 CFR Part 260

Test Methods for Evaluating  
Solid Waste, Physical Chemical  
Methods EPA Publication SW-846

\*\*\* END OF SPECIFICATIONS \*\*\*

SECTION E  
INSPECTION AND ACCEPTANCE

E.1 52.246-12 INSPECTION OF CONSTRUCTION (JUL 1986)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

- (1) Relieve the Contractor of responsibility for providing adequate quality control measures;
- (2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;
- (3) Constitute or imply acceptance; or
- (4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) below.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work,

## END OF SECTION E

Technical surveillance of workmanship and inspection of materials for work being performed under this contract shall be the responsibility of the Director of Engineering and Housing or his authorized representative. This provision in no way authorizes anyone other than the Contracting Officer to commit the government to changes in the terms of the contract. In the event it is determined necessary to designate a COR for this contract, such designation shall be by a separate letter to the individual selected with a copy furnished to the Contractor.

## INSPECTION OF WORK

E.2

(1) Unless otherwise specified in the contract, the government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the government's rights under any warranty or guarantee. (End of clause)

(h) If, before acceptance of the entire work, the government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the contractor or its subcontractors, the contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the government's rights under any warranty or guarantee.

SECTION F  
DELIVERIES OR PERFORMANCE

F.1 52.212-3 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 5 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 30 days after Notice of Award.. The time stated for completion shall include final cleanup of the premises.

(End of clause)  
(R 7-602.44(a) 1965 JAN)

END OF SECTION F

SECTION G  
CONTRACT ADMINISTRATION DATA

G.1

RESPONSIBILITY FOR ADMINISTRATION OF CONTRACT

The Contracting Division is responsible for the administration of this contract. The Contracting Officer alone is authorized to take action on behalf of the Government which results in changes in the terms of the contract, including deviations from specifications, details and delivery schedules.

END OF SECTION G

SECTION H  
SPECIAL CONTRACT REQUIREMENTS

H.1 FIRE PREVENTION

a. The current Post Fire Regulations, AR 420-90, "Fire Prevention and Protection" and FLW Supplements to AR 420-90 are by this reference made a part of this solicitation and resultant contract. The Contractor's operations shall conform to all applicable portions of those documents. All personnel entering on duty as Contractor's employees shall be instructed in the fire prevention program of the Post and shall be advised of the requirement of the Post Fire Regulations as they pertain to this particular contract.

b. The Contractor shall obtain a written "Hot Work Permit" (DA Form 5383-R) prior to commencing all hot work outside an approved shop area. Permits will be issued by the Fort Leonard Wood Fire Department, 596-5615-3431, after all necessary precautions have been taken, such as wetting down the area, protection of combustible material, and positioning of first aid fire extinguishers of proper type and class. Permits must be obtained in advance for use of open flame devices, such as blow torches, portable furnaces, tar kettles, or gas and electric welding and cutting equipment. Preparation and protection for such areas are the responsibility of the Contractor accomplishing the work. An inspection conducted by the Fire Department prior to commencing work may be required; however, the Contractor shall conduct an inspection of the area at least 30 minutes after completion of all work. The Contractor shall be liable for any fire loss to Government property attributable to negligence on the part of the Contractor, including failure to comply with fire prevention measures prescribed by terms of this contract.

c. The Fire Prevention-Protection Division is responsible for monitoring the Contractor in the area of fire prevention and advising the Contracting Officer of all deficiencies. The Contracting Officer will alert the Contractor if a violation is a fire hazard or fire protection deficiency.

d. This provision in no way authorizes anyone other than the Contracting Officer to commit the Government to changes in the terms of the contract.

H.2 NORMAL WORKING HOURS

H.3

UTILIZATION OF HEAVY TRACKED OR WHEELED EQUIPMENT

All projects which require the use of any heavy tracked or wheeled equipment on the streets will require prior approval by the Post Engineer. Authorization will not be required for normal vehicular traffic.

b. If the Contractor for his convenience desires to perform work during other than normal working hours or on other than normal workdays, he shall notify the Contracting Officer in writing at least 72 hours in advance. The Contractor shall not perform work beyond the normal working hours or normal workdays without the Contracting Officer's written approval. The Contractor shall reimburse the Government for any additional expense occasioned the Government thereby, such as, but not limited to, overtime pay for Government inspectors, utilities service, etc.

When such holidays fall on a Saturday, the preceding Friday will also be considered a holiday. When such holidays fall on a Sunday, the succeeding Monday will also be considered a holiday.

Legal Public Holidays:

New Year's Day, 1 January

Martin Luther King, Jr.'s Birthday, the third Monday in January

Presidents' Day, the third Monday in February

Memorial Day, the last Monday in May

Independence Day, 4 July

Labor Day, the first Monday in September

Columbus Day, the second Monday in October

Veterans Day, 11 November

Thanksgiving Day, the fourth Thursday in November

Christmas Day, 25 December

a. The Contractor shall schedule his working hours to coincide with the working hours of the military facility. Normal working hours of the facility are 7:30 a.m. to 4:30 p.m., Monday thru Friday, Legal Public holidays excepted. The Contractor shall not perform work on the facility beyond the aforementioned working hours without the written approval of the Contracting Officer.

#### H.4

#### EMPLOYEES OF CONTRACTOR

(a) The Contractor shall furnish to the Contracting Officer upon commencement of work under this contract a written statement containing the complete name, address, and job title of each employee including subcontractor employees engaged in performance of the work under this contract. In the event of a change in employees necessitated by illness, change in personnel, or other reasons, the Contractor shall advise the Contracting Officer of the change and shall furnish him the same information on the new employee prior to his arrival on the premises.

(b) The Contractor shall be responsible for the performance and conduct of his employees, to include subcontractor employees, at all times while performing under the contract. Employees of the Contractor or subcontractor may be denied entry to the installation by the military police or other authorized Government authority if it is determined that such entry may be contrary to good order, discipline or the security of the installation. Pursuant to 18 U.S.C. 1382, the Installation Commander may bar individuals from entry on the installation.

#### H.5

#### LIABILITY OF CONTRACTOR

The Contractor shall be liable for injuries or damages to persons or property resulting from the negligent acts or omissions of the Contractor, his agents, employees and/or sub-contractors.

#### H.6

#### CONTRACTOR CORRESPONDENCE REQUIREMENTS

All Contractor and subcontractor originated correspondence under this contract shall be on the originating firm's letterhead, except in the case where pre-printed Government forms are used, shall be typed or handwritten in a legible manner, and shall be submitted in the signed original, with

c. Any bonds required will be furnished by the Contractor to the government prior to commencement of contract performance.

penal sum shall be \$2,500,000.

(c) When the contract price is more than \$5,000,000, the contract price.

(b) When the contract price is in excess of \$1,000,000 but not more than \$5,000,000, the penal sum shall be forty percent (40%) of the contract price.

(a) When the contract price is \$1,000,000 or less, the penal sum shall be fifty percent (50%) of the contract price.

(2) Payment Bond:

(1) Performance Bond: The penal sum of the performance bond shall equal one hundred percent (100%) of the contract price.

bonds will be as follows: (Not required for contracts of \$25,000 or less) surety or sureties acceptable to the government. The penal sums of such Form 1442, the Contractor shall furnish a Performance Bond (Standard Form 25) and a Payment Bond (Standard Form 25-A), each with good and sufficient government accepts the Contractor's offer, by signing Item 318 of Standard Form 1442, within ten (10) days after the

b. PERFORMANCE AND PAYMENT BONDS.

a. BID GUARANTEE. Each bidder shall submit with his bid a Bid Bond (Standard Form 24) with good and sufficient surety or sureties acceptable to the government, or other security as provided in Contract Clause, Bid Bond, in the form of twenty percent (20%) of the bid price or \$3,000,000, whichever is lesser. The bid bond penalty may be expressed in terms of a percentage of the bid price or may be expressed in dollars and cents. (Not required for bids of \$25,000 or less) (FAR 28.101-1).

BONDS

H.7

supporting copies as required by the Contracting Officer.

H.8

**REQUIRED INSURANCE**

a. The Contractor shall, at its own expense, procure and maintain during the entire period of his performance under this contract the following minimum insurance:

TYPE	AMOUNT
<b>(1) Workmen's Compensation:</b>	
The required Workmen's Compensation Insurance shall extend to cover employee's liability for accidental bodily injury or death and for occupational disease with a minimum liability of:	<b>\$100,000.00</b>
<b>(2) Comprehensive General Liability with minimum limits of:</b>	
Per accident or occurrence for bodily injury	<b>\$500,000.00</b>
<b>(3) Comprehensive Automobile Liability with minimum limits of:</b>	
Per Person	<b>\$200,000.00</b>
Per Accident for Bodily Injury	<b>\$500,000.00</b>
Per Accident for Property Damage	<b>\$ 20,000.00</b>

This insurance shall include Contractor's protective liability and contractual liability.

b. Prior to commencement of work hereunder, the Contractor shall furnish to the Contracting Officer, a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such periods as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than thirty (30) days after written notice thereof to the Contracting Officer.

c. The Contractor shall insert the substance of this clause, including

H.11

POSTAWARD ORIENTATION

A Postaward Orientation will be scheduled by the Contracting Officer after contract award and prior to commencement of work. The Contracting Officer will notify the Contractor of the time and date set for the meeting which will be held at Fort Leonard Wood, MO. At this meeting, the Contractor will be oriented with respect to Government procedures and line of authority, as well as contractual, administrative, and construction matters. The Contractor is required to furnish a current

H.10

MAGNITUDE OF PROJECT

The magnitude of this project is less than \$25,000.00.

H.9

MATERIAL PAYMENT AUTHORIZATION

Consideration is hereby authorized for PROGRESS PAYMENTS to the Contractor for materials to be utilized on the work covered by this contract, delivered to the Contractor at locations other than the site. The Contractor must furnish satisfactory evidence that he has acquired title to such material and the material will be inventoried by the Government. The reimbursement by the Government shall not be construed as relieving the Contractor from the sole responsibility for the protection and the security of the material or as waiving the right of the Government to require the fulfillment of all of the terms of the contract.

this paragraph c, in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule, or elsewhere in the contract. At least five (5) days before entry of each such subcontractor's personnel on the Government installation, the Contractor shall furnish (or ensure that there has been furnished) to the Contracting Officer a current certificate of insurance, meeting the requirements of paragraph b above, for each subcontractor.

Certificate of Insurance and a letter appointing a construction superintendent at the meeting.

H.12

SAFETY AND ACCIDENT PREVENTION

a. In performing work under this contract, the contractor shall - -

(1) Conform to the specific safety requirements established by this contract;

(2) Comply with the safety rules of the Government installation that concern related activities not directly addressed in this contract;

(3) Take all reasonable steps and precautions to prevent accidents and preserve the life and health of Contractor and Government personnel performing or in any way coming in contact with the performance of this contract; and

(4) Take such additional immediate precautions as the Contracting Officer may reasonably require for safety and accident prevention purposes.

b. The Installation Safety Officer will be responsible for monitoring the Contractor in the area of safety and accident prevention.

c. This provision in no way authorizes anyone other than the Contracting Officer to commit the Government to changes in the terms of the contract.

H.13

LICENSES, PERMITS AND BONDS REQUIRED FOR WORK ON RESERVE CENTERS

a. The Contractor shall provide at his expense all licenses, permits and bonds as may be required by the state, county, and municipality on which he will operate any type of motor vehicle.

b. Any vehicle operated by the Contractor on the military reservation must meet State Safety Standards and carry a current state inspection sticker to so indicate.

END OF SECTION H

At work sites where government utilities are currently available, the government will provide necessary utilities for the completion of the work at no charge to the contractor. The contractor must satisfy himself as to the extent of government utility services available at each site and include any costs associated with the providing of necessary utilities, not available from the government, in the prices bid for the applicable bid item.

UTILITIES

H.14

c. Contractor will be required to submit evidence of insurance on all vehicles. Operators will be required to possess valid state permits to operate the vehicles which are assigned to them (Driver's License, Chauffeur's License, etc.).

SECTION I  
CONTRACT CLAUSES

1.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (JUN 1988)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

(End of clause)

- 1.2 52.203-1 OFFICIALS NOT TO BENEFIT (APR 1984)  
(Reference 3.102-2)
- 1.3 52.203-3 GRATUITIES (APR 1984)  
(Reference 3.202)
- 1.4 52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)  
(Reference 3.404(c))
- 1.5 52.203-7 ANTI-KICKBACK PROCEDURES (OCT 1988)  
(Reference 3.502-3)
- 1.6 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS  
DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (NOV 1992)  
(Reference 9.409(b))
- 1.7 52.212-12 SUSPENSION OF WORK (APR 1984)  
(Reference 12.505(a))
- 1.8 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS  
CONCERNS (FEB 1990)  
(Reference 19.708(a))
- 1.9 52.222-3 CONVICT LABOR (APR 1984)  
(Reference 22.202)
- 1.10 52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT  
OPPORTUNITY (APR 1984)  
(Reference 22.810(b))
- 1.11 52.222-26 EQUAL OPPORTUNITY (APR 1984)  
(Reference 22.810(e))

1.12	52.222-27	AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (APR 1984) (Reference 22.810(f))
1.13	52.222-35	AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS (APR 1984) (Reference 22.1308(a)(c))
1.14	52.222-36	AFFIRMATIVE ACTION FOR HANDICAPPED WORKERS (APR 1984) (Reference 22.1408(a))
1.15	52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1988) (Reference 22.1308(b))
1.16	52.223-3	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (NOV 1991) (Reference 23.303(a))
1.17	52.225-5	BUY AMERICAN ACT--CONSTRUCTION MATERIALS (MAY 1992) (Reference 25.205)
1.18	52.229-3	FEDERAL, STATE, AND LOCAL TAXES (JAN 1991) (Reference 29.401-3)
1.19	52.232-23	ASSIGNMENT OF CLAIMS (JAN 1986) (Reference 32.806(a))(1)
1.20	52.232-23 I	ASSIGNMENT OF CLAIMS (JAN 1986)--ALTERNATE I (APR 1984) (Reference 32.806(a))(2)
1.21	52.233-1	DISPUTES (MAR 1994) (Reference 33.215)
1.22	52.233-3	PROTEST AFTER AWARD (AUG 1989) (Reference 33.106(b))
1.23	52.236-2	DIFFERING SITE CONDITIONS (APR 1984) (Reference 36.502)
1.24	52.236-3	SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984) (Reference 36.503)

- 1.25 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)  
(Reference 36.505)
- 1.26 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)  
(Reference 36.506)
- 1.27 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)  
(Reference 36.507)
- 1.28 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND  
IMPROVEMENTS (APR 1984)  
(Reference 36.509)
- 1.29 52.236-12 CLEANING UP (APR 1984)  
(Reference 36.512)
- 1.30 52.236-13 ACCIDENT PREVENTION (NOV 1991)  
(Reference 36.513(a))
- 1.31 52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)  
(Reference 36.514)
- 1.32 52.243-5 CHANGES AND CHANGED CONDITIONS (APR 1984)  
(Reference 43.205(e))
- 1.33 52.249-1 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SHORT FORM)  
(APR 1984)  
(Reference 49.502(a)(1))
- 1.34 52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)  
(Reference 49.504(c)(1))
- 1.35 252.203-7001 SPECIAL PROHIBITION ON EMPLOYMENT (APR 1993)  
(Reference 03.570-5)
- 1.36 52.212-5 LIQUIDATED DAMAGES--CONSTRUCTION (APR 1984)

(a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to the Government as liquidated damages, the sum of \_\_\_\_\_ for each day of delay.

(a) If the Contractor has knowledge that any actual or potential labor

1.38 52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (APR 1984)

(End of clause)

(1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.

(2) Supplies (other than procurement from a regular dealer in such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for--

1.37 52.219-14 LIMITATIONS ON SUBCONTRACTING (JAN 1991)

(End of clause)

(R 7-602.5 1969 AUG)

(R 1-18.110(a))

(R 7-603.39 1965 JAN)

(R 1-8.709-1)

(b) If the government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the government in completing the work.

(c) If the government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

(b) The Contractor agrees to insert the substance of this clause, including this paragraph (b), in any subcontract to which a labor dispute may delay the timely performance of this contract; except that each subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the subcontractor shall immediately notify the next higher tier subcontractor or the prime Contractor, as the case may be, of all relevant information concerning the dispute.

(End of clause)

(R 7-203.27 1967 JUN)

(AV 7-104.4 1958 SEP)

(AV 7-603.1 1958 SEP)

1.39 52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT--OVERTIME COMPENSATION  
(MAR 1986)

(a) Overtime requirements. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics (see Federal Acquisition Regulation (FAR) 22.300) shall require or permit any such laborers or mechanics in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(b) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the provisions set forth in paragraph (a) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions set forth in paragraph (a) of this clause in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by

(End of clause)

provisions set forth in paragraph (a) of this clause.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer shall upon his or her own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same Prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in paragraph (b) of this clause.

(d) Payrolls and basic records. (1) The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of contract work and shall preserve them for a period of 3 years from the completion of the contract for all laborers and mechanics working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Nothing in this paragraph shall require the duplication of records required to be maintained for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The records to be maintained under paragraph (d)(1) of this clause shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Contracting Officer or the Department of Labor. The contractor or subcontractor shall permit such representatives to interview employees during working hours on the job.

(e) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the provisions set forth in paragraphs (a) through (e) of this clause and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the provisions set forth in paragraphs (a) through (e) of this clause.

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) Except with respect to helpers, as defined in section 22.401 of the Federal Acquisition Regulation, the work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction

industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(iv) With respect to helpers, such a classification prevails in the area in which the work is performed.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(d) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or

mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

1.41 52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

1.42 52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily

and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3, and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the

classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

1.43 52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any

craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full

amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

I.44 52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

I.45 52.222-11 SUBCONTRACTS (LABOR STANDARDS) (FEB 1988)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination--Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations, and Certification of Eligibility, and such other clauses as

1.48 52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

(End of clause)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

1.47 52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

(End of clause)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 CFR 5.12.

1.46 52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)

(End of clause)

The Contracting Officer may, by appropriate instructions, require, and also a clause requiring subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited in this paragraph.  
(b)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.  
(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees of their representatives.

(End of clause)

I.49 52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(End of clause)

I.50 52.223-6 DRUG-FREE WORKPLACE (JUL 1990)

(a) Definitions. As used in this clause,

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done

by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance. "Employee" means an employee of a Contractor directly engaged in the performance of work under a government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall--within 30 calendar days after award (unless a longer period is agreed to in writing for contracts of 30 calendar days or more performance duration), or as soon as possible for contracts of less than 30 calendar days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 calendar days after such conviction.

(5) Notify the Contracting Officer in writing within 10 calendar days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 calendar days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in the performance of this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

1.51 52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (MAR 1994)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments and contract financing payments under the terms and conditions specified in this clause. Payment shall be considered as being made on the day a check is dated or an electronic funds transfer is made. Definitions of pertinent terms are set forth in 32.902. All days referred to in this clause are calendar days, unless otherwise specified.

(a) Invoice Payments.

(1) For purposes of this clause, there are several types of invoice payments which may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project:

(2) An invoice is the contractor's bill or written request for payment under the contract for work or services performed under the contract. An invoice shall be prepared and submitted to the designated billing office. A proper invoice must include the items listed in subdivisions (a)(2)(i) through (a)(2)(ix) of this clause. If the invoice does not comply with these requirements, the contractor will be notified of the defect within 7 days after receipt of the invoice at the designated billing office. Untimely notification will be taken into account in the computation of

contract settlement.  
 shall be deemed to have occurred on the effective date of the contract settlement actions (e.g., release of claims), acceptance (B) On a final invoice where the payment amount is subject to Contractor compliance with contract requirements. received and there is no disagreement over quantity, quality, or the contractor's invoice is dated, provided a proper invoice is payment due date shall be deemed to be the 30th day after the date to annotate the invoice with the date of actual receipt, the invoice whichever is later. However, if the designated billing office fails acceptance of the work or services completed by the Contractor, invoice from the contractor, or the 30th day after government day after receipt by the designated billing office of a proper (A) The due date for making such payments shall be either the 30th

price is stated separately in the contract):  
 building, public work, or other division of the contract for which the that have been accepted by the government (e.g., each separate arising by virtue of the contract, and payments for partial deliveries and presentation of release of all claims against the government (ii) Final payments based on completion and acceptance of all work approval for release to the contractor by the Contracting Officer. specified in the contract or, if not specified, 30 days after Payments Under Fixed-Price Construction Contracts, shall be as Contracting Officer in accordance with the clause at 52.252-5, (B) The due date for payment of any amounts retained by the Contractor compliance with contract requirements. received and there is no disagreement over quantity, quality, or payment request is dated, provided a proper payment request is shall be deemed to be the 14th day after the date the contractor's payment request with the actual date of receipt, the payment due date However, if the designated billing office fails to annotate the receipt of the payment request by the designated billing office. (A) The due date for making such payments shall be 14 days after

any interest penalty owed the Contractor in the manner described in subparagraph (a)(4) of this clause:

- (i) Name and address of the Contractor.
- (ii) Invoice date.
- (iii) Contract number or other authorization for work or services performed (including order number and contract line item number).
- (iv) Description of work or services performed.
- (v) Delivery and payment terms (e.g., prompt payment discount terms).
- (vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).
- (vii) Name (where practicable), title, phone number, and mailing address of person to be notified in event of a defective invoice.
- (viii) For payments described in subdivision (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.
- (ix) Any other information or documentation required by the contract.

(3) An interest penalty shall be paid automatically by the designated payment office, without request from the Contractor, if payment is not made by the due date and the conditions listed in subdivisions (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable.

- (i) A proper invoice was received by the designated billing office.
- (ii) A receiving report or other Government documentation authorizing payment was processed and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.
- (iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) The interest penalty shall be at the rate established by the Secretary of the Treasury under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) that is in effect on the day after the due date, except where the interest penalty is prescribed by other governmental authority. This rate is referred to as the "Renegotiation Board Interest Rate," and it is published in the Federal Register semiannually on or about January 1 and July 1. The interest penalty shall accrue daily on the invoice payment amount approved by the Government and be compounded in 30-day increments inclusive from the first day after the due date through the payment date. That is, interest accrued at the end of any

30-day period will be added to the approved invoice payment amount and be subject to interest penalties if not paid in the succeeding 30-day period. If the designated billing office failed to notify the Contractor of a defective invoice within the periods prescribed in subparagraph (a)(2) of this clause, then the due date on the corrected invoice will be adjusted by subtracting the number of days taken beyond the prescribed notification of defects period. Any interest penalty owed the Contractor will be based on this adjusted due date. Adjustments will be made by the designated payment office for errors in calculating interest penalties, if requested by the Contractor.

(1) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in subdivision (a)(1)(iii) of this clause, Government acceptance or approval shall be deemed to have occurred constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. In the event that actual acceptance or approval occurs within the constructive acceptance or approval period, the determination of an interest penalty shall be based on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The following periods of time will not be included in the determination of an interest penalty:

(A) The period taken to notify the Contractor of defects in invoices submitted to the Government, but this may not exceed 7 days.

(B) The period between the defects notice and resubmission of the corrected invoice by the Contractor.

(iii) Interest penalties will not continue to accrue after the filing of a claim for such penalties under the clause at 52.233-1, Disputes, or for more than 1 year. Interest penalties of less than \$1.00 need not be paid.

(iv) Interest penalties are not required on payment delays due to disagreement between the Government and Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. Claims involving disputes, and any interest that may be

payable, will be resolved in accordance with the clause at 52.233-1, Disputes.

(5) An interest penalty shall also be paid automatically by the designated payment office, without request from the Contractor, if a discount for prompt payment is taken improperly. The interest penalty will be calculated on the amount of discount taken for the period beginning with the first day after the end of the discount period through the date when the Contractor is paid.

(6) If this contract was awarded on or after October 1, 1989, a penalty amount, calculated in accordance with regulations issued by the Office of Management and Budget, shall be paid in addition to the interest penalty amount if the Contractor--

(i) Is owed an interest penalty;

(ii) Is not paid the interest penalty within 10 days after the date the invoice amount is paid; and

(iii) Makes a written demand, not later than 40 days after the date the invoice amount is paid, that the agency pay such a penalty.

(b) Contract Financing Payments.

(1) For purposes of this clause, if applicable, "contract financing payment" means a Government disbursement of monies to a Contractor under a contract clause or other authorization prior to acceptance of supplies or services by the Government, other than progress payments based on estimates of amount and value of work performed. Contract financing payments include advance payments and interim payments under cost-type contracts.

(2) If this contract provides for contract financing, requests for payment shall be submitted to the designated billing office as specified in this contract or as directed by the Contracting Officer. Contract financing payments shall be made on the \_\_\_\_\_ day after receipt of a proper contract financing request by the designated billing office. In the event that an audit or other review of a specific financing request is required to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the due date specified. For advance payments, loans, or other arrangements that do not involve recurrent submissions of contract financing requests, payment shall be made in accordance with the corresponding contract terms or as directed by the Contracting Officer. Contract financing payments shall not be assessed an interest penalty for payment delays.

(c) The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing

this contract the following:

- (1) A payment clause which obligates the contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the contractor under this contract.
- (2) An interest penalty clause which obligates the contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--
- (i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and
- (ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.
- (3) A clause requiring each subcontractor to include a payment clause and an interest penalty clause conforming to the standards set forth in subparagraphs (c)(1) and (c)(2) of this clause in each of its subcontracts, and to require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.
- (d) The clauses required by paragraph (c) of this clause shall not be construed to impair the right of Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions which--
- (1) Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;
- (2) Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and
- (3) Permit such withholding without incurring any obligation to pay a late payment penalty if--
- (i) A notice conforming to the standards of paragraph (g) of this clause has been previously furnished to the subcontractor; and
- (ii) A copy of any notice issued by a Contractor pursuant to

subdivision (d)(3)(i) of this clause has been furnished to the Contracting Officer.

(e) If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to subparagraph (e)(1) of this clause;

(3) Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under subparagraph (e)(1) of this clause;

(4) Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under subdivision (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under subparagraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under subdivision (e)(5)(i) of this clause.

(f)(1) If a contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a "second-tier subcontractor") a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the contractor may be ultimately liable, and the contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, then the contractor may, without incurring an obligation to pay an interest penalty under subparagraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under subdivision (f)(1)(i) of this clause.

(2) As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the contractor shall pay the amount withheld under subdivision (f)(1)(i) of this clause to such first-tier subcontractor, or shall incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the contractor accrues the obligation to pay an interest penalty.

(g) A written notice of any withholding shall be issued to a subcontractor (with a copy to the Contracting Officer of any such notice issued by the contractor), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the

subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the United States is a party. The United States may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the United States for such interest penalty. A cost reimbursement claim may not include any amount for reimbursement of such interest penalty.

(End of clause)

1.52 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (APR 1984)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall

furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription" of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by", or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown", "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the

drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(h) This clause shall be included in all subcontracts at any tier.

(End of clause)

(7-602.2 JUNE 1964 and 1-7.602-2)

(7-602.41 JAN 1965)

(7-602.47 APR 1966)

(7-602.54 OCT 1976 and 1-7.602-36)

I.53 52.242-13 BANKRUPTCY (APR 1991)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail, written notification of the bankruptcy to the Contracting Office responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

I.54 52.246-21 WARRANTY OF CONSTRUCTION (APR 1984)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is

free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any

defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of clause)  
(R 7-604.4 1976 JUL)

I.55 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

I.56 252.203-7003 PROHIBITION AGAINST RETALIATORY PERSONNEL ACTIONS (APR 1992)

(a) Definitions.

As used in this clause--

(1) "Appropriate Government official" means

(i) An officer or employee of the Department of Defense responsible for command, direct staff assistance to a commander, contract administration, program management, audit, inspection, investigation, or enforcement of any law or regulation relating to Government procurement or the subject matter of the contract;

(a) Definitions.  
 (1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security, health or safety, or functions other than the

1.57 252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(1) The prohibitions of this clause;  
 (2) Employees' rights under 10 U.S.C. 2409a; and  
 (3) Availability of procedures implementing the statute.  
 (End of clause)

(b) Prohibition.  
 In accordance with 10 U.S.C. 2409a, the Contractor shall not discharge or otherwise discriminate against any employee with respect to the employee's compensation or terms and conditions of employment because the employee (or any person acting pursuant to a request of the employee) discloses to an appropriate government official information concerning a defense contract, which information the employee reasonably believes evidences a violation of any Federal law or regulation relating to defense procurement or the subject matter of this contract.  
 (c) The government will notify the Contractor upon receipt of any complaint filed under the provisions of this clause and Subpart 203.71 of the Defense FAR Supplement. The Contractor agrees to cooperate with the government during its investigation of any such complaint.  
 (d) The Contractor shall inform all employees of--  
 (1) The prohibitions of this clause;  
 (2) Employees' rights under 10 U.S.C. 2409a; and  
 (3) Availability of procedures implementing the statute.  
 (End of clause)

(ii) A Member of Congress or an officer or employee of Congress, the General Accounting Office, the Congressional Budget Office, or the Office of Technology Assessment; and  
 (iii) Any other officer or employee of the United States whose duties include the investigation or enforcement of any law, rule, or regulation relating to government procurement or the subject matter of the contract.  
 (2) "Information concerning a contract" means information about cost, price, compliance with specifications, meeting the user's requirements, user safety, use or disposition of services, real property or personal property acquired under the contract, the procurement process (including competition, negotiation, award, and administration), and relationships with government personnel, competitors, or subcontractors.

foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of Title 21 of the United States Code, the possession of which is unlawful under Chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, the efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employee has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

1.58 252.232-7006 REDUCTION OR SUSPENSION OF CONTRACT PAYMENTS UPON FINDING OF FRAUD (AUG 1992)

(a) 10 U.S.C. 2307(e) permits the head of the agency to reduce or suspend further payments to the contractor upon a written determination by the agency head that substantial evidence exists that the contractor's request for advance, partial, or progress payments is based on fraud. The provisions of 10 U.S.C. 2307(e) are in addition to any other rights or remedies provided the government by law or under contract.

(b) Actions taken by the government in accordance with 10 U.S.C. 2307(e) shall not constitute an excusable delay under the Default clause of this contract or otherwise relieve the contractor of its obligations to perform under this contract.

(End of clause)

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2.1 of Subpart B of the "Mandatory guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11 1988)), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such time as the contractor, in accordance with procedures established by the contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing programs shall not apply to the extent they are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the contractor agrees that those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

I.59 252.236-7008 CONTRACT PRICES--BIDDING SCHEDULES (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for--

(1) Furnishing all plant, labor, equipment, appliances, and materials;  
and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

(End of provision)

END OF SECTION I

SECTION J  
LIST OF ATTACHMENTS

J.1 U.S. Department of Labor General Wage Decision No. IL940016 will apply to this solicitation and any resulting contract.

END OF SECTION J



COUNTY(ies) :

ALEXANDER	JACKSON	RANDOLPH
CLAY	JASPER	RICHLAND
CRAWFORD	JEFFERSON	SALINE
EDWARDS	JOHNSON	UNION
EFFINGHAM	LAWRENCE	WABASH
FAYETTE	MARION	WAYNE
FRANKLIN	MASSAC	WHITE
GALLATIN	PERRY	WILLIAMSON
HAMILTON	POPE	
HARDIN	PULASKI	

CARP0347G 06/01/1993

	Rates	Fringes
CRAWFORD, EFFINGHAM & JASPER COUNTIES		
CARPENTERS	16.93	5.46
MILLWRIGHTS	19.78	4.59
PILEDRIVERMEN	17.43	5.46

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CARP0634B 04/01/1993

	Rates	Fringes
CLAY, EDWARDS, FAYETTE, LAWRENCE, MARION, RICHLAND, & WABASH COUNTIES		
CARPENTERS & PILEDRIVERMEN	17.28	5.02
MILLWRIGHTS	17.28	5.02

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CARP0636A 04/01/1993

	Rates	Fringes
HAMILTON, JEFFERSON, WAYNE, & WHITE COUNTIES		
CARPENTERS	17.28	5.02
PILEDRIVERMEN & MILLWRIGHTS	17.28	5.02
DIVERS (receive 1 1/2 times carpenter rate plus fringes and \$25 per day for equipment)		

RANDOLPH COUNTY

CARPENTERS, PILEDRIVERMEN, AND MILLWRIGHTS	19.66	5.34
DIVERS (receive 1 1/2 times carpenter rate plus fringes and \$25 per day for equipment)		

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CARP0640A 04/01/1993

	Rates	Fringes
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IL940016 - 2

05/06/1994

05/06/1994

IL940016 - 3

ALEXANDER, CLAY, EDWARDS, EFFINGHAM (Excluding Banner, Bishop, Douglas, Liberty, Lucas, Moccasin, St. Francis, Summit and Teulopolis TWP), FAYETTE (Excluding Hurricane, S. Hurricane, Fringes Rates

ELECG0702A 03/01/1994

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ELECTRICIANS 22.39 22%

RANDOLPH (RED BUD TWP.) COUNTY:

ELECG0309D 09/01/1991

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ELECTRICIANS 19.45 2.65+3.35%

EFFINGHAM (Banner, Bishop, Douglas, Liberty, Lucas, Moccasin, St. Francis, Summit, & Teulopolis TWPS), & FAYETTE (Hurricane, S. Hurricane, Ramsey, Bowling Green, Carson, & Loudon TWPS) Fringes Rates

ELECG0146D 06/01/1992

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LINE CONSTRUCTION:  
Lineman 20.36 1.25+13.5%  
Equipment Operator 18.96 1.25+13.5%  
Groundman-Truck Driver w/winch 14.38 1.25+13.5%  
Groundman-Truck Driver w/o winch 13.54 1.25+13.5%  
Groundman 12.89 1.25+13.5%

FAYETTE COUNTY (North of Avena, Bear Grove, Seton, and Sharon TWP) Fringes Rates

ELECG0051E 06/01/1992

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ELECTRICIANS 21.835 2.50+11.5%

WABASH COUNTY

ELECG0016B 04/01/1993

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DIVERS (Receive 1 1/2 times Carpenter's rate plus fringe benefits and \$25.00 per day for equipment)

CARPENTERS & PILEDRIVERS 17.28 5.02

ALEXANDER, FRANKLIN, HARDIN, MASSAC, JACKSON, PERRY, POPE, JOHNSON, GALTALIN, PUJASKI, SALINE, UNION, & WILLIAMSON COUNTIES

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1 CONTRACT ID CODE PAGE OF PAGES  
1 2

2. AMENDMENT/MODIFICATION NO. P00001  
3. EFFECTIVE DATE 90AUG24  
4. REQUISITION/PURCHASE REQ. NO. A 64-90  
5. PROJECT NO (If applicable) 473-88  
6. ISSUED BY CODE  
7. ADMINISTERED BY (If other than Item 6) CODE

Directorate of Contracting  
Post Office Box 140  
Fort Leonard Wood, MO 65473-0140  
P O C Donna Hickey (314) 596-7111

**DUPLICATE ORIGINAL**

8. NAME AND ADDRESS OF CONTRACTOR (No. street, country State and ZIP Code)  
Republic Industries, Incorporated  
Post Office Box 5565 Station 1  
Wilmington, North Carolina 28403  
9A. AMENDMENT OF SOLICITATION NO  
9B. DATED (SEE ITEM 11)  
10A. MODIFICATION OF CONTRACT/ORDER NO  
X DABT31-89-C-0087  
10B. DATED (SEE ITEM 13)  
89SEP29  
CODE FACILITY CODE

**11 THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:  
(a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment, (b) By acknowledging receipt of this amendment on each copy of the offer submitted or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted such change may be made by telegram or letter provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

See Block 14 Below

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO AS DESCRIBED IN ITEM 14.**

(X) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO IN ITEM 10A.  
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b)  
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF  
X FAR 43.103(a) and mutual agreement of both contracting parties  
D. OTHER (Specify type of modification and authority)

E. IMPORTANT Contractor  is not,  is required to sign this document and return Original copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)  
2102080 0000 0 76-2090 515294.K2000 2572 000000 W52D3U0033 A064 GK BK00 S23037  
INCREASE: \$22,579.85

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) David A. Nugent, President  
15B. CONTRACTOR/OFFEROR  
15C. DATE SIGNED 9/15/90  
16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) PAUL R. HUTSELL  
16B. UNITED STATES OF AMERICA  
BY  
16C. DATE SIGNED 10 Sep 90

1 This modification on the above cited contract for Asbestos Abatement at E. St. Louis and Centralia, Illinois, serves to compensate the contractor for work accomplished without prior Contracting Officer approval. The Government has received a benefit from the contractor's performance, therefore, the Contracting Officer is hereby authorizing payment in accordance with the terms of this modification for additional work performed as follows:

Removal of asbestos containing pipe insulation, pipe joint insulation and vibration material to include reinsulating pipe, pipe joints, and install non-asbestos vibration cloth as previously specified in contract Section 15250 at E. St. Louis and Centralia, Illinois.

2. The contract completion time is extended by one hundred and seventy seven (177) calendar days to 03 October 1990.

3. As a result of the additional work the total amount of the contract is increased by \$22,579.85 from \$33,000.00 to \$55,579.85.

4. In consideration of the modification agreed to herein as complete payment for the additional work stated on Invoice #523 dated February 20, 1990, the contractor hereby releases the Government from any and all liability under this contract for any future claims attributable to facts or circumstances giving rise to this modification.

5. All other terms and conditions of this contract and modification thereto remain unchanged.

CENTER : E. ST. LOUIS, ILL.  
CENTRALIA, ILL.

DEH DAILY INSPECTION REPORT

Date  
17 Sept 90  
18 Sept 90  
See report

Project Title: ASBESTOS ABATEMENT  
Contracting Officer: RAMONA RICKMAN  
PHONE #: 596-5144  
Contract Number: DABT31-89-C-0065 (0087)  
A-180-89

Contractor: REPUBLIC INDUSTRIES, INC.  
Contractor Representative on Site: DAVID NUGENT.  
PHONE #: 919-799-2664

Contract Time: Days Used: Completion Date: 25 Sept 90  
START DATE:  
PRE-CONSTRUCTION DATE:

Weather: Temperature (High/Low): Ground Conditions:

Days of No Work and reasons for same:

Safety Considerations

Narrative Report

17 Sept 90 - Started in orderly Room, insulation and ceiling tile replacement. I am to bring ceiling tile from Bellville for Centralia.

18 Sept 90 - Delivered ceiling tile and they have orderly Rm. done and half of the rest of the pipes in center insulated.

19 Sept 90 - The insulators left back to N.C. in P.M. early. Most done.

20 Sept 90 - Missed pipes in Officer's Restroom, and one section in Drill Hall. Needs to paint insulation in Drill Hall. Orderly Rm done, Classroom Done, room next to Classroom done, Supply Room, Charlie's Rm, Cantalina Rm done, and training Rm done.

21 Sept 90 - Insulation put on Officer's Restroom pipes, Commanders Room Done. Drill Hall pipe insulation done, ~~insulation in Drill Hall~~. Drill Hall painted part way.

24 Sept 90 - Completed painting insulation in Drill Hall. Completed applying insulation in hallways. Centralia completed about 1330 hrs.

25 Sept 90 - East St. Louis. Patches sanded and touched up. 1 coat of paint on all 3 Patches. E. St. Louis is completed also.

Contractors Signature: Marvyn E. Sack  
Date: 17 Sept 90  
Supervisors Initials: [blank]  
Date: 18 Sept 90  
See Report

Distribution: Original - CO (weekly), copies: LOR and Inspector, Files

of operation to normal business hours which are during the weekends from 7:30 A.M. to 4:00 P.M., Monday through Friday. A complete clean-up of the contract area shall be accomplished each Friday.

4.3 The Contractor shall be responsible for coordination with the Facility Managers. All work shall be scheduled with Facility Managers 48 hours in advance stating the day and the time at which the Contractor desires access to the buildings.

5. DISPOSAL OF MATERIALS: All asbestos removed in this project shall be taken to a local sanitary landfill in accordance with these contract specifications.

6. INSPECTION AND ACCEPTANCE: Upon completion of the work, an inspection for acceptance will be made by the Directorate of Engineering and Housing, Off-Post Facilities Branch, Inspection Representative.

7. FIELD MEASUREMENTS: The Contractor shall verify all measurements at the construction site and shall be responsible for the reporting of measurements that are different from the Government's measurements.

8. SITE CLEANUP: During the course of this project, the Contractor shall maintain sanitary conditions required at this project locations. The conditions at the project site shall comply with all EPA, Illinois Department of Environmental Protection Agency, US Army, and Ft. Leonard Wood regulations pertaining to safety conditions at a project site during working and non-working hours.

9. RESTORATION: Any damage done by the Contractor to Government property outside the limits of this project shall be restored by the Contractor.

9:00  
618-  
291-7910  
Removal. 5576w.  
502  
7-

## NOTICE OF POSSIBLE PATENT INFRINGEMENT

**SUBJECT: Solicitation No. DABT31-89-B-0065 for Asbestos Abatement at U.S. Army Reserve Centers -- E. St. Louis, Fairfield, and Centralia, Illinois**

The Government has been given notice by a law firm representing GPAC, Inc., that the contract specifications require the use of a filtration system of a type covered by U.S. Patent No. 4,604,111. It is alleged that the use of a filtration system as required by the specifications without a license from GPAC, Inc. would constitute patent infringement.

Although the Government is not aware of any requirements in the amended specifications which require the use of a negative air system or any other structures, products, materials, equipment, processes or methods that are nonstandard, noncommercial, or special, all potential contractors are nevertheless reminded that this solicitation incorporates by reference Federal Acquisition Regulation Clause Number 52.227-4, entitled Patent Indemnity - Construction Contracts (APR 1984). If contract performance would constitute an infringement of the above referenced patent, potential contractors are given notice that pursuant to the quoted FAR provision, the contractor would be expected to indemnify the Government against any judgment that may result from such an infringement.

All inquiries with respect to the scope of the aforementioned patent, the rights, thereunder, and application for duly authorized licenses, may be directed to:

GPAC, Inc.  
7854 Browning Road  
Pennsauken, NJ 08109  
(609) 486-1555

**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

1. CONTRACT ID CODE PAGE OF PAGES  
1 | 2

2. AMENDMENT/~~MODIFICATION~~ NO. 0002  
 3. EFFECTIVE DATE 12 SEP 89  
 4. REQUISITION/PURCHASE REQ. NO. A 180-89  
 5. PROJECT NO. (If applicable) 473-88

6. ISSUED BY CODE  
 Directorate of Contracting  
 P. o. Box 140, Bldg. 465, Dormitory Road  
 Fort Leonard Wood, MO 65473-0140  
 POC: Ramona Rickman

7. ADMINISTERED BY (If other than Item 6) CODE  
 8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)  
 9A. AMENDMENT OF SOLICITATION NO. IFB DABT31-89-B-0065  
 XX 9B. DATED (SEE ITEM 11) 04 AUG 89  
 10A. MODIFICATION OF CONTRACT/ORDER NO.  
 10B. DATED (SEE ITEM 13)

CODE FACILITY CODE

**11 THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended  
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  
 (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO AS DESCRIBED IN ITEM 14.**

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.  
 B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).  
 C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  
 D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/~~MODIFICATION~~ (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

The above referenced solicitation for Asbestos Abatement at U.S. Army Reserve Centers -- E. St. Louis, Fairfield, and Centralia, Illinois is hereby amended as follows:

1. Time and date for receipt of offers is extended to 1:00 p.m., 22 Sep 89.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)  
 15B. CONTRACTOR/OFFEROR  
 15C. DATE SIGNED  
 15D. (Signature of person authorized to sign)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)  
 16B. UNITED STATES OF AMERICA  
 16C. DATE SIGNED  
 BY \_\_\_\_\_ (Signature of Contracting Officer)

2. Page 103, Paragraph 1.3.1, Certificates of Compliance, Section 02080, is deleted in its entirety and the following Paragraph 1.3.1 is substituted in lieu thereof:

"1.3.1 Certificates of Compliance: Contractor shall submit manufacturer's certification that all equipment required to contain airborne asbestos fibers, conforms to EPA standards and procedures approved by the State of Illinois."

3. Page 104, Paragraph 1.3.6, Exhaust Air-Filtration System, Section 02080, is deleted in its entirety and the following Paragraph 1.3.1 is substituted in lieu thereof:

"1.3.6 Exhaust Air-Filtration System: The industrial hygienist shall notify the Contractor and the Contracting Officer immediately of any variance in the atmosphere conditions of any sealed area which could cause exposure of adjacent unsealed areas to asbestos fiber concentrations in excess of specified limits."

4. Page 108, Paragraph 3.1.7, Tools and Local Exhaust System, Section 02080, is deleted in its entirety and the following Paragraph 3.1.7 is substituted in lieu thereof:

"3.1.7 Tools and Local Exhaust System: Contractor shall provide a system of enclosures and air ventilation equipment using HEPA filters, sufficient to prevent the release of asbestos fibers to the atmosphere."

5. Page 108, Paragraph 3.2.1.1, Asbestos Control Area Requirements, Section 02080, is changed to read as follows:

"3.2.1.1 Asbestos Control Area Requirements: Seal openings in areas where the release of airborne asbestos fibers is expected. Containment area development shall include protective covering of walls, and ceilings with a continuous membrane of two layers of minimum 4-mil plastic sheet sealed with tape to prevent water or other damage. Provide two layers of 6-mil plastic sheet over floors and extend a minimum of 12 inches up walls. Seal all joints with tape. Provide a local exhaust system in the asbestos control area. Opening will be allowed in enclosures of asbestos control areas for the supply and exhaust of air from the ventilation units. Replace filters as required to maintain the efficiency of the system. Reference 29 CFR 1926 58, Appendix F (Preparing the Work Area).

6. Page 110, Paragraph 3.2.3.4, Location of Samplers, Section 02080, the fourth and fifth sentences (lines 5 through 10) are deleted in their entirety.

# AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE \_\_\_\_\_ PAGE OF PAGES  
1 8

2. AMENDMENT/ <del>MODIFICATION</del> NO. <b>0001</b>	3. EFFECTIVE DATE <b>1 SEP 89</b>	4. REQUISITION/PURCHASE REQ. NO. <b>A 180-89</b>	5. PROJECT NO. (If applicable) <b>473-88</b>
6. ISSUED BY  Directorate of Contracting P. O. Box 140, Bldg. 465, Dormitory Road Fort Leonard Wood, MO 65473-0140  POC: Ramona Rickman/(314) 368-5144		7. ADMINISTERED BY (If other than Item 6)  CODE _____	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county State and ZIP Code)	(v)	9A. AMENDMENT OF SOLICITATION NO. <b>IFB DABT31-89-B-0065</b>
	<b>XX</b>	9B. DATED (SEE ITEM 11) <b>4 AUG 89</b>
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE _____	FACILITY CODE _____	

**11 THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:  
 (a) By completing Items 8 and 15 and returning \_\_\_\_\_ copies of the amendment. (b) By acknowledging receipt of this amendment on each copy of the offer submitted, or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12 ACCOUNTING AND APPROPRIATION DATA (If required)**

**13 THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO AS DESCRIBED IN ITEM 14.**

(v)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT. Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office

**14. DESCRIPTION OF AMENDMENT/~~MODIFICATION~~ (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

The above referenced solicitation for Asbestos Abatement at US Army Reserve Centers - E. St. Louis, Fairfield, and Centralia, Illinois is hereby amended as follows:

- The time and date for receipt of offers is changed to: 10:30 a.m., 13 Sep 89.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
15B. CONTRACTOR/OFFEROR  _____ (Signature of person authorized to sign)	16B. UNITED STATES OF AMERICA  BY _____ (Signature of Contracting Officer)
15C. DATE SIGNED	16C. DATE SIGNED

- ✓ 2. Pages 3 and 4, Bid Schedule are deleted in their entirety, and the attached Revised Pages 3 and 4 are substituted in lieu thereof.
- ✓ 3. Pages 89, 90, 91, and 92 are deleted in their entirety, and the attached Revised Pages 89, 90, 91, and 92 are substituted in lieu thereof.
4. Drawing No. AR-15, Removal Notes, delete Notes #2 and #4 in their entirety.
5. Drawing No. AR-15, Removal Notes, Note #6, is changed to read as follows:

"Removal of permanent walls and ceilings to access pipe covering and MJP shall be a part of this contract. Demolition of walls and ceilings shall not be done until all required asbestos controls are in place. Repairs, replacement, and painting to match existing walls and ceiling shall be accomplished by this asbestos removal contract."
6. Drawing No. AR-15, General Notes, add the following Note #3:

"3. The building does contain Vinyl Asbestos Tile (VAT); however, removal is not included in this contract."
7. Drawing No. AR-15, Material Schedule, delete section entitled "Motor Vehicle Storage Building".
- ✓ 8. Drawing No. AR-16, Removal Notes, Note #2, is changed to read as follows:

"Vinyl Asbestos Tile (VAT) in the 150 square feet kitchen shall be removed following the non-enclosed asbestos control area requirements as stated in the specifications."
- OK 9. Drawing No. AR-16, Removal Note #4 is deleted in its entirety.
- OK 10. Drawing No. AR-16, General Notes, add the following Note #3:

"3. The two (2) classrooms in the north end of the building have concrete floors. The Contractor shall install vinyl floor tile in the two (2) classrooms and kitchen as stated in the specifications."
11. Drawing No. AR-17, Removal Note #4 is changed to read as follows:

"Removal of permanent walls and ceilings to access pipe covering and MJP shall be a part of this contract. Demolition of walls and ceilings shall not be done until all required asbestos controls are in place. Repair, replacement and painting to match existing walls and ceiling shall be accomplished by this asbestos removal contract."

BID SCHEDULE

FOR

ASBESTOS ABATEMENT AT USARC  
E. ST LOUIS, FAIRFIELD, AND CENTRALIA, ILLINOIS  
WOR #473-88

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
USARC, E. ST. LOUIS, ILLINOIS					
0001	Labor, Services, Supplies and Equipment to Remove & Dispose of All Asbestos Materials and Re-insulate Piping and Joints at USARC, E. St. Louis, IL in accordance with the attached specifications and drawings.	1	JOB	L.S.	\$ _____
0002	Remove approximately 150 square feet of Vinyl Asbestos Floor Tile (VAT) and Install New Resilient Flooring at USARC, E. St. Louis, IL in accordance with the attached specifications and drawings.	1	JOB	L.S.	\$ _____
TOTAL BID ITEMS 0001 AND 0002 (USARC, E. ST. LOUIS, IL)					\$ _____
USARC, FAIRFIELD, ILLINOIS					
0003	Labor, Services, Supplies and Equipment to Remove and Dispose of All Asbestos Materials and Re-insulate Piping and Joints at USARC, Fairfield, IL in accordance with the attached specifications and drawings.	1	JOB	L.S.	\$ _____
0004	Remove Approximately 3,300 square feet of Vinyl Asbestos Floor Tile (VAT) and Install New Resilient Flooring at USARC, Fairfield, IL in accordance with the attached specifications and drawings.	1	JOB	L.S.	\$ _____
TOTAL BID ITEMS 0003 AND 0004 (USARC, FAIRFIELD, IL)					\$ _____

BID SCHEDULE (CONTINUED)

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
	USARC, CENTRALIA, ILLINOIS				
0005	Labor, Services, Supplies and Equipment to Remove and Dispose of All Asbestos Materials and Re-insulate Piping and Joints at USARC, Centralia, IL in accordance with the attached specifications and drawings.	1	JOB	L.S.	\$ _____
	TOTAL BID ITEM 0005 (USARC, Centralia, IL)				\$ _____
	TOTAL PRICE FOR BID ITEMS 0001 THRU 0005				\$ _____

NOTE: Multiple awards may be made (see Page 31, Solicitation Provision #16, Evaluation of Bids for Multiple Awards, APR 1984, FAR 52.214-22). If multiple awards are made, they will be made only by USARC.

NOTE: Prices are subject to verification of addition by the Government. If a modification to a bid is submitted which provides for a lump sum adjustment to the total cost, the application of the lump sum adjustment to each price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every price in the bid schedule.

SECTION 01010

SUMMARY OF WORK

1. DESCRIPTION OF WORK:

1.1 Work to be done consists of furnishing all plant, tool, equipment, labor, materials, and supervision to execute the work in accordance with these specifications and drawings (No. AR-16, AR-17 and AR-15), for the removal and disposal of all asbestos materials, installation of thermal insulation and resilient floor covering to include glue or adhesive at three (3) USAR Centers, East St. Louis, Fairfield and Centralia, Illinois. The Contractor shall consider the mastic (adhesive) bonding between concrete floor and Vinyl Asbestos Tile (VAT) as a non-friable asbestos material. Facilities requiring VAT removal shall include removal of mastic materials.

1.2 Location:

East St. Louis, IL, 5020 State Street, 62205-1398. For access to this facility, contact Mr. Harry Henderson at (618) 271-7910;

Fairfield, IL, 1002 West Leininger Road, 62837-1371. For access to this facility, contact Ms. Pat Scarbrough at (618) 842-2101;

Centralia, IL, 904 East McCord, 62801-3058. For access to this facility, contact Mr. Charles Vaughn at (618) 532-5666.

1.3 The training centers and maintenance building were constructed from 1957 to 1961 and have been inspected for Asbestos Containing Materials (A.C.M.). Laboratory analysis results and random sampling location of A.C.M. will be available for viewing at Building 2112, Off-Post Facilities, DEH, Fort Leonard Wood, MO. Point of contact is Mr. Richard Dye (314) 368-3742.

2. PRINCIPAL FEATURES: The work to be performed shall include, but not be limited to the following principal features:

2.1 East St. Louis, IL:

2.1.1 The Contractor shall remove and dispose of all asbestos materials identified in the material schedule, Drawing No. AR-16, in accordance with SECTION 02075, Vinyl Asbestos Tile and Removal and Disposal and SECTION 02080, Removal and Disposal of Asbestos Materials.

2.1.2 The Contractor shall re-insulate all those areas in which asbestos materials were removed in accordance with SECTION 15250, Thermal Insulation for Mechanical Systems, except the Boiler Room and Maintenance Shop Area.

2.1.3 The Contractor shall remove all existing furniture, doors, and fixtures in two (2) classrooms located north end of building, as indicated on drawing No. AR-16. Contractor shall install new resilient flooring and vinyl wall base in accordance with SECTION 09650, Resilient Flooring, approximately 1,200 sq. ft.

2.1.4 The Contractor shall remove all existing furniture, doors, fixtures, vinyl wall base and vinyl asbestos tile in kitchen (approximately 150 sq. ft.), as indicated on drawing No. AR-16. Contractor shall install new resilient flooring and vinyl wall base in accordance with SECTION 09650, Resilient Flooring, approximately 150 sq. ft.

2.1.5 The Contractor shall re-install all doors, furniture, and fixtures in the kitchen and in two (2) classrooms to their original location and condition.

2.1.6 The Contractor shall patch, repair and paint to match existing all holes or opening in the existing walls, ceilings, or other areas created by removal of asbestos materials in the performance of his work.

2.1.7 The Contractor shall remove and dispose of all pipe insulation materials not associated with asbestos from the heating system in boiler room and maintenance shop. New cooling system piping is not included in this contract (approximatley 45 linear feet).

2.1.8 Contractor shall mark all piping in the boiler room, only, associated with this contract after installing insulation with the appropriate color code specified in SECTION 09900, Painting, General.

## 2.2 Fairfield, IL:

2.2.1 The Contractor shall remove and dispose of all asbestos materials identified in the material schedule, drawing No. AR-17, in accordance with SECTION 02075, Vinyl Asbestos Tile Removal and Disposal and SECTION 02080, Removal and Disposal of Asbestos Materials.

2.2.2 The Contractor shall re-insulate all those areas in which asbestos materials were removed in accordance with SECTION 15250, Thermal Insulation for Mechanical Systems.

2.2.3 The Contractor remove all existing furniture, doors, fixtures, vinyl wall base and vinyl-asbestos tile in seven (7) rooms and corridors as indicated on drawing No. AR-17. Contractor shall install new resilient flooring with vinyl wall base in accordance with SECTION 09650, Resilient Flooring, approximately 3,300 square feet.

2.2.4 The Contractor shall re-install all doors, furniture, and fixtures in the seven (7) rooms to its original location and condition.

2.2.5 The Contractor shall patch, repair and paint all holes or opening in the existing walls, ceilings, or other areas created by removal of asbestos materials in the performance of his work.

2.2.6 The existing ceiling in the corridors have been dropped to conceal insulated pipes. The Contractor shall completely remove the existing ceiling including all two (2) foot square ceiling tile, bracing, supports and hangers and dispose of properly. The existing lighting shall be removed and stored in a location identified by the Contracting Officer and will remain the property of the U.S. Government. The existing lighting shall be removed in a procedure to prevent damage, if damage occurs, the Contractor shall replace light and fixture at no cost to the government. This Contractor shall not be responsible for installation of a new ceiling.

### 2.3 Centralia, IL:

2.3.1 The Contractor shall remove and dispose of all asbestos materials identified in the material schedule, drawing No. AR-15, in accordance with SECTION 02080, Removal and Disposal of Asbestos Materials.

2.3.2 The Contractor shall re-insulate all those areas in which asbestos materials were removed in accordance with SECTION 15250, Thermal Insulation for Mechanical Systems.

2.3.3 The Contractor shall patch, repair and paint all holes or opening in the existing walls, ceilings, or other areas created by removal of asbestos materials in the performance of his work.

3. WORK SITE HOUSEKEEPING: The Contractor shall take all possible precautions to leave the work site, at the end of the work day, in a condition that shall prevent damage or injury to personnel or property, Government or otherwise. The above precautions shall include protection from the elements of weather.

### 4. SEQUENCE OF WORK:

4.1 The area concerned in this project is Government owned. It will be in use during the progress of the work, and the Contractor shall arrange his operations to cause as little interference as possible.

4.2 This facility will be in use on a daily basis throughout the period of this contract. The Contractor shall limit his hours

**TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR  
MANUFACTURER'S CERTIFICATES OF COMPLIANCE**  
(Read instructions on the reverse side prior to initiating this form)

DATE **2/16/90**  NEW SUBMITTAL  
 RESUBMITTAL

Section I REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)

TO: **MS. DONNA HICHEY** FROM: **REPUBLIC INDUSTRIES INC.** CONTRACT NO. **DABT-89-C-0087** TRANSMITTAL NO. **8**

**CONTRACT ADMINISTRATION BLD 465 P.O. BOX 5565 STATION 1**

**Ft. LEANARD WOOD, MO. 65473-5000 WILMINGTON, NC. 28403**

SPECIFICATION SEC. NO. (Cover only one section with each transmittal) **02080** PROJECT TITLE AND LOCATION **ASBESTOS REMOVAL E. ST. LOUIS & CENTRALIA** PREVIOUS TRANS. NO. (if any) **7**

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type, size, model number, etc.)	MFG. OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. (See instruction No. 8)	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT		VARIATION (See instruction No. 6)	FOR CE USE CODE
				SPEC. PARA. NO.	DRAWING SHEET NO.		
1	Personal Monitoring						A
2	Clean Air Monitoring						A
3	Asbestos Disposal Certification						A

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

NAME AND SIGNATURE OF CONTRACTOR *[Signature]*

Section II APPROVAL ACTION

INCLOSURES RETURNED (List by Item No.)

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY *Richard A. Byr*

DATE **23 Feb 90**

U.S. GOVERNMENT PRINTING OFFICE: 1984-457-871/28020 (FR 416-1-10) EDITION OF JUL 81 IS OBSOLETE. (Promponent DAEN/ECCQ) SHEET  OF



Republic Industries, Inc.

## ASBESTOS AIR MONITORING

360  
455

DATE	SAMPLE NO	EMPLOYEE OR SAMPLE LOCATION	PUMP NO	FLOW RATE (L/Min)	TIME			ASBESTOS LEVEL (Fibers/CC)
					On	Off	Min	
1-17-90	001	Personal Tim Brooks	7	2.15	9:00	12:00	180	
	005	" " Chris Gorn	7		12:00	3:40	220	
	002	Work Area Blr. Rm. steps	1	6	9:00	12:00	180	
	006	" " " "	1	6	12:01	3:40	219	
	003	Outside Work Area	5	6	8:45	3:45	400	
	004	Clean Room D-con	9	10.2	9:30	3:30	420	
	007	<del>Blank</del> BLANK						

JOB Army Reserve Ctr. East St. Louis

WORK ACTIVITY Removal of Asbestos tank covering & pipe covering from boiler room. Also includes ACM Duct mat'l.

COMMENTS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LOCATION ARC EAST St. Louis

SAMPLED BY [Signature]

COUNTED BY \_\_\_\_\_

FIBER COUNT RESULTS

Date : 17-JANUARY-90  
 Project: ARMY RESERVE CENTER  
 Note 1: EAST ST LOUIS  
 Note 2:

Client : REPUBLIC INDUSTRIES  
 Address:

SAMPLE LOCATION No.	TYPE	ON HrMn	OFF HrMn	TIME Min	FLOW LPM	VOL (L)	FIBER COUNT	FIBER /SQmm	FLD CNT	FIBER /CC	UPPER LIMIT
500 001/T BROOKS	PERS	900	1200	180	2.2	396	87.0	110.8	100	.11	0.15
501 002	AREA	900	1200	180	6.0	1080	85.5	108.9	100	.04	0.05
502 003	AREA	845	1545	420	6.0	2520	8.0	10.2	100	<.005	0.003
503 004	AREA	830	1530	420	10.2	4284	29.5	37.6	100	.003	0.005
504 005/C GORE	PERS	1200	1540	220	2.2	484	154.5	656.1	30	.52	0.71
505 006	AREA	1201	1540	219	6.0	1314	117.5	249.5	60	.07	0.10

Blank fiber count : 0  
 Blank field count : 100  
 Field area (sq.mm.): .00785  
 Filter area sq.mm (# 1-499):855  
 Filter area sq.mm (# >500):385  
 filename: A9007901.019 V2.4

Note (1):Only fibers at least 5um in length with min aspect ratio of 3:1 counted  
 Note (2):Detection limits based on fiber count of 10 per 100 fields, volume sampled, and field area  
 Note (3):Air Quality Standard: .01  
 Note (4):Upper Control Limit calculated based on one-sided test  
 Note (5):CV based on Ogden (1982).

Comments:  
 001=PERS/TIM BROOKS    002=WORK AREA/BOILER ROOM STEPS  
 003=OUTSIDE WORK AREA  
 004=CLEAN ROOM D-CON    005=PERS/CHRIS GORE  
 006=WORK AREA/BOILER ROOM STEPS  
 007=FIELD BLANK

*Carolyn M. Holt*  
 Analyst



FIBER COUNT RESULTS

Date : 18-JANUARY-90  
 Project: ARMY RESERVE CENTER  
 Note 1: EAST ST LOUIS  
 Note 2:

Client : REPUBLIC INDUSTRIES  
 Address:

SAMPLE No.	LOCATION	TYPE	ON HrMn	OFF HrMn	TIME Min	FLOW LPM	VOL (L)	FIBER COUNT	FIBER /SQmm	FLD CNT /CC	FIBER /CC	UPPER LIMIT
500	008	AREA	830	1530	420	6.5	2730	32.0	40.8	100	.006	0.008
501	009	AREA	830	1530	420	6.0	2520	43.0	54.8	100	.008	0.012
502	010	AREA	840	1540	420	10.5	4410	23.0	29.3	100	.003	0.004
503	011/S CHARLES	PERS	1200	1500	180	2.2	396	9.5	12.1	100	<.01	0.02

Blank fiber count : 0  
 Blank field count : 100  
 Field area (sq.mm.): .00785  
 Filter area sq.mm (# 1-499):855  
 Filter area sq.mm (# >500):385  
 filename: A9008001.019 V2.4

Note (1):Only fibers at least 5um in length with min aspect ratio of 3:1 counted  
 Note (2):Detection limits based on fiber count of 10 per 100 fields, volume sampled, and field area  
 Note (3):Air Quality Standard: .01  
 Note (4):Upper Control Limit calculated based on one-sided test  
 Note (5):CV based on Ogden (1982).

Comments:  
 008=OUTSIDE WORK AREA/WATER COOLER  
 009=WORK AREA/KITCHEN  
 010=CLEAN ROOM  
 011=PERS/SAMMY CHARLES

*S. J. Manusyak*  
 Analyst



FIBER COUNT RESULTS

Date : 19-JANUARY-90  
 Project: ARMY RESERVE CENTER  
 Note 1: EAST ST LOUIS  
 Note 2:

Client : REPUBLIC INDUSTRIES  
 Address:

SAMPLE No.	LOCATION	TYPE	ON HrMn	OFF HrMn	TIME Min	FLOW LPM	VOL (L)	FIBER COUNT	FIBER /SQmm	FLD CNT /CC	FIBER	UPPER LIMIT
500	012/RAY TATE	PERS	830	1130	180	2.2	396	108.5	230.4	60	.22	0.31
501	013	AREA	800	1100	180	6.0	1080	109.0	198.4	70	.07	0.10
502	014	AREA	810	1100	170	6.5	1105	14.0	17.8	100	.006	0.010
503	015	AREA	830	1130	180	10.5	1890	15.5	19.7	100	.004	0.006

Blank fiber count : 0  
 Blank field count : 100  
 Field area (sq.mm.): .00785  
 Filter area sq.mm (# 1-499):855  
 Filter area sq.mm (# >500):385  
 filename: A9009301.023 V2.4

Note (1): Only fibers at least 5um in length with min aspect ratio of 3:1 counted  
 Note (2): Detection limits based on fiber count of 10 per 100 fields, volume sampled, and field area  
 Note (3): Air Quality Standard: .01  
 Note (4): Upper Control Limit calculated based on one-sided test  
 Note (5): CV based on Ogden (1982).

Comments:  
 012=PERS/RAY TATE GLOVEBAGGING AIRCELL PIPE COVERING  
 013=WORK AREA/OVER HALLWAY  
 014=OUTSIDE WORK AREA/WATER COOLER  
 015=CLEAN ROOM



Analyst





**Professional Service Industries, Inc.**  
**Pittsburgh Testing Laboratory Division**

REPORT OF AIR SAMPLE ANALYSIS

Client Republic Industries, Inc. Client Project Name Army Reserve Center  
Client Project No. \_\_\_\_\_ Analyzed By Butch Moore  
Client Order No. RII-9000 Date January 24, 1990  
PSI Project No. 024-09005-4 Samples collected by client Yes  
PSI Lab No. 2520  
Analysis Method NIOSH 7400 Page 1 of 1

Sample No./Date	Location	Time (Min)	Flow Rate (lpm)	Volume (liters)	LLD	ANALYSIS DATA		
						Fiber Count	Field Count	Fibers/cc
1-22-90 025	Personal Tim Cavanaugh	225	2.15	483.8	0.010	2	100	<0.010
026	Work Area	225	6.5	1462.5	0.003	1	100	<0.003
027	Outside Work Area	220	10.5	2310	0.002	3	100	<0.002
028	Clean Room	180	6	1080	0.005	1	100	<0.005
027 Q.C.	Outside Work Area	220	10.5	2310	0.002	2	100	<0.002

\* Lower limit of detection per NIOSH based on 10 fibers/100 fields. Results reported as "<" are below the limit of detection. Lower detection limits may be achieved by increasing the air volume sampled. 0.8 micron 25mm cassette size unless otherwise noted.

\*\* Analytical results reported on samples not collected by Professional Service Industries, Inc., Pittsburgh Testing Laboratory Division are based on sampling data provided by the customer. PCM methodology is not specific for airborne asbestos fibers.



Republic Industries, Inc.

### ASBESTOS AIR MONITORING

DATE	SAMPLE NO	EMPLOYEE OR SAMPLE LOCATION	PUMP NO	FLOW RATE (L/Min)	TIME			ASBESTOS LEVEL (Fibers/CC)
					On	Off	Min	
1-23-90	029	Personnel Tim Brooks	7	2.15	9:00	2:00	310	
	030	WORK Area Air Handler Wall <sup>N.</sup>	5	6.5	9:00	2:00	310	
	031	OUTSIDE WORK Area Bag-out	11	10.5	9:10	2:15	315	
	032	Clean Room	10	6	9:10	2:15	315	

JOB Army Reserve

WORK ACTIVITY Glove bagging fittings in Assembly Hall

COMMENTS \_\_\_\_\_

LOCATION EAST St. Louis

SAMPLED BY [Signature]

COUNTED BY \_\_\_\_\_



**Professional Service Industries, Inc.**  
**Pittsburgh Testing Laboratory Division**

REPORT OF AIR SAMPLE ANALYSIS

Client Republic Industries, Inc. Client Project Name \_\_\_\_\_  
Client Project No. \_\_\_\_\_ Analyzed By Butch Moore  
Client Order No. R11-9000 Date January 24, 1990  
PSI Project No. 024-09005-5 Samples collected by client Yes  
PSI Lab No. 2519  
Analysis Method NIOSH 7400 Page 1 of 1

Sample No./Date	Location	Time (Min)	Flow Rate (lpm)	Volume (liters)	LLD	ANALYSIS DATA		
						Fiber Count	Field Count	Fibers/cc
29 1-23-90	Personal Tim Branc	300	2.15	645	0.008	4	100	<0.008
30	Work Area Air Handler N. Wall	300	6.5	1950	0.003	4	100	<0.003
31	Outside Work Area	305	10.0	3202.5	0.002	1	100	<0.002
32	Clean Room	305	6	1830	0.003	1	100	<0.003
29 Q.C.	Personal Tim Branc	300	2.15	645	0.008	3	100	<0.003

\* Lower limit of detection per NIOSH based on 10 fibers/100 fields. Results reported as "<" are below the limit of detection. Lower detection limits may be achieved by increasing the air volume sampled. 0.8 micron 25mm cassette size unless otherwise noted.

\*\* Analytical results reported on samples not collected by Professional Service Industries, Inc., Pittsburgh Testing Laboratory Division are based on sampling data provided by the customer. PCM methodology is not specific for airborne asbestos fibers.



Republic Industries, Inc.

## ASBESTOS AIR MONITORING

DATE	SAMPLE NO	EMPLOYEE OR SAMPLE LOCATION	PUMP NO	FLOW RATE (L/Min)	TIME			ASBESTOS LEVEL (Fibers/CC)
					On	Off	Min	
1-24-90	033	Personnell Ray Tate	7	2.15	10:30	3:30	300	
	034	Work Area	11	10.5	40:00	4:00	360	
	035	Outside Work Area <sup>bag</sup> <sub>out</sub>	5	6.5	10:05	4:05	360	
	036	Clean Room O-CON	10	6	10:00	4:05	365	

JOB Army Reserve Centralia

WORK ACTIVITY Glovebagging fittings in assembly Hall

LOCATION Centralia Illinois

SAMPLED BY [Signature]

COMMENTS \_\_\_\_\_

COUNTED BY \_\_\_\_\_



**Professional Service Industries, Inc.**  
**Pittsburgh Testing Laboratory Division**

REPORT OF AIR SAMPLE ANALYSIS

Client Republic Industries Client Project Name Army Reserve Centralia  
Client Project No. ----- Analyzed By Dave Mendoza  
Client Order No. ----- Date January 27, 1990  
PSI Project No. 024-09005-6 Samples collected by client Yes  
PSI Lab No. 2556  
Analysis Method NIOSH 7400 Page 1 of 1

Sample No./Date	Location	Time (Min)	Flow Rate (lpm)	Volume (liters)	LLD	ANALYSIS DATA		
						Fiber Count	Field Count	Fibers/cc
033 1/24	Personal Ray Tate	300	2.15	645	0.008	3	100	<0.008
034 1/24	Work Area	360	10.5	3780	0.001	2	100	<0.001
035 1/24	Outside Work Area Bag Out	360	6.5	2340	0.002	1	100	<0.002
036 1/24	Clean Room D-Con	365	6.0	2190	0.002	1	100	<0.002
033 QC 1/24	Personal Ray Tate	300	2.15	645	0.008	3	100	<0.008

\* Lower limit of detection per NIOSH based on 10 fibers/100 fields. Results reported as "<" are below the limit of detection. Lower detection limits may be achieved by increasing the air volume sampled. 0.8 micron 25mm cassette size unless otherwise noted.

\*\* Analytical results reported on samples not collected by Professional Service Industries, Inc., Pittsburgh Testing Laboratory Division are based on sampling data provided by the customer. PCM methodology is not specific for airborne asbestos fibers.



**Professional Service Industries, Inc.**  
**Pittsburgh Testing Laboratory Division**

REPORT OF AIR SAMPLE ANALYSIS

Client Republic Industries, Inc. Client Project Name Army Reserve Center E. St. Louis  
 Client Project No. ----- Analyzed By Dave Mendoza  
 Client Order No. RII-9000 Date January 27, 1990  
 PSI Project No. 024-09005-2 Samples collected by client Yes  
 PSI Lab No. 2488  
 Analysis Method NIOSH 7400 Page 1 of 1

Sample No./Date	Location	Time (Min)	Flow Rate (lpm)	Volume (liters)	LLD	ANALYSIS DATA		
						Fiber Count	Field Count	Fibers/cc
1/19 01	Clean Air Center of NBC Room	210	11	2310	0.002	2	100	<0.002
02	Clean Air South End of Hallway	210	10.5	2205	0.002	1	100	<0.002
03	Clean Air Center of Restroom	220	10	2200	0.002	3	100	<0.002
04	Clean Air Center of Boiler Room	220	10	220	0.002	3	100	<0.002
02 QC	Clean Air South End of Hallway	210	10.5	2205	0.002	1	100	<0.002

\* Lower limit of detection per NIOSH based on 10 fibers/100 fields. Results reported as "<" are below the limit of detection. Lower detection limits may be achieved by increasing the air volume sampled. 0.8 micron 25mm cassette size unless otherwise noted.

\*\* Analytical results reported on samples not collected by Professional Service Industries, Inc., Pittsburgh Testing Laboratory Division are based on sampling data provided by the customer. PCM methodology is not specific for airborne asbestos fibers.



**Professional Service Industries, Inc.**  
**Pittsburgh Testing Laboratory Division**  
 REPORT OF AIR SAMPLE ANALYSIS

Client Republic Industries Client Project Name Army Reserve Center *E. St. Louis*  
 Client Project No. \_\_\_\_\_ Analyzed By Dave Mendoza  
 Client Order No. RII-9000 Date January 22, 1990  
 PSI Project No. 024-09005-3 Samples collected by client Yes  
 PSI Lab No. 2497  
 Analysis Method NIOSH 7400 Page 1 of 1

Sample No./Date	Location	Time (Min)	Flow Rate (lpm)	Volume (liters)	LLD	ANALYSIS DATA		
						Fiber Count	Field Count	Fibers/cc
001	Clean Air North Wall	240	11.5	2760	0.002	7	100	<0.002
002	Clean Air South Wall	240	11	2640	0.002	4	100	<0.002
003	Clean Air Top of Vault	240	10	2400	0.002	2	100	<0.002
004	Clean Air Beside Rool Door	240	10.5	2520	0.002	3	100	<0.002
005	Clean Air Center of Maintenance Shop	241	11.5	2771.5	0.002	1	100	<0.002
006	Clean Air North Wall of Shop	240	11	2640	0.002	1	100	<0.002
001 Q.C.	Clean Air North Wall	240	11.5	2760	0.002	5	100	<0.002

\* Lower limit of detection per NIOSH based on 10 fibers/100 fields. Results reported as "<" are below the limit of detection. Lower detection limits may be achieved by increasing the air volume sampled. 0.8 micron 25mm cassette size unless otherwise noted.

\*\* Analytical results reported on samples not collected by Professional Service Industries, Inc., Pittsburgh Testing Laboratory Division are based on sampling data provided by the customer. PCM methodology is not specific for airborne asbestos fibers.



**Professional Service Industries, Inc.**  
**Pittsburgh Testing Laboratory Division**

REPORT OF AIR SAMPLE ANALYSIS

Client Republic Industries Client Project Name Army Reserve Centralia  
 Client Project No. ----- Analyzed By Dave Mendoza  
 Client Order No. ----- Date January 27, 1990  
 PSI Project No. 024-09005-7 Samples collected by client Yes  
 PSI Lab No. 2557  
 Analysis Method NIOSH 7400 Page 1 of 2

Sample No./Date	Location	Time (Min)	Flow Rate (lpm)	Volume (liters)	LLD	ANALYSIS DATA		
						Fiber Count	Field Count	Fibers/cc
038 1/25	Final-Center of Assembly Hall	270	10.5	2835	0.002	2	100	<0.002
039 1/25	Final Exit Doors North Hall	273	6.5	1774.5	0.003	1	100	<0.003
040 1/25	Final Supply Room North Hall	270	5	1620	0.003	0	100	<0.003
041 1/25	Final Storage Room North Hall	270	6	1620	0.003	7	100	<0.003
042 1/25	Final Training Rm. North Hall	270	10.2	2754	0.002	4	100	<0.002
043 1/25	Final Kitchen	275	11	3025	0.002	10	100	0.002
044 1/25	Final Classroom & Exit S. Hall	240	6	1440	0.003	4	100	<0.003

\* Lower limit of detection per NIOSH based on 10 fibers/100 fields. Results reported as "<" are below the limit of detection. Lower detection limits may be achieved by increasing the air volume sampled. 0.8 micron 25mm cassette size unless otherwise noted.

\*\* Analytical results reported on samples not collected by Professional Service Industries, Inc., Pittsburgh Testing Laboratory Division are based on sampling data provided by the customer. PCM methodology is not specific for airborne asbestos fibers.



Republic Industries, Inc.

ASBESTOS DISPOSAL FORM

DATE: 1-26-90 11:15 Am

OWNER

NAME: USA DEPARTMENT OF THE ARMY (ARMY RESERVE CENTER E. ST. LOUIS)

ADDRESS: US ARMY ENGINEER CENTER & FORT LENOARD WOOD

CITY, STATE, ZIP: FORT LENOARD WOOD, MO. 65473-5000

PHONE: 814 ) 596-7111

NAME OF LANDFILL:

NAME: J & R LANDFILL, INC.

ADDRESS: P.O. BOX 1191

CITY, STATE, ZIP: BELLEVILLE, IL. 62223

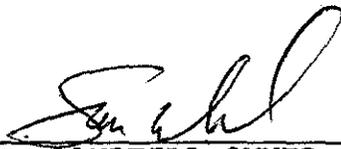
PHONE: (618) 234-3434

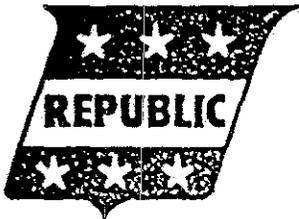
HAULER: REPUBLIC INDUSTRIES, INC.

APPROXIMATE VOLUME OF ASBESTOS RECEIVED: \_\_\_\_\_

TYPE OF CONTAINER ASBESTOS IN: \_\_\_\_\_

ASBESTOS CONTAINERS LABELED? \_\_\_\_\_ YES \_\_\_\_\_ NO

  
\_\_\_\_\_  
LANDFILL OWNER-OPERATOR



Republic Industries, Inc.

ASBESTOS DISPOSAL FORM

DATE: 1-26-90 11:15 am

OWNER

NAME: USA DEPARTMENT OF THE ARMY (ARMY RESERVE CENTER CENTRALIA)

ADDRESS: US ARMY ENGINEER CENTER & FORT LENOARD WOOD

CITY, STATE, ZIP: FORT LENOARD WOOD, MO. 65473-5000

PHONE: (314) 596-7111

NAME OF LANDFILL:

NAME: J & R LANDFILL, INC.

ADDRESS: P.O. BOX 1191

CITY, STATE, ZIP: BELLEVILLE, IL. 62223

PHONE: (618) 234-3434

HAULER: REPUBLIC INDUSTRIES, INC.

APPROXIMATE VOLUME OF ASBESTOS RECEIVED: \_\_\_\_\_

TYPE OF CONTAINER ASBESTOS IN: \_\_\_\_\_

ASBESTOS CONTAINERS LABELED? \_\_\_\_\_ YES \_\_\_\_\_ NO

  
LANDFILL OWNER-OPERATOR

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE  
(Read instructions on the reverse side prior to initiating this form)

DATE 1/19/90

NEW SUBMITTAL  
 RESUBMITTAL

Section I REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)

TO: MS. DONNA HICHEY FROM REPUBLIC INDUSTRIES INC.  
 CONTRACT ADMINISTRATION BLD 465 P.O. BOX 5565 STATION 1 CONTRACT NO. DABT-89-C-0087  
 FT. LEANARD WOOD, MO. 65473-5000 WILMINGTON, NC. 28403 PREVIOUS TRANS. NO. (If any)

SPECIFICATION SEC. NO. (Cover only one section with each transmittal) 09650 PROJECT TITLE AND LOCATION ASBESTOS REMOVAL E. ST. LOUIS & CENTRALIA

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type, size, model number, etc.)	MFG OR CONTR CAT., CURVE DRAWING OR BROCHURE NO (See instruction No. 8)	NO OF COPIES	CONTRACT REFERENCE DOCUMENT		FOR C E USE CODE
				SPEC. PARA NO	DRAWING SHEET NO.	
1	3 samples of Armstrong floor tile 12" x 12" vinyl composition tile; pattern No. 51858; Sandrift White			2.1		A
2	Descriptive data, installation instructions and maintenance information.			2.2		A
3	Test Report information			2.3		A

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

*David A. Mays*  
NAME AND SIGNATURE OF CONTRACTOR

Section II APPROVAL ACTION

INCLOSURES RETURNED (List by item No.)

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY *Richard Wye* DATE 19 Jan '90



# EXCELON® SDT

Static Dissipative Tile  
Vinyl Composition Tile

Armstrong World Industries, Inc.  
P.O. Box 3001  
Lancaster, PA 17604

## Brief Specification Data

### 1. PRODUCT NAME

Armstrong Excelon SDT Static Dissipative Tile

### 2. PRODUCT DESCRIPTION

#### Material

A composition of polyvinyl chloride resin binder, fillers, pigments, and antistatic additive.

#### Form

12" x 12" tile

#### Gauge (nominal thickness)

1/8"

#### Limitations

Static Dissipative Tile should not be used in commercial kitchens and commercial food processing areas, where pointed spikes such as golf or track shoes will be used, for biostatically clean applications, such as hospital operating rooms, where heat-welded or chemically bonded seams are required, or in exterior areas.

#### Suitable for application over:

Concrete floors which are suspended, on grade, or below grade. Approved suspended wooden subfloors over a well-ventilated air space (min. 18 inches).

#### Unsuitable for application over:

Existing resilient flooring or other non-porous substrates.

Floors where excessive moisture, hydrostatic pressure, or alkali is present.

Lightweight aggregate concrete floors having a density of less than 90 lbs. per cu. ft. or cellular concrete having a plastic density less than 100 lbs. per cu. ft. Concrete curing agents, sealers, or hardeners should be removed.

For details, refer to Recommendations for Installing Armstrong Excelon SDT Static Dissipative Tile sheet, LA-9599, and to Armstrong Engineered Installation System booklet, F-5061.

Note: Excelon SDT should not be installed in areas in which floor will be subjected to excessive surface water, such as an area where frequent spills are common. Excessive and/or prolonged exposure to surface water may interfere with the bond of SDT to the subfloor. If a surface spill does occur, it must be contained and removed immediately.

### 3. TECHNICAL DATA

#### Shipping Weight

1.4 lbs./sq. ft.

#### Gloss

60 Degrees Specular—approximately 20-40

#### Recommended Load Limit

50 lbs./sq. in. bearing surface. Use for computing size of floor protectors (furniture rests) as tabulated in the Armstrong Engineered Installation System booklet, F-5061.

#### Comparative Subjective Property Ratings\*

Resilience—Good  
Ease of Maintenance—Good  
Durability—Excellent

\*Subjective ratings (superior, excellent, good, fair) are in relation to other Armstrong floors which comprise all basic types of resilient floors. Ratings are not directly related to any one test; rather, they are broadly based on tests and experience of the Armstrong Research and Development Center under varying conditions and circumstances.

#### Fire Test Data

ASTM E 648  
Critical Radiant Flux—0.45  
watts/cm<sup>2</sup> or more. Class I.

ASTM E 662  
NBS Smoke—450 or less

Flammability ratings alone may not define the performance of the products under actual fire conditions. They are provided only for use in the selection of products to meet the limits specified.

#### Electrical Properties

When installed according to instructions using Armstrong S-202 Conductive Adhesive, Excelon SDT flooring yields the following electrical properties:

Electrical Resistance (ASTM F-150)  
Point to point 10<sup>6</sup>-10<sup>9</sup> ohms  
Surface to ground 10<sup>6</sup>-10<sup>9</sup> ohms  
Static Generation (AATCC-134)  
Less than 100 volts with conductive footwear at 20% R.H.  
Static Decay (Fed. Test Method 4046 [101C]) 5000 volts to zero in less than 0.2 sec.

### 4. INSTALLATION

#### Procedure

See Recommendations for Installing Armstrong Excelon SDT Static Dissipative Tile sheet, LA-9599, and Armstrong Engineered Installation System booklet, F-5061

#### Special Handling Instructions

The static dissipative floor tile and the conductive adhesive contain a small amount of a material called a quaternary ammonium salt. This material may be both a skin and eye irritant for certain individuals. Therefore, direct contact with the adhesive should be avoided. Since the adhesive is water-based, floor mechanics should wash their hands thoroughly with soap and water if skin contact occurs. Likewise, after handling the floor tile, installers should wash their hands in similar manner.

#### Removal

Safety glasses are recommended for removal of floor tile. Individuals removing tile and/or adhesive should wear cotton gloves. The tile should be disposed of in accordance with normal procedures for nonasbestos floor tile.

#### Job Conditions

Subfloors shall be dry, clean, and smooth. They shall be free from paint, varnish, existing adhesive residue, wax, oil, and other foreign matter.

For more detailed requirements of concrete subfloors, and for mastic and wood subfloor and underlayment requirements, refer to Armstrong Engineered Installation System booklet, F-5061. A successful Bond and Moisture Test must be completed before starting installation.

Temperature shall be maintained at a minimum of 65° F for 48 hours prior to installation, during installation, and 48 hours after completion. A minimum temperature of 55° F shall be maintained thereafter.

#### Adhesive

Armstrong S-202 SDT Adhesive is required for use with SDT.

#### Copper Grounding Strips

2" x 24" copper grounding strips are packaged with the adhesive. The locations of the copper grounding strips are usually determined by the end user. As a general guideline, strips should be placed approximately 25 feet apart around the perimeter of the installation and extending 18 inches into the adhesive. The remaining 6 inches of copper grounding strips should continue up the wall to be connected after installation.

#### 5. GUARANTEES

The flooring contractor will guarantee that all work described in the architect's specifications will be free from defect in material and workmanship, provided any such defect is brought to his attention within one year after the completion of his work. Upon such notice, the flooring contractor will, at his expense, make necessary repairs and/or replacements.

Armstrong Excelon SDT is warranted to retain its electrical resistance properties for a period of 5 years if properly installed and maintained.

#### 6. MAINTENANCE

Excessive and/or prolonged exposure to surface water may interfere with the bond of SDT to the subfloor. If a surface spill does occur, it must be contained and removed immediately.

**DO NOT PERFORM ANY MAINTENANCE PROCEDURES UNTIL ELECTRICAL CERTIFICATION, IF REQUESTED, HAS BEEN COMPLETED.**

#### A. Initial Maintenance After Installation

- 1 Sweep or vacuum thoroughly.
2. The floor may be cleaned after installation by *damp-mopping only* with a very dilute neutral detergent solution, carefully removing black marks and excessive soil. Do not thoroughly wash the floor for at least four to five days after installation. This is to prevent excess surface moisture from interfering with the adhesive bond.
3. Apply a minimum of three coats of S-392 floor polish to protect the floor until regular maintenance procedures can be started.

**USE ONLY ARMSTRONG S-392 STATIC DISSIPATIVE POLISH.** Use of another polish may interfere with the electrical properties and/or the appearance of this flooring.

#### B. Regular Maintenance Procedures

For specific, ongoing maintenance procedures, see Armstrong Excelon Static Dissipative Tile Maintenance Tips sheet, F-2462.

#### 7. TECHNICAL SERVICES

Armstrong Contract Representatives have been assigned the exclusive responsibility of working directly with architects, interior designers, contractors, and others concerned with the selection, installation, and maintenance of resilient floors for all types of commercial, institutional, and industrial applications.

Available through this staff of specialized representatives are some unique services described in detail below:

1. Technical problems involving chemistry, physics, or specialized technology will be referred to the Armstrong Research and Development Center. It will study unusual installation and maintenance circumstances and provide recommendations.

2. Recommendations involving the proper selection of underlayments and floors best adapted to special and unusual areas will be made by the Armstrong installation specialists.

These experts will also recommend tests to be run at the building site, help analyze their results, and reach appropriate conclusions.

## ▲ WARNING

**DO NOT SAND EXISTING RESILIENT FLOORING, BACKING, OR LINING FELT. THESE PRODUCTS MAY CONTAIN ASBESTOS FIBERS THAT ARE NOT READILY IDENTIFIABLE. INHALATION OF ASBESTOS DUST MAY CAUSE ASBESTOSIS OR OTHER SERIOUS BODILY HARM. SMOKING GREATLY INCREASES THE RISK OF SERIOUS BODILY HARM.**

**SANDING SDT CAN PRODUCE POWDER THAT IS A POSSIBLE EYE AND SKIN IRRITANT.**

For detailed information on the removal of resilient flooring, please refer to Armstrong Recommended Work Practices for the Removal of Resilient Floor Coverings, F-1154.



# EXCELON® SDT

STATIC DISSIPATIVE TILE

## M A I N T E N A N C E T I P S

The recommended maintenance program consists of thorough dirt and grit control, prompt removal of liquid spills and stains, and protection of the floor surface.

Excessive and/or prolonged exposure to surface water may interfere with the bond of SDT to the subfloor. If a surface spill does occur, it must be contained and removed immediately.

Walk-off mats, sweeping, mopping, and vacuuming all help in the control of loose dirt and grit. Spot-cleaning will remove most spills and stains, and polishing will give the floor a protective coating which can be periodically refurbished or removed when necessary. **USE ONLY ARMSTRONG S-392 STATIC DISSIPATIVE POLISH.** Using another polish may interfere with the electrical properties and/or the appearance of this flooring.

Regular adherence to this type of program will assure a longer, more attractive life for the floor.



**IF ELECTRICAL CERTIFICATION OF AN INSTALLATION IS REQUIRED, DO NOT PERFORM ANY MAINTENANCE PROCEDURES UNTIL AFTER THAT CERTIFICATION HAS BEEN COMPLETED.**

### A. Initial Maintenance After Installation

1. Sweep or vacuum thoroughly.
2. The floor may be cleaned after installation by damp-mopping only with a very dilute neutral detergent solution, carefully removing black marks and excessive soil. However, the floor should not be thoroughly washed for at least four to five days after installation. This

is to prevent excess surface moisture from interfering with the adhesive bond.

3. Apply a minimum of three coats of S-392 floor polish to protect the floor until regular maintenance procedures can be started.

### B. Preparation for Commercial Traffic

1. Scrub the floor using a neutral detergent and a single disc floor machine of 170–250 rpm capability, equipped with a scrubbing pad (3M blue or equal), or lightly scrub with an automatic floor machine.

However, if the floor is badly soiled or scratched, strip it using the same procedure but substituting a stripping solution and a 3M green or equal pad.

Note: In areas where machine scrubbing/striping is not allowed, manual procedures (such as mop on, agitate, remove) may be used to maintain this floor.

2. Thoroughly rinse and allow to dry.

Note: Do not flood the floor with rinse water, scrubbing, or stripping solutions.

3. After the floor has been thoroughly scrubbed or stripped, rinsed, and dried, apply three to five coats of S-392.

Allow at least 60 minutes' drying time between applications. Do not allow traffic on the floor for 6–8 hours after final coat of polish (overnight if possible).

Note: Do not perform any additional wet maintenance procedures until last coat of polish has cured a minimum of 72 hours.

### C. Continuing Regular Maintenance

1. Sweep or dust-mop frequently. Use walk-off mats that are as wide as the doorway and long enough to trap dirt before feet reach the resilient floor. Clean the walk-off mats frequently.
2. Spot-mop the floor as appearance requires. Use a dilute neutral detergent solution.
3. After spot-mopping, the floor should be spray-buffed to restore gloss and electrical performance.

To spray-buff, spray a diluted solution of S-392 (1 part S-392 to 2 parts water) onto the floor. Before the liquid can dry, buff it with a floor machine capable of 170 to 1100 rpm, equipped with a buffing pad or brush. A thin, protective, glossy film will remain after buffing the liquid dry. This procedure allows the base coat of polish to be protected, reducing the need for stripping.

Severe traffic areas may require extra coats of S-392 (full strength) on a more frequent basis.

### D. Stripping

1. Stripping should be done when either electrical performance or appearance requires it.
2. Procedures for stripping are outlined under Preparation for Commercial Traffic, Part 1, substituting stripping pads (3M green or equal) or brushes. This procedure should not be performed within the first 30 days after installation.

# INSTALLATION AND MAINTENANCE

# EXCELON® SDT STATIC DISSIPATIVE TILE

**▲ IMPORTANT:** The static dissipative floor tile and the conductive adhesive contain a small amount of a material called a quaternary ammonium salt. This material may be both a skin and eye irritant for certain individuals. Therefore, direct contact with the adhesive should be avoided. Since the adhesive is water-based, floor mechanics should wash their hands thoroughly with soap and water if skin contact occurs. Likewise, after handling the floor tile, installers should wash their hands in a similar manner.

## Removal

Safety glasses are recommended for removal of floor tile. Individuals removing tile and/or adhesive may want to wear cotton gloves. The tile should be disposed of in accordance with normal procedures for nonasbestos floor tile.

## Installation

The following recommendations outline preparations and procedures for installing Excelon SDT. For detailed instructions, refer to Armstrong ENGINEERED INSTALLATION SYSTEM, F-5061.

## Subfloor Recommendations

■ SDT is recommended over approved suspended wood floors and suspended on-grade and below-grade concrete floors.

■ A Bond and Moisture Test is recommended before all on-grade and below-grade installations as described in the Armstrong ENGINEERED INSTALLATION SYSTEM, F-5061

■ SDT is not recommended for use over existing flooring or nonporous subfloors.

SDT is not recommended for installation over floors where excessive moisture, hydrostatic pressure, or alkali is present. SDT is also not recommended for application over sleeper-constructed wood floors on or below grade level, or lightweight aggregate concrete floors having a density of less than 90 lbs. per cu ft.,

or cellular concrete having a plastic density less than 100 lbs. per cu. ft. Concrete curing agents, sealers, or hardeners should be removed

## Job Conditions

Subfloors shall be dry, clean, and smooth. They shall be free from paint, varnish, existing adhesive residue, wax, oil, and other foreign matter. For more detailed requirements of concrete subfloors, and for mastic and wood subfloor and underlayment requirements, refer to Armstrong ENGINEERED INSTALLATION SYSTEM booklet, F-5061.

Temperature should be maintained at a minimum of 65°F for 48 hours prior to installation, during installation, and 48 hours after completion. A minimum temperature of 55° should be maintained thereafter.

## Procedure

### ADHESIVE

1. Armstrong S-202 SDT Adhesive is required for use with SDT.
2. Apply S-202 Adhesive with the fine notching of a notched steel trowel ( $\frac{1}{32}$ " deep,  $\frac{1}{16}$ " wide,  $\frac{5}{64}$ " apart) such as an Armstrong S-891 trowel.
3. Allow S-202 to dry to the touch (approximately 60 minutes).
4. Install SDT *except where copper grounding strips are to be located.*
5. Working time of S-202 is approximately six hours.

### INSTALLATION OF COPPER GROUNDING STRIPS

1. 2" x 24" copper grounding strips are packaged with the adhesive.
2. The location of the copper grounding strips is usually determined by the end user. As a general guideline, strips should be placed approximately 25 feet apart around the perimeter of the installation.
3. Place 18 inches of the copper grounding strip over the dry-to-the-touch S-202 Adhesive that is on the floor. The remaining 6 inches of copper grounding should continue up the wall to be connected after installation.
4. Apply S-202 Adhesive over the copper grounding strips using the fine notching of an Armstrong S-891 Notched Steel Trowel.

5. Allow the S-202 to dry to the touch and install the SDT over the copper strips.

6. The connection of the copper grounding strips should be performed by an electrician after the installation is complete.

### ROLLING

1. Completed installation must be rolled with a 100-lb. roller in two directions.

## Maintenance

The recommended maintenance program consists of thorough dirt and grit control, prompt removal of liquid spills and stains, and protection of the floor surface.

Excessive and/or prolonged surface water may interfere with the bond of SDT to the subfloor. If a surface spill does occur, it must be contained and removed immediately.

Walk-off mats, sweeping, mopping, and vacuuming all help in the control of loose dirt and grit. Spot-cleaning will remove most spills and stains, and polishing will give the floor a protective coating which can be periodically refurbished or removed when necessary. Use only Armstrong S-392 Static Dissipative Tile Polish.

Regular adherence to this type of program will assure a longer, more attractive life for the floor.



**IF ELECTRICAL CERTIFICATION OF AN INSTALLATION IS REQUIRED, DO NOT PERFORM ANY MAINTENANCE PROCEDURES UNTIL AFTER THAT CERTIFICATION HAS BEEN COMPLETED.**

## Initial Maintenance After Installation

1. Sweep or vacuum thoroughly.
2. The floor may be cleaned after installation by damp-mopping only with a very dilute neutral detergent solution, carefully removing black marks and excessive soil. Do not thoroughly wash the floor for at least

four to five days after installation. This is to prevent excess moisture from interfering with the adhesive bond

3. Apply a minimum of three coats of S-392 Static Dissipative Tile Floor Polish to protect the floor until regular maintenance procedures can be started.

## Preparation for Commercial Traffic—Regular Maintenance Procedures

1. Scrub the floor using a neutral detergent and a single disc floor machine of 170–250 rpm capability, equipped with a scrubbing pad (3M blue or equal), or lightly scrub with an automatic floor machine.

However, if the floor is badly soiled or scratched, strip it using the same procedure but substituting a stripping solution and a 3M green or equal pad.

Note: In areas where machine scrubbing/striping is not allowed, manual procedures (such as mop on, agitate, remove) may be used to maintain this floor

2. Thoroughly rinse and allow to dry.

Note: Do not flood the floor with rinse water, scrubbing, or stripping solution.

3. After the floor has been thoroughly scrubbed or stripped, rinsed, and dried, apply three to five coats of S-392.

Allow at least 60 minutes' drying time between applications. Do not allow traffic on the floor for 6–8 hours after final coat of polish (overnight if possible).

Note: Do not perform any additional wet maintenance procedures until last coat of polish has cured a minimum of 72 hours.

## Continuing Regular Maintenance

1. Sweep or dust-mop frequently. Use walk-off mats that are as wide as the doorway and long enough to trap dirt before feet reach the resilient floor. Clean the walk-off mats frequently.

2. Spot-mop the floor as appearance requires. Use a dilute neutral detergent solution.

3. After spot-mopping, the floor should be spray-buffed to restore gloss and electrical performance.

To spray-buff, spray a diluted solution of S-392 (1 part S-392 to 2 parts water) onto the floor. Before the liquid can dry, buff it with a floor machine capable of 170 to 1100 rpm, equipped with a buffing pad or brush. A thin, protective, glossy film remains after buffing the liquid dry. This procedure allows the base coat of polish to be protected, reducing the need for stripping.

Severe traffic areas may require extra coats of S-392 (full strength) on a more frequent basis.

## Stripping

1. Stripping should be done when either electrical performance or appearance requires it.

2. Procedures for stripping are outlined under Preparation for Commercial Traffic, Part 1, substituting stripping pads (3M green or equal) or brushes. This procedure should not be performed within the first 30 days after installation.

## Protection

Recommended load limit is 50 psi. Floors should be protected from sharp-point loads. Recommendations for the selection of Armstrong Floor Protectors may be found in Armstrong ENGINEERED INSTALLATION SYSTEM, F-5061.

NOTE. The extremely high forces exerted by stiletto- or high-heeled traffic (dynamic loads of 1,000 psi or more) may visibly damage wood floors, resilient flooring, and other commercial floor coverings. Armstrong will not accept claims for damage caused by stiletto- or high-heeled traffic.

### ▲ WARNING

**DO NOT SAND EXISTING RESILIENT FLOORING, BACKING, OR LINING FELT. THESE PRODUCTS MAY CONTAIN ASBESTOS FIBERS THAT ARE NOT READILY IDENTIFIABLE. INHALATION OF ASBESTOS DUST MAY CAUSE ASBESTOSIS OR OTHER SERIOUS BODILY HARM. SMOKING GREATLY INCREASES THE RISK OF SERIOUS BODILY HARM.**

For detailed information on the removal of resilient flooring, please refer to Armstrong RECOMMENDED WORK PRACTICES FOR THE REMOVAL OF RESILIENT FLOOR COVERINGS, F-1154.



# INSTALLATION AND MAINTENANCE

## EXCELON® SDT STATIC DISSIPATIVE TILE

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### Removal

Safety glasses are recommended for removal of floor tile. Individuals removing tile and/or adhesive may want to wear cotton gloves. The tile should be disposed of in accordance with normal procedures for nonasbestos floor tile.

### Installation

The following recommendations outline preparations and procedures for installing Excelon SDT. For detailed instructions, refer to Armstrong ENGINEERED INSTALLATION SYSTEM, F-5061

### Subfloor Recommendations

■ SDT is recommended over approved suspended wood floors and suspended on-grade and below-grade concrete floors.

■ A Bond and Moisture Test is recommended before all on-grade and below-grade installations as described in the Armstrong ENGINEERED INSTALLATION SYSTEM, F-5061.

■ SDT is not recommended for use over existing flooring or nonporous subfloors.

SDT is not recommended for installation over floors where excessive moisture, hydrostatic pressure, or alkali is present. SDT is also not recommended for application over sleeper-constructed wood floors on or below grade level, or lightweight aggregate concrete floors having a density of less than 90 lbs. per cu. ft.,

or cellular concrete having a plastic density less than 100 lbs. per cu. ft. Concrete curing agents, sealers, or hardeners should be removed.

### Job Conditions

Subfloors shall be dry, clean, and smooth. They shall be free from paint, varnish, existing adhesive residue, wax, oil, and other foreign matter. For more detailed requirements of concrete subfloors, and for mastic and wood subfloor and underlayment requirements, refer to Armstrong ENGINEERED INSTALLATION SYSTEM booklet, F-5061.

Temperature should be maintained at a minimum of 65°F for 48 hours prior to installation, during installation, and 48 hours after completion. A minimum temperature of 55° should be maintained thereafter.

### Procedure

#### ADHESIVE

1. Armstrong S-202 SDT Adhesive is required for use with SDT.
2. Apply S-202 Adhesive with the fine notching of a notched steel trowel (1/32" deep, 1/16" wide, 5/64" apart) such as an Armstrong S-891 trowel.
3. Allow S-202 to dry to the touch (approximately 60 minutes).
4. Install SDT except where copper grounding strips are to be located.
5. Working time of S-202 is approximately six hours.

#### INSTALLATION OF COPPER GROUNDING STRIPS

1. 2" x 24" copper grounding strips are packaged with the adhesive.
2. The location of the copper grounding strips is usually determined by the end user. As a general guideline, strips should be placed approximately 25 feet apart around the perimeter of the installation.
3. Place 18 inches of the copper grounding strip over the dry-to-the-touch S-202 Adhesive that is on the floor. The remaining 6 inches of copper grounding should continue up the wall to be connected after installation.
4. Apply S-202 Adhesive over the copper grounding strips using the fine notching of an Armstrong S-891 Notched Steel Trowel

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#### ROLLING

1. Completed installation must be rolled with a 100-lb. roller in two directions.

### Maintenance

The recommended maintenance program consists of thorough dirt and grit control, prompt removal of liquid spills and stains, and protection of the floor surface.

Excessive and/or prolonged surface water may interfere with the bond of SDT to the subfloor. If a surface spill does occur, it must be contained and removed immediately.

Walk-off mats, sweeping, mopping, and vacuuming all help in the control of loose dirt and grit. Spot-cleaning will remove most spills and stains, and polishing will give the floor a protective coating which can be periodically refurbished or removed when necessary. Use only Armstrong S-392 Static Dissipative Tile Polish.

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### Initial Maintenance After Installation

1. Sweep or vacuum thoroughly.
2. The floor may be cleaned after installation by damp-mopping only with a very dilute neutral detergent solution, carefully removing black marks and excessive soil. Do not thoroughly wash the floor for at least

four to five days after installation. This is to prevent excess moisture from interfering with the adhesive bond.

3. Apply a minimum of three coats of S-392 Static Dissipative Tile Floor Polish to protect the floor until regular maintenance procedures can be started

## Preparation for Commercial Traffic—Regular Maintenance Procedures

1. Scrub the floor using a neutral detergent and a single disc floor machine of 170–250 rpm capability, equipped with a scrubbing pad (3M blue or equal), or lightly scrub with an automatic floor machine.

However, if the floor is badly soiled or scratched, strip it using the same procedure but substituting a stripping solution and a 3M green or equal pad.

Note: In areas where machine scrubbing/stripping is not allowed, manual procedures (such as mop on, agitate, remove) may be used to maintain this floor.

2. Thoroughly rinse and allow to dry.

Note: Do not flood the floor with rinse water, scrubbing, or stripping solution.

3. After the floor has been thoroughly scrubbed or stripped, rinsed, and dried, apply three to five coats of S-392.

Allow at least 60 minutes' drying time between applications. Do not allow traffic on the floor for 6–8 hours after final coat of polish (overnight if possible).

Note: Do not perform any additional wet maintenance procedures until last coat of polish has cured a minimum of 72 hours.

## Continuing Regular Maintenance

1. Sweep or dust-mop frequently. Use walk-off mats that are as wide as the doorway and long enough to trap dirt before feet reach the resilient floor. Clean the walk-off mats frequently.

2. Spot-mop the floor as appearance requires. Use a dilute neutral detergent solution.

3. After spot-mopping, the floor should be spray-buffed to restore gloss and electrical performance.

To spray-buff, spray a diluted solution of S-392 (1 part S-392 to 2 parts water) onto the floor. Before the liquid can dry, buff it with a floor machine capable of 170 to 1100 rpm, equipped with a buffing pad or brush. A thin, protective, glossy film remains after buffing the liquid dry. This procedure allows the base coat of polish to be protected, reducing the need for stripping.

Severe traffic areas may require extra coats of S-392 (full strength) on a more frequent basis.

## Stripping

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2. Procedures for stripping are outlined under Preparation for Commercial Traffic, Part 1, substituting stripping pads (3M green or equal) or brushes. This procedure should not be performed within the first 30 days after installation.

## Protection

Recommended load limit is 50 psi. Floors should be protected from sharp-point loads. Recommendations for the selection of Armstrong Floor Protectors may be found in Armstrong ENGINEERED INSTALLATION SYSTEM, F-5061

NOTE: The extremely high forces exerted by stiletto- or high-heeled traffic (dynamic loads of 1,000 psi or more) may visibly damage wood floors, resilient flooring, and other commercial floor coverings.

Armstrong will not accept claims for damage caused by stiletto- or high-heeled traffic.

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For detailed information on the removal of resilient flooring, please refer to Armstrong RECOMMENDED WORK PRACTICES FOR THE REMOVAL OF RESILIENT FLOOR COVERINGS, F-1154.



TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE  
(Read instructions on the reverse side prior to initiating this form)

DATE 1/19/90  
 NEW SUBMITTAL  
 RESUBMITTAL

Section I REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)

TO: MS. DONNA HICHEY FROM: REPUBLIC INDUSTRIES INC.  
 CONTRACT ADMINISTRATION BLD 465 P.O. BOX 5565 STATION 1 CONTRACT NO. DABT-89-C-0087  
 FT. LEANARD WOOD, MO. 65473-5000 WILMINGTON, NC. 28403 TRANSMITTAL NO. 7  
 PREVIOUS TRANS NO. (if any)

SPECIFICATION SEC. NO (Cover only one section with each transmittal) 15250 PROJECT TITLE AND LOCATION ASBESTOS REMOVAL F. ST. LOUIS & CENTRALIA

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type, size, model number, etc.)	MFG OR CONTR CAT, CURVE DRAWING OR BROCHURE NO (See instruction No. 8)	NO OF COPIES	CONTRACT REFERENCE DOCUMENT		VARIATION (See instruction No. 6)	FOR C E USE CODE
				SPEC PARA. NO	DRAWING SHEET NO.		
1	Insulation Data - CertainTeed 500° Snap-on Fiberglass pipe insulation	15250/CEP		N.1			A
2	Samples of products - pipe and sitting coverings; joint tapes			N.2			A

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

NAME AND SIGNATURE OF CONTRACTOR David A. Wilson

Section II APPROVAL ACTION

INCLOSURES RETURNED (List by Item No.)

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY Richard Dye DATE 19 Jan 90

# Asbestos Removal Work Schedule

JAN. 16<sup>th</sup>  
Tues. Set-up for removal in Boiler Room and  
start removal possibly in afternoon.

JAN. 17<sup>th</sup>  
Wed. Finish Gross removal and begin cleaning.  
Prepare for clean air samples on 18<sup>th</sup> am.

JAN. 18<sup>th</sup>  
Th. Set-up for Glovebagging in the following  
offices, First Sergeant, Commander, Supply, class-  
room 1 & remove. Set-up for removal in  
Drill Hall AND accompanying areas, and begin  
removal

JAN. 19<sup>th</sup>  
Fri. Complete removal from 18<sup>th</sup> & have Air  
samples pulled.

1014 Schedule

- JAN. 16<sup>th</sup> | Set-up for removal in Boiler Room and  
Tues | start removal. possibly in afternoon.
- JAN. 17<sup>th</sup> | Finish Gross removal and begin cleaning,  
Wed | Prepare for clean air samples on 15<sup>th</sup> am.
- JAN 18<sup>th</sup> | Set-up for Glovebagging in the following  
Th. | offices, First Sergeant, Commander, Supply, class-  
room 1 + remove. Set-up for removal in  
Drill Hall and accompanying areas, and begin  
removal
- JAN. 19<sup>th</sup> | Complete removal from 18<sup>th</sup> & have Air  
Fri. | samples pulled.



REPLY TO  
ATTENTION OF

## DEPARTMENT OF THE ARMY

HEADQUARTERS

U.S. ARMY ENGINEER CENTER AND FORT LEONARD WOOD  
FORT LEONARD WOOD, MISSOURI 65473-5000



September 27, 1989

Directorate of Contracting

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED  
NOTICE OF AWARD

SUBJECT: Notice of Award - Contract DABT31-89-C-0087

Republic Industries, Inc.  
P.O. Box 5565, Station 1  
Wilmington, North Carolina 28403

Gentlemen:

You are hereby notified that your bid, dated September 11, 1989 in the amount of \$33,000.00 submitted in response to Invitation for Bids, DABT31-89-B-0065 for Line Items 0001, 0002, and 0005 for Asbestos Abatement at U.S. Army Reserve Centers - E. St. Louis, and Centralia, Illinois is accepted.

Contract Number DABT31-89-C-0087 has been assigned to this project. Attached are four duplicate original copies of the contract for your records.

Standard Forms 25 and 25A, Performance and Payment Bonds, are herewith forwarded for prompt execution and return to the Contracting Officer.

This Notice of Award will not be construed as a Notice to Proceed with work under the contract. Notice to Proceed will be issued to your firm by separate letter.

It is requested that an officer of your firm, together with the superintendent or foreman which you intend to assign to this project and like representatives of your subcontractors, attend a preconstruction conference to be held at 1:00 p.m., October 13, 1989. The conference will be held at the Directorate of Contracting, Building 465, Fort Leonard Wood, Missouri. You are required to furnish a current certificate of insurance and a letter appointing a job superintendent at the conference. Any questions which you may have pertinent to the work contemplated by the contract will be answered at this conference. If the date scheduled for the preconstruction conference is not convenient for you, please advise the Contract Administration Division, 314-368-7111, by return mail of an acceptable date, so that the conference may be rescheduled.

Copies of this Notice of Award are being furnished to the following:

Safety Management Office (ATZT-S)  
Attention: T. Moran  
Fort Leonard Wood, Missouri 65473

Directorate of Engineering & Housing  
Attention: Fire Prevention and Protection Division (ATZT-DEH-F)  
(F. Livingston)  
Fort Leonard Wood, Missouri 65473

Directorate of Engineering & Housing  
Attention: Inspection Division (ATZT-DEH-SI)  
(Ed Rothwell)  
Fort Leonard Wood, Missouri 65473  
(3 copies)

Directorate of Contracting  
Attention: Contracts Division (ATZT-DOC-A)  
(P. Hutsell)  
Fort Leonard Wood, Missouri 65473

Sincerely,

THE UNITED STATES OF AMERICA

*David Scott Jr.*  
David Scott, Jr.  
Contracting Officer

Attachments

<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>		1. SOLICITATION NO. DABT31-89-B-0065	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 4 AUG 89	PAGE OF PAGES 1 of 141
<b>IMPORTANT - The "offer" section on the reverse must be fully completed by offeror</b>					
4. CONTRACT NO. DABT31-89-C-0087		5. REQUISITION/PURCHASE REQUEST NO. A 180-89		6. PROJECT NO. 473-88	
7. ISSUED BY Directorate of Contracting Dormitory Rd., Bldg. 465 P.O. Box 140 Fort Leonard Wood, MO 65473-0140		CODE	8. ADDRESS OFFER TO Directorate of Contracting P.O. Box 140 Fort Leonard Wood, MO 65473-0140  Handcarried Bids: Ref. Para. 1, Pg. 5		
9. FOR INFORMATION CALL		A. NAME RAMONA RICKMAN		8. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) (314) 368-5144	

**SOLICITATION**

**NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".**  
**10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):**

Invitation for Bids No. DABT31-89-B-0065, Dated: 4 August 1989  
 Title: Asbestos Abatement at US Army Reserve Centers - E. St. Louis, Fairfield, and Centralia, Illinois

Drawing No. AR-15, AR-16, and AR-17  
 Title: None

**DUPLICATE ORIGINAL**

Award is made pursuant to the Small Business Competitiveness Demonstration Program.

11. The Contractor shall begin performance within <u>5</u> calendar days and complete it within <u>90</u> calendar days after receiving <input type="checkbox"/> award, <input checked="" type="checkbox"/> notice to proceed. This performance period is <input checked="" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable (See _____.)	
12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 10

**13. ADDITIONAL SOLICITATION REQUIREMENTS:**

- A. Sealed offers in original and 0 copies to perform the work required are due at the place specified in Item 8 by 2:00 PM (hour) local time 6 SEP 89 (date) if this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.
- B. An offer guarantee  is,  is not required
- C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.
- D. Offers providing less than 90 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected



BID SCHEDULE (CONTINUED)

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL PRICE</u>
	USARC, CENTRALIA, ILLINOIS				
0005	Labor, Services, Supplies and Equipment to Remove and Dispose of All Asbestos Materials and Re-insulate Piping and Joints at USARC, Centralia, IL in accordance with the attached specifications and drawings.	1	JOB	L.S.	\$ <u>8,000.00</u>
	TOTAL BID ITEM 0005 (USARC, Centralia, IL)				\$ <u>8,000.00</u>
	TOTAL PRICE FOR BID ITEMS 0001 THRU 0005				\$ <u>60,000.00</u>

NOTE: Multiple awards may be made (see Page 31, Solicitation Provision #16, Evaluation of Bids for Multiple Awards, APR 1984, FAR 52.214-22). If multiple awards are made, they will be made only by USARC.

NOTE: Prices are subject to verification of addition by the Government. If a modification to a bid is submitted which provides for a lump sum adjustment to the total cost, the application of the lump sum adjustment to each price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every price in the bid schedule.



SPECIAL CONTRACT REQUIREMENTS

READ THE FOLLOWING IN CONJUNCTION WITH THE SOLICITATION, OFFER, AND AWARD, STANDARD FORM 1442

1. Handcarried bids may be turned in at the Receptionist Desk, Building 465, located on Dormitory Road, Fort Leonard Wood, MO., Monday thru Friday, between the hours of 7:30 a.m. and 4:00 p.m.

2. BONDS.

a. Bid Guarantee. Each bidder shall submit with his bid a Bid Bond (Standard Form 24) with good and sufficient surety or sureties acceptable to the Government, or other security as provided in Contract Clause 83, in the form of twenty percent (20%) of the bid price or \$3,000,000, whichever is lesser. The bid bond penalty may be expressed in terms of a percentage of the bid price or may be expressed in dollars and cents. (Not required for bids of \$25,000 or less) (FAR 28.101-1)

b. Performance and Payment Bonds. Within ten (10) days after the Government accepts the Contractor's offer, by signing Item 31B of Standard Form 1442, the Contractor shall furnish a Performance Bond (Standard Form 25) and a Payment Bond (Standard Form 25-A), each with good and sufficient surety or sureties acceptable to the Government. The penal sums of such bonds will be as follows: (Not required for contracts of \$25,000 or less).

(1) Performance Bond: The penal sum of the performance bond shall equal one hundred percent (100%) of the contract price.

(2) Payment Bond:

(a) When the contract price is \$1,000,000 or less, the penal sum shall be fifty percent (50%) of the contract price.

(b) When the contract price is in excess of \$1,000,000 but not more than \$5,000,000, the penal sum shall be forty percent (40%) of the contract price.

(c) When the contract price is more than \$5,000,000, the penal sum shall be \$2,500,000.

c. Any bonds required will be furnished by the Contractor to the Government prior to commencement of contract performance.

3. The magnitude of this project is between \$25,000.00 and \$100,000.00.

4. This procurement is unrestricted. SIC 1799, Small Business Size Standard \$7.0 million.

SPECIAL CONTRACT REQUIREMENTS

READ THE FOLLOWING IN CONJUNCTION WITH THE SOLICITATION, OFFER, AND AWARD, STANDARD FORM 1442

5. MATERIAL PAYMENT AUTHORIZATION (SEE CONTRACT CLAUSE 84)

a. Consideration is hereby authorized for PROGRESS PAYMENTS to the Contractor for materials to be utilized on the work covered by this contract, delivered to the Contractor at locations other than the site. The Contractor must furnish satisfactory evidence that he has acquired title to such material and the material will be inventoried by the Government. The reimbursement by the Government shall not be construed as relieving the Contractor from the sole responsibility for the protection and the security of the material or as waiving the right of the Government to require the fulfillment of all of the terms of the contract.

6. REQUIRED INSURANCE (See Contract Clause 33).

a. The Contractor shall, at its own expense, procure and maintain during the entire period of his performance under this contract the following minimum insurance.

<u>TYPE</u>	<u>AMOUNT</u>
-------------	---------------

(1) Workmen's Compensation:

The required Workmen's Compensation Insurance shall extend to cover employee's liability for accidental bodily injury or death and for occupational disease with a minimum liability of:

\$100,000.00

(2) Comprehensive General Liability with

minimum limits of:

Per accident or occurrence for bodily injury \$500,000.00

This insurance shall include Contractor's protective liability and contractual liability.

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- (3) Comprehensive Automobile Liability with minimum limits of:

Per Person	\$200,000.00
Per Accident for Bodily Injury	\$500,000.00
Per Accident for Property Damage	\$ 20,000.00

b. Prior to commencement of work hereunder, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such periods as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than thirty (30) days after written notice thereof to the Contracting Officer.

c. The Contractor shall insert the substance of this clause, including this paragraph c, in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule, or elsewhere in the contract. At least five (5) days before entry of each such subcontractor's personnel on the Government installation, the Contractor shall furnish (or ensure that there has been furnished) to the Contracting Officer a current certificate of insurance, meeting the requirements of paragraph b above, for each such subcontractor.

7. INSPECTION OF WORK. Technical surveillance of workmanship and inspection of materials for work being performed under this contract shall be the responsibility of the Director of Engineering and Housing or his authorized representative. This provision in no way authorizes anyone other than the Contracting Officer to commit the Government to changes in the terms of the contract. In the event it is determined necessary to designate a COR for this contract, such designation shall be by a separate letter to the individual selected with a copy furnished to the Contractor.

8. PREPARATION OF PROGRESS SCHEDULES AND REPORTS. The reports contemplated by the clause herein entitled "Schedules for Construction Contracts" shall be accomplished on and in accordance with instructions pertaining to the forms, Contract Progress Schedule and Contract Progress Report.

9. PRECONSTRUCTION CONFERENCE. A Preconstruction Conference will be scheduled by the Contracting Officer after contract award and prior to commencement of work. The Contracting Officer will notify the Contractor of the time and date

SPECIAL CONTRACT REQUIREMENTS

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set for the meeting which will be held at Fort Leonard Wood, MO. At this meeting, the Contractor will be oriented with respect to Government procedures and line of authority, as well as contractual, administrative, and construction matters. The Contractor is required to furnish a current Certificate of Insurance and a letter appointing a construction superintendent at the meeting.

10. SAFETY AND ACCIDENT PREVENTION.

- a. In performing work under this contract, the contractor shall--
- (1) Conform to the specific safety requirements established by this contract;
  - (2) Comply with the safety rules of the Government installation that concern related activities not directly addressed in this contract;
  - (3) Take all reasonable steps and precautions to prevent accidents and preserve the life and health of Contractor and Government personnel performing or in any way coming in contact with the performance of this contract; and
  - (4) Take such additional immediate precautions as the Contracting Officer may reasonably require for safety and accident prevention purposes.

- b. The Installation Safety Officer will be responsible for monitoring the Contractor in the area of safety and accident prevention.

This provision in no way authorizes anyone other than the Contracting Officer to commit the Government to changes in the terms of the contract.

11. FIRE PREVENTION.

- a. The current Post Fire Regulations, AR 420-90, "Fire Prevention and Protection" and FLW Supplement 1 to AR 420-90 are by this reference, made a part of this solicitation and resultant contract. The Contractor's operations shall conform to all applicable portions of those documents. All personnel entering on duty as Contractor's employees shall be instructed in the fire prevention program of the Post and shall be advised of the requirement of the Post Fire Regulations as they pertain to this particular contract.

- b. The Contractor shall obtain a written "Hot Work Permit" (DA Form 5383-R) prior to commencing all hot work outside an approved shop area. Permits will be issued by the Fort Leonard Wood Fire Department, 368-5615/3431, after all necessary precautions have been taken, such as wetting down the area,

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protection of combustible material, and positioning of first aid fire extinguishers of proper type and class. Permits must be obtained in advance for use of open flame devices, such as blow torches, portable furnaces, tar kettles, or gas and electric welding and cutting equipment. Preparation and protection for such areas are the responsibility of the Contractor accomplishing the work. An inspection conducted by the Fire Department prior to commencing work may be required; however, the Contractor shall conduct an inspection of the area at least 30 minutes after completion of all work. The Contractor shall be liable for any fire loss to Government property attributable to negligence on the part of the Contractor, including failure to comply with fire prevention measures prescribed by terms of this contract.

c. The Fire Prevention-Protection Division is responsible for monitoring the Contractor in the area of fire prevention and advising the Contracting Officer of all deficiencies. The Contracting Officer will alert the Contractor if a violation is a fire hazard or fire protection deficiency.

This provision in no way authorizes anyone other than the Contracting Officer to commit the Government to changes in the terms of the contract.

## 12. LICENSES, PERMITS AND BONDS.

a. The Contractor shall provide at his expense all licenses, permits and bonds as may be required by the state, county, and municipality on which he will operate any type of motor vehicle.

b. Any vehicle operated by the Contractor on the military reservation must meet State Safety Standards and carry a current state inspection sticker to so indicate.

c. Contractor will be required to submit evidence of insurance on all vehicles. Operators will be required to possess valid state permits to operate the vehicles which are assigned to them (Driver's License, Chauffeur's License, etc.)

## 13. NORMAL WORKING HOURS.

a. The Contractor shall schedule his working hours to coincide with the working hours of the military reservation. Normal working hours of the reservation are 7:30 a.m. to 4:30 p.m., Monday thru Friday, Legal Public

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Holidays excepted. The Contractor shall not perform work on the reservation  
beyond the aforementioned working hours without the written approval of the  
Contracting Officer.

Legal Public Holidays:

- New Year's Day, 1 January
- Martin Luther King, Jr.'s Birthday, the third Monday in January
- Presidents' Day, the third Monday in February
- Memorial Day, the last Monday in May
- Independence Day, 4 July
- Labor Day, the first Monday in September
- Columbus Day, the second Monday in October
- Veterans Day, 11 November
- Thanksgiving Day, the fourth Thursday in November
- Christmas Day, 25 December

When such holidays fall on a Saturday, the preceding Friday will also  
be considered a holiday. When such holidays fall on a Sunday, the succeeding  
Monday will also be considered a holiday.

b. If the Contractor for his convenience desires to perform work during  
other than normal working hours or on other than normal workdays, he shall  
notify the Contracting Officer in writing at least 72 hours in advance. The  
Contractor shall reimburse the Government for any additional expense occasioned  
thereby, such as, but not limited to, overtime pay for Government  
inspectors, utilities service, etc.

14. UTILIZATION OF HEAVY TRACKED OR WHEELED EQUIPMENT.

All projects which require the use of any heavy tracked or wheeled  
equipment on the streets will require prior approval by the Post Engineer.  
Authorization will not be required for normal vehicular traffic.

15. The Government will provide necessary utilities for the completion of the  
work at no charge to the Contractor.

REPRESENTATIONS AND CERTIFICATIONS

1. CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985) (FAR 52.203-2)

(a) The offeror certifies that--

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory--

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above

DAVID A. NUGENT - PRESIDENT

(Insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above.



REPRESENTATIONS AND CERTIFICATIONS

(c) If the offeror deletes or modifies subparagraph (a)(2) above, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

## 2. CONTINGENT FEE REPRESENTATION AND AGREEMENT (APR 1984) (FAR 52.203-4)

(a) Representation. The offeror represents that, except for full-time bona fide employees working solely for the offeror, the offeror: (Note: The offeror must check the appropriate boxes. For interpretation of the representation, including the term "bona fide employee," see Subpart 3.4 of the Federal Acquisition Regulation.)

(1)  has,  has not employed or retained any person or company to solicit or obtain this contract; and

(2)  has,  has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(b) Agreement. The offeror agrees to provide information relating to the above Representation as requested by the Contracting Officer and, when subparagraph (a)(1) or (a)(2) is answered affirmatively, to promptly submit to the Contracting Officer--

(1) A completed Standard Form 119, Statement of Contingent or Other Fees, (SF 119); or

(2) A signed statement indicating that the SF 119 was previously submitted to the same contracting office, including the date and applicable solicitation or contract number, and representing that the prior SF 119 applies to this offer or quotation.

## 3. TAXPAYER IDENTIFICATION (NOV 1988) (FAR 52.204-3)

(a) Definitions. "Common parent", as used in this solicitation provision, means an offeror that is a member of an affiliated group of corporations that files its Federal income tax returns on a consolidated basis.

"Corporate status", as used in this solicitation provision, means a designation as to whether the offeror -- is a corporate entity, an unincorporated entity (e.g., sole proprietorship or partnership), or a corporation providing medical and health care services.

"Taxpayer Identification Number (TIN)", as used in this solicitation provision, means the number required by the IRS to be used by the contractor in reporting income tax and other returns.



REPRESENTATIONS AND CERTIFICATIONS

(b) The Offeror is required to submit the information required in paragraphs (c) through (e) of this solicitation provision in order to comply with reporting requirements of 26 U.S.C. 6041, 6041A and 6050M and implementing regulations issued by the Internal Revenue Service (IRS). If the resulting contract is subject to reporting requirements described in FAR 4.902(a), the failure or refusal by the Offeror to furnish the information may result in a 20 percent reduction of payments otherwise due under the contract.

(c) Taxpayer Identification Number (TIN).

- ] TIN: 56-153-1912  
 ] TIN has been applied for.  
 ] TIN is not required because

] Offeror is a nonresident alien, foreign corporation or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U. S. and does not have an office or place of business or a fiscal paying agent in the U.S.;

] Offeror is an agency or instrumentality of a foreign government;

] Offeror is an agency or instrumentality of a state or local government;

] Other. State basis. \_\_\_\_\_

(d) Corporate Status:

- ] Corporation providing medical and health care services or engaged in the billing and collecting of payments for such services  
 ] Other corporate entity  
 ] Not a corporate entity  
 ] Sole proprietorship  
 ] Partnership  
 ] Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a)

(e) Common Parent:

- ] Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.  
 ] Name and TIN of common parent:

Name: \_\_\_\_\_



REPRESENTATIONS AND CERTIFICATIONS

## 4. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (MAY 1989) (FAR 52.209-5) (APPLICABLE TO CONTRACTS EXCEEDING \$25,000)

(a) (1) The Offeror certifies, to the best of its knowledge and belief, that ---

(i) The Offeror and/or any of its Principals --

(A) Are ( ) are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not () within a 3-year period preceding this offer, been convicted of or had a civil judgment rendered against them for; commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

(C) Are ( ) are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not () within a 3-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g. general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This certification concerns a matter within the jurisdiction of an agency of the United States and making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under section 1001, title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.



REPRESENTATIONS AND CERTIFICATIONS

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

5. TYPE OF BUSINESS ORGANIZATION--SEALED BIDDING (JUL 1987) (FAR 52.214-2)

The bidder, by checking the applicable box, represents that - -

(a) It operates as  a corporation incorporated under the laws of the State of NORTH CAROLINA, ( ) an individual, ( ) a partnership, ( ) a nonprofit organization, or ( ) a joint venture; or

(b) If the bidder is a foreign entity, it operates as ( ) an individual, ( ) a partnership, ( ) a nonprofit organization, ( ) a joint venture, or ( ) a corporation, registered for business in \_\_\_\_\_ (country).

6. PARENT COMPANY AND IDENTIFYING DATA (APR 1984) (FAR 52.214-8)

(a) A "parent" company, for the purpose of this provision, is one that owns or controls the activities and basic business policies of the bidder. To own the bidding company means that the parent company must own more than 50 percent of the voting rights in that company. A company may control a bidder as a parent even though not meeting the requirement for such ownership if the parent company is able to formulate, determine, or veto basic policy decisions of the offeror through the use of dominant minority voting rights, use of proxy voting, or otherwise.

(b) The bidder ( ) is,  is not (check applicable box) owned or controlled by a parent company.

(c) If the bidder checked "is" in paragraph (b) above, it shall provide the following information:

Name and Main Office Address  
of Parent Company (Include  
Zip Code)

Parent Company's Employer's  
Identification Number

(d) If the bidder checked "is not" in paragraph (b) above, it shall insert its own Employer's Identification Number on the following line

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REPRESENTATIONS AND CERTIFICATIONS

## 7. SMALL BUSINESS CONCERN REPRESENTATION (MAY 1986) (FAR 52.219-1)

The offeror represents and certifies as part of its offer that it ( ) is, (✓) is not a small business concern and that (✓) all, ( ) not all end items to be furnished will be manufactured or produced by a small business concern in the United States, its territories or possessions, Puerto Rico, or the Trust Territory of the Pacific Islands. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the size standards in this solicitation.

## 8. WOMEN-OWNED SMALL BUSINESS REPRESENTATION (APR 1984) (FAR 52.219-3)

(a) Representation. The offeror represents that it ( ) is, (✓) is not a women-owned small business concern.

(b) Definitions.

"Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominate in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria and size standards in 13 CFR 121.

"Women-owned," as used in this provision, means a small business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

## 9. CERTIFICATION OF NONSEGREGATED FACILITIES (APR 1984) (FAR 52.222-21)

(a) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(b) By the submission of this offer, the offeror certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The offeror agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(c) The offeror further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will -

(1) Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;



REPRESENTATIONS AND CERTIFICATIONS

(2) Retain the certifications in the files; and

(3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES.**

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract under which the subcontractor will be subject to the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

**10. PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (APR 1984) (FAR 52.222-22)**

The offeror represents that--

(a) It ( ) has, (✓) has not participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114;

(b) It ( ) has, (✓) has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

**11. CLEAN AIR AND WATER CERTIFICATION (APR 1984) (FAR 52.223-1) (APPLICABLE ONLY TO CONTRACTS EXCEEDING \$100,000)**

The Offeror certifies that--

(a) Any facility to be used in the performance of this proposed contract is ( ), is not (✓) listed on the Environmental Protection Agency List of Violating Facilities;



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(b) The Offeror will immediately notify the Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the Offeror proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and

(c) The Offeror will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

12. CERTIFICATION REGARDING A DRUG-FREE WORKPLACE (MAR 1989)  
(FAR 52.223-5)

(a) Definitions. As used in this provision,

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11-1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession or use of any controlled substance.

"Drug-free workplace" means a site for the performance of work done in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) By submission of its offer, the offeror, if other than an individual, who is making an offer that equals or exceeds \$25,000, certifies and agrees, that with respect to all employees of the offeror to be employed under a contract resulting from this solicitation, it will --

(1) Publish a statement notifying such employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;



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(2) Establish a drug-free awareness program to inform such employees about --

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this provision;

(4) Notify such employees in the statement required by subparagraph (b)(1) of this provision, that as a condition of continued employment on the contract resulting from this solicitation, the employee will --

(i) Abide by the terms of the statement; and

(ii) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction;

(5) Notify the Contracting Officer within ten (10) days after receiving notice under subdivision (b)(4)(ii) of this provision, from an employee or otherwise receiving actual notice of such conviction; and

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this provision of a conviction, impose the following sanctions or remedial measures on any employee who is convicted of drug abuse violations occurring in the workplace:

(i) Take appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.



REPRESENTATIONS AND CERTIFICATIONS

13. NOTICE OF RESTRICTIONS ON CONTRACTING WITH SANCTIONED PERSONS (MAY 1989)  
(FAR 52.225-12)

(a) Statutory prohibitions have been imposed on contracting with sanctioned persons, as specified in Federal Acquisition Regulation (FAR) 52.225-13. *Restrictions on Contracting with Sanctioned Persons.*

(b) By submission of this offer, the Offeror represents that no products or services, except those listed in this paragraph (b), delivered to the Government under any contract resulting from this solicitation will be products or services of a sanctioned person, as defined in the clause referenced in paragraph (a) of this provision, unless one of the exceptions in paragraph (d) of the clause at FAR 52.225-13 applies.

Product or service

Sanctioned person

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14. CERTIFICATION OR DISCLOSURE OF OWNERSHIP OR CONTROL BY A FOREIGN GOVERNMENT THAT SUPPORTS TERRORISM (NOV 1987) (DOD FAR Supplement 252.209-7000) (APPLICABLE TO CONTRACTS EQUALING OR EXCEEDING \$100,000)

(a) "Significant interest" as used in this provision means --

(1) Ownership of or beneficial interest in five percent (5%) or more of the firm's or subsidiary's securities. Beneficial interest includes holding five percent (5%) or more of any class of the firm's securities in "nominee shares", "street names", or some other method of holding securities that does not disclose the beneficial owner;

(2) Holding a management position in the firm such as director or officer;



REPRESENTATIONS AND CERTIFICATIONS

(3) Ability to control or influence the election, appointment, or tenure of directors or officers of the firm;

(4) Ownership of ten percent (10%) or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(5) Holding fifty percent (50%) or more of the indebtedness of a firm.

(b) Unless paragraph (c) below has been completed, the Offeror, by submission of its offer, certifies, to the best of its knowledge and belief, that no government or a foreign country, or agent or instrumentality of a foreign country, listed below, has, directly or indirectly, a significant interest in the Offeror or, if the Offeror is a subsidiary, in the firm that owns or controls, directly or indirectly, the Offeror. Such countries currently include:

- (1) Cuba;
- (2) Iran;
- (3) Libya;
- (4) Syria; and
- (5) South Yemen.

(c) If the Offeror is unable to certify in accordance with (b) above, the Offeror represents that the following country or countries (listed in (b) above) or an agent or instrumentality of such country or countries, have a significant interest in the Offeror's firm:

Country \_\_\_\_\_

Significant Interest \_\_\_\_\_

15. AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984) (FAR 52.252-5)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any FAR or DOD FAR Supplement provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

16. SMALL DISADVANTAGED BUSINESS CONCERN REPRESENTATION (DOD FAR SUPPLEMENT DEVIATION (JUN 1988) (DOD FAR SUPPLEMENT 252.219-7005)

(a) Definition. "Small disadvantaged business concern", as used in this provision, means a small business concern, including mass media, owned and controlled by individuals who are both socially and economically disadvantaged, as defined in regulations prescribed by the U.S. Small Business Administration at 13 CFR Part 124, the majority of earnings of which directly accrue to such



REPRESENTATIONS AND CERTIFICATIONS

individuals. (13 CFR Part 124 generally provides that a small disadvantaged business concern is a small business concern (1) which is at least fifty-one percent (51%) owned by one or more socially and economically disadvantaged individuals; or in the case of any publicly owned business, at least fifty-one percent (51%) of the voting stock of which is owned by one or more socially and economically disadvantaged individuals, and (2) whose management and daily business operations are controlled by one or more such individuals.) (See 13 CFR 124.101 through 124.110.)

(b) Representation. The Offeror represents that its qualifying ownership falls within at least one of the following categories (check the applicable categories):

- Subcontinent Asian (Asian-Indian) American (US Citizen with origins from India, Pakistan, Bangladesh, or Sri Lanka)
- Asian-Pacific American (US Citizen with origins from Japan, China, The Philippines, Vietnam, Korea, Samoa, Guam, U.S. Trust Territory of the Pacific Islands, Northern Mariana Islands, Laos, Cambodia, or Taiwan)
- Black American (US Citizen)
- Hispanic American (US Citizen with origins from South America, Central America, Mexico, Cuba, the Dominican Republic, Puerto Rico, Spain or Portugal)
- Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians)
- Individual/concern currently certified for participation in the Minority Small Business and Capital Ownership Development Program under section 8(a) of the Small Business Act (15 U.S.C. 637(a))
- Other (In addition to (c)(1), Offeror must complete (c)(2) below)

(c) Certification.

(1) The Offeror represents and certifies, as part of its offer, that it is \_\_\_\_\_, is not  a small disadvantaged business concern.

(2) (Complete only if item (b) above is checked "Other") The Offeror represents and certifies, as part of its offer, that the Small Business Administration (SBA) has \_\_\_\_\_, has not  made a determination concerning the Offeror's status as a small disadvantaged business concern. If the SBA has made such a determination, the date of the determination was \_\_\_\_\_ and the Offeror certifies that it was \_\_\_\_\_, was not \_\_\_\_\_ found by the SBA to be socially and economically disadvantaged as a result of that determination and that no circumstances have changed to vary that determination.

(d) Notification. The Offeror agrees to notify the Contracting Officer before award of any change in its status as a small disadvantaged business occurring between the submission of its offer and contract award.



REPRESENTATIONS AND CERTIFICATIONS

(e) Penalty. The Offeror represents and certifies that the above information is true and understands that whoever for the purpose of securing a contract or subcontract under subsection (a) of Section 1207 of Public Law 99-661 misrepresents the status of any concern or person as a small business concern owned and controlled by a minority (as described in subsection (a)) shall be punished by a fine of not less than \$10,000 or by imprisonment for not more than a year, or both.

17. SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVE DEMONSTRATION PROGRAM (JAN 1989) (DOD FAR SUPPLEMENT 252.219-7012)

(a) Definition.

"Emerging Small Business", as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the Standard Industrial Classification Code assigned to a contracting opportunity.

(b) (Complete only if Offeror has certified itself under the clause at FAR 52.219-1 as a small business concern under the size standards of this solicitation.) The Offeror represents and certifies as part of its offer that it is \_\_\_\_\_, is not  an emerging small business.

(c) (Complete only if the offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past twelve months or offeror's average annual gross revenue for the last three fiscal years. (Check one of the following.)

NO. OF EMPLOYEES	AVE. ANNUAL GROSS REVENUES
<input checked="" type="checkbox"/> 50 or Fewer	<input checked="" type="checkbox"/> \$1 Million or Less
_____ 51 - 100	_____ \$1,000,001 - \$2 Million
_____ 101 - 250	_____ \$2,000,001 - \$3.5 Million
_____ 251 - 500	_____ \$3,500,001 - \$5 Million
_____ 501 - 750	_____ \$5,000,001 - \$10 Million
_____ 751 - 1,000	_____ \$10,000,001 - \$17 Million
_____ Over 1,000	_____ Over \$17 Million



REPRESENTATIONS AND CERTIFICATIONS

18. CONTRACTOR'S CERTIFICATION:

Bidders are cautioned to note the "contractor's certification," included in this solicitation, and to furnish the information required by paragraph b, Partnerships, and paragraph c, Corporations, as appropriate.

a. Contracts with Individuals. If the resultant contract is with an individual, it shall be signed by the individual in his own name. A contract with an individual doing business as a firm shall be signed by that individual and will ordinarily take the following form.

\_\_\_\_\_ (Signed)

An individual doing business as  
\_\_\_\_\_

b. Contracts with Partnerships. If the resultant contract is with a partnership, it needs to be signed by only one partner provided the partner signing has the authority to legally bind the partnership. In addition, the following statement shall be completed:

\_\_\_\_\_ is a partnership composed of \_\_\_\_\_  
(Firm Name)

\_\_\_\_\_  
(List all Partners)

\_\_\_\_\_  
(Indicate if any partner is limited in partnership authority)

c. Contracts with Corporations. If the resultant contract is with a corporation, it shall be executed in the corporation name, followed by the word "by" after which the person who has been authorized to execute the contract on behalf of the corporation shall sign his name, with the designation of his official capacity. In addition, the following certification shall be completed:

I, DAVID A. NUGENT, certify that I am the PRESIDENT, of the corporation named as contractor herein, that DAVID A. NUGENT, who signed this contract on behalf of the contractor was then PRESIDENT, of said corporation, that said contract was duly signed for and on behalf of said corporation by authority of the governing body and is within the scope of its corporate powers.



REPRESENTATIONS AND CERTIFICATIONS

In witness whereof, I have hereunto affixed my signature this 11 day of SEPTEMBER 1989

DAVID D. NUGENT - PRESIDENT

AFFIX CORPORATE SEAL

David D. Nugent  
(Signature, Printed Name, Title)

d. Contract with Joint Venturers. If the resultant contract is with a joint venture, each participant shall sign and in the manner indicated above for each type of participant. In addition, to assure a single point of contact for resolution of contractual matters and payments, the following certification shall be signed by each participant in the joint venture.

The parties hereto expressly understand and agree as follows:

(1) \_\_\_\_\_  
(Name) (Title) (Company)

is the principal representative of the joint venture. As such, all communications regarding the administration of the contract and the performance of the work thereunder may be directed to him. In the absence of:

\_\_\_\_\_  
(Name) (Title) (Company as above)

\_\_\_\_\_  
(Name) (Title) (Company as above)

is the alternate principal of the joint venture.

(2) Directions, approvals, required notices, and all other communications from the Government to the joint venture, including transmittal of payments by the Government, shall be directed to:

\_\_\_\_\_  
(Name) (Title) (Company)  
principal representative of the joint venture.

e. Signature of Agents. If the resultant contract is signed by an agent, other than as stated above, the fact of the agency will be evidenced by a copy of the Power of Attorney.



REPRESENTATIONS AND CERTIFICATIONS

19. Prospective bidders will identify both Government and private contracts performed within the last three years for same or similar type work as required on this project.

<u>LOCATION OF CONTRACT</u>	<u>TITLE OF CONTRACT</u>	<u>PERSON TO CONTACT</u>	<u>TELEPHONE NUMBER</u>
1. <u>SEE ATTACHED SHEET</u>	<u>SHEET</u>	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

20. DEBARMENT, SUSPENSION, AND INELIGIBILITY

a. The Offeror/Contractor shall execute and submit to the Contracting Officer the following certificate with any bid/proposal, substantially as follows:

CERTIFICATE OF ELIGIBILITY

(1) By submission of this offer/proposal, the offeror/contractor certifies that it has not been debarred, suspended or ruled ineligible to be awarded a Government contract pursuant to Federal Acquisition Regulation, subpart 9.4.

(2) Upon notification to the offeror of debarment, suspension or ineligibility, the offeror certifies that it will immediately notify the contracting officer of such debarment, suspension or ineligibility and the effective date thereof.

Offer/Proposal No. \_\_\_\_\_

Firm \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

21. MATERIAL SAFETY DATA SHEET

Material Safety Data Sheet is \_\_\_\_\_ is not \_\_\_\_\_ required by law.



SOLICITATION PROVISIONS

1. Solicitation Provisions Incorporated By Reference (Alternate 1)  
(JUN 1988) (FAR 52.252-1)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

1. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1)  
SOLICITATION PROVISIONS

Provisions marked "( )" are applicable only if marked "(X)."

NUMBER	FAR PROVISION NUMBER	TITLE	DATE
2.	52.214-1	Solicitation Definitions-Sealed Bidding	JUL 1987
3.	52.214-4	False Statements in Bids	APR 1984
4.	52.222-23	Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity	APR 1984

Paragraph b Goals for Minority Participation for Each Trade: 14.7%  
Goals for Female Participation in Each Trade: 6.9%

Paragraph e Covered Area: Illinois, St. Clair, E. St. Louis  
(State, County, City)

Paragraph b Goals for Minority Participation for Each Trade: 11.4%  
Goals for Female Participation in Each Trade: 6.9%

Paragraph e Covered Area: Illinois, Marion, Centralia  
(State, County, City)

Paragraph b Goals for Minority Participation for Each Trade: 11.4%  
Goals for Female Participation in Each Trade: 6.9%

Paragraph e Covered Area: Illinois, Wayne, Fairfield  
(State, County, City)

DOD SOLICITATION PROVISIONS

11. DOD FEDERAL ACQUISITION REGULATION SUPPLEMENT (48 CFR CHAPTER 1)  
SOLICITATION PROVISIONS

SOLICITATION PROVISIONS

Provisions marked "(X)" are applicable only if marked "(X)".

DOD FAR	TITLE	DATE
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5.	252.204-7004	Data Universal Numbering System (DUNS) Number Reporting (Bidder shall provide DUNS Number in Block 14, SF 1442)	DEC 1980
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6.	252.204-7007	Commercial and Government Entity (CAGE) Code Reporting	OCT 1988
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7.	( ) 252.236-7081	Cost Limitation	APR 1974
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8. AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) (APR 1984) (FAR 52.210-2)

Single copies of specifications cited in this solicitation may be obtained by submitting a written request to the supply point listed below. The request must contain the title of the specification, its number, date, applicable amendment(s), and the solicitation or contract number. In case of urgency, telephone or teletypewriter requests are acceptable. Voluntary standards, which are not available to offerors and contractors from Government sources, may be obtained from the organization responsible for their preparation, maintenance, or publication.

Commanding Officer  
U.S. Naval Publication and Forms Center  
5801 Tabor Avenue  
Philadelphia, PA 19120  
Telex Number.....834295  
Western Union Number.....710-670-1685  
Telephone Number.....(215) 697-3321

9. AMENDMENTS TO INVITATIONS FOR BIDS (NOV 1988) (FAR 52.214-3)

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid, or (3) by letter or telegram. The Government must receive the acknowledgment by the time and at the place specified for receipt of bids.

SOLICITATION PROVISIONS

10. SUBMISSION OF BIDS (APR 1984) (FAR 52.214-5)

(a) Bids and bid modifications shall be submitted in sealed envelopes or packages (1) addressed to the office specified in the solicitation and (2) showing the time specified for receipt, the solicitation number, and the name and address of the bidder.

(b) Telegraphic bids will not be considered unless authorized by the solicitation; however, bids may be modified or withdrawn by written or telegraphic notice, if such notice is received by the time specified for receipt of bids.

11. EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984) (FAR 52.214-6)

Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective bidders before the submission of their bids. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning a solicitation will be furnished promptly to all other prospective bidders as an amendment to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

12. LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (APR 1984)  
(FAR 52.214-7)

(a) Any bid received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it--

(1) Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of bids (e.g., a bid submitted in response to a solicitation requiring receipt of bids by the 20th of the month must have been mailed by the 15th); or

(2) Was sent by mail (or was a telegraphic bid if authorized), and it is determined by the Government that the late receipt was due solely to mishandling by the Government after receipt at the Government installation.

(b) Any modification or withdrawal of a bid is subject to the same conditions as in paragraph (a) above.

(c) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark on the wrapper or on the original receipt from the U.S. or Canadian Postal

SOLICITATION PROVISIONS

Service. If neither postmark shows a legible date, the bid, modification, or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, bidders should request the postal clerks to place a hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.

(d) The only acceptable evidence to establish the time of receipt at the Government installation is the time/date stamp of that installation on the bid wrapper or other documentary evidence of receipt maintained by the installation.

(e) Notwithstanding paragraph (a) above, a late modification of an otherwise successful bid that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

(f) A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and that person signs a receipt for the bid.

13. PREPARATION OF BIDS--CONSTRUCTION (APR 1984) (FAR 52.214-18)

(a) Bids must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a bid must initial each erasure or change appearing on any bid form.

(b) The bid form may require bidders to submit bid prices for one or more items on various bases, including--

(1) Lump sum bidding;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of subparagraphs (1) through (3) above.

(c) If the solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "no bid" in the space provided for any item on which no

price is submitted.

(d) Alternate bids will not be considered unless this solicitation authorizes their submission.

SOLICITATION PROVISIONS

## 14. CONTRACT AWARD--SEALED BIDDING--CONSTRUCTION (FEB 1986) (FAR 52.214-19)

(a) The Government will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the Government, considering only price and the price-related factors specified elsewhere in the solicitation.

(b) The Government may reject any or all bids, and waive informalities or minor irregularities in bids received.

(c) The Government may accept any item or combination of items, unless doing so is precluded by a restrictive limitation in the solicitation or the bid.

## 15. AFFILIATED BIDDERS (APR 1984) (FAR 52.214-17)

(a) Business concerns are affiliates of each other when, either directly or indirectly, (1) one concern controls or has the power to control both the other, or (2) a third party controls or has the power to control both.

(b) Each bidder shall submit with its bid an affidavit stating that it has no affiliates, or containing the following information:

(1) The names and addresses of all affiliates of the bidder.

(2) The names and addresses of all persons and concerns exercising control or ownership of the bidder and any or all of its affiliates, and whether they exercise such control or ownership as common officers, directors, stockholders holding controlling interest, or otherwise.

## 16. EVALUATION OF BIDS FOR MULTIPLE AWARDS (APR 1984) (FAR 52.214-22)

In addition to other factors, bids will be evaluated on the basis of advantages and disadvantages to the Government that might result from making more than one award (multiple awards). It is assumed, for the purpose of evaluating bids, that \$250 would be the administrative cost to the Government for issuing and administering each contract awarded under this solicitation, and individual awards will be for the items or combination of items that result in the lowest aggregate cost to the Government, including the assumed administrative costs.

SOLICITATION PROVISIONS

17. SERVICE OF PROTEST (NOV 1988) (FAR 52.233-2)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) or the General Services Administration Board of Contract Appeals (GSBCA), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from Directorate of Contracting, Dormitory Road, Building 465, P.O. Box 140, Fort Leonard Wood, Missouri 65473-0140.

(b) The copy of any protest shall be received in the office designated above on the same day a protest is filed with the GSBCA or within one day of filing a protest with the GAO.

18. AVAILABILITY FOR EXAMINATION OF SPECIFICATIONS, STANDARDS, PLANS, DRAWINGS, DATA ITEM DESCRIPTIONS, AND OTHER PERTINENT DOCUMENTS (JUN 1977) (DOD FAR SUPPLEMENT 252.210-7003)

The specification, standards, plans, drawings, descriptions, and other pertinent documents cited in this solicitation may be examined at the following locations:

Directorate of Contracting  
Dormitory Road, Building 465  
P. O. Box 140  
Fort Leonard Wood, Missouri 65473-0140

19. NOTIFICATION OF CONTRACTOR BUSINESS INTEGRITY AND ETHICS CERTIFICATION. (APPLICABLE ONLY TO CONTRACTS EXCEEDING \$100,000.00).

Offerors are hereby notified that the apparently successful offeror(s) as a condition for award of any contract resulting from this solicitation may be required to execute a certificate related to business integrity.

20. Funds are not presently available for this acquisition. No contract award will be made until appropriated funds are made available from which payment for contract purposes can be made.

PART II

CONTRACT CLAUSES

1. Clauses Incorporated By Reference (Alternate 1) (JUN 1988) (FAR 52.252-2)

This contract incorporated one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

Clauses marked "( )" are applicable only if marked "(X)."

FAR CLAUSES			
NUMBER	NUMBER	TITLE	DATE
2.	52.202-1	Definitions -- Alternate 1	APR 1984 APR 1984
3.	52.203-1	Officials Not to Benefit	APR 1984
4.	52.203-3	Gratuities	APR 1984
5.	52.203-5	Covenant Against Contingent Fees	APR 1984
6.	52.203-7	Anti-Kickback Procedures	OCT 1988
7.	52.212-3	Commencement, Prosecution, and Completion of Work (See Block 11, SF 1442)	APR 1984
8. ( )	52.212-6	Time Extensions	APR 1984
9. (X)	52.212-11	Variation in Estimated Quantity	APR 1984
10.	52.212-12	Suspension of Work	APR 1984
11. ( )	52.214-26	Audit-Sealed Bidding	APR 1985
12. ( )	52.214-27	Price Reduction for Defective Cost or Pricing Data-Modifications-Sealed Bidding	APR 1988
13. ( )	52.214-28	Subcontractor Cost or Pricing Data- Modifications - Sealed Bidding	APR 1985

CONTRACT CLAUSES

Clauses marked "( )" are applicable only if marked "(X)".

FAR CLAUSES	NUMBER	TITLE	DATE
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	14.	52.219-8	Utilization of Small Business Concerns and Small Disadvantaged Business Concerns	JUN 1985
	15.	52.219-13	Utilization of Women-Owned Small Businesses	AUG 1986
	16.	52.220-1	Preference for Labor Surplus Area Concerns	APR 1984
	17.	52.220-3	Utilization of Labor Surplus Area Concerns	APR 1984
	18. ( )	52.220-4	Labor Surplus Area Subcontracting Program	APR 1984
	19.	52.222-1	Notice to the Government of Labor Disputes	APR 1984
	20.	52.222-3	Convict Labor	APR 1984
	21.	52.222-26	Equal Opportunity	APR 1984
	22.	52.222-27	Affirmative Action Compliance Requirements for Construction	APR 1984
	23. ( )	52.222-28	Equal Opportunity Preaward Clearances of Subcontracts	APR 1984
	24.	52.222-35	Affirmative Action for Special Disabled and Vietnam Era Veterans	APR 1984
	25.	52.222-36	Affirmative Action for Handicapped Workers	APR 1984
	26.	52.222-37	Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era	JAN 1988
	27. ( )	52.223-2	Clean Air and Water	APR 1984
	28.	52.225-5	Buy American Act - Construction Materials	APR 1984
	29.	52.227-1	Authorization and Consent	APR 1984
	30.	52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement	APR 1984

CONTRACT CLAUSES

Clauses marked "( )" are applicable only if marked "(X)".

NUMBER	FAR CLAUSES NUMBER	TITLE	DATE
31.	52.227-4	Patent Indemnity - Construction Contracts	APR 1984
32.	52.228-2	Additional Bond Security	APR 1984
33.	52.228-5	Insurance-Work on a Government Installation	APR 1984
34.	52.229-3	Federal, State, and Local Taxes	APR 1984
35.	52.229-5	Taxes-Contracts Performed in U.S. Possessions or Puerto Rico	APR 1984
36.	52.232-17	Interest	APR 1984
36a.	52.232-18	Availability of Funds	APR 1984
37.	52.232-23	Assignment of Claims-- Alternate 1	JAN 1986 APR 1984
38.	52.232-27	Prompt Payment for Construction Contracts	APR 1989
39.	52.233-1	Disputes	APR 1984
40.	52.233-3	Protest After Award	JUN 1985
41. ( )	52.236-1	Performance of Work by the Contractor	APR 1984
<p>The Contractor shall perform on the site and with its own organization, work equivalent to at least _____ percent of the total amount of work to be performed under the contract.</p>			
42.	52.236-2	Differing Site Conditions	APR 1984
43.	52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
44. ( )	52.236-4	Physical Data (Insert pertinent data)	APR 1984
45.	52.236-5	Material and Workmanship	APR 1984
46.	52.236-6	Superintendence by the Contractor	APR 1984
47.	52.236-7	Permits and Responsibilities	APR 1984

CONTRACT CLAUSES

Clauses marked "( ) " are applicable only if marked "(X)".

FAR CLAUSES			
NUMBER	NUMBER	TITLE	DATE
48.	52.236-8	Other Contracts	APR 1984
49.	52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
50.	52.236-10	Operations and Storage Areas	APR 1984
51.	52.236-11	Use and Possession Prior to Completion	APR 1984
52.	52.236-12	Cleaning Up	APR 1984
53.	52.236-13	Accident Prevention	APR 1984
54.	52.236-14	Availability and Use of Utility Services	APR 1984
55.	52.236-16	Quantity Surveys	APR 1984
56.	52.236-17	Layout of Work	APR 1984
57.	52.236-21	Specifications and Drawings for Construction	APR 1984
( )	( )	Alternate 1	APR 1984
( )	( )	Alternate II	APR 1984
58.	52.243-4	Changes	AUG 1987
59.	52.244-1	Subcontracts (Fixed-Price Contracts)	JAN 1986
60.	52.245-1	Property Records	APR 1984
61.	52.245-2	Government Property (Fixed-Price Contracts)	APR 1984
62.	52.245-3	Identification of Government-Furnished Property	APR 1984
63.	52.245-4	Government-Furnished Property (Short Form)	APR 1984
64.	52.246-12	Inspection of Construction	JUL 1986

CONTRACT CLAUSES

Clauses marked "( )" are applicable only if marked "(X)."

NUMBER	FAR CLAUSES NUMBER	TITLE	DATE
65. (X)	52.246-21	Warranty of Construction	APR 1984
66.	52.248-3	Value Engineering-Construction	MAR 1989
67. (X)	52.249-1	Termination for Convenience of the Government (Fixed-Price) (Short Form)	APR 1984
68. ( )	52.249-2	Termination for Convenience of the Government (Fixed-Price) Alternate I	APR 1984 APR 1984
69.	52.249-10	Default (Fixed-Price Construction)	APR 1984

DOD CONTRACT CLAUSES

11. DOD FEDERAL ACQUISITION REGULATION SUPPLEMENT  
(48 CFR CHAPTER 1) CLAUSES

Clauses marked "( )" are applicable only if marked "(X)."

NUMBER	DOD FAR SUPPLEMENT NO.	TITLE	DATE
70.	252.203-7001	Special Prohibition on Employment	MAR 1989
71.	252.203-7002	Statutory Compensation Prohibitions and Reporting Requirements Relating to Certain Former Department of Defense (DOD) Employees (Applicable only to contracts exceeding \$100,000)	APR 1988
72.	252.227-7033	Rights in Shop Drawings	APR 1966
73.	252.236-7000	Composition of Contractor	JAN 1965
74.	252.236-7001	Modification Proposals - Price Breakdown	APR 1968
75. ( )	252.236-7005	Salvage Materials and Equipment	JAN 1965
76.	252.243-7001	Pricing of Adjustments	APR 1984

CONTRACT CLAUSES

77. REMEDIES FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 1989) (FAR 52.203-10)  
(APPLICABLE TO CONTRACTS EXCEEDING \$25,000)

(a) The Government, at its election, may reduce the price of a fixed-price-type contract or contract modification and the total cost and fee under a cost-type contract or contract modification by the amount of profit or fee determined as set forth in paragraph (c) of this clause if the head of the agency or his or her designee, determines that there was a violation of subsection 27(a) of the Office of Federal Procurement Policy Act (41 U.S.C. 423) as implemented in the FAR. In the case of a contract modification the fee subject to reduction is the fee associated with the particular contract modification.

(b) Prior to making such a fee or profit reduction, the agency head or his or her designee shall provide to the Contractor a written notice of the action being considered and the basis therefor. The Contractor shall have a period determined by the agency head or his or her designee, but in no event less than 30 calendar days after receipt of such notice to submit in person, in writing, or through a representative, information and argument in opposition to the proposed reduction. The agency head or his or her designee may, upon good cause shown, determine to reduce the contract or contract modification price or fee by an amount which is less than the amount determined under paragraph (c) of this clause.

(c) The price or fee reduction referred to in paragraph (a) of this clause shall be - -

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts - -

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 10 percent of the amount of each award fee otherwise payable to the contractor for each incentive period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may - -

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award;

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(ii) When the contract provides for multiple deliverables, reduce the amount otherwise payable to the contractor upon each delivery and acceptance by an amount determined by the Contracting Officer to be the profit portion of each payable amount until the cumulative total of each reductions is equal to the initial target profit amount specified in the contract at the time of contract award;

(iii) In addition to any other withholdings, retentions or reserves, reduce the amount of progress payments otherwise payable in connection with each invoice or voucher properly submitted by the contractor for payment until the aggregate progress payments amounts so withheld equal the initial target profit established at the time of contract award; or

(iv) If the Government elects either (c)(4)(ii) or (iii) of this clause, at the time of total final price establishment, the price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the amount of initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price. Any progress payments amounts retained by the Government in (c)(4)(iii) of this clause shall be returned to the contractor, if appropriate.

(5) For firm-fixed-price contract or contract modifications, by 10 percent of the initial contract price; 10 percent of the contract modification price; or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award or modification.

(d) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraphs (b) and (c) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(e) In addition to the remedy in paragraph (a) of this clause, the Government may terminate this contract or modification for default. The rights and remedies the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

78. PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (MAY 1989) (FAR 52.209-6)  
(APPLICABLE TO CONTRACTS EXCEEDING \$25,000)

(a) The Government suspends or debar Contractors to protect the Government's interests. Contractors shall not enter into any subcontract equal to or in excess of \$25,000 with a Contractor that has been debarred, suspended, or proposed for debarment unless there is a compelling reason to do so. If a Contractor intends to subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the list of Parties Excluded from Procurement Programs), a corporate officer or designee of the

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Contractor shall notify the Contracting Officer, in writing, before entering into such subcontract. The notice must include the following:

(1) The name of the subcontractor;

(2) The Contractor's knowledge of the reasons for the subcontractor being on the list of Parties Excluded from Procurement Programs;

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the list of Parties Excluded from Procurement Programs; and

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(b) The Contractor's compliance with the requirements of 52.209-6 will be reviewed during Contractor Purchasing System Reviews (see FAR Subpart 44.3).

79. LIQUIDATED DAMAGES--CONSTRUCTION (APR 1984) (FAR 52.212-5)

(a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to the Government as liquidated damages, the sum of \$53.96 for each day of delay.

(b) If the Government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

(c) If the Government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

80. HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (AUG 1987) (FAR 52.223-3)

(a) The Contractor agrees to submit a Material Safety Data Sheet (Department of Labor Form OSHA-20), as prescribed in Federal Standard No. 313B, for all hazardous material 5 days before delivery of the material, whether or not listed in Appendix A of the Standard. This obligation applies to all materials delivered under this contract which will involve exposure to hazardous materials or items containing these materials.

(b) "Hazardous material," as used in this clause, is as defined in Federal Standard No. 313B, in effect on the date of this contract.

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(c) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(d) The Contractor shall comply with applicable Federal, state, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(e) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate, and disclose any data to which this clause is applicable. The purposes of this right are to (i) apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials; (ii) obtain medical treatment for those affected by the material; and (iii) have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (e)(1) above, in precedence over any other clause of this contract providing for rights in data.

(3) That the Government is not precluded from using similar or identical data acquired from other sources.

(4) That the data shall not be duplicated, disclosed, or released outside the Government, in whole or in part for any acquisition or manufacturing purpose, if the following legend is marked on each piece of data to which this clause applies --

"This is furnished under United States Government Contract No. \_\_\_\_\_ and shall not be used, duplicated, or disclosed for any acquisition or manufacturing purpose without the permission of \_\_\_\_\_. This legend shall be marked on any reproduction of this data."

(5) That the Contractor shall not place the legend or any other restrictive legend on any data which (i) the Contractor or any subcontractor previously delivered to the Government without limitations or (ii) should be delivered without limitations under the conditions specified in the Federal Acquisition Regulation in the clause at 52.227-14, Rights in Data.

(f) The Contractor shall insert this clause, including this paragraph (f), with appropriate changes in the designation of the parties, in subcontracts at any tier (including purchase designations or purchase orders) under this contract involving hazardous material.

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81. DRUG-FREE WORKPLACE (MAR 1989) (FAR 52.223-6)

(a) Definitions. As used in this clause,

"Controlled substance" means a controlled substance in schedule I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11-1308.15.

"Conviction" means a finding of guilt (including a plea of not guilty or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession or use of any controlled substance.

"Drug-free workplace" means a site for the performance of work done in connection with a specific contract at which employees of the contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a contractor directly engaged in the performance of work under a Government contract.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall --

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish a drug-free awareness program to inform such employees about --

(i) The dangers of drug abuse in the workplace,  
(ii) The contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

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(4) Notify such employees in the statement required by subparagraph (b)(i) of this clause, that as a condition of continued employment on this contract, the employee will --

(i) Abide by the terms of the statement; and

(ii) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(5) Notify the Contracting Officer within ten (10) days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, impose the following sanctions or remedial measures on any employee who is convicted of drug abuse violations occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in the performance of this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (b) and (c) of this clause may, pursuant to FAR 23.506, render the contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

## 82. RESTRICTIONS ON CONTRACTING WITH SANCTIONED PERSONS (MAY 1989) (FAR 52.225-13)

### (a) Definitions

(1) "Component part," means any article which is not usable for its intended functions without being imbedded or integrated into any other product and which, if used in production of a finished product, would be substantially transformed in that process.

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- (2) "Finished product," means any article which is usable for its intended function without being imbedded in, or integrated into, any other product. It does not include an article produced by a person, other than a sanctioned person, that contains parts or components of the sanctioned person if the parts or components have been substantially transformed during production of the finished product.
- (3) "Sanctioned person," means a company or other foreign person upon whom prohibitions have been imposed.
- (4) "Substantially transformed," when referring to a component part of finished product, means that the part or product has been subjected to a substantial manufacturing or processing operation by which the part or product is converted or combined into a new and different article of commerce having a new name, character, and use.
- (b) General. Section 2443 of the Multilateral Export Control Enhancement Amendments Act (Pub. L. 100-418) and Executive Order 12661, effective December 28, 1988, impose, for a period of 3 years, with certain exceptions, a prohibition on contracting with or procuring (including rental and lease/purchase) directly or indirectly the products or services of (1) Toshiba Machine Company, (2) Kongsberg Trading Company, (3) Toshiba Corporation, or (4) Kongsberg Vaapentabrykk. The Act and Executive Order also prohibit, for the same 3-year period, the importation into the United States of all products produced by Toshiba Machine Company and Kongsberg Trading Company. These prohibitions also apply to subsidiaries successor entities or joint ventures of Toshiba Machine Company or Kongsberg Trading Company.
- (c) Restriction. Unless listed by the Contractor in its offer, in the solicitation provision at FAR 52.225-12, Notice of Restrictions on Contracting with Sanctioned Persons, or unless one of the exceptions in paragraph (d) of this clause applies, the Contractor agrees that no products or services of delivered to the Government under this contract will be products or services of sanctioned person.
- (d) Exceptions. The restrictions do not apply --
- (1) To finished products of nonsanctioned persons containing components of a sanctioned person if these components have been substantially transformed during the manufacture of the finished product.
- (2) To products or services of a sanctioned person provided --
- (i) The products are designed to the specifications of a nonsanctioned person marketed under the trademark, brand or name of the nonsanctioned person;
- (ii) The business relationship between the nonsanctioned person and the sanctioned person clearly existed prior to June 30, 1987; and
- (iii) The nonsanctioned person is not directly or indirectly owned by a sanctioned person.

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(3) If a determination has been made in accordance with FAR 25.1003 (a) or (b).

(e) Award. Award of any contract resulting from this solicitation will not affect the Contractor's obligation to comply with importation regulations of the Secretary of the Treasury.

83. BID GUARANTEE (APR 1984) (FAR 52.228-1)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The offeror (bidder) shall furnish a bid guarantee in the form of a firm commitment, such as a bid bond, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or give a bond(s) as required by the solicitation within the time specified, the Contracting Officer may terminate the contract for default.

(d) Unless otherwise specified in the bid, the bidder will (1) allow 60 days for acceptance of its bid and (2) give bond within 10 days after receipt of the forms by the bidder.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

84. PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (APR 89)  
(FAR 52.232-5)

(a) The Government shall pay the Contractor the contract price as provided in the contract.

(b) The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer. The Contractor shall furnish a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments, in such detail as requested by the Contracting Officer. In the preparation of estimates the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into

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consideration. Material delivered to the Contractor at locations other than the site may also be taken into consideration if - -

(1) Consideration is specifically authorized by the contract; and

(2) The Contractor furnishes satisfactory evidence that it has

acquired title to such material and that the material will be used to perform this contract.

(c) Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made:

I hereby certify, to the best of my knowledge and belief, that - -

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) Payments to subcontractors and suppliers have been made from

previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and requirements of chapter 39 of title 31, United States Code; and

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Date)

(d) If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall - -

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in 31 U.S.C. 3903(c)(1)) equal to interest on the unearned amount from the date of receipt of the unearned amount until - -

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(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as - -

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) The Government shall pay the amount due the Contractor under this contract after - -

(1) Completion and acceptance of all work.

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of the contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

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(i) Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undifferentiated contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes Clause, or funding and other administrative changes.

85. SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984) (FAR 52.236-15)

(This clause applies only to contracts where the period of work performance exceeds sixty (60) days).

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of a suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

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86. DRUG-FREE WORK FORCE (SEP 1988) (DOD FAR SUPPLEMENT 252.223-7500)

(a) Definitions. "Employee in a sensitive position", as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security, health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

"Illegal drugs", as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of Title 21 of the United States Code, the possession of which is unlawful under Chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, Contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) below that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, the efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing --

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- (A) When there is a reasonable suspicion that an employee uses illegal drugs; or
- (B) When an employee has been involved in an accident or unsafe practice;
- (C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;
- (D) As part of a voluntary employee drug testing program.
- (iii) The Contractor may establish a program to test applicants for employment for illegal drug use.
- (iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2.1 of Subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988)), issued by the Department of Health and Human Services.
- (d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such time as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.
- (e) The provisions of this clause pertaining to drug testing programs shall not apply to the extent they are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees that those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

87. CERTIFICATION OF REQUESTS FOR ADJUSTMENT OR RELIEF EXCEEDING \$100,000 (FEB 1980) (DOD FAR SUPPLEMENT 252.233-7000)

(a) Any contract claim, request for equitable adjustment to contract terms, request for relief under Public Law 85-804, or other similar request exceeding \$100,000 shall bear, at the time of submission, the following certificate given by a senior company official in charge at the plant or location involved:

I certify that the claim is made in good faith, that the supporting data are accurate and complete to the best of my knowledge and belief; and that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable.

\_\_\_\_\_  
(Official's Name)

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(Title)

(b) The certification in paragraph (a) requires full disclosure of all relevant facts, including costs and pricing data.

(c) The certification requirement in paragraph (a) does not apply to:

(1) requests for routine contract payments; for example, those for payment for accepted supplies and services, routine vouchers under cost-reimbursement type contracts, and progress payment invoices; and

(2) final adjustments under incentive provisions of contracts.

(d) In those situation where no claim certification for the purposes of Section 813 has been submitted prior to the inception of a contract dispute, a single certification, using the language prescribed by the Contract Disputes Act but signed by a senior company official in charge at the plant or location involved, will be deemed to comply with both statutes.

88. CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS (SEP 1987) (DOD FAR Supplement 252.236-7002)

(a) One set (5 unless otherwise specified) of large-scale (half-size optional) contract drawings and specifications will be furnished the Contractor without charge except applicable publications incorporated into the technical provisions by reference. Additional sets will be furnished on request at the cost of reproduction. One set of reproducible will be furnished the Contractor on a one-time basis in lieu of the above contract drawings at the option of the Contracting Officer. The work shall conform to the specifications and the following contract drawings identified on the following index of drawings.

DRAWING NO.

AR-15, AR-16 and AR-17

(b) Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

(c) The Contractor shall check all drawings furnished him immediately upon their receipt and shall promptly notify the Contracting Officer of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby.

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89. CONTRACT PRICES--BIDDING SCHEDULES (APR 1968) (DOD FAR Supplement 252.236-7004)

(This clause applies only to contracts which contain unit prices for specified items).

Payment for the various items listed in the Bidding Schedule shall constitute full compensation for furnishing all plant, labor, equipment, appliances, and materials, and for performing all operations required to complete the work in conformity with the drawings and specifications. All costs for work not specifically mentioned in the Bidding Schedule shall be included in the contract prices for the items listed.

90. SUPERINTENDENCE OF SUBCONTRACTORS (JAN 1965) (DOD FAR SUPPLEMENT 252.236-7008)

(a) The Contractor shall be required to furnish the following, in addition to the superintendence required by FAR at 52.236-6, entitled "SUPERINTENDENCE BY THE CONTRACTOR":

(i) If more than 50% and less than 70% of the value of the contract work is subcontracted, one superintendent shall be provided at the site and on the Contractor's payroll to be responsible for coordinating, directing, inspecting and expediting the subcontract work.

(ii) If 70% or more of the value of the work is subcontracted, the Contractor shall be required to furnish two such superintendents to be responsible for coordinating, directing, inspecting and expediting the subcontract work.

(b) If the Contracting Officer, at any time after 50% of the subcontracted work has been completed, finds that satisfactory progress is being made, he may waive all or part of the above requirements for additional superintendence subject to the right of the Contracting Officer to reinstate such requirements if at any time during the progress of the remaining work he finds that satisfactory progress is not being made.

## PART III

LABOR STANDARDS CLAUSES1. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION  
(MAR 1986) (FAR 52.222-4)

(a) Overtime Requirements. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics (see Federal Acquisition Regulation (FAR) 22.300) shall require or permit any such laborers or mechanics in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(b) Violation; Liability for Unpaid Wages; Liquidated Damages. In the event of any violation of the provisions set forth in paragraph (a) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions set forth in paragraph (a) of this clause, in the sum of \$10.00 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the provisions set forth in paragraph (a) of this clause.

(c) Withholding for Unpaid Wages and Liquidated Damages. The Contracting Officer shall upon his or her own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same Prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in paragraph (b) of this clause.

(d) Payrolls and basic records. (1) The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of contract work and shall preserve them for a period of 3 years from the completion of the contract for all laborers and mechanics working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Nothing in this paragraph shall require the duplication of records required to be maintained for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act. (2) The records to be maintained under paragraph (d)(1) of this clause shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit such representatives to interview employees during working hours on the job.

LABOR STANDARDS CLAUSES

(e) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the provisions set forth in paragraphs (a) through (e) of this clause and also a clause requiring the subcontractors to include these provisions in any lower-tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (e) of this clause.

2. DAVIS-BACON ACT (FEB 1988) (FAR 52.222-6)

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled "Apprentices and Trainees." Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

LABOR STANDARDS CLAUSES

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination;
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, when appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer, or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit, or an hourly cash equivalent thereof.

LABOR STANDARDS CLAUSES

(d) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; Provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

3. WITHHOLDING OF FUNDS (FEB 1988) (FAR 52.222-7)

The Contracting Officer shall, upon his or her own action, or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to the Davis-Bacon Act prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

4. PAYROLLS AND BASIC RECORDS (FEB 1988) (FAR 52.222-8)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found under paragraph (d) of the clause entitled "Davis-Bacon Act" that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

LABOR STANDARDS CLAUSES

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor, or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify -

- (i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete:
- (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3: and
- (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job.

LABOR STANDARDS CLAUSES

If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

5. APPRENTICES AND TRAINEES (FEB 1988) (FAR 52.222-9)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rates for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U. S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a state apprenticeship agency recognized by the Bureau, or if a person is employed in his or her first ninety (90) days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a state apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a state apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

LABOR STANDARDS CLAUSES

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed, unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U. S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination, unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal Employment Opportunity. The utilization of apprentices, trainees and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

6. COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988) (FAR 52.222-10)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

7. SUBCONTRACTS (LABOR STANDARDS) (FEB 1988) (FAR 52.222-11)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act - Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination - Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Acts Regulations, and Certification of Eligibility, and such other clauses as the Contracting Officer may by appropriate instructions, require; and also a clause requiring subcontractors to include these clauses in any lower-tier subcontracts. The Prime Contractor shall be responsible for the compliance by any subcontractor or lower-tier subcontractor with all the contract clauses cited in this paragraph.

LABOR STANDARDS CLAUSES

(b) (1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgement Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgement that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

8. CONTRACT TERMINATION - DEBARMENT (FEB 1988) (FAR 52.222-12)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act - Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Acts Regulations, or Certification of Eligibility, may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

9. COMPLIANCE WITH DAVIS-BACON AND RELATED ACTS REGULATIONS (FEB 1988) (FAR 52.222-13)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

10. DISPUTES CONCERNING LABOR STANDARDS (FEB 1988) (FAR 52.222-14)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

11. CERTIFICATION OF ELIGIBILITY (FEB 1988) (FAR 52.222-15)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

PART IV

SCHEDULE OF WAGE RATES

SCHEDULE OF WAGE RATES:

(a) The Contractor shall pay laborers and mechanics employed on this project the minimum wages set forth in Schedule attached, as determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics.

(b) Whenever any laborer or mechanic, including apprentices and trainees, is to be employed in a classification not listed in the wage determination decision applicable to the contract, the Contractor concerned must submit a statement of the proposed additional classification and minimum wage rate, including fringe benefits payments, if any. DD Form 1565, "Request for Authorization of Additional Classification and Rate," shall be used for such proposals. Upon approval, the additional classification and rate shall be posted with the wage determination decision.

(c) The attached Department of Labor Wage Rate Decisions are incorporated and made a part of the contract as listed below:

For E. St. Louis (St. Clair County), Wage Decision No. IL 89-7 applies.

For Centralia (Marion County) and Fairfield (Wayne County), Wage Decision No. IL 89-2 applies.

U.S. Department of Labor

GENERAL WAGE DECISION NO. IL89-7

Supersedes General Wage Decision No. IL88-7

State: Illinois

County(ies): MADISON & ST CLAIR

Construction  
Type: Building & Residential

Construction  
Description: Building and Residential Projects

Modification Record:  
No. 1

Publication Date  
Mar 3, 1989

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	Basic Hourly Rates	Fringe Benefits
ASBESTOS WORKERS	18 99	2.76
BOILERMAKERS	20.35	4 18
BRICKLAYERS, Caulkers, Cleaners, Pointers; & Stonemasons	17.00	3 65
*CARPENTERS.		
Madison County:		
*Carpenters; Lathers; Millwrights; Pile- drivermen; & Soft Floor Layers Comm- ercial Building	18.58	3 15
Residential:		
Madison (Southern part bounded by Rte #4 on East, #143 on North, #111 on West & to the Place where #111 & Ma- dison Co. Line Intersect excluding Bethalto & Godfrey) Co.	17.835	2.90
Madison (Rem. of Co.)	18.285	2.90
St. Clair County:		
Carpenters; Millwrights; Pile- drivermen; & Soft Floor Layers		
*Commercial Building	18.41	3 32
Residential:		
Freeburg	17.41	3 32
Chester	17.71	3.32
CEMENT MASONS	18.25	3.57
*ELECTRICIANS		
Madison (Alton & Vic.) Co.	19.62	4.26+ 5%
Madison (Rem. of Co.) & St. Clair Counties	21.05	19.25%
ELEVATOR CONSTRUCTORS:		
Mechanics	14.19	2.89+ a
Helper	9.93	2.76+ a
Helpers (Prob.)	50%	
*GLAZIERS	18.39	8.05+ 8%
IRONWORKERS	19.25	3.75
*LABORERS:		
Area 1:		
Group 1	17.10	2.25
Group 2	17.35	2.25
Group 3	17.60	2.25
Group 4	18.625	2.25
Area 2:		
Group 1	16.50	2 85
Group 2	16.75	2 85
Group 3	17.00	2.85
Group 4	18.025	2.85
Area 3:		
Group 1	16.55	2.80
Group 2	16.80	2.80
Group 3	17.05	2.80
Group 4	18.075	2.80
Area 4:		
Group 1	16.55	2.80
Group 2	16.80	2.80

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Group 3	17.05	2.80
Group 4	18.075	2.80
Area 5:		
Group 1	17.00	2.35
Group 2	17.25	2.35
Group 3	17.50	2.35
Group 4	18.525	2.35
Area 6:		
Group 1	17.80	1.55
Group 2	18.05	1.55
Group 3	18.30	1.55
Group 4	19.325	1.55
Area 7:		
Group 1	18.65	.70
Group 2	18.90	.70
Group 3	19.15	.70
Group 4	20.175	.70
Area 8:		
Group 1	18.75	.60
Group 2	19.00	.60
Group 3	19.25	.60
Group 4	20.275	.60
Area 9:		
Group 1	19.05	.30
Group 2	19.30	.30
Group 3	19.55	.30
Group 4	20.575	.30
Area 10:		
Group 1	18.25	1.10
Group 2	18.50	1.10
Group 3	18.75	1.10
Group 4	19.775	1.10
Area 11:		
Common, Diamond point drill opera-		
tor	15.70	2.70
Dynamite Men & Powder Men	17.225	2.70
Mason Tender	18.30	
*Area 12:		
Group 1	15.55	3.80
Group 2	15.80	3.80
Group 3	16.65	3.80
Group 4	17.075	3.80
Area 13:		
Common	16.45	1.95
Bottom Men on Sewer Work	16.65	1.95
Dynamite Men	17.975	1.95
Mason & Plasterers' Tenders	16.45	1.95
Area 14:		
Common	12.40	1.135
Sewer Work	12.65	1.135
Mason & Plasterers' Tenders	12.90	1.135
Dynamite Men	14.00	1.135
Area 15:		
Group 1	16.40	2.95
Group 2	16.65	2.95
Group 3	16.90	2.95
Group 4	17.925	2.95

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Area 16		
Group 1	17.00	2 35
Group 2	17.25	2 35
Group 3	17.50	2.35
Group 4	18.525	2.35
PAINTERS		
Painters		
Commercial Building & Residential		
Brush	17.40	2.41
Taper	18.40	2 41
Blast & Spray	17.65	2.41
Industrial		
Brush	18.60	2.41
Blast & Spray	19.60	2 41
*PLASTERERS	21.245	
PLUMBERS & STEAMFITTERS		
Madison (Alton & Portion N of Mitchell) Co.	21.00	2.80+ e
Madison (Granite City & Southern 1/2 of Co ), & St. Clair (E St. Louis & Vic.) Cos.	19.83	4.96
St. Clair (Belleville & Vic.) Co.	19.80	2 95
ROOFERS		
Kettlemen	14.85	2.45
Composition, Slate, Tile & Water- proofing	17.05	2.45
SHEET METAL WORKERS	16.72	2.93+ 9%
SPRINKLER FITTERS	16.67	2.83
TERRAZZO WORKERS	17.55	
TILE SETTERS	13.98	2.905
TILE SETTERS' FINISHERS	11.70	1.605
POWER EQUIPMENT OPERATORS.		
Group 1	20.47	3.32
Group 2	16.39	3.32
Group 3	15.69	3.32
Group 4	15.39	3.32
Group 5	20.97	3.32
Group 6	21.22	3.32
Group 7	21.47	3.32
TRUCK DRIVERS:		
Group 1	15.925	2.00+ c
Group 2	16.325	2.00+ c
Group 3	16.525	2 00+ c
Group 4	16.775	2.00+ c

WELDERS - Rate for craft to which welding is incidental.

LABORERS CLASSIFICATIONS FOR AREAS 1,2,4,5,6,7,8,9,10,14,15 and 16

GROUP 1 - Unskilled

GROUP 2 - All feeders, mixers and nozzle men on gunnite or sandblasting work; when handling creosoted material; when raking or luting asphalt; when burning or cutting with a torch; the cooking,

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mixing, and applying of mastic such as sulfa-seal or coal  
derivatives and operator of motor buggies

GROUP 3 - Mason and Plasterer tenders

GROUP 4 - Dynamite men and powdermen

LABORERS CLASSIFICATIONS:

GROUP 1 - Unskilled

GROUP 2 - Workmen while cutting and burning with a torch, men working  
on the bottom of sewer trenches on the final grading, laying or  
caulking of preformed sectional sanitary or storm sewer pipe,  
including reinforced concrete tile, but not including box culverts,  
tin whistles or multiple culverts masons

GROUP 3 - Tenders to all brick and plaster masons

GROUP 4 - Dynamite men

LABORERS AREA DESCRIPTIONS:

MADISON COUNTY:

Area 1: Alton

Area 2: Wood River

Area 3: Granite City, Madison, Venice, Nameoki & Mitchell

Area 4: Collinsville

Area 5: Edwardsville

Area 6: Glen Carbon

Area 7: Highland & St. Jacob

Area 8: Livingston

Area 9: Marine

Area 10: Troy & Vicinity

ST. CLAIR COUNTY:

Area 11: E. St. Louis & Vicinity

Area 12: Belleville & Vicinity

Area 13: O'Fallon, Mascoutah, Scott AFB, Shiloh, Lebanon & Vicinity

Area 14: Freeburg & Vicinity

Area 15: New Athens & Vicinity

Area 16: Mascoutah

POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: Cranes; Draglines; Shovels; Skimmer scoops; Clamshells or  
derrick boats; Piledrivers; Crane-type backhoes; Asphalt plant oper;  
Concrete Plant Operator; Dredges; Asphalt spreading machines;  
Locomotives; Cablesays or tower machines; Hoists; Hydraulic backhoes;  
Ditching machines or backfiller; Cherry pickers; Overhead crane;  
Roller; Concrete paver; Concrete Breakers & pumps; Bulk cement  
plants; Cement pumps; Derrick type drills; boat operators; Motor  
graders or pushcats; Scoops or tounapulls; Bulldozers; Endloaders or  
forklifts; Power blade or elevating graders; Winch cats; Boom or  
winch trucks or boom tractors, pipewrapping or patting machines;  
Drills (other than derrick type); Mud jacks; Well drilling machines;

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Mixers; Conveyors(two); air compressors two; water pumps regardless of size; welding machines two; siphons or jets two; winch heads or apparatus two; light plants two; Tractors regardless of size straight (tractor only); Firemen on stationary boilers; Automatic elevators; Form grading machines; Finishing machines; Power sub-grader or ribbon machine; Longitudinal floats; Distribution operator on trucks; Winch heads or apparatuses(1); Excavators; Mobile track air and heater (two to five); Heavy equipment greaser and all other operators not listed below.

GROUP 2: Air compressor one; water pump regardless of size one; welding machine one; 1-bag mixer one; conveyor one; siphon or jet; light plant one; heater one; immobile track air one.

GROUP 3: Firemen on whirlies and asphalt spreader oilers; Heavy equipment oilers; Truck cranes; Monigans; Large cranes (over 65 ton rate capacity); Concrete plant oiler and black top plant oiler.

GROUP 4: Oilers

GROUP 5: Master mechanic; operators on equipment with booms, including jibs, one hundred feet and over; and less than 150 feet.

GROUP 6: operators on equipment with booms, including jibs, 150 feet and over, and less than 200 feet.

GROUP 7: Operators on equipment with booms, including jibs, 200 feet and over; tower cranes and whirley cranes.

## TRUCK DRIVERS CLASSIFICATIONS:

GROUP 1: Drivers on 2 Axles hauling less than 9 tons; Air Compressor & Welding Machine incl. those pulled by separate units; Fork Lifts up to 6,000 lbs. cap.; Mechanic Tenders; Pick-ups when hauling materials, tools, or men to and from and on the job site; & Truck Driver Tenders

GROUP 2: 2 or 3 Axles hauling more than 9 tons, but hauling less than 16 tons; A-Frame Winches; Fork Lifts over 6,000 lbs. cap.; 4-Axle Combination units; Hydrolifts or similar equipment when used for transportation purposes; & Winches

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; Dispatcher; 5-Axles or more combination units; Mechanics & Working Foreman; & Water Pulls

GROUP 4: Drivers on Oil Distributors; & Drivers on Semi-Lowboys when moving equipment

## FOOTNOTES:

- a. Employer contributes 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years and 6% of regular hourly rate for employee who has worked in business less than 5 years; 7 paid holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Day after Thanksgiving; & Christmas Day

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR, 5.5 (a) (1) (11)).

WELDERS: Receive rate prescribed for craft performing operation to which welding is incidental.

- b. Paid Holiday: 4 Hours for Christmas Eve if holiday falls on Monday through Friday.
- c. \$61.00 per week.

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GENERAL WAGE DECISION NO. IL89-2

Supersedes General Wage Decision No. IL88-2

State. ILLINOIS

County(ies) ALEXANDER, CHAMPAIGN, CHRISTIAN, CLARK, CLAY, COLES, CRAWFORD, CUMBERLAND, DEWITT, DOUGLAS, EDGAR, EDWARD, EFFINGHAM, FAYETTE, FORD, FRANKLIN, GALLATIN, HAMILTON, HARDIN, IRROQUOIS, JACKSON, JASPER, JEFFERSON, JOHNSON, LAWRENCE, MARION, MASSACHUSETTS, MOULTRIE, PERRY, PIATT, POPE, PULASKI, RICHLAND, SALINE, SHELBY, UNION, VERMILION, WABASH, WAYNE, WHITE, & WILLIAMSON

Construction  
Type: Building

Construction Description Building construction (Does not include single family homes and apartments up to and including 4 stories)

Modification Record.  
No. 1  
2

Publication Date  
Mar. 3, 1989  
Mar. 24, 1989

Page No (s)  
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	Basic Hourly Rates	Fringe Benefits
ASBESTOS WORKERS.		
Area 1	18 99	2 76
Area 2	17 75	2 70
Area 3	17.45	2 42
Area 4	20.00	5.36
BOILERMAKERS.		
Area 1	19 15	3.33
Area 2	20.35	4.18
BRICKLAYERS; CAULKERS; CLEANERS; POINTERS; & STONEMASONS.		
Area 1	15.80	2.50
Area 2	17.15	2.70
Area 3	17.15	2.70
Area 4	17.90	1.87
Area 5	16.00	1.25
Area 6	17.83	2.91
Area 7	17 00	3.65
Area 8	17.95	3.75
Area 9	18 03	2.35
CARPENTERS; LATHERS; MILLWRIGHTS; PILE- DRIVERMEN and SOFT FLOOR LAYERS		
Area 1:		
Carpenters & Piledrivermen	16.00	2.45
Millwrights	16.40	2.45
Area 2:		
Carpenters; Lathers; & Soft Floor Layers	17.875	2.64
Millwrights & Piledrivermen	18.375	2.64
Area 3:		
Carpenters; Lathers & Soft Floor Layers	17.605	2.91
Millwright & Piledriverman	18.105	2.91
Area 4:		
Carpenters; Lathers & Soft Floor Layers	17 87	2.61
Millwright & Piledriverman	18.37	2.61
Area 5:		
Carpenters, Lathers & Soft Floor Layers	16.83	4.07
Millwrights & Piledrivermen	17 33	4.07
Area 6:		
Carpenter; Lathers; Soft Floor Layers	17 755	2.76
Millwrights & Piledriverman	18.255	2.76
Area 7:		
Carpenters; Lathers; Soft Floor Layers	16.85	3.71
Millwrights & Piledrivermen	17 305	3.71
Area 8:		
Carpenters	16.02	2.98
Millwrights	16.62	2.98
Piledrivermen	16 42	2 98
Area 9		
Area 10	16 18	2.82
Area 11	16 18	2.82
	19.05	3.21

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CEMENT MASONS & PLASTERERS:

Area 1	18.00	
Area 2:		
Cement Masons	19.55	.825
Plasterers	18.815	.825
Area 3:		
Cement Masons	18.02	2.325
Plasterers	17.80	2.325
Area 4	17.23	1.50
Area 5	12.95	.01
Area 6	17.45	
Area 7	17.45	
Cement Masons	15.82	
Plasterers	15.00	
Area 8	13.77	2.08
Area 9:		
Cement Masons	17.04	1.42
Plasterer	20.90	
Area 10:		
Cement Masons	17.65	
Plasterers	15.22	
Area 11	16.50	
Area 12	16.50	
Area 13:		
Cement Masons	17.95	3.75
Plasterers	16.70	3.75
Area 14	18.45	1.00
Area 15:		
Cement Masons	17.45	.01
Plasterers	17.55	.01
Area 1:	19.86	1.25+ 14%
Area 2	18.40	2.75+ 3.5%
Area 3	19.75	2.45+ 3.35%
Area 4	18.77	2.26+ 3%
Area 5	18.93	2.90+ 3.5%
Area 6:		
Electricians	19.00	4.30+ 3.4%
Cable Splicers	19.40	4.30+ 3.4%
Area 7	19.02	2.55+ 3.25%
Area 8	20.63	1.25+ 9.5%
Area 1:	16.275	4.32+ ab
Elevator Constructor	11.35	4.32+ ab
Helper		
Helper (Prob.)	8.14	
GLAZIERS:		
Area 1	18.39	8.05+ 8%
Area 2	18.96	
Area 3	18.39	8.65+ 8%
Area 4	16.59	1.31
Area 5	18.39	8.05
*IRONWORKERS:		
*Area 1	16.10	2.70
Area 2	16.45	4.63
Area 3	16.75	4.23
Area 4	16.70	4.65

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Area 5	19.25	3.75
LABORERS		
Area 1	14.50	1.985
Area 2		
Group 1	17.05	1.80
Group 2	17.20	1.80
Group 3	18.05	1.80
Area 3:		
Group 1	15.00	3.15
Group 2	15.20	3.15
Group 3	15.35	3.15
Area 4:		
Group 1	15.60	2.25
Group 2	15.80	2.25
Group 3	15.95	2.25
Area 5	14.25	1.885
Area 6:		
Group 1	15.60	2.25
Group 2	15.80	2.25
Group 3	15.95	2.25
Area 7		
Group 1	14.42	3.95
Group 2	14.72	3.95
Group 3	14.72	3.95
Area 8:		
Group 1	15.45	2.40
Group 2	15.65	2.40
Group 3	15.80	2.40
Area 9:		
Group 1	13.82	3.95
Group 2	14.02	3.95
Group 3	14.17	3.95
MARBLE SETTERS; TERRAZZO WORKERS; & TILE SETTERS:		
Area 1:		
Marble & Tile setters	15.80	2.50
Area 2:		
Terrazzo Workers	17.55	
Area 3	17.65	
Area 4	17.75	1.87
Area 5	16.00	1.25
Area 6	17.83	
Area 7	16.35	3.00
Area 8	18.03	2.35
MARBLE SETTERS' FINISHERS; TERRAZZO WORKERS' FINISHERS; & TILE SETTERS' FINISHERS:		
Area 1:		
Tile Setter's Finishers	11.70	1.605
Area 2:		
Marble Setters' Finishers & Tile Setters' Finishers	17.85	
Area 3:		
Marble Setters' Finishers & Tile Setters' Finishers	18.00	
Terrazzo Finishers	18.15	
PAINTERS:		
Area 1:		

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15.00	Brush (New)	
13.11	Brush (Old)	
13.61	Spray & Sandblast	
17.72	Area 2	1.34
	*Area 3	
	Brush, Sandblast, Taping & Rollers	
15.70	Spray	2.70
	Area 4	
16.10	Brush & Roller under 30 ft	1.00
16.90	Over 30 ft	1.00
17.90	Over 300 ft	1.00
	Blasting, Spraying, or Pressure Washing	
16.80	Under 30 ft	1.00
17.60	Over 30 ft	1.00
18.60	Over 300 ft	1.00
15.75	Wallcovering, Drywall preparing	1.00
	Area 5	
13.20	Brush	1.35
13.95	Roller & Taping	1.35
16.20	Spray & Sandblasting	1.35
	*Area 6	
16.30	Brush, Roller, Paperhanger	2.05
17.05	Spray	2.05
17.30	Brush & Roller over 50 ft	2.05
18.05	Spray over 50 ft	2.05
	Area 7:	
17.40	Brush	2.41
18.40	Spray & Blast	2.41
	Taper	
	*Area 8:	
19.00	Brush	1.00
19.50	Spray & Taper, Steel, High Work	1.00
20.00	Bridges, Air-less Spraying	1.00
	*Area 9:	
14.80	Brush	14.80
15.55	Steel	15.55
15.80	Spray, Sandblast	15.80
	*Area 10:	
11.00	Brush	11.00
11.25	Roller 0 to 10"	11.25
11.25	Drywall, Steel	11.25
12.00	Roller over 10"	12.00
12.50	Spray	12.50
	*Area 11:	
	*Brush, Roller, Paperhanger Hand	
16.24	Taping	1.35
	Swing Stage, scaffold over 30 ft,	
	spray, machine taping	
17.24	*Area 12:	
14.70	Brush, Spray & Sandblasting	.34
	*Area 13	
12.00	Area 14:	
11.60	Brush & Roller	.80
12.10	Drywall Finisher & Paper Hangers	.80
12.50	Sandblast & Power Tools	.80
	Area 15:	

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Brush	16.55		
Spray & Blast	18.05		
*Area 16			
Brush, Drywall Taping	16.50		
Spray, Sandblast & Swing Stage	17.50		
*PLUMBERS, PIPEFITTERS & STEAMFITTERS:			
Area 1	19.40	2.93	
*Area 2	20.10	3.20	
Area 3	19.70	2.90	
Area 4	17.73	2.75	
Area 5	18.40	2.60	
*Area 6	19.50	4.50	
*Area 7	18.47	3.20	
Area 8	20.32	2.80	
Area 9	19.10	3.60	
*Area 10	20.35	2.83	
*POWER EQUIPMENT OPERATORS			
*Area 1:			
Group 1	18.50	2.985	
Group 2	16.60	2.985	
Group 3	15.85	2.985	
Group 4	15.20	2.985	
Group 5	14.60	2.985	
*Area 2:			
Group 1	17.30	4.70	
Group 2	10.15	4.70	
Area 3:			
Group 1	17.80	3.05	
Group 2	16.15	3.05	
Group 3	13.80	3.05	
Area 4:			
Group 1	20.47	3.32	
Group 2	16.39	3.32	
Group 3	15.69	3.32	
Group 4	15.39	3.32	
Group 5	20.97	3.32	
Group 6	21.22	3.32	
Group 7	21.47	3.32	
*ROOFERS:			
Area 1	9.25		
Area 2	13.75	2.40	
*Area 3	17.84	2.87	
*Area 4	16.53	2.52	
Area 5	16.75	3.75	
Area 6	15.00	1.50	
*Area 7	18.75	2.65	
Area 8	8.40	1.45	
Area 9	19.50	1.55	
*SHEET METAL WORKERS:			
Area 1	17.09	3.13+	9%
*Area 2	17.74	3.68+	a
Area 3	16.87	3.00+	3%
Area 4	18.41	4.36	
*Area 5	20.16	4.22	
*SPRINKLER FITTERS	18.91	3.75	
*TRUCK DRIVERS:			
Area 1			

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WELDERS - Receive rate for craft to which welding is incidental.

2-3 Axles	17 00	c
4 Axles	17 15	c
5 Axles	17 35	c
6 Axles	17 55	c
*Area 2,		
2-3 Axles	16 70	e
4 Axles	16 90	e
5 Axles	17 10	e
6 Axles	17 25	e
*Area 3:		
Group 1	15.925	2 00+ d
Group 2	16.325	2.00+ d
Group 3	16.525	2.00+ d
Group 4	16.775	2.00+ d

AREA DESCRIPTIONS

ASBESTOS WORKERS:

- Area 1. Alexander, Christian, Dewitt, Fayette, Jackson, Jefferson, Marton, Moultrie, Perry, Platt, Shelby & Union
- Area 2. Champatign, Clark, Douglas, Edgar & Vermillion
- Area 3. Clay, Coles, Crawford, Cumberland, Edwards, Effingham, Franklin, Gallatin, Hamilton, Hardin, Jasper, Johnson, Lawrence, Massac, Pope, Pulaski, Richland, Satine, Wabash, Wayne, White & Williamson
- Area 4. Ford & Inouits

BOILERMAKERS.

- Area 1. Champatign, Dewitt, Ford, Inouits & Vermillion
- Area 2. Remaining Counties

BRICKLAYERS, CAULKERS, CLEANERS, POINTERS & STONEMASONS.

- Area 1: Alexander, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Massac, Perry, Pope, Pulaski, Satine, Union & Wayne
- Area 2. Champatign, Douglas (N. of Arcola), Ford (S. of Roberts)
- Area 3. Coles, Edgar and Vermillion
- Area 4. Christian
- Area 5: Clark, Clay, Crawford, Cumberland, Edwards, Effingham, Jasper, Lawrence, Richland, Wabash & Wayne
- Area 6: Dewitt
- Area 7: Fayette and Marton Counties
- Area 8: Ford (Robert & N. thereof) & Inouits
- Area 9: Moultrie, Platt & Shelby

CARPENTERS, LATHERS, MILLWRIGHTS, PILEDRIVERS & SOFT FLOOR LAYERS:

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- Area 1: Clay, Edwards (excluding Grayville), Fayette, Hamilton, Jasper, (Southeast portion), Jefferson, Marion, Richland, Wayne and White Counties
- Area 2: Champaign, Douglas (N part incl Tuscola & Newman), Piatt Monticello, (Ford (S part incl Garber, Guthrie, Perdueville, Gibson City, Elliot, Proctor, & Clarence), Vermilion (NW part west of Hwy 49) Counties)
- Area 3: Clark, Coles, Cumberland, Douglas (S part exclu. Tuscola & Newman), Edgar, Effingham, Jasper (W 1/2), Moultrie (exclu Bethany, Okaw River, Lovington, Williamsburg, Lake City & all areas North) and Shelby Counties, Christian (Millersville, Rosamond, Radford, Pana and Vicinity)
- Area 4: Christian (Morrisonville) County
- Area 5: DeWitt and Ford (N. 1/2 of Garber) Counties
- Area 6: Moultrie (Bethany, Okaw River, Lovington, Williamsbury, Lake City & N thereof) and Piatt (Remainder of County)
- Area 7: Vermilion (Excluding NW part west of Hwy 49)
- Area 8: Crawford, Edwards (E. part), Jasper (E part), Lawrence and Wabash Counties
- Area 9: Alexander, Hardin, Massac, Pope and Pulaski Counties
- Area 10: Franklin, Gallatin, Jackson, Johnson, Perry, Saline, Union and Williamson Counties
- Area 11: Iroquois County

## CEMENT MASONS &amp; PLASTERERS

- Area 1: Alexander, Jackson, Perry, Pulaski, & Union Cos
- Area 2: Champaign, Douglas (NB, inclu. Tuscola & Newman), Ford, & Piatt (N 1/2) Cos
- Area 3: Christian (N. part), DeWitt (S 1/2, inclu. Clinton), Moultrie (NE), Piatt (S 1/2), & Shelby (Moweaqua & N thereof) Cos.
- Area 4: Christian (S part), & Fayette (Bingham, Ramsey, & St. Elmo) Cos.
- Area 5: Clark & Edgar Cos.
- Area 6: Clay, Edwards, Jasper, Richland & Wayne (Exclu. SW part) Cos.
- Area 7: Coles, Cumberland, Douglas (S 1/2, exclu. Tuscola & Newman), Effingham (N 1/2), Moultrie (Exclu. NE), & Shelby (S. of Moweaqua Cos
- Area 8: Crawford, Lawrence & Wabash Cos.
- Area 9: DeWitt (N 1/2) Co
- Area 10: Effingham (S 1/2), Fayette (E. Part, Exclu Bingham, Ramsey, & St Elmo), & Marion (N 2/3) Cos
- Area 11: Franklin, Hamilton, Jefferson (Mt. Vernon & E. thereof), Wayne (SW part), & Williamson Cos.
- Area 12: Gallatin, Hardin, Johnson, Massac, Pope, Saline & White Cos
- Area 13: Iroquois Co
- Area 14: Vermilion Co
- Area 15: Fayette (Western Part including Vandalia), Jefferson (N 1/2 North of Mt. Vernon), Marion (S. part including Sandoval & Odin)

## ELECTRICIANS

- Area 1: Alexander, Clay, Edwards, Effingham (Exclu Banner, Bishop, Douglas, Liberty, Lucas, Moccasin, St Francis, Summit, & Teulopolis

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Tps.), Fayette (Exclu. Hurricane, Ramsey, Bowling Green, Carson, & Loudon Tps.), Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Marston, Massac, Perry, Pope, Pulaski, Satine, Union, Wayne, White, & Williamson Cos.  
 Area 2: Champaign, Dewitt (Santa Anna Twp.), Douglas (N 1/2), Ford (S. of Benton Twp.), Inquois (Artesta, Pigeon Grove & Loda Tps.) & Platt (Blue Ridge, Sangamon & Monticello Tps.) Cos.  
 Area 3: Christian, Coles, Cumberland, Dewitt (Exclu. Santa Anna Tps., Waynesville, Rutledge & Wilson), Douglas (S 1/2), Effingham (Banner Bishop, Douglas, Liberty, Lucas, Moccasin, St. Francis, Summit & Teulopolis Tps.), Fayette (Hurricane, S. Hurricane, Ramsey, Bowling Green, Carson, & Loudon Tps.), Mountie, Platt (Exclu. Blue Ridge, Sangamon & Monticello Tps.), & Shelby Cos.  
 Area 4: Clark, Crawford, Edgar, Jasper, Lawrence, & Richland Cos.  
 Area 5: Dewitt (Waynesville, Wilson, & Rutledge) Co.  
 Area 6: Ford (Benton Twp. & N.), & Inquois (Exclu. Artesta, Pigeon Grove, Loda, Fountain Creek, Lovejoy, & Prarie Cos.  
 Area 7: Vermilion & Inquois (Fountain Creek, Lovejoy, & Prarie Green Tps.) Cos.  
 Area 8: Wabash Co.

ELEVATOR CONSTRUCTORS

Area 1: Champaign, Fayette, & Vermilion Cos.

GLAZIERS

Area 1: Champaign, Christian, Clark (W. part), Coles, Cumberland, Dewitt, Douglas, Edgar (W. part), Effingham, Fayette, Jasper, Mountie, Platt, & Shelby Cos.  
 Area 2: Clark (E. part), Edgar (E. part) & Vermilion Cos.  
 Area 3: Clay, Edwards, Gallatin, Hamilton, Lawrence, Marston, Massac, Pope, Satine, Wabash, Wayne, White, & Williamson Cos.  
 Area 4: Ford Co.  
 Area 5: Jackson, Jefferson, Perry & Union Cos.

IRONWORKERS

Area 1: Alexander, Franklin, Gallatin, Hardin, Jackson (Carbondale, Murphysboro & Grand Tower), Johnson, Massac, Pope, Pulaski, Satine (Exclu. Vic. of Eldorado & area N.E.), Union & Williamson Cos.  
 Area 2: Champaign, Coles, Cumberland, Dewitt (E. part), Douglas, Edgar, Ford, Mountie, Platt, Shelby (E 1/2), & Vermilion Cos.  
 Area 3: Christian, Dewitt (W. part), Effingham (Exclu. Dexter & E. thereof), Fayette (St. Elmo & all area N. thereof), & Shelby (W 1/2) Cos.  
 Area 4: Clark, Clay (N. of Louisville), Crawford, Effingham (Dexter & E. thereof), Jasper, Lawrence (N. of Lawrenceville), & Richland (N. of Olney) Cos.  
 Area 5: Fayette (exclu. St. Elmo & area N. thereof), Jackson (Ana & Elksville Tps), Jefferson (Mt. Vernon & area W. thereof), Marston, & Perry Cos.

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## LABORERS:

- Area 1: Alexander, Franklin, Gallatin, Hardin, Jackson, Johnson, Massac, Perry, Pope, Pulaski, Saline, Union, & Williamson Cos.
- Area 2: Champaign, DeWitt, Piatt (N. of a line drawn E. to W. thru N City limits of Ivesdale) Cos.
- Area 3: Christian & Moultrie (W 1/2) Cos.
- Area 4: Clark, Douglas, Edgar, Moultrie (E 1/2), & Piatt (Rem. of Co.) Cos.
- Area 5: Clay, Crawford, Edwards, Effingham, Fayette, Hamilton, Jasper, Jefferson, Lawrence, Marion, Richland, Wabash, Wayne, & White Cos.
- Area 6: Coles & Cumberland Cos.
- Area 7: Ford & Iroquois Cos.
- Area 8: Shelby Co.
- Area 9: Vermilion Co.

## MARBLE SETTERS; TERRAZZO WORKERS &amp; TILE SETTERS

- Area 1: Alexander, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Massac, Perry, Pope, Pulaski, Saline, Union, White, & Williamson Cos.
- Area 2: Alexander, Fayette, Franklin, Hamilton, Jackson, Jefferson, Johnson, Marion, Massac, Perry, Pulaski, Saline, & Union Cos.
- Area 3: Champaign, Coles, Douglas (N. of Arcola), Fork (S. of Roberts) & Vermilion Cos.
- Area 4: Christian Co.
- Area 5: Clark, Clay, Crawford, Cumberland, Edwards, Effingham, Jasper, Lawrence, Richland, Wabash & Wayne Cos.
- Area 6: DeWitt Co.
- Area 7: Ford (Robert & N. thereof) Co.
- Area 8: Moultrie, Piatt, & Shelby Cos.

## MARBLE SETTERS' FINISHERS; TERRAZZO WORKER' FINISHERS; &amp; TILE SETTERS FINISHERS

- Area 1: Alexander, Franklin, Hamilton, Jackson, Jefferson, Johnson, Massac, Perry, Pulaski, Saline, Union, Wayne, & Williamson Cos.
- Area 2: Champaign, Ford, Piatt, Vermilion, Iroquois
- Area 3: Christian, Clark, Clay, Coles, Crawford, Cumberland, DeWitt, Effingham, Jasper, Moultrie, Richland, Shelby, Douglas, Edgar Edwards, Lawrence, & Wabash Cos.

## PAINTERS

- Area 1: Alexander & Pulaski Counties
- Area 2: Champaign, Coles, Cumberland, & Douglas Cos.
- Area 3: Christian Co.
- Area 4: Clark, Crawford, Edgar, Effingham, Jasper, Lawrence, Richland, & Wabash Cos.
- Area 5: Clay, Edwards, Hamilton, Jefferson, Marion (Exclu. Salem City Limits) & Wayne Cos.
- Area 6: DeWitt, Moultrie, Piatt, & Shelby Cos.
- Area 7: Fayette Co.

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- Area 8. Ford Co.
- Area 9. Franklin Co. (except city of Benton), Johnson, & Williamson Cos.
- Area 10: Gallatin, Hardin, Pope, & Saline Cos.
- Area 11: Iroquois Co.
- Area 12: Jackson & Perry Cos.
- Area 13: Marton (Salem) Co.
- Area 14: Massac Co.
- Area 15: Union Co.
- Area 16: Vermillion Co.

PLUMBERS; PIPEFITTERS; & STEAMFITTERS

- Area 1: Alexander, Hardin, Jackson, Johnson, Massac, Perry, Pope, Putaski & Union Cos.
- Area 2: Champain, Coles, Cumberland, Effingham, Ford, Jasper, & Platt (E 1/2) Cos.
- Area 3: Christian (Assumption, Pana, & Radford Twp.), Dewitt, Moutrie, Platt (W 1/2), & Shelby Cos.
- Area 4: Christian (Exclu. Assumption, Pana, & Radford Twp.) Co.
- Area 5: Clark, Crawford, Douglas, Edgar (S 1/2), & Richland Cos.
- Area 6: Clay, Fayette, & Marton Cos.
- Area 7: Edgar (N 1/2) & Vermillion Cos.
- Area 8: Edwards, Lawrence, Wabash & White Cos.
- Area 9: Franklin, Gallatin, Hamilton, Jefferson, Saline, Wayne, & Williamson Cos.
- Area 10: Iroquois Cos.

POWER EQUIPMENT OPERATORS

- Area 1: Alexander, Franklin, Gallatin, Hamilton, Hardin, Jackson, Johnson, Massac, Pope, Putaski, Saline, Union, White, & Williamson Cos.
- Area 2: Champain, Clark, Clay, Coles, Crawford, Cumberland, Douglas, Edgar, Edwards, Effingham, Ford, Iroquois, Jasper, Lawrence, Moutrie, Richland, Vermillion, Wabash, & Wayne
- Area 3: Christian, Dewitt, Platt & Shelby Cos.
- Area 4: Fayette, Jefferson, Marton & Perry Cos.

ROOFERS

- Area 1: Alexander (Cairo) Co.
- Area 2: Alexander (Exclu. Cairo), Edwards, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Marton, Perry, Pope, Putaski, Saline, Union, Wabash, Wayne, White, & Williamson Cos.
- Area 3: Champain, Clark, Coles, Cumberland, Douglas, Edgar, Ford, Platt (E. Section of Platt, W. of & exclu. Cities of Monticello & Lodge) & Vermillion Cos.
- Area 4: Christian (Assumption, Pinkie, Doltville, Millersville, Mt. Auburn, Osbernvillie, Owaneea, Pana, Radford, Rosamond, Stonington, Velma, Vanderwillie, & Willeys), Clay, Dewitt (S 1/2), Effingham, Fayette, Jasper, Moutrie, Platt (W 1/2), Richland & Shelby Cos.

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Area 5: Christian (Bolivia, Breckenridge, Buckhart, Bulpitt, Callaway, Clarksville, Edinburgh, Grove City, Harvel, Hewittsville, Humphrey, Jeisyville, Kincaid, Langlyville, Morrisonville, Palmer, Roby, Sharpsville, Taylorville, Tovey, Vanderville, Zenobia) Co.  
 Area 6: Crawford & Lawrence Cos.  
 Area 7: DeWitt (N 1/2) Co  
 Area 8: Massac Co  
 Area 9: Iroquois Co

## SHEET METAL WORKERS

Area 1: Alexander, Clay, Edwards, Effingham, Fayette, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jasper, Jefferson, Johnson, Marion, Massac, Perry, Pope, Pulaski, Richland, Saine, Union, Wabash, Wayne, White, & Williamson Cos.  
 Area 2: Champaign, Coles, Cumberland, Douglas, Ford, Moultrie, Piatt, Shelby & Vermilion Cos.  
 Area 3: Christian & DeWitt Cos.  
 Area 4: Clark, Crawford, Edgar, & Lawrence Cos.  
 Area 5: Iroquois Co.

## TRUCK DRIVERS

Area 1: Ford (N 1/2 of Co.) Co.  
 Area 2: Iroquois (N & SW parts of Co.) Co.  
 Area 3: Remaining Cos.

## CLASSIFICATION DEFINITIONS

## LABORERS

## AREAS 2, 3, 4, 6, 7, 8, &amp; 9

## GROUP 1

UNSKILLED LABORERS - All Sewer Workers, plus Depth Pay; Asphalt Plant Laborers; Bankmen on Floating Plant; Batch Dumpers; Carpenters' Tenders; Cleaning Lumber; Cofferdam Workers, plus Depth Pay; Deck Hand, Dredge Hand & Shore Laborer; Dispatchers; Driving of Stakes, Stringlines for all Machinery; Fencing Laborers; Firemen or Salamander Tenders; Fireproofing Laborers; Form Handlers; Gravel Box Men, Dumpmen and Spotters; Laborers with De-Watering Systems; Landscapers; Laying of Sod; Material Handlers; Pit Men; Plastic Installers; Planting of Trees; Removal of Trees; Rip Rap Men; Scaffold Workers; Tool Cribmen; Track Laborers; Unloading & Carrying Lath; Unloading and carrying of Re-Bars; Wrecking, Dismantling Buildings, Wallmen & Housemovers; Wrecking Laborers

## GROUP 2

SEMI-SKILLED LABORERS - Asphalt Workers with Machine; Asphalt Rakers & Layers; Cement Handlers; Cement Silica, Clay, Fly Ash, Lime and Plaster, Handlers (Bulk or Bag); Chain Saw; Chloride Handlers; Concrete Workers (Wet); Grade Checker; Handling of Materials Treated with Oil, Creosote, Asphalt and/or any Foreign Material Harmful to Skin or Clothing; Kettle Tar Men on Concrete Paving,

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Placing, Cutting and Tying of Reinforcing; Tank Cleaners; Tunnel  
Tenders in Free Air

GROUP 3  
SKILLED LABORERS - Air Tamping Hammerman; Caisson Workers, plus  
Depth Pay; Concrete Burning Machine Op.; Concrete Saw Op.; Coring  
Machine Op.; Curb Asphalt Machine Op.; Gunnite Nozzle Men; Jackhammer  
and Drill Op.; Laborers Handling Masterplate or similar materials;  
Laborers Tending Masons with Hot Material or Where Foreign Materials  
are used; Layout Man on Sewer Work; Luteman; Mason Tenders; Mortar  
Mixer Op.; Motorized Buggies or Motorized Unit used for wet concrete  
or Handling of Building Materials; Multiple Concrete Duct - Leadman;  
Plasterer; Tenders; Ready Mix Scalmen; Screedman on Asphalt Pavers;  
Steel Form Setters - Street & Highway; Vibrator Ops.; Welders,  
Cutters, Burners & Torchmen

POWER EQUIPMENT OPERATORS

AREA 1

GROUP 1 - APSCO or Equal Spreading Machine, Backhoe, Backfiller,  
Boom or Winch Cat, Bituminous Mixplane Machine, Blacksmith, Bitu-  
minous Surfacing Machine, Bulldozer, Crane Shovel, Dragline, Truck  
Crane, Pile Driver, Concrete Finishing Machine or Spreader Machine,  
Concrete Breaker, Concrete or Pumpcrete Pumps, Dinky or Standard  
Locomotives, Well or Caisson Drills, Elevating Grader, Fork Lifts,  
Flexplane, Graderall, Hi-Lift, Hoists, Guy-Derrick, Hyster, Mechanic,  
Motor Patrol, Mixers - 21 cu. ft. or over, Push Cats, Puts and  
Scrapers, Two Well Point Pumps, Pulverizer or Tiller, Pugmill,  
Rubber-Tired Farm Type Tractor with Bulldozer/Blade/Auger or Hi-  
lift over 1/2 yd., Jersey Spreader, Tract-Air used with Drill or  
Hi-Lift, Trenching or Ditching Machines, Wood Chipper w/Tractor,  
Self-Propelled Roller w/Blade, Equipment Greaser, Self-Propelled  
Bump Grinder on concrete Highway Pavement

GROUP 2 - Air Compressor w/Valve Driving Pitting, Two Air Compressors  
(220 cu. ft. capacity or over), Two Air Tract Drills, Air Track Drill  
w/Compressor, Automatic Bins or Scales w/Compressor or generator,  
Pipeline Boring Machine, Bulk Cement Plant w/Separate Compressor,  
Power Operated Bull Float, Hydra-Lift w/Single Motor, Straw Mulcher  
Blower w/Spout, Self-Propelled Roller/Compactor, Back-end man on  
Bituminous Surfacing Machine

GROUP 3 - Boom or Winch Truck, Two Conveyors, Self-Propelled Concrete  
Saw, Form Grader, Truck Crane Digger, Self-Propelled Vibrator, Any  
Type Tractor Pulling any type Roller or Disc, Rubber Tired Farm Type  
Tractor w/Blade/Bulldozer/Auger/Hi-lift - 1/2 yd. or less, Elevator  
Operator, Self-Propelled Chip Spreader

GROUP 4 - Air-Track Drill (one), Belt Drag Machine, Power Broom,  
Mechanical Plasterer Applicator, Trac-Air, Air Compressor (220  
cu. ft. or over) One, Air Compressor (under 220 cu. ft.) four,  
Automatic Bin, Bulk Cement Plant w/Built-in Compressor running  
off Same Motor or Electric Motor, Fireman, Self-Propelled Form  
Tampers, Light Plants (4), Welding Machines (4), Pumps (4), or  
Combination of 4 Pumps, Light Plants, Welding Machines, Air-

## U.S. Department of Labor

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Compressors (under 220 cu. ft.), Mudjacks or Wood Chipper, Mixers - less than 21 cu. ft., Mortar Mixer w/skip or Pump, Pipeline Track Jack, Compressors, Light Plants, Generators, Welding Machines, Pumps or Conveyors, One Well-Point Pump, Two Motor Driven Heaters

Group 5 - One Air Compressor (under 220 cu. ft.), One Conveyor, One Motor Driven Heater, One Light Plant, One Pump, One Welding Machine, One Ulmac or Equal Spreader, conveyor Operator on Self-Propelled Chip Spreader Oilers

## AREA 2

Group 1 - Power Cranes, Draglines, Derricks, Shovels, Gradalls, Mechanics, Concrete Mixers with Skip, Tournamixers, Two Drum Machine, One Drum Hoists with Tower or Boom, Cableways, Tower Machines, Motor Patrol, Boom Tractor, Boom or Winch Truck, Winch or Hydraulic Boom Truck, Truck Crane, Tournapull, Tractor Operating Scoops, Bulldozer, Push Tractor, Asphalt Planer, Finishing Machine on Asphalt, Large Rollers on Earth, Rollers on Asphalt Mix, Ross Carriers or similar Machine, Gravel Processing Machine, Asphalt Plant Engineer, Paver Operator, Farm Tractor w/half yard Bucket and/or Backhoe Attachment, Dredging Equipment or Dredge Engineer or Dredge Operator, Central Mix Plant Engineer, CMI or similar type machine, Concrete Pump, Truck or Skid Mounted, Tower Crane, Engine or Rock Crusher Plant, Concrete Plant Engineer, Ditching Machine with dual attachment, Tractor Mounted Loaders, Cherry Picker, Hydro Crane, Standard or Dinkey Locomotives, Scoopmobiles, Euclid Loader, Soil Cement Machine, Back Filler, Elevating Machine, Power Blade, Drilling Machines, incl. Well Testing, Caisson, Shaft or any similar type Drilling Machines, Motor Driven paint Machine, Pipe Cleaning Machine, Pipe Wrapping Machine, pipe Bending Machine, Apsco Paver, Boring Machine, Head Equipment Greaser, Barber-Greene Loaders, Formless Paver, Well Point System, Concrete Spreader, Hydra Ax, Resco Concrete Saw, Marine Scoops, Brush Mulcher, Brush Burner, Mesh Placer, Tree Mover, Helicopter Crew (3), Piledriver - Skid or Crawler, Stump Remover, Root Rake, Tug Boat Operator, Refrigerating Machine, Freezing Operator, Chair Cart - Self-Propelled, Hydra Seeder, Straw Blower, Power Sub Grader, Bull Float, Finishing Machine, Self-Propelled Pavement Breaker (Backhoe Attached), Lull (or similar type machine), Two Air Compressors, Compressors hooked in Manifold, Overhead Crane, Chip Spreader, Mud Cat, Sull-Air Tractor highlift, tournadozer.

Group 2: - Concrete Mixers without Skips, Rock Crusher, Ditching Machine under 6', Curbing Machine, One Drum Machines without Tower or Boom, Air Tugger, Self Propelled Concrete Saw, Machine Mounted Post Hole Digger, Two to Four Generators, Water Pumps, or Welding Machines, within 400 feet, Air Compressor 600 cu. ft. and under, Rollers on Aggregate and Seal Coat Surfaces, Fork Lift, Concrete and Blacktop Curb Machines, Farm Tractor with less than half yard Bucket, One Water Pump, Dilers, Air Valves or Steam Valves, One Welding Machine, Truck Jack, Mud Jack, Gunite Machines, House Elevators when used for Hoisting Material, Engine Tenders, Fireman, Wagon Drill, Flex Plane, Conveyor, Siphons and Pulsometer, Switchman, Fireman on Paint Pots, Fireman on Asphalt Plants, Distributor Operator on Truck, Tampers, Self-Propelled Power Broom,

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Striping Machine (motor driven), Form Tamper, Seaman Tiller, Bulk  
Cement Plant Equipment Greaser, Deck Hands, Truck Crane, Ditcher  
Driver, Cement Blimps, Form Grader, Temporary Heat, Throttle  
valve, farm tractor

AREA 3

Group 1 - Asphalt Plant Engineer; Asphalt Screed Man; Apasco Concrete  
Spreader; Asphalt Pavers; Asphalt Rollers on Bituminous Concrete;  
Athey Loaders; Backfillers, Crane Type; Backhoes; Cabways; Cherry  
Pickers; Ciam Shell; C.M.I. & Similar Type Autograde Formless Paver,  
Autograde Pacer & Finisher; Concrete Breakers; Concrete Plant  
Operators; Concrete Pumps; Cranes; Derricks; Derrick Boats;  
Engineers; Earth Auger Boring Machines; Elevating graders; Engineers  
on Dredge; Gravel Processing Machines; Head Equipment Greasers; High  
Lift or Fork Lifts; Hoist w/two Drums or Two or more Loadlines;  
Locomotives; Motor graders or Auto Patrols; Operators or  
Levelman on Dredges; Operators Power Boat; Operators Pug Mill  
(Asphalt Plants); Orange Peels; Overhead cranes; Paving Mixers;  
Piledrivers; Pipe Wrapping & Painting Machines; Push Dozers, or Push  
Cats; Rock Crushers; Ross Carriers or Similar Machines; Scoops;  
Skimmers 2 cu. yds. cap. & under; Sheep Foot Roller (Self-  
Propelled); Shovels; Skimmer Scoops; Test Hole Drilling Machines;  
Tower Cranes; Tower Machines; Tower Mixers; Track Type End Loaders;  
Track Type Fork Lifts or High Lifts; Track Jacks & Tampers;  
Tractors; Side Boom Trenching Machines; Ditching Machine; Tunnel  
Luggers; Wheel Type End Loaders; Winch Cat; Scoops (All or  
Tournapull); Barber Green Loaders, Bulldozers

Group 2 - Asphalt Boosters & Heaters; Asphalt Distributors; Asphalt  
Plant Fireman; Building Elevator; Bull Floats or Flexplanes; Con-  
crete Finishing Machines; Concrete Saws, Self-propelled; Concrete  
Spreader Machines; Gravel or Stone Spreaders, Power Operated;  
Hoist Automatic; Hoist w/t Drum & t Load Line; Ditcher on 2 Paving  
Mixers when used in Tandem Boom or Winch Truck; Post Hole Diggers;  
Mechanical; Road or Street Sweeper-Self-Propelled; Scissors Hoist;  
Seaman Tiller; Straw Machine; Vibratory Compactor; Well Drill  
Machines; Boom or Winch Truck

Group 3 - Air Compressor; Air Compressors, Track or Self-propelled;  
Bulk Cement Batching Plants; Conveyors; Concrete Mixers (except  
plant, paver, tower); Firemen; Generators; Greasers; Light Plants;  
Mechanical Heaters; Ditchers; Power Form Graders; Power Sub-graders;  
Pug Mills, when used for other than Asphalt Operation; Rollers  
(except Bituminous Concrete); Tractors w/o Power Attachment  
Regardless of size or type; Truck Crane Ditcher & Driver 1 (man);  
Vibratory Hammer; Water Pumps; Welding Machines (one 300 amp. or  
over); Welding Machines

COMBINATIONS OF ONE TO FIVE OF ANY AIR COMPRESSORS, CONVEYORS, WELDING  
MACHINES, WATER PUMPS, LIGHT PLANTS OR GENERATORS SHALL BE IN  
BATTERIES OR WITHIN 300 FT

AREA 4

Group 4: Cranes; Draglines; Shovels; Skimmer scoops; Clamshells or  
derrick boats; Piledrivers; Crane-type backhoes; Asphalt plant oper;

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Concrete Plant Operator; ; Dredges; Asphalt spreading machines; Locomotives; Cableways or tower machines; Hoists; Hydraulic backhoes; Ditching machines or backfiller; Cherry pickers; Overhead crane; Roller; Concrete paver; Concrete Breakers & pumps; Bulk cement plants; Cement pumps; Derrick type drills; boat operators; Motor graders or pushcats; Scoops or tournapulls; Bulldozers; Endloaders or Forklifts; Power blade or elevating graders; Winch cats; Boom or winch trucks or boom tractors, pipewrapping or painting machines; Drills (other than derrick type); Mud jacks; Well drilling machines; Mixers; Conveyors(two); air compressors two; water pumps regardless of size; welding machines two; siphons or jets two; winch heads or apparatus two; light plants two; Tractors regardless of size straight (tractor only); Firemen on stationary boilers; Automatic elevators; Form grading machines; Finishing machines; Power sub-grader or ribbon machine; Longitudinal floats; Distribution operator on trucks; Winch heads or apparatuses(1); Excavators; Mobile track air and heater (two to five); Heavy equipment greaser and all other operators not listed below.

GROUP 2: Air compressor one; water pump regardless of size one; welding machine one; 1-bag mixer one; conveyor one; siphon or jet; light plant one; heater one; immobile track air one.

GROUP 3: Firemen on whirlies and asphalt spreader oilers; Heavy equipment oilers; Truck cranes; Monigans; Large cranes (over 65 ton rate capacity); Concrete plant oiler and black top plant oiler.

GROUP 4: Oilers

GROUP 5: Master mechanic; operators on equipment with booms, including jibs, one hundred feet and over; and less than 150 feet.

GROUP 6: operators on equipment with booms, including jibs, 150 feet and over, and less than 200 feet.

GROUP 7: Operators on equipment with booms, including jibs, 200 feet and over; tower cranes and whirley cranes.

## TRUCK DRIVERS

## AREA 3

Group 1 - Drivers on 2 Axles hauling less than 9 tons; Air Compressor & welding Machine incl. those pulled by separated units; Fork Lifts up to 6,000 lbs. cap.; Mechanic Tenders; Pick-ups when hauling materials, tools, or men to and from and on the job site; Truck Driver Tenders; Greasers & Tiremen

Group 2 - 2 or 3 Axles hauling more than 9 tons, but hauling less than 16 tons; A-Frame Winches; Fork Lifts over 6,000 lbs. cap.; 4-Axle Combination units; Hydrolifts or similar equipment when used for transportation purposes; & Winches

Group 3 - 2, 3, or 4 axles hauling 16 tons or more; Dispatcher; 5-Axles or more combination units; Mechanics & Water Pulls

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR, 5.5 (a) (1) (11)).

- e. \$129.70 per week
- d. \$ 61.00-per week
- c. \$124.00-per week
- than 5 years
- b. pay credit for employee who has worked in the business more than 5 years; 6% for employee who has work in business less than 5 years
- a. 7 paid Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Day after Thanksgiving; & Christmas Day

FOOTNOTES:

Group 4 - Drivers on Oil Distributors; & Drivers on Semi-Lowboys when moving equipment

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PART IV

SPECIFICATIONS

FOR

REMOVAL AND DISPOSAL OF ASBESTOS MATERIALS

AT USARC'S, EAST ST. LOUIS, FAIRFIELD

AND CENTRALIA, ILLINOIS

WOR# 473-88

INDEX

DESCRIPTION	SECTION NO.
DIVISION 1 - GENERAL REQUIREMENTS	
Summary of work	01010
Submittals	01300
DIVISION 2 - SITE WORK	
Vinyl Asbestos Tile Removal and Disposal	02075
Removal and Disposal of Asbestos Materials	02080
DIVISIONS 3 - 8 (NOT USED)	
DIVISION 9 - FINISHES	
Resilient Flooring	09650
Painting, General	09900
DIVISIONS 10 - 14 (NOT USED)	
DIVISION 15 - MECHANICAL	
Thermal Insulation for Mechanical Systems	15250
DIVISION 16 - (NOT USED)	

SECTION 01010

SUMMARY OF WORK

1. DESCRIPTION OF WORK:

1.1 Work to be done consists of furnishing all plant, tool, equipment, labor, materials, and supervision to execute the work in accordance with these specifications and drawings (No. AR-16, AR-17 and AR-15), for the complete removal and disposal of all asbestos materials, installation of thermal insulation and resilient floor covering at three (3) USAR Centers, East St. Louis, Fairfield and Centralia, Illinois.

1.2 Location:

East St. Louis, IL., 5020 State Street, 62205-1398.  
For access to this facility, contact Mr. Harry Henderson at (618) 271-7910;

Fairfield, IL., 1002 West Leininger Road, 62837-1371.  
For access to this facility, contact Ms. Pat Scarbrough at (618) 842-2101;

Centralia, IL., 904 East McCord, 62801-3058.  
For access to this facility, contact Mr. Charles Vaughn at (618) 532-5666.

2. PRINCIPAL FEATURES: The work to be performed shall include, but not be limited to the following principal features:

2.1 East St. Louis, IL:

2.1.1 The Contractor shall remove and dispose of all asbestos materials identified in the material schedule, drawing No. AR-16, in accordance with SECTION 02075, Vinyl Asbestos Tile and Removal and Disposal and SECTION 02080, Removal and Disposal of Asbestos Materials.

2.1.2 The Contractor shall re-insulate all those areas in which asbestos materials were removed in accordance with SECTION 15250, Thermal Insulation for Mechanical Systems, except the Boiler Room and Maintenance Shop Area.

2.1.3 The Contractor shall remove all existing furniture, doors, fixtures, vinyl wall base and vinyl asbestos tile in two (2) classrooms located north end of building, as indicated on drawing No. AR-16. Contractor shall install new resilient flooring and vinyl wall base in accordance with SECTION 09650, Resilient Flooring.

2.3.2 The contractor shall re-insulate all those areas in

Asbestos Materials.  
2.3.1 The contractor shall remove and dispose of all asbestos materials identified in the material schedule, drawing No. AR-15, in accordance with SECTION 02080, Removal and Disposal of Asbestos Materials.

2.3 Centralia, IL:

2.2.5 The contractor shall patch, repair and paint all holes or opening in the existing walls, ceilings, or other areas created by removal of asbestos materials in the performance of his work.

2.2.4 The contractor shall re-install all doors, furniture, and fixtures in the seven (7) rooms to its original location and condition.

2.2.3 The contractor remove all existing furniture, doors, fixtures, vinyl wall base and vinyl-asbestos tile in seven (7) rooms and corridors as indicated on drawing No. AR-17. Contractor shall install approximately 3,300 square feet of new resilient flooring with vinyl wall base in accordance with SECTION 09650, Resilient Flooring.

2.2.2 The contractor shall re-insulate all those areas in which asbestos materials were removed in accordance with SECTION 15250, Thermal Insulation for Mechanical Systems.

2.2.1 The contractor shall remove and dispose of all asbestos materials identified in the material schedule, drawing No. AR-17, in accordance with SECTION 02075, Vinyl Asbestos Tile Removal and Disposal and SECTION 02080, Removal and Disposal of Asbestos Materials.

2.2 Fairfield, IL:

2.1.6 The contractor shall remove and dispose of all pipe insulation materials not associated with asbestos from the Boiler Room and Maintenance Shop. Contractor shall mark all piping associated with this contract after installing insulation with the appropriate color code specified in SECTION 09900, Painting, General.

2.1.5 The contractor shall patch, repair and paint all holes or opening in the existing walls, ceilings, or other areas created by removal of asbestos materials in the performance of his work.

2.1.4 The contractor shall re-install all doors, furniture, and fixtures in the two (2) rooms to its original location and condition.

which asbestos materials were removed in accordance with SECTION 15250, Thermal Insulation for Mechanical Systems.

2.3.3 The Contractor shall patch, repair and paint all holes or opening in the existing walls, ceilings, or other areas created by removal of asbestos materials in the performance of his work.

3. WORK SITE HOUSEKEEPING: The Contractor shall take all possible precautions to leave the work site, at the end of the work day, in a condition that shall prevent damage or injury to personnel or property, Government or otherwise. The above precautions shall include protection from the elements of weather.

4. SEQUENCE OF WORK:

4.1 The area concerned in this project is Government owned. It will be in use during the progress of the work, and the Contractor shall arrange his operations to cause as little interference as possible.

4.2 This facility will be in use on a daily basis throughout the period of this contract. The Contractor shall limit his hours of operation to normal business hours which are during the weekdays from 7:30 A.M. to 4:00 P.M., Monday through Friday. A complete clean-up of the contract area shall be accomplished each Friday.

4.3 The Contractor shall be responsible for coordination with the Facility Managers. All work shall be scheduled with Facility Managers 48 hours in advance stating the day and the time at which the Contractor desires access to the buildings.

5. DISPOSAL OF MATERIALS: All asbestos removed in this project shall be taken to an approved local sanitary landfill in accordance with these contract specifications.

6. INSPECTION AND ACCEPTANCE: Upon completion of the work, an inspection for acceptance will be made by the Directorate of Engineering and Housing, Off-Post Facilities Branch, Inspection Representative.

7. FIELD MEASUREMENTS: The Contractor shall verify all measurements at the construction site and shall be responsible for the reporting of measurements that are different from the Government's measurements.

8. SITE CLEANUP: During the course of this project, the Contractor shall maintain sanitary conditions required at this project locations. The conditions at the project site shall comply with all EPA, Illinois Department of Environmental Protection Agency, US Army, and Ft. Leonard Wood regulations pertaining to safety conditions at a project site during working and non-working hours.

9. RESTORATION: Any damage done by the Contractor to Government property outside the limits of this project shall be restored by the Contractor.

SECTION 01300

SUBMITTALS

1. GENERAL: All items of equipment and/or materials that are defined or described by a major paragraph in the specifications and the drawings, require submission in accordance with this paragraph. Brochures, samples, certificates of compliance, test reports, or shop drawings, as applicable, shall be submitted by the Contractor to the Contracting Officer, and approval given by the Contracting Officer before any equipment or material is installed under this contact.

1.1 Approval of materials and equipment will be withheld until all of the required information has been submitted to the Contracting Officer. All submissions must be in sufficient detail to adequately determine that the item will meet the requirements of this specification.

1.2 All submittals shall be transmitted to the Contracting Officer for review on Engineer Form 4025 in quadruplicate. The forms shall be completed as directed and no submittal will be accepted unless it is on the subject form. The forms will be furnished to the Contractor by the Government. All attachments to the transmittal form, such as catalog cuts, brochures, certifications, etc., shall be submitted in four (4) copies.

2. MATERIAL APPROVAL SUBMITTALS:

2.1 The following list of materials will require approval; under the Contract Clause, FAR 52.236-5, titled Material and Workmanship. The required dates for the material submittals will be provided to the Contractor at the preconstruction conference. The Contractor shall not proceed with any work using materials which are subject to approval, until materials are approved.

2.2 Material requiring approval include, but are not necessarily limited to the following:

<u>SECTION NO.</u>	<u>MATERIAL</u>	<u>ITEMS</u>
02075	Method of Removal of Vinyl Asbestos Tile	Procedure of Removal Plan
02080	Certificates of Compliance Asbestos Plan Testing Laboratory Industrial Hygienist Monitoring Results Notification Local Exhaust System	Certification Plan, Tests, Results

catalog cuts, or samples	Thermal Insulation	15250
catalogs cuts, or samples	Resilient Flooring and Vinyl Wall Base	09650
	Training Registration	

## SECTION 02075

## VINYL ASBESTOS TILE REMOVAL AND DISPOSAL

## PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this section to the extent referenced. The publications are referred to in the text by basic designation only.

1.1.1 Title 29, Code of Federal Regulations, U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) Standards):

Part 1926.58 Asbestos, Tremolite, Anthophyllite, and Actinolite

1.1.2 Title 40, Code of Federal Regulations, U.S. Environmental Protection Agency (EPA) Standards:

Part 61, National Emission Standards for Hazardous Air  
Subpart A Pollutants - General Provisions

Part 61, National Emission Standards for Hazardous Air  
Subpart M Pollutants - National Emission Standard for  
Asbestos

1.1.3 Title 49, Code of Federal Regulations, U.S. Department of Transportation (DOT) Standards:

Part 171 Hazardous Substances

Part 172 Hazardous Materials Tables and Subparts

1.2 PERMITS AND NOTIFICATIONS: The Contractor shall be responsible to obtain all necessary permits and certifications of personnel in conjunction with asbestos removal, hauling, and disposition and provide timely notification of such actions as may be required by federal, state, regional, and local authorities.

1.3 ASBESTOS REMOVAL AND DISPOSAL PLAN: The Contractor shall develop, implement, and oversee enforcement of a written asbestos removal and disposal plan to be followed during the removal and disposal of asbestos-containing materials in this project. This plan shall be submitted to the Contracting Officer for approval which must be granted prior to the start of work.

1.4 LIST OF MATERIALS: The Contractor shall submit a certified list of materials or manufacturer's descriptive literature for all major materials proposed for use in work under this section prior to the start of asbestos related work for approval.

SUBSTANCES

RQ HAZARD

AND

CANCER AND LUNG DISEASE HAZARD

AVOID CREATING DUST

CONTAINS ASBESTOS FIBERS

DANGER

2.2 LABELS: The contractor shall permanently affix warning labels to all products and bags/containers containing or contaminated with asbestos in accordance with OSHA Standard 29 CFR 1926.58(k)(2) and DOT Standard 49 CFR, Part 171 and 172, Hazardous Substances: Final Rule. Labels shall be printed in large bold letters on a contrasting background and contain the following legend:

2.1 MATERIALS furnished under this section shall be standard products of manufacturers regularly engaged in the production of the items.

PART 2 - PRODUCTS

1.6.4 Removal: The act of removing and transporting asbestos containing or contaminated materials from the structure to a suitable disposal site.

1.6.3 Asbestos: A general term used to describe several fibrous mineral silicates.

1.6.2 Amended Water: Water to which a surfactant has been added.

1.6.1 Abatement: Procedures to eliminate fiber release from asbestos-containing building materials.

1.6 TERMINOLOGY:

1.5 PROOF OF DISPOSAL: The contractor shall obtain a list of approved sanitary landfills for asbestos disposal from the E.P.A. and/or applicable state regulatory agencies. Upon completion of the asbestos removal, the contractor shall submit a copy, signed by the landfill personnel attesting to the fact of asbestos material was dumped. The signed copy shall include the name and location of disposal site(s) and the quantity of material disposed of at each site.

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ASBESTOS

### PART 3 - EXECUTION

3.1 GENERAL REMOVAL AND DISPOSAL REQUIREMENTS. The Contractor shall remove and dispose of asbestos-containing material.

3.2 PROHIBITED ACTIVITIES. Smoking, eating, chewing of gum or tobacco, and drinking, as well as transport/storage of food or tobacco into the asbestos control areas.

#### 3.3 REMOVAL OF VINYL ASBESTOS FLOOR TILE.

3.3.1 For vinyl asbestos floor tile (VAT) removal, it is not required to cover walls and floors with polyethylene sheeting. The Contractor shall maintain requirements for non-enclosed asbestos control areas.

3.3.2 The VAT shall be thoroughly wetted prior to removal and maintained in a wet condition by misting with amended water applied with a low pressure spraying system.

3.3.3 Removal operations shall entail only the lifting of the VAT from the substrate. The VAT shall not be sanded, ground, sawed or abraded in any manner which could cause a friable asbestos hazard.

3.3.4 As VAT is removed, the debris shall be containerized immediately to prevent the material from drying out.

#### 3.4 DISPOSAL:

3.4.1 Collection of Asbestos Waste Materials: All asbestos materials removed shall be collected daily in 6-mil polyethylene bags or other approved sealed impermeable containers. A fine spray of amended water shall be used to keep asbestos in the waste containers damp to minimize airborne asbestos dust. The asbestos material which has been removed shall be packed daily, while still wet, in bags/containers. Affix warning labels having waterproof print and permanent, waterproof adhesive to bag/containers.

3.4.2 Disposal of Asbestos Waste Materials: Waste bags/containers containing asbestos materials shall be hauled away by the Contractor. Procedures for hauling and disposal shall comply with EPA Standard 40 CFR, Part 61, and other applicable state, regional and local Government standards.

3.4.2.2 Sealed polyethylene bags/containers shall be dumped into the burial site unless they have been broken or damaged. Damaged bags/containers shall be overpacked in another 6-mil bag or sealed in additional impermeable containers and buried.

3.4.2.1 Trucks hauling asbestos waste bags/containers shall be totally enclosed to prevent loss or damage to bags/containers enroute to the disposal site. Asbestos waste shall be buried at a sanitary landfill approved by the Contracting Officer.

## SECTION 02080

## REMOVAL AND DISPOSAL OF ASBESTOS MATERIALS

## PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of the specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Military Standard (Mil. Std.):

MIL-STD-101B	Color Code for Pipelines and for Compressed-Gas Cylinders
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1.1.2 Federal Standard (Fed. Std.):

Fed Std. 595	Color
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1.1.3 Code of Federal Regulations (CFR) Publications:

29 CFR 1910.1001	Asbestos
29 CFR 1910.134	Respiratory Protection
29 CFR 1926.58	Asbestos, Tremolite, Anthophyllite
40 CFR 61, Subpart A	National Emission Standards for Hazardous Pollutants, General Provisions
40 CFR 61, Subpart M	National Emission Standards for Hazardous Pollutants, Asbestos
40 CFR 763, Subpart G	Regulations for Asbestos Abatement Projects
30 CFR Part 11	Respiratory Protection
EPA 560/5-85-024	Guidance for Controlling Asbestos-Containing Materials in Buildings
EPA 560/5-85-030a	Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials

1.1.4 American National Standard Institute (ANSI) Publications:

Z9.2-79	Fundamentals Governing the Design
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1.2.2.5 Ceiling Concentration: An exposure of

micrometers.  
asbestos fiber having an aspect ratio of 3:1 and longer than 5  
1.2.2.4 Asbestos Fibers: This expression refers to

inches of water.  
maintaining a negative static pressure of approximately 0.02  
fibers, or debris. The containment area shall be capable of  
physical boundaries to prevent the spread of asbestos dust,  
asbestos removal operations are performed which is isolated by  
1.2.2.3 Asbestos Containment Area: An area where

treated and/or altered.  
actinolite, and any of these minerals that have been chemically  
chrysotile, amosite, crocidolite, tremolite, anthophyllite,  
1.2.2.2 Asbestos: The term asbestos includes

agent or surfactant:  
1.2.2.1 Amended Water: Water containing a wetting

1.2.2 Definitions:

disposal of the removed asbestos containing materials.  
contact with airborne asbestos fibers. The work also includes the  
workers and occupants of the building or area, or both, from  
the incidental procedures and equipment required to protect  
which are encountered during removal and demolition operations and  
includes the handling of friable materials containing asbestos  
1.2.1 Description of Work: The work covered by this section

1.2 REMOVAL AND DISPOSAL:

AR 40-5

TBMED 513

1.1.5 DA Circular (40-83-4):

Z88.6-1984 Physical Requirements for Personnel Wearing Respirators

Z88.2-1980 Practice for Respiratory Protection

and Operation of Local Exhaust Systems

airborne concentrations of asbestos fibers at any time in excess of 10 fibers, longer than 5 micrometers, per cubic centimeter of air.

1.2.2.6 Area Monitoring: Sampling of asbestos fiber concentrations within the asbestos control area and outside the asbestos control area which is representative of the airborne concentrations of asbestos fibers which may reach the breathing zone.

1.2.2.7 Friable Asbestos Material: Material that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

1.2.2.8 HEPA Filter Equipment: High efficiency particulate absolute filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters shall provide at least 99.97 percent efficiency for retaining fibers of 0.3 microns or larger.

1.2.2.9 Non-Friable Asbestos Material: Material that contains asbestos in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and will not release fibers in excess of the asbestos control limit during any appropriate use, handling, demolition, storage, transportation, processing, or disposal.

1.2.2.10 Personal Monitoring: Sampling of asbestos fiber concentrations within the breathing zone of an employee.

1.2.2.11 Time Weighted Average (TWA): (Reference: EPA 560/5-85-030a, October 1985), the minimum number of samples to be collected from each sampling area:

TABLE 1

Size of Area	Recommended # of Samples	Minimum # of Samples
<1,000 SF	9	3
1,000 - 5,000 SF	9	5
>5,000 SF	9	7

1.2.3 Medical Requirements: 29 CFR 1910.1001.

1.2.3.1 Medical Examinations: Before exposure to airborne asbestos fibers, provide workers with a comprehensive medical examination as required by 29 CFR 1910.1001. This examination is not required if adequate records show the employee

1.2.5 Permits and Notifications: Secure and complete necessary state and federal permit forms in conjunction with asbestos removal, hauling, and disposition and submit these forms to the DEH Contract Inspection Office. The government will make notification to the state of Illinois for authorization to proceed. Authorization to proceed requires a minimum of 20 days. Once authorization to proceed has been issued to the contract Inspection Office the contractor will be notified to proceed with the asbestos removal. The contractor shall begin working within 3 working days after notification by the contracting officer that approval has been received from the state. The contractor shall only be in contact with the states through the DEH Contract Inspection Office. Approval from the Illinois Department of Environmental Protection Agency (EPA) must be obtained prior to the removal of any asbestos. Approval from the EPA must be received before work on each delivery order. Contractor shall

1.2.4 Training: Prior to assignment to asbestos work, each employee shall be trained on the hazards of asbestos, safety, health precautions, and the use and requirements for protective clothing and equipment including respirators - fully covering engineering and other hazard control techniques and procedures. The contractor shall maintain training records on all contractor personnel involved in this contract. Records will contain the subjects on which employees were trained, and the dates they were trained. These records will be kept up-to-date, and available for inspection by the contracting officer and/or his representative, at all times. The contracting officer and/or his representative will make unannounced visits to the job site and will question contractor employees in order to ascertain their knowledge on the training subjects. Insufficient knowledge of subjects outlined above, by any employee, may be cause for removal of the employee by the contracting officer. Also, see Paragraph 1.3.8.

1.2.3.2 Medical Records: Maintain complete and accurate records of employees' medical examinations for a period of 20 years after termination of employment and make records of the required medical examinations available for inspection and copying to: The Assistant Secretary of Labor for Occupational Safety and Health, The Director of the National Institute for Occupational Safety and Health (NIOSH), authorized representatives of either of them, and an employee's physician upon the request of the employee or former employee.

has been examined as required by 29 CFR 1910.1001 requirements within the past year. The same medical examination shall be given on an annual basis to employees engaged in an occupation involving asbestos fibers and within 30 calendar days before or after the termination of employment in such occupation. Specifically identify x-ray films of asbestos workers to the consulting radiologist and mark medical record jackets with the word "ASBESTOS."

notify the following:

1.2.6 Asbestos NESHAPS Contact, Air Management Division, US EPA, Region V, 230 So. Dearborn Street, Chicago, IL 60604.

1.2.7 Illinois EPA, ATTN: Air Emissions (O.J. Klein), 2200 Churchill Road, P.O. Box 19276, Springfield, IL 62797-9276.

1.2.8 Safety Compliance: In addition to detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities regarding handling, storing, transporting, and disposing of asbestos waste materials. Comply with the applicable requirements of the current issue of 29 CFR 1910.1001, 40 CFR 61 (Subparts A and M), and 29 CFR 1926.58. Submit matters of interpretation of standards to the Off-Post Facilities Branch for resolution before starting the work. Where the requirements of this specification and referenced documents vary, the most stringent requirements shall apply.

1.2.9 Respirator Program: Establish a respirator program as required by ANSI Z88.2-1980, ANSI Z88.6-1984, 29 CFR 1910.134 and 30 CFR Part 11.

1.2.10 Industrial Hygienist: Shall conduct all air monitoring, area monitoring, determination of sampling locations, sample analysis and shall be a certified industrial hygienist through the American Board Of Industrial Hygiene. The hygienist is not required to train the Contractors employees.

1.2.11 Asbestos Plan: Submit a detailed plan of the work procedures to be used in the removal and demolition of materials containing asbestos for each delivery order. Such plan shall include location of asbestos contaminated areas, change rooms, layout of change rooms, interface of trades involved in the construction, sequencing of asbestos related work, disposal plan, type of wetting agent and asbestos sealer to be used, air monitoring, and a detailed description of the method to be employed in order to control pollution. This plan must be approved prior to the start of any asbestos work.

1.3 SUBMITTALS: The following items shall be submitted to and approved by the Contracting Officer prior to commencing work involving asbestos materials.

1.3.1 Certificates of Compliance: Submit manufacturers' certification that vacuums, ventilation equipment, and other equipment required to contain airborne asbestos fibers conform to ANSI Z9.2. HEPA vacuums, negative air filtration units and water drain filters must also comply with 29 CFR 1926.58 and EPA

standards as applicable.

1.3.2 Testing Laboratory: Submit the name, address, and telephone number of the testing laboratory selected for the monitoring of airborne concentrations of asbestos fibers along with certification that persons counting the samples have been judged proficient by successful participation in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing (PAT) Program.

1.3.3 Industrial Hygienist: Submit the name, address, and telephone number of the industrial hygienist selected to direct monitoring and training and certification that the industrial hygienist is certified by the American Board of Industrial Hygiene.

1.3.4 Monitoring Results: Monitoring samples shall be analyzed by the industrial hygienist chosen laboratory. The results shall be reviewed by the industrial hygienist within 16 hours of receipt of the laboratory analysis. The industrial hygienist shall notify the contractor and the contracting officer immediately of any exposures to asbestos fibers in excess of the acceptable limits. All monitoring results shall be submitted to the contracting officer within three working days of the analysis review by the industrial hygienist. Monitoring samples shall be collected by the industrial hygienist and/or his representative on site. The hygienist may, at his own choosing, train the contractors employees to collect the samples which are then sent to the hygienist for analysis.

1.3.5 Notification: Notify the contracting officer three working days prior to the start of asbestos work.

1.3.6 Exhaust Air-Filtration System: Pressure differential recordings for each work day shall be reviewed by the industrial hygienist and submitted to the contracting officer within 24 hours from the end of each work day. The industrial hygienist shall notify the contractor and the contracting officer immediately of any variance in the pressure differential which could cause exposure of adjacent unsealed areas to asbestos fiber concentrations in excess of specified limits.

1.3.7 Training: Submit certificates signed by both the employee and the training official that the employee has received training in the proper handling of materials that contain asbestos; understands the health implications and risks involved, including the illnesses possible from exposure to airborne asbestos fibers; understands the use and limits of the respiratory equipment to be used; and understands the results of monitoring of airborne quantities of asbestos as related to health and respiratory equipment.

1.3.8 Registration: Submit certificate showing the Contractor is registered with the state of Illinois for asbestos removal and disposal.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 EQUIPMENT: Make available to the Contracting Officer two complete sets of personal protective equipment as required herein for entry to the asbestos control area at all times for inspection of the asbestos control area.

3.1.1 Respirators: Select respirators from those approved by the Mine Safety and Health Administration (MSHA), Department of Labor, or the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

3.1.1.1 Respirators for Handling Asbestos: Respirators shall be used by all asbestos removal personnel. Reference 29 CFR 1926.58 (h)(iii)(B). The size of respirator used by removal personnel shall be in accordance with the following table:

TABLE 2

RESPIRATOR SIZING FOR ASBESTOS ABATEMENT

Airborne concentration of asbestos, tremolite, anthophyllite, actinolite, or a combination of these materials.	Required Respirator
Not in excess of 2 f/cc (10 x PEL)	1. Half-mask air-purifying respirator equipped with high-efficiency filters.
Not in excess of 10 f/cc (50 x PEL)	1. Full facepiece air-purifying respirator equipped with high-efficiency filters.
Not in excess of 20 f/cc (100 x PEL)	1. Any powered air purifying respirator equipped with high-efficiency filters. 2. Any supplied-air respirator operated in continuous flow

3.1.3 Change Rooms: For all removals except glove bag procedures, provide a temporary unit with a separate decontamination locker room and a clean locker room for personnel required to wear whole body protective clothing. Reference 29 CFR 1926.58, Appendix F. The locker rooms shall be inside the building that is being abated unless space limitations preclude that the locker rooms shall be outside. Provide two separate lockers for each asbestos worker, one in each locker room. Keep

3.1.2.2 Work clothing: Provide cloth work clothes for wear under the disposable protective coveralls and foot coverings.

3.1.2.1 Protective clothing: Provide personnel exposed to airborne concentrations of asbestos fibers with fire retardant disposable protective whole body clothing, headcoverings, gloves, and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber gloves for comfort, but shall not be used alone. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape.

3.1.2 Special clothing:

- a. Respirators assigned for higher environmental concentrations may be used at lower concentrations.
- b. A high-efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.3 micrometers in diameter or larger.
- c. If powered air purifying respirators are used, they must be "Tight-Face Seal-Type" equipped with HEPA filters.

Note:

<p>1. Full facepiece supplied air respirator operated in pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus.</p>	<p>Not in excess of 200 f/cc (1000 x PEL)</p> <p>Greater than 200 f/cc (&gt;1,000 x PEL) or</p>
<p>mode.</p>	

street clothing and street shoes in the clean locker. Vacuum and remove asbestos contaminated disposable protective clothing while still wearing respirators at the boundary of the asbestos work area and seal in impermeable bags or containers for disposal. Do not remove disposable protective clothing in the decontamination locker room. Remove cloth work clothing in the decontamination room. Tag and bag cloth work clothes for laundering and keep work shoes in the decontamination locker. Do not wear special asbestos removal clothing between home and work. Locate showers between the decontamination locker room and the clean locker room and require that all employees shower before changing into street clothes. Clean asbestos contaminated work clothing in accordance with 29 CFR 1910.1001.

3.1.4 Showers: All employees shall be required to shower before changing into street clothes. The Contractor shall be allowed to attach to the building water system for the shower water. When circumstances arise where there is no water to the building or the water system can not be accessed then the Contractor shall be required to furnish his own water supply. The rinse water from the showers shall be processed through 2 filters before being allowed to drain to the sewer system. The first filter shall be designed to catch particles over 50 microns. The second filter shall catch particles over 0.5 microns. Reference 29 CFR 1926.58, Appendix F.

3.1.5 Eye Protection: Provide goggles to personnel engaged in asbestos operations when the use of a full face respirator is not required.

3.1.6 Warning Signs and Labels: Provide approved asbestos caution signs at all approaches to asbestos control areas containing concentrations of airborne asbestos fibers. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Provide labels and affix to all asbestos materials, scrap, waste, debris, and other products contaminated with asbestos.

3.1.6.1 Warning Sign: Vertical format conforming to 29 CFR 1910.1001(j)(1)(ii), minimum 17 inches by 11 inches displaying the following:

<u>Legend</u>	<u>Notation</u>
DANGER	1-3/4 inch Block
ASBESTOS	1-5/8 inch Block
CANCER AND LUNG DISEASE HAZARD	1/2 inch Block
AUTHORIZED	11/16 inch Block

openings in areas where the release of airborne asbestos fibers is  
3.2.1.1 Asbestos Control Area Requirements: Seal

3.2.1 Masking and Sealing:

3.2 WORK PROCEDURE: Perform asbestos related work in accordance with 29 CFR 1910.1001, 29 CFR 1926.58 and as specified herein. Use wet removal procedures. Personnel shall wear and utilize protective clothing and equipment as specified herein. Eating, smoking, or drinking shall not be permitted in the asbestos control area. Personnel of other trades not engaged in the removal and demolition of asbestos shall not be exposed at any time to airborne concentrations of asbestos unless all the personnel protection provisions of this specification are complied with by the trade personnel. Shut down the building heating, ventilating, and air conditioning system and provide temporary heating, ventilation, and air conditioning.

3.1.7 Tools and Local Exhaust System: Provide a local exhaust system in the asbestos control area. The local exhaust system shall be in accordance with ANSI Z9.2 and 29 CFR 1926.58, Appendix F. Equip exhaust with absolute (HEPA) filters. Local exhaust equipment must be sufficient to maintain a minimum pressure differential of minus 0.02 inch of water column relative to adjacent, unsealed areas. Provide continuous 24-hour per day monitoring of the pressure differential with an automatic recording instrument. Optional automatic recording instrument is the use of a pressure differential gauge and recording the gauge readings hourly in a log. In no case shall the building ventilation system be used as the local exhaust system for the asbestos control area. Filters on vacuums and exhaust equipment shall conform to ANSI Z9.2.

CANCER AND LUNG DISEASE HAZARD

AVOID CREATING DUST

CONTAINS ASBESTOS FIBERS

DANGER

3.1.6.2 Warning Labels: Provide labels of sufficient size to be clearly legible and conforming to 29 CFR 1910.1200(f), displaying the following legend:

PERSONNEL ONLY  
RESPIRATORS AND  
PROTECTIVE CLOTHING  
ARE REQUIRED IN  
THIS AREA  
11/16 inch Block

expected. Containment area development shall include protective covering of walls, and ceilings with a continuous membrane of two layers of minimum 4-mil plastic sheet sealed with tape to prevent water or other damage. Provide two layers of 6-mil plastic sheet over floors and extend a minimum of 12 inches up walls. Seal all joints with tape. Provide a local exhaust system in the asbestos control area. Openings will be allowed in enclosures of asbestos control areas for the supply and exhaust of air for the negative air filtration unit or exhaust air filtration unit. Replace filters as required to maintain the efficiency of the system. Reference 29 CFR 1926.58, Appendix F (Preparing the Work Area).

### 3.2.2 Asbestos Handling Procedures:

3.2.2.1 General Procedures: Remove wetted material and immediately place in 6-mil thick asbestos labeled burial bags. Where unusual circumstances prohibit the use of plastic bags, submit an alternate proposal for containment of asbestos fibers to the Contracting Officer for approval. For example, in the case where both piping and insulation are to be removed, the Contractor may elect to wet the insulation and wrap the pipes and insulation in 6-mil thick plastic, airtight sealed, and remove the pipe by sections.

3.2.3 Monitoring: Monitoring of airborne concentrations of asbestos fibers shall be in accordance with 29 CFR 1910.1001, 29 CFR 1926.58, EPA 560/5-85-024 (Appendix M), EPA 560/5-85-030a. and as specified herein. Monitoring shall be done by the industrial hygienist and/or his representative on site or the industrial hygienist may train the Contractors employees to collect the samples which are then sent to the hygienist for analysis.

### 3.2.3.1 Preparation of Asbestos Contaminated Area for Monitoring (Sampling):

3.2.3.1.1 Identify all friable surfacing materials and group them into homogeneous sampling areas. A homogeneous sampling area contains material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type, or formulation, of material.

3.2.3.1.2 Prepare diagram of each sampling area to allow selection and documentation of sampling locations.

3.2.3.1.3 Divide the sampling area into nine equally sized subareas. This is done to help in obtaining samples that are representative of the entire sampling area.

3.2.3.1.4 Determine the number of samples required for the asbestos contaminated area. Reference TABLE 1, section 2.2.11 of this specification. The recommended number of

samples is nine (9), but the minimum number of samples of TABLE 1 must be met.

3.2.3.1.5 Determine sampling locations so as to obtain a representative sample and to avoid biases that could be introduced if personnel judgment alone were used.

3.2.3.2 Monitoring During Asbestos Work: Provide personal and area monitoring during the first exposure to airborne concentrations of asbestos. Provided the same type of work is being performed, provide area monitoring continuously during the work shift inside the asbestos contaminated area, outside the entrance to the asbestos contaminated area, and at the exhaust opening of the local exhaust system. A quality assurance program shall be followed where extra samples are collected to ensure reliability of the laboratory analyses. If monitoring outside the asbestos contaminated area shows airborne concentrations have exceeded the specified limits, stop all work, correct the condition(s) causing the increase, and notify the contracting Officer immediately.

3.2.3.3 Monitoring After Final Clean-Up: Additional air sampling shall be conducted inside the enclosure after the cleanup of the work area has been completed. The enclosure shall not be dismantled unless the final samples show asbestos concentrations of 0.01 fibers/cc can be achieved and area passes visual inspection by the contracting officer. The contractor shall not be released until the above criteria has been achieved.

3.2.3.4 Location of Samplers: Indoor samplers should be placed so they are not influenced by unusual air circulation patterns. Avoid corners of rooms and obstructions (furniture). Within the above constraints, samplers should be placed at random around the work site. When a negative air pressure system has been used for the abatement operation, outside samplers should be placed outside the work site but inside the building, and the negative air system left running during sampling. These outside samplers should be located to avoid any air that might escape through the containment barriers. Minimum recommendations are at least 50 feet from the entry portal to the work site, or 25 feet from the plastic containment barriers.

3.2.3.5 Should any of the final air sampling results indicate a higher value than those in 5.3.3, the Contractor shall take appropriate actions to reclean the area and shall repeat the monitoring until air sample results indicate levels contained in 5.3.2 are met.

3.2.4 Site Inspection: While performing asbestos removal work, the Contractor shall be subject to on site inspection by the Contracting Officer who may be assisted by safety or health personnel and by personnel from the Missouri Department of Natural Resources.

Resources Air Quality Program. If the work is found to be in violation of this specification, the Contracting Officer will issue a stop work order to be in effect immediately and until the violation is resolved. Standby time required to resolve the violation shall be at the Contractor's expense.

### 3.3 CLEAN-UP AND DISPOSAL:

3.3.1 Housekeeping: Essential parts of asbestos dust control are housekeeping and clean-up procedures. Maintain surfaces of the asbestos control area free of accumulations of asbestos fibers. Give meticulous attention to restricting the spread of dust and debris; keep waste from being distributed over the general area. Do not blow down the space with compressed air. When asbestos removal is complete, all asbestos debris is removed from the work site, and final clean-up is completed, certify the area as safe before the signs are removed. The Contracting Officer will visually inspect the affected surfaces for residual asbestos material and accumulated dust and the Contractor shall re-clean all areas showing dust or residual asbestos materials. If re-cleaning is required, monitor the asbestos airborne concentration after re-cleaning. Notify the Contracting Officer before unrestricted entry is permitted. The Government will have the option to perform monitoring to certify the areas are safe before entry is permitted.

### 3.3.2 Disposal of Asbestos:

3.3.2.1 Procedure for Disposal: Collect asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing which may produce airborne concentrations of asbestos fibers and place in sealed impermeable bags. Affix a proper asbestos caution label to each bag. Dispose of waste asbestos material at a local Sanitary Landfill. For temporary storage, store sealed impermeable bags in asbestos waste drums. An area for interim storage of asbestos waste-containing drums will be assigned by the Directorate of Engineering and Housing Inspector assigned to the project. Procedure for hauling and disposal shall comply with 40 CFR 61 (Subpart M), State, regional, and local standards. The landfill operator must be notified in advance of the delivery to the sanitary landfill in order for him to be present and immediately cover the asbestos waste as required.

3.4 FINES: If during the contract period, the Government is assessed a fine(s) by the Illinois Environmental Protection Agency (EPA) due to the negligence of the Contractor, an amount equal to the fine(s) will be deducted from the Contractors progress payments. This is in addition to the other remedies which the Government may pursue.

SECTION 09650

RESILIENT FLOORING

PART 1 - GENERAL

1. APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1. Federal Specifications (Fed. Spec.):

P-F-430C Finish, Floor, Water-Emulsion (For Use on Light Colored Floors) 6 Am-1

P-W-155C Wax, Floor, Water-Emulsion 6 Int Am-1

SS-T-312B Tile, Floor: Asphalt, Rubber, Vinyl, and Vinyl composition 6 Int Am-1

SS-W-40a Wall Base: Rubber, and Vinyl Plastic 6 Int Am-1  
6 Notice 1

2. SUBMITTALS:

2.1. Samples: Three samples of each color of vinyl-composition tile required shall be submitted for approval.

2.2. Descriptive Data: Manufacturer's descriptive data and installation instructions shall be submitted for approval. Cleaning and maintenance instructions shall be furnished for information.

2.3. Test Reports: Copies of test reports shall be furnished showing that representative samples of the flooring proposed for use have been tested within the past year and conform to the requirements specified herein.

3. DELIVERY AND STORAGE: Materials shall be delivered to the building site in original unopened containers, shall be stored in a clean dry area with temperature maintained above 70 degrees F for 2 days prior to installation, and shall be stacked according to manufacturer's recommendations.

4. ENVIRONMENTAL REQUIREMENTS: Areas to receive resilient flooring shall be maintained at a temperature above 70 degrees F for 2 days before application, during application and 2 days after application. A minimum temperature of 55 degrees F shall be maintained thereafter.

5. SCHEDULING: Resilient flooring application shall be scheduled after the completion of other work which would damage the finished surface of the flooring.

#### PART 2 - PRODUCTS

6. VINYL-COMPOSITION TILE shall conform to Fed. Spec. SS-T-312, Type IV, and shall be 12 inches square and 1/8 inch thick. Tile shall be of the color and pattern as selected by Contracting Officer with the color and pattern uniformly distributed throughout the thickness of the tile. Flooring in any one continuous area shall be from the same lot and shall have the same shade and pattern.

7. WALL BASE shall conform to Fed. Spec. SS-W-40, Type I or Type II, Style B. Base shall be 4-inches high, minimum 0.080-inch thick, color selected by Contracting Officer.

8. ADHESIVE for flooring and wall base shall be as recommended by the flooring manufacturer.

9. POLISH shall conform to Fed. Spec. P-F-430 or P-W-155.

#### PART 3 - EXECUTION

10. SURFACE CONDITIONS: Flooring shall be in a true, level plane, except where indicated as sloped. Before any work under this section is begun, all defects such as rough or scaling concrete, low spots, high spots, and uneven surfaces shall have been corrected, and all damaged portions of concrete slabs shall have been repaired as recommended by the flooring manufacturer. Concrete curing compounds, other than the type that does not adversely affect adhesion, shall be entirely removed from the slabs.

11. MOISTURE TEST: After concrete floor surfaces have been cleaned, small patches of adhesive to be used shall be spread in several locations in each room and allowed to dry overnight. If the adhesive can be peeled easily from the floor surfaces, the floor is not sufficiently dry. When tests show that the adhesive adheres tightly to the floor surface, the resilient flooring shall be applied. If concrete floors are in contact with the ground or over unventilated crawl spaces, small patches of primer shall be used in lieu of adhesive to test for moisture.

12. INSTALLATION OF VINYL-COMPOSITION TILE: Vinyl-composition tile flooring and wall base shall be installed in adhesive in accordance with the approved installation instructions of the manufacturer. Tile lines and joints shall be kept square, symmetrical, tight, and even. Floor shall be in a true, level plane, except where indicated as sloped. Edge tile width shall

13. CLEANING: Immediately upon completion of the installation in a room or an area, flooring and adjacent surfaces shall be cleaned with an approved cleaner to remove surplus adhesive. No sooner than 5 days after installation, flooring shall be washed with an approved nonalkaline cleaning solution and rinsed thoroughly with clear cold water. No-wax floors shall then be finished according to manufacturer's recommendations. Other floors shall be given two coats of polish; after each polish coat floors shall be buffed to an even luster with an electric polishing machine.

14. PROTECTION: From the time of laying until acceptance, flooring shall be protected from damage. Flooring which becomes damaged, loose, broken, or curled, shall be removed and replaced.

SECTION 09900  
PAINTING, GENERAL  
PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Federal Specifications (Fed. Spec.):

TT-C-555B & Am-1	Coating, Textured (for Interior and Exterior Masonry Surfaces)
TT-E-489G	Enamel, Alkyd, Gloss (for Exterior and Interior Surfaces)
TT-E-505A & Am-3	Enamel, Odorless, Alkyd, Interior, High Gloss, White and Light Tints
TT-E-506K & Am-1	Enamel, Alkyd, Gloss, Tints and White (for Interior Use)
TT-E-508C & Am-1	Enamel, Interior, Semigloss, Tints and White
TT-E-509B & Am-2	Enamel, Odorless, Alkyd, Interior, Semigloss, White and Tints
TT-E-543A & Am-1	Enamel, Interior, Undercoat, Tints and White
TT-E-545B & Am-1	Enamel, Odorless, Alkyd, Interior-Undercoat, Flat, Tints and White
TT-P-19D	Paint, Latex (Acrylic Emulsion, Exterior Wood and Masonry)
TT-P-24D & Am-2	Paint, Oil, Concrete and Masonry, Exterior Eggshell Finish, Ready-Mixed
TT-P-29J & Am-2	Paint, Latex Base, Interior, Flat, White and Tints
TT-P-30E & Am-1	Paint, Alkyd, Odorless, Interior, Flat, White and Tints
TT-P-38D & Am-1	Paint, Aluminum, Ready-Mixed

		AI3.1-1981	Scheme for the Identification of Piping Systems
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1.1.6	American National Standards Institute (ANSI) Standard:		
	Wash Primer		
	Basic Zinc Chromate - Vinyl Butyryl	SSPC-Paint 27-82	
	White or Colored Silicone Alkyd Paint	SSPC-Paint 21-82	
	Varnish Paint		
	Zinc Dust, Zinc Oxide and Phenolic	SSPC-Paint 5-82	
	Red Lead and Raw Linseed Oil Primer	SSPC-Paint 1-82	
	Brush-off Blast Cleaning	SSPC-SP 7-85	
	Solvent Cleaning	SSPC-SP 1-82	
	Shop, Field, and Maintenance Painting	SSPC-PA 1-82	
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1.1.5	Steel Structures Painting Council (SSPC) Specifications:		
	Hydrocarbon Missile Fuels		
	Petroleum Products Systems Including Identification Methods for Bulk	MIL-STD-161F	Change Notices 1 & 2
	Compressed Gas Cylinders		
	Color Code for Pipelines and for	MIL-STD-101B	
<hr/>			
1.1.4	Military Standards (Mil. Std.):		
	Primer Coating, Zinc Dust Pigmented, for Steel Surfaces	MIL-P-26915B	
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1.1.3	Military Specifications (Mil. Spec.):		
	No. 595a & Change Notices Colors		2, 3, 4, 5, 7 & Errata, 8
<hr/>			
1.1.2	Federal Standard (Fed. Std.):		
	Paint, Rubber-base, for Interior Use (Concrete and Masonry Floors)	FF-P-91D	& Am-2
	Primer Coating, Latex Base, Interior, White (for Gypsum Wallboard)	FF-P-650C	& Am-1
	Paint, Latex (Gloss and Semigloss, Tints and White) (For Interior Use)	FF-P-1511B	

1.2 DEFINITION: The term "paint" as used herein includes emulsions, enamels, paints, stains, varnishes, sealers, cement-emulsion filler, and other coatings, whether used as prime, intermediate, or finish coat.

1.3 PACKAGING, LABELING, AND STORAGE: Paints shall be in sealed containers that legibly show the designated name, formula or specification number, batch number, color, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name of manufacturer. Pigmented paints shall be furnished in containers not larger than 5 gallons. Paints shall be stored on the project site or segregated at the source of supply sufficiently in advance of need to allow 30 days for testing. Emulsion paints shall be stored to prevent freezing.

1.4 SUBMITTALS:

1.4.1 Certificates of Compliance: Except for lead-based metal primers for use in concealed spaces, a certificate of compliance shall be furnished in accordance with the specifications attesting that all paints proposed for use in residential structures or other structures which are readily accessible to children contain not more than 0.06 percent lead, as defined in paragraph HAZARDOUS MATERIALS RESTRICTIONS.

1.4.2 Manufacturer's Instructions: Detailed mixing, thinning and application instructions, minimum and maximum application temperature, and curing and drying times between coats shall be furnished for epoxy, moisture-cure polyurethane, and liquid glaze coatings. For the liquid glaze coatings, the instructions shall also include surface preparation requirements and the number and types of coats required for each surface. Detailed application instructions shall be furnished for textured coatings.

1.4.3 Samples: While the material is at the site or source of supply, and at a time agreeable to the Contractor and the Contracting Officer, a 1-quart sample of each color and batch, except for quantities of 50 gallons or less, shall be taken by random selection from the sealed containers by the Contractor in the presence of a representative of the Contracting Officer. The contents of the sampled containers shall be thoroughly mixed to ensure that the sample is representative. Samples shall be identified by designated name, specification number, manufacturer name and address, batch number, project contract number, intended use, and quantity involved.

1.4.4 Proprietary Paint Materials: The Contractor shall submit for approval the names, quantity represented, and intended use for the proprietary brands of materials proposed to be substituted for the specified materials when the required quantity of a particular color is 50 gallons or less.

2.2 HAZARDOUS MATERIALS RESTRICTIONS: Paints and painting practices shall comply with all applicable state and local laws enacted to insure compliance with Federal Clean Air Standards.

2.1.2 Fungicide: Material specified for all coats applied to fabrics and vapor barrier jackets over insulation shall contain a fungicide that will not adversely affect the color, texture, or durability of the coating. The paint shall contain a fungicide incorporated into the paint by the manufacturer and will meet the fungus resistance test specified in Fed. Spec. TT-P-19.

2.1.1 Ferrous-Metal Primer: Ferrous-metal primer shall conform to SSPC-Paint 5.

2.1 MATERIALS shall conform to the requirements listed herein and in the PAINTING SCHEDULE, except when the required amount of a material of a particular color is 50 gallons or less, in which case an approved first-line proprietary paint material with similar intended usage and color to that specified may be used.

PART 2 - PRODUCTS

1.7 ENVIRONMENTAL CONDITIONS: Unless otherwise recommended by the paint manufacturer, the ambient temperature shall be between 45 and 95 degrees F when applying coatings other than water-thinned, epoxy, moisture-cure polyurethane, and liquid glaze coatings. Water-thinned coatings will be applied only when ambient temperature is between 50 and 90 degrees F. Epoxy, moisture-cure polyurethane, and liquid glaze coatings will be applied only within the minimum and maximum temperatures recommended by the coating manufacturer. Moisture-cure polyurethane will not be applied when the relative humidity is below 30 percent. Paints, except water-thinned types, shall be applied only to surfaces that are completely free of moisture as determined by sight or touch. In no case shall paint be applied to surfaces which have visible frost or ice.

1.6 QUALITY ASSURANCE PROVISIONS: When samples are tested, approval of materials will be based on tests of the samples; otherwise, materials will be approved based on test reports furnished with them. If materials are approved based on test reports furnished, samples will be retained by the government for testing should the materials appear defective during or after application. In addition to any other remedies under the contract the cost of retesting defective materials will be at the contractor's expense.

1.5 COLORS AND TINTS: Colors shall conform to Fed. Std. 595 and shall be as selected by the Contracting Officer. Tinting of vinyl-type paints shall be done by the manufacturer. The color of the undercoats shall vary slightly from the color of the next coat.

2.2.1 Lead: Except for lead-based metal primers for use in concealed spaces, paints containing lead in excess of 0.06 percent by weight of the total nonvolatile content (calculated as lead metal) shall not be used in residential structures or other structures which are readily accessible to children.

2.2.2 Mercury: Mercurial fungicides shall not be used in exterior oil paints.

### PART 3 - EXECUTION

#### 3.1 SURFACE PREPARATION:

3.1.1 General Requirements: Items not to be painted which are in contact with or adjacent to painted surfaces shall be removed or protected prior to surface preparation and painting operations. Exposed ferrous metals, including nails on or in contact with surfaces to be painted with water-thinned paints, shall be spot-primed with a suitable corrosion-inhibitive primer capable of preventing flash rusting and compatible with the coating specified for the adjacent areas. All surfaces shall be clean and free of foreign matter before application of paint or surface treatments. Oil and grease shall be removed with clean cloths and cleaning solvents prior to mechanical cleaning. Cleaning solvents shall be of low toxicity with a flashpoint in excess of 100 degrees F. Cleaning shall be programmed so that dust and other contaminants will not fall on wet, newly painted surfaces. Items removed prior to painting shall be replaced when painting is completed.

3.1.2 Not Used.

3.1.3 Ferrous Surfaces: Ferrous surfaces that have not been shop-coated shall be solvent-cleaned. Surfaces that contain loose rust, loose mill scale, and other foreign substances shall be cleaned mechanically with power tools according to SSPC-SP3 or by sandblasting according to SSPC-SP7. After cleaning, one coat of ferrous-metal primer shall be applied to all ferrous surfaces to receive paint other than asphalt varnish and vinyl paint. The semitransparent film applied to some pipes and tubing at the mill is not to be considered a shop coat, but shall be overcoated with the specified ferrous-metal primer prior to application of finish coats. Shop-coated ferrous surfaces shall be protected from corrosion by treating and touching up corroded areas immediately upon detection.

3.1.4 Galvanized and Nonferrous Surfaces: Galvanized, aluminum

3.3.2 Time Between Surface Preparation and Painting: Surfaces

3.3.1.2 Paints, except water-thinned types, shall be applied only to surfaces that are completely free of moisture as determined by sight or touch. Floor sealer shall be given additional touch-up coats as necessary to eliminate dull spots. Excess sealer shall be wiped off after each application.

3.3.1.1 Adequate ventilation shall be provided during paint application. Respirators shall be worn by all persons engaged in spray painting. Adjacent areas shall be protected by approved precautionary measures.

3.3.1 General Requirements: Paint may be applied by brush, roller, or spray. At the time of application, paint shall show no signs of deterioration. Uniform suspension of pigments shall be maintained during application. Each coat of paint shall be applied so dry film shall be of uniform thickness and free from runs, drops, ridges, waves, pinholes or other voids, laps, brush marks, and variations in color, texture, and finish. Hiding shall be complete. Rollers for applying paints and enamels shall be of a type designed for the coating to be applied and the surface to be coated. Special attention shall be given to insure that all edges, corners, crevices, welds, and rivets receive a film thickness equal to that of adjacent painted surfaces.

3.3 APPLICATION:

3.2.2 Vinyl-Type Wash Coat: SSPC-paint 27 wash coat shall be mixed by adding one volume of acid component to four volumes of resin component as follows: First, the resin component will be mixed to break up settled pigment; the acid component will then be added slowly to the resin component with constant stirring. The wash coat shall be used within 8 hours. The material may be reduced with normal butyl alcohol, 99 percent isopropyl alcohol, or denatured ethanol if thinning is required to maintain a wet spray.

3.2.1 General: Unless otherwise recommended by the manufacturer, paints may be thinned immediately prior to application with not more than 1 pint of suitable thinner per gallon when necessary to suit conditions of surface, temperature, weather, and application methods. The use of thinner shall not relieve the contractor from obtaining complete hiding, full film thickness, or required gloss. Paints of different manufacturers shall not be mixed.

3.2 MIXING AND THINNING:

and aluminum-alloy, lead, copper, and other nonferrous surfaces to be painted shall be solvent-cleaned in accordance with SSPC-SPI and treated with a vinyl-type wash coat meeting the requirements of SSPC-paint 27.

that have been cleaned, pretreated, and otherwise prepared for painting shall be given a coat of the specified first coat as soon as practical after such pretreatment has been completed, but prior to any deterioration of the prepared surface.

3.3.3 Coating Progress: Sufficient time shall elapse between successive coats to permit proper drying. This period shall be modified as necessary to suit weather conditions. Oil-based or oleoresinous solvent-type paints shall be considered dry for recoating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and the application of another coat of paint does not cause the undercoat to lift or lose adhesion.

#### 3.3.4 Masonry Surfaces:

3.3.4.1 General: Masonry surfaces may be coated by brush, roller, or spray, except when using filler coats.

3.3.5 Metal Surfaces: First coats other than vinyl paints or vinyl-type wash coats shall be applied by brush. The three-coat paint systems specified for exterior and interior ferrous surfaces shall be applied so that their dry-film thickness at any point shall be not less than 4.0 mils, with the primer having a minimum dry-film thickness of 1.5 mils.

3.3.6 Vinyl-Type Wash Coat: Vinyl-type wash coat shall be applied by brush or spray to give a dry-film thickness of 0.3 mil to 0.5 mil. A wet spray shall be maintained at all times. Surfaces shall be permitted to dry for 1 hour and shall be coated as soon as practical within 24 hours and prior to any deterioration or accumulation of dust or dirt.

3.4 PIPE COLOR CODE MARKING: All piping in mechanical room shall be marked. Pipes exposed or concealed in accessible pipe spaces shall be provided with color band and titles adjacent to all valves, except those provided at plumbing fixtures, at not more than 40-foot spacing on straight pipe runs, adjacent to change in direction, and on both sides where pipes pass through walls or floors. Color code marking shall be of the color listed in Table I and the size listed in Table II. (These tables are based on MIL-STD-101B, MIL-STD-161, and ANSI A13.1.) The arrows shall be installed adjacent to each band to indicate the direction of flow in the pipe. The legends shall be printed in upper-case black letters as listed in Table I. Letter sizes shall be as listed in Table II. Marking shall be painted or applied using colored, pressure-sensitive adhesive markers of standard manufacture. Paint shall be as specified for insulated and uninsulated piping.

#### 3.5 MISCELLANEOUS:

3.5.1 Lettering: Lettering shall be provided as scheduled on the drawings, and shall be block type, 1 inch in height, and shall be

Material	Band	Arrow*	Legend
cold water (potable)	White	Black	POTABLE
Fire protection water	Red	Black	FIRE PR.
Hot water (domestic)	White	Black	H.W.
Hot water recirculating (domestic)	White	Black	H.W.R.
High temp. water supply	Gray	Black	H.T.W.S.
High temp. water return	Gray	Black	H.T.W.R.
Boiler feed water	Gray	Black	B.F.
Low temp. water supply (heating)	Gray	Black	L.T.W.S.
Low temp. water return (heating)	Gray	Black	L.T.W.R.
Condenser water supply	White	Black	COND.

TABLE I. COLOR CODES FOR MARKING PIPE

3.9.2 Surface Preparation: Except as otherwise specified, surface preparation is defined in the paragraph SURFACE PREPARATION of this section of the specification.

3.9.1 Shop-painted Items: Surfaces of items finish-painted by the manufacturer, or specified to be finish-painted under other sections of the specifications, are exempted from the requirements for surface preparation and painting. Shop-primed items shall receive surface preparation and finish painting as required by this section.

3.9 PAINTING SCHEDULE: The PAINTING SCHEDULE prescribes the surfaces to be painted, and the number and types of coats of paint.

3.8 CLEANING: Cloths, cotton waste and other debris that might constitute a fire hazard shall be placed in closed metal containers and removed at the end of each day. Upon completion of the work, staging, scaffolding, and containers shall be removed from the site or destroyed in an approved manner. Paint and other deposits on adjacent surfaces shall be removed and the entire job left clean and acceptable.

1) Concrete floor in Boiler Room and steps.

3.7 SURFACES NOT REQUIRING PAINTING: The following listed items will not require painting:

3.6 SURFACES TO BE PAINTED: Surfaces listed in the PAINTING SCHEDULE, other than those listed in paragraphs SURFACES NOT REQUIRING PAINTING and SURFACES FOR WHICH PAINTING IS PROHIBITED, will receive the surface preparation, paints, and number of coats prescribed in the schedule.

black enamel. Samples shall be approved before application.

W.S. Condenser water return	White	Black	COND.
W.R. Chilled water supply	White	Black	C.H.W.S.
Chilled water return	White	Black	C.H.W.R.
Treated water	Blue	Black	TR. WATER
Chemical feed	Blue	Black	CH. FEED
Compressed air	Gray	Green	COMP. AIR
Natural gas	Yellow	Brown	NAT. GAS
Freon	Gray	Black	FREON
Fuel oil	Yellow	Black	FUEL OIL
Steam	Gray	Black	STM.
Condensate	Gray	Black	COND.

\*Where black is indicated, white shall be used if necessary to provide contrast.

TABLE II. COLOR CODE MARKING SIZES

Outside Diameter Legend of Pipe Covering (Inches)	Width of Color Band (Inches)	Arrow Length x Width (Inches)	Size of Letters and Nos. (Inches)
Less than 1-1/2	1	1-1/2 x 1/2	1/2
1-1/2 to 3-1/2	1	4 x 1	3/4
3-1/2 to 6	2	8 x 2	1-1/4

PAINTING SCHEDULE

Surface	First Coat	Second Coat	Third Coat
Interior concrete as follows:	TT-C-555,	TT-P-29.	
Interior concrete	TT-P-91.	TT-P-91.	
Interior concrete	TT-P-29.	TT-P-29.	TT-P-29.
Interior concrete, masonry units, plaster, gypsum board, unless otherwise specified.	TT-P-29.	TT-P-30.	TT-E-508
Wood and metal interior trim, doors, and windows.	TT-E-543	TT-E-508	
Interior exposed ferrous surfaces, unless otherwise specified, and interior underside of zinc-coated and shop-primed steel roof decking where exposed in areas having painted walls.	TT-P-30.	TT-E-543 or TT-E-545.	TT-P-30. or TT-E-508 or TT-E-509.

## PAINTING SCHEDULE

<u>Surface</u>	<u>First Coat</u>	<u>Second Coat</u>	<u>Third Coat</u>
Ferrous surfaces of mechanical and electrical equipment that has been factory-primed.	TT-E-489, Class A.	TT-E-489, Class A.	
Interior galvanized surfaces, unless otherwise specified.	Two coats of paint to match adjacent areas		
Convactor enclosures, electrical conduit runs, metallic tubing, uninsulated ducts and pipes, pipe hangers, louvers, grilles, and air outlets in areas having painted adjacent surfaces.	Where painted adjacent surfaces have gloss finish:		
	TT-E-543 or TT-E-545.	TT-E-506 or TT-E-505.	
	Where painted adjacent surfaces have semigloss finish:		
	TT-E-543. or TT-E-545.	TT-E-508 or TT-E-509.	
	Where painted adjacent surfaces have flat finish:		
	TT-P-30.	TT-P-30.	

SECTION 15250

THERMAL INSULATION FOR MECHANICAL SYSTEMS

PART I - GENERAL

1. APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designations only.

1.1. Federal Specifications (Fed. Spec.):

L-P-535E Plastic sheet (Sheeting): Plastic Strip: Poly(Vinyl Chloride) and Poly(Vinyl Chloride-Vinyl Acetate), Rigid

HH-B-100B Barrier Material Vapor (For Pipe, Duct and Equipment Thermal, Insulation)

HH-I-558B Insulation, Blocks, Boards, Blankets, Felts, Sleeving (Pipe and Tube Covering), and Pipe Fitting Covering, Thermal (Mineral Fiber, Industrial Type)

HH-I-573B Insulation, Thermal, (Flexible Unicellular Sheet and Pipe Covering) & Int Am-1

1.2. Military Specifications (Mil. Spec.):

MIL-A-3316B Adhesives, Fire-Resistant, Thermal Insulation & Am-7

MIL-B-19564B Bedding Compound, Thermal Insulation Pipe Covering

MIL-C-19565C Coating Compounds, Thermal Insulation Fire- and Water-Resistant, Vapor-Barrier

MIL-C-0020079C Cloth, glass; Tape, Textile glass; and Thread, glass & Am-1

MIL-A-24179A Adhesive, Flexible Unicellular Plastic Thermal Insulation & Am-2

1.3. American Society for Testing and Materials (ASTM) Publications:

C 195-77

Mineral Fiber Thermal Insulating

(R 1983)	Cement
C 552-79	Cellular Glass Block and Pipe Thermal Insulation
E 84-81a	Surface Burning Characteristics of Building Materials

1.4. Manufacturers Standardization Society of the Valve and Fittings Industry (MSS) Publication:

SP-69	Pipe Hangers and Supports - Selection and Application (1983)
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2. GENERAL REQUIREMENTS: General requirements for field-applied insulation are as stated herein. Factory-applied insulation is specified under the equipment, duct or piping to be insulated, as detailed in other sections of these specifications. Insulation materials required for use in conjunction with items furnished by the Government as listed in the SPECIFICATIONS, shall be furnished and installed by the Contractor.

2.1. Identification of Material: Packages or standard containers of insulation, jacket material, cements, adhesives, and coatings delivered for use, and all samples required for approval shall have manufacturer's stamp or label attached giving the name of the manufacturer and brand, and a description of the material.

2.2. Verification of Dimensions and Conditions: The Contractor shall visit the premises to become thoroughly familiar with details of the work and working conditions, verify dimensions in the field, and shall advise the Contracting Officer of any discrepancy before starting the work.

2.3. Standard Products: Materials shall be the standard products of manufacturers regularly engaged in the manufacture of such products. Materials shall be compatible and shall not contribute to corrosion, soften, or otherwise attack surfaces to which applied in either the wet or dry state.

3. SURFACE BURNING CHARACTERISTICS:

3.1. Requirements: Insulation materials, adhesives, coatings, and other accessories shall have surface burning characteristics as determined by ASTM E 84 not to exceed 75 for flame spread and 150 for smoke developed, except for the following materials:

3.1.1. Nylon anchors for securing insulation to ducts or equipment.

3.1.2. Factory premolded one-piece PVC fitting and valve covers.

5.1. Adhesives: MIL. Spec. MIL-A-3316, Class 1 or 2 as specified.  
5.2. Contact Adhesive: MIL. Spec. MIL-A-24179, Type II, Class

5. MATERIALS shall conform to the following requirements.

PART 2 - PRODUCTS

4.2. Display Sample Cutaway Sections: After approval of materials and prior to insulating any piping, a display shall be prepared of sample sections of piping insulated as specified in this section. Display sample sections will be inspected at the job site by the Contracting Officer. Approved display sample sections shall remain on display at the jobsite during the construction period. Upon completion of construction, the display sample sections will be returned to the contractor. Display sample sections shall be provided for each type of pipe insulation used on the job, and for hot pipelines and cold pipe-lines both interior and exterior even when the same type of insulation is used for these services. Display sample sections shall include as a minimum an elbow or tee, a valve, a hanger with protection shield and insulation insert at support point, method of fastening and sealing insulation at longitudinal lap, circumferential lap, butt joints at fittings and on pipe runs, and termination points. Each material that is used to make up the insulation system shall be identified by indicating on an attached sheet first the specification requirement for the material and then the material by manufacturer that is intended to meet the requirement.

4.1. Insulation Data: Within 7 days of receipt of notice to proceed, and before starting installation of insulation materials, the Contractor shall submit to the Contracting Officer for approval a list of insulation data to be incorporated in the work. The data shall be descriptive information such as catalog cuts, diagrams, installation recommendations, and other information published by the manufacturer to demonstrate conformance to the specification. Materials furnished under this section of the specifications shall be submitted at one time. One copy of each data list will be returned and marked to indicate approval.

4. SUBMITTALS:

3.2. Flameproofing: Flameproofing treatments subject to deterioration due to the effect of moisture or high humidity are not acceptable.

- 3.1.3. Weatherproof coating.
- 3.1.4. Asphaltic mastic.
- 3.1.5. Wood blocks and wood or cork dowels.

1.

5.3. Bedding Compound: Mil. Spec. MIL-B-19564.

5.4. Corner Angles: Minimum 28 gage, 1-inch by 1-inch aluminum adhered to 2-inch by 2-inch heavy kraft paper.

5.5. Mineral Fiber Thermal Insulating Cement: ASTM C 195.

5.6. Duct Insulation for Air Conditioning Duct: Fed. Spec. HH-I-558, Form A, Class 2; Form B, Type I, Class 6 or 7. Density shall conform to requirements specified hereinafter.

5.7. Equipment Insulation, Hot Equipment (Above 60 Degrees F.):

5.7.1. Cellular Glass (Up to 250 Degrees F. Service): Fed. Spec. HH-I-551, Type I, or ASTM C 552, Type III.

5.8. Glass Tape: Mil. Spec. MIL-C-20079, Type II, Class 1 or 3. Tape shall be 4-inch wide rolls. Class 3 shall be 4.5 ounces per square yard. Open-weave type of 15 density may be used for embedding between coats of adhesive or coating materials.

5.9. Insulation Jackets:

5.9.1. Vapor Barrier Jackets: Vapor barrier jackets used on insulation exposed in finished areas shall have white finish suitable for painting without sizing.

5.9.1.1. Vapor Barrier Jacket for Pipe and Equipment: Fed. Spec. HH-B-100, Type I. Factory composite materials may be used to meet Beech puncture units.

5.10. Staples: Outward clinching type monel ASTM A 167 Type 304 or 316 stainless steel.

5.11. Pipe Insulation for Hot Pipelines (Above 60 Degrees F.):

5.11.1. Calcium Silicate: ASTM C 533, Type I.

5.11.2. Glass, Cellular: ASTM C 552, Type II, Class 1.

5.11.3. Mineral Fiber: Fed. Spec. HH-I-558, Form D, Type III, Class 12.

5.11.4. Phenolic Foam: Continuous molded rigid pipe insulation made from an essentially chemically neutral phenolic foam. Service temperature range of minus 40 degrees F. to 250 degrees F. thicknesses shall be as required for mineral fiber.

5.12. Polyvinyl Chloride Fitting Covers: Fed. Spec. L-P-535, Composition A, Type II.

7.1.2.3. Ducts shown to be acoustically lined, except that in any case either the liner shall be of sufficient thickness to be thermally equivalent to the thickness specified for the applicable

7.1.2.2. Site-erected air conditioning casings and plenums constructed of factory-insulated sheet metal panels.

7.1.2.1. Factory fabricated double wall internally insulated duct.

7.1.2. Ducts not requiring insulation are as follows:

Thickness (Inches)	
1	a. Supply ducts
1	b. Return air ducts
2	c. Plenums
2	d. Duct-mounted coil casings
2	e. Coil headers and return bends
1	f. Fresh air intake ducts
1	g. Filter boxes

7.1.1. Ducts and associated equipment insulation thicknesses shall be as follows:

7.1. General:

7. INSULATION AND VAPOR BARRIER FOR AIR CONDITIONING DUCT:

6. INSTALLATION: Except as specified, material shall be installed in accordance with the recommendations of the manufacturer. Insulation materials shall not be applied until tests specified in other sections of these specifications are completed; foreign material such as rust, scale, or dirt has been removed from surfaces to receive insulation; and the surfaces are clean and dry. Insulation shall be kept clean and dry at all times.

PART 3 - EXECUTION

- 5.13. Flexible Unicellular Insulation: Fed. Spec. HH-I-573.
- 5.14. Vapor Barrier Coating: Mil. Spec. MIL-C-19565, Type II. Color shall be white and qualification for listing is not required.
- 5.15. Wire: Soft annealed galvanized wire, 16 gage.

service, or additional external insulation shall be applied to provide thermal equivalence.

7.1.2.4. Supply and return ducts in air conditioned spaces unless otherwise shown. Air conditioned spaces shall be defined as those spaces directly supplied with conditioned air, or provided with a cooling device such as a fan-coil unit.

7.1.2.5. Return ducts in ceiling spaces or as indicated. Ceiling spaces shall be defined as those spaces between the ceiling and bottom of floor deck or roof deck inside the air conditioned space insulated envelope.

7.1.2.6. Supply ducts in ceiling spaces which are used as return air plenums or as indicated. Ceiling spaces shall be defined as those spaces between the ceiling and bottom of floor deck or roof deck inside the air conditioned space insulated envelope.

7.1.3. Insulation for rectangular ducts shall be flexible type where concealed, minimum density 3/4 pcf and rigid type where exposed, minimum density 3 pcf. Insulation for round ducts shall be flexible type, minimum density 3/4 pcf. Insulation for exposed ducts shall be provided with either a factory-applied vapor barrier jacket or a vapor barrier coating finish as specified. Insulation on concealed duct shall be provided with a factory-applied vapor barrier jacket.

7.1.4. Vapor barrier coating finish shall be accomplished by applying two coats of Type II vapor barrier coating with a layer of glass cloth embedded between the coats. The total dry film thickness shall be approximately 1/16 inch.

## 7.2. Application:

7.2.1. General Requirements: Duct insulation shall be continuous through sleeves and prepared openings. Duct insulation shall terminate at fire dampers and flexible connections. Vapor barrier materials shall be applied to form a complete unbroken vapor seal over the insulation.

### 7.2.2. Installation on Exposed Duct Work:

7.2.2.1. For rectangular ducts, rigid insulation shall be secured to the duct by mechanical fasteners on all four sides of the duct, spaced not more than 12 inches apart and not more than 3 inches from the edges of the insulation joints. A minimum of two rows of fasteners shall be provided for each side of duct 12 inches and larger. One row shall be provided for each side of duct less than 12 inches.

7.2.2.2. Duct insulation shall be formed with minimum jacket seams, and in no case shall a jacket seam be allowed on or

8.1.1.1. Equipment handling media between 35 degrees F. and 60 degrees F.: 1-1/2 inch thick mineral fiber or 2-inch thick cellular glass.

8.1.1. Insulation shall be rigid block, or semirigid board, suitable for the temperature encountered. Cold equipment shall include pumps handling media below 60 degrees F., drain pans, parts of air handling units, condensing units, that are not factory insulated, duct mounted coils, or headers and other equipment. Thicknesses shall be as follows:

8.1. General Requirements:

8. INSULATION FOR COLD EQUIPMENT (BELOW 60 DEGREES F.):

7.2.2.8. Insulation terminations and pin punctures shall be sealed and flashed with a reinforced vapor barrier coating. Two coats of Type II vapor barrier coating shall be applied with glass cloth embedded between coats. The coating shall have a dry film thickness of approximately 1/16 inch and shall overlap the adjoining insulation and uninsulated surface 2 inches.

7.2.2.7. At jacket penetrations such as hangers, thermometers, and damper operating rods, the voids in the insulation shall be filled with vapor barrier coating and the penetrations sealed with a brush coat of vapor barrier coating.

7.2.2.6. Breaks and ribs or standing seam penetrations in the jacket material shall be covered with a patch of the same material as the jacket. Patches shall extend not less than 2 inches beyond the break or penetration and shall be secured with Class 2 adhesive and stapled. Staples and joints shall be sealed with a brush coat of vapor barrier coating.

7.2.2.5. Staples and seams shall be sealed with a brush coat of Type II vapor barrier coating.

7.2.2.4. Joints in the insulation jacket shall be sealed with a 4-inch wide strip of the same material as the vapor barrier jacket. The strip shall be secured with class 2 adhesive and stapled.

7.2.2.3. Insulation shall be impaled on the fasteners; speed washers shall be installed and pin trimmed to washer.

Insulation shall be brought up to standing seams, reinforcing, and other vertical projections and shall not be carried over. Vapor barrier jacket shall be continuous across seams, reinforcing, and projections. When height of projections is greater than the insulation thickness, insulation and jacket shall be carried over.

## 8.2. Insulation and Finish on Cold Equipment:

### 8.2.1. Other Equipment:

8.2.1.1. Insulation shall be formed or fabricated to fit the equipment. To insure a tight fit on round equipment, edges shall be beveled and joints shall be tightly butted and staggered.

8.2.1.2. Insulation shall be secured in place with bands or wires at intervals as recommended by the manufacturer but not more than 12-inch centers. Insulation corners shall be protected under wires and bands with suitable corner angles.

8.2.1.3. Cellular glass insulation shall be set in a coating of bedding compound, and joints shall be sealed with bedding compound. Mineral fiber insulation joints shall be filled with insulating cement.

8.2.1.4. Insulation on heads of heat exchanger shall be removable. Removable section joints shall be fabricated using a male-female shiplap type joint. The entire surface of the removable section shall be finished as specified.

8.2.1.5. Exposed insulation corners shall be protected with corner angles.

8.2.1.6. Insulation on equipment with ribs shall be applied over 6- by 6- by 12-gage welded wire fabric which has been spot welded to the equipment over the ribs. Insulation shall be secured to the fabric with J-hooks and 2 by 2 washers or shall be wired in compliance with an approved method.

8.2.1.7. A smoothing coat of insulating cement shall be applied over the insulation except for removable sections of insulation.

8.2.1.8. Upon completion of installation of the insulation, two coats of Type II vapor barrier coating shall be applied with a layer of glass cloth embedded between the coats. The dry thickness of the finish shall be 1/16 inch.

## 9. INSULATION FOR HOT EQUIPMENT (ABOVE 60 DEGREES F.):

### 9.1. General Requirements:

9.1.1. Insulation shall be rigid block or semirigid board suitable for the temperature encountered. Hot equipment shall include pumps handling media above 130 degrees F., and other equipment.

### 9.2. Insulation and Finish on Hot Equipment:

10.2. Pipes Passing Through Sleeves:

- a. Pipe used solely for fire protection.
- b. Chromium-plated pipe to plumbing fixtures.
- c. Vertical portions of interior roof drain pipelines.

10.1. General Requirements: Except as specified or shown otherwise, aboveground hot water heating inside the structure shall be insulated as specified for hot pipelines. Air conditioner condensate drain pipelines shall be insulated as specified for cold pipelines; exterior piping shall be insulated as specified for piping exposed to weather. The following lines shall not be insulated:

10. ABOVEGROUND PIPE INSULATION:

9.2.4. Upon completion of installation of insulation, two coats of Class I adhesive with glass cloth embedded between the coats shall be applied. The dry film thickness of the finish shall be 1/16 inch.

9.2.3. Smoothing coat of insulating cement shall be applied over insulation, except for removable sections of insulation.

9.2.2.4. Exposed insulation corners shall be protected with corner angles.

9.2.2.3. Cellular glass insulation shall be set in a coating of bedding compound, and joints shall be sealed with bedding compound. Mineral fiber joints shall be filled with insulating cement.

9.2.2.2. Insulation shall be secured in place with bands or wires at intervals as recommended by the manufacturer but not greater than 12-inch centers. Insulation corners shall be protected under wires and bands with suitable corner angles.

9.2.2.1. Insulation shall be formed or fabricated to fit the equipment. To insure a tight fit on round equipment, edges shall be beveled and joints shall be tightly butted and staggered.

9.2.2. Other Equipment:

9.2.1. Insulation of Pumps: Pumps shall be insulated by forming a box around the pump housing. The box shall be constructed by forming the bottom and sides using joints which do not leave raw ends of insulation exposed. Bottom and sides shall be banded to form a rigid housing which does not rest on the pump. Joints between top cover and sides shall fit tightly. The joint forming a female shiplap joint on the side pieces and a male joint on the top cover, thus making the top cover removable. The entire surface of the removable section shall be finished as specified.

10.2.1. Pipe insulation shall be continuous through the sleeve.

10.3. Pipes Passing Through Hangers:

10.3.1. Insulation, whether hot or cold application, shall be continuous through hangers.

10.3.2. Support points such as hangers or rollers shall have a galvanized protection shield conforming to MSS SP-69, Type 40.

10.3.3. On pipes 2 inches and larger, an insulation insert of a density at least 9 pcf shall be installed under the hanger. The insert shall be the same length as the protection shield and shall cover not less than the bottom 180 degree arc of the pipe. As an option, at least three wood or cork dowels may be used and placed strategically between the pipe and shield on an approximate 180 degree arc. Inserts, blocks, or dowels shall be the same thickness as the insulation.

10.3.4. Inserts, blocks, or dowels shall be covered with a jacket material of the same appearance and quality as the adjoining pipe insulation jacket, shall overlap the adjoining pipe jacket 1-1/2 inches, and shall be sealed as required for the pipe jacket.

10.3.5. A factory fabricated protection shield unit that complies with the requirements specified for individual components may be furnished.

10.4. Cold Pipelines (Minus 30 Degrees to 60 Degrees F., Domestic Cold Water Lines.)

10.4.1. Insulation Thickness: Thickness of insulation shall be as indicated in Table I.

TABLE I  
Pipe Size (Inches)

Service or Range of Temp Degrees F.)	1/4 to 1-1/4	1-1/2 to 3	3-1/2 to 5	6 to 10	11 to 24	25 to 33
60 to 35 (CG)	1-1/2	1-1/2	2	2	2	2
(MF)	1	1	1-1/2	1-1/2	1-1/2	1-1/2
Domestic (CG)	1	1	1	1-1/2	1-1/2	1-1/2
Cold Water(MF)	1/2	1/2	1/2	1	1	1

Fittings, and Accessories:

10.4.4. Insulation for Flanges, Unions, Valves, Anchors,

plastic insulation.

10.4.3.8. Gage piping may be insulated with unicellular

10.4.3.7. At penetrations such as thermometers, the void in the insulation shall be filled with vapor barrier coating and the penetration shall be sealed with a brush coat of the same coating.

10.4.3.6. Breaks and punctures in the jacket material shall be patched by wrapping a strip of jacket material around the pipe and securing it with adhesive, stapling, and coating as specified for butt strips. The patch shall extend not less than 1-1/2 inches past the break.

coating.

10.4.3.5. Staples and seams, including those on self sealing lap systems shall be coated with a Type II vapor barrier

10.4.3.4. Factory self-sealing lap systems may be used when the ambient temperature is between 40 degrees and 120 degrees F. The lap system shall be installed in accordance with manufacturer's recommendations. Stapler shall be used only if specifically recommended by the manufacturer. Where fishmouths occur, the section shall be replaced or the fishmouth repaired by applying Class 2 adhesive under the lap and then stapling.

10.4.3.3. All laps and butt strips shall be secured with Class 2 adhesive and stapled on 4-inch centers.

10.4.3.2. Longitudinal laps of the jacket material shall overlap not less than 1-1/2 inches. Butt strips 3 inches wide shall be provided for circumferential joints.

10.4.3.1. Insulation shall be applied to the pipe with joints tightly butted and the ends of the insulation sealed off with Type II vapor barrier coating at intervals not to exceed 15 feet.

10.4.3. Cold Pipe Insulation (Straight Runs):

10.4.2. Vapor Barrier Jacket: Pipe insulation shall be covered with a factory applied vapor barrier jacket. Insulation or phenolic foam inside the building shown to be protected with an aluminum jacket shall have the insulation and vapor barrier as specified herein. The aluminum jacket shall be installed as specified for piping exposed for weather, except sealing of the laps of the aluminum jacket is not required.

NOTES: CG - Cellular Glass MF - Mineral Fiber

10.4.4.1. Pipe insulation shall have ends thoroughly coated with Type II vapor barrier coating not more than 6 inches from each flange, union, valve, anchor, or fitting in all directions.

10.4.4.2. Insulation of the same thickness and conductivity as the adjoining pipe insulation (either premolded or segmented) shall be placed around the item, abutting the adjoining pipe insulation. If nesting size insulation is used, the insulation should be overlapped 2 inches or one pipe diameter. Loose fill mineral wool or insulating cement shall be used to fill the voids. Elbows insulated using segments shall not have less than 3 segments per elbow. Insulation may be secured by wire or tape until finish is applied.

10.4.4.3. Upon completion of installation of insulation two coats of Type II vapor barrier coating shall be applied with glass tape embedded between coats. Tape seams shall overlap 1 inch. The coating shall extend out onto the adjoining pipe insulation 2 inches.

10.4.4.4. Where unions are shown not to be insulated, the insulation shall be tapered to the union at a 45-degree angle. The insulation and jacket shall terminate and shall be sealed with two coats of Type II vapor barrier coating with glass tape embedded between coats.

10.4.4.5. Anchors attached directly to the pipe shall be insulated for a sufficient distance to prevent condensation abut not less than 6 inches from the insulation surface.

10.4.4.6. Flexible connections at pumps and other equipment shall be insulated with unicellular plastic insulation, unless otherwise indicated.

10.4.5. Optional Poly-Vinyl Chloride Fitting Covers: At the option of the Contractor, premolded, one-piece polyvinyl chloride (PVC) fitting covers may be used in lieu of the embedded glass tape. Factory premolded insulation or field-fabricated insulation segments shall be used under the fitting covers. Blanket inserts will not be allowed. Insulation shall be covered with 2 or more coats of Type II vapor barrier coating to a minimum thickness of 1/16 inch before the PVC covers are installed. The covers shall be secured by PVC vapor barrier tape or with tacks made for securing PVC covers. All tape seams and tacks shall then be coated with Type II vapor barrier coating. Premolded PVC fitting covers shall not be used where exposed to the weather.

#### 10.5. Hot Pipelines (Above 60 Degrees F.):

10.5.1. Insulation Thickness: Pipelines shall be covered with insulation. Insulation thickness shall be determined using the

10.5.4.2. Insulation of the same thickness and conductivity as the adjoining pipe insulation, either preformed or segmented, shall be placed around the item abutting the adjoining pipe insulation, or if nesting size insulation is used, overlapping 2 inches or one pipe diameter. Loose fill mineral wool or insulating cement shall be used to fill the voids. Elbows insulated using segments shall have not less than 3 segments per elbow. Insulation may be wired or taped on until finish is applied.

10.5.4.1. The run of the line pipe insulation shall have the ends brought up to the item.

10.5.4. Insulation on Flanges, Unions, Valves, Anchors, Fittings, and Accessories:

10.5.3.5. Breaks and punctures in the jacket material shall be patched by wrapping a strip of jacket material around the pipe and cementing, stapling, and coating as noted for butt strips. Patch shall extend not less than 1-1/2 inches past the break.

10.5.3.4. Factory self-sealing lap systems may be used when the ambient temperature is between 40 degrees and 120 degrees F. and shall be installed in accordance with manufacturers instructions. Laps and butt strips shall be stapled whenever there is nonadhesion of the system. Where fishmouths occur, the section shall be replaced or the fishmouth repaired by applying class 2 adhesive under the lap and then stapling.

10.5.3.3. Laps and butt strips shall be secured with Class 2 adhesive and stapled on 4-inch centers. Adhesive may be omitted where pipe is concealed.

10.5.3.2. Longitudinal laps of the jacket material shall overlap not less than 1-1/2 inches, and butt strips 3 inches wide shall be provided for circumferential joints.

10.5.3.1. Insulation shall be applied to the pipe with joints tightly butted.

#### 10.5.3. Hot Pipe Insulation:

10.5.2. Vapor barrier jacket: Pipe insulation shall be covered with a factory applied vapor barrier jacket. Insulation shown to be protected with aluminum jacketing shall be provided with factory applied vapor barrier jacket and covered with field-applied or approved factory-applied type aluminum jacket.

Table II attached to this section. Insulation thickness for pipe-lines handling 60 degrees F. to 200 degrees F. hot water shall be as indicated in Table IV attached to this section.

10.5.4.3. Upon completion of installation of insulation, two coats of Class 1 adhesive shall be applied with glass tape embedded between coats. Tape seams shall overlap 1 inch. Adhesive shall extend onto the adjoining insulation not less than 2 inches. The total dry film thickness shall be not less than 1/16 inch.

10.5.4.4. Where unions are shown not to be insulated, the insulation shall be tapered to the union at a 45-degree angle. The insulation and jacket shall terminate and shall be coated with two coats of Class 1 adhesive with glass tape embedded between coats. The total dry film thickness shall be not less than 1/16 inch.

10.5.5. Optional Poly-Vinyl Chloride Fitting Covers: At the option of the Contractor, factory premolded one-piece PVC fitting covers may be used in lieu of the two coats of adhesive with tape embedded between coats. Factory premolded field-fabricated segment, or blanket insert insulation shall be used under the fitting covers. Factory premolded one-piece PVC fitting cover shall be installed over the insulation and secured by stapling, taping with PVC vapor barrier tape, or with metal or plastic tacks made for securing PVC fitting covers. PVC fitting covers shall not be used where exposed to the weather.

## 11. UNICELLULAR PLASTIC INSULATION:

11.1. General: Unicellular plastic insulation may be substituted for aboveground insulation for all services up to and including 200 degrees F. for piping and from 35 to 60 degrees F. for equipment.

11.2. Insulation Thickness for Pipe: Insulation thickness for pipe shall be 1/2-inch thick for pipe sizes up to 1-1/2 inch. Pipe sizes exceeding 1-1/2 inch shall be insulated in accordance with Table IV as appropriate. Runouts to terminal units shall not exceed 12 feet in length. When runouts to terminal units exceed 12 feet the entire length of runout shall be insulated in accordance with Table IV as appropriate.

11.3. Insulation Thickness for Equipment: Insulation thickness for equipment handling media between 35 degrees F. and 60 degrees F.: 1-1/2 inches.

### 11.4. Installation of Pipe Insulation:

11.4.1. Pipes, 5 inches and less shall be insulated with tubular sections, and pipes over 5 inches shall be insulated with field or factory precut sheets.

11.4.2. Insulation shall be continuous through sleeves. Aluminum jacket shall be provided over the insulation at sleeves where caulking is required. The aluminum jacket shall be installed as specified for pipe insulation.

- 11.4.3. Insulation shall be continuous through hangers and or cork dowels, or blocks as specified previously. Rigid inserts shall be provided with a metal protection shield with inserts, wood or cork dowels, or blocks as specified previously. Rigid inserts shall be bonded to the adjoining insulation with contact adhesive.
- 11.4.4. At the option of the contractor, a factory fabricated protection shield unit that meets the requirements for the component parts may be used.
- 11.4.5. Bent pipe and tubing shall be insulated by slipping the tubular insulation section over the pipe prior to joining. Straight pipe, 5 inches or less, shall have the insulation slipped over or slit and installed. Sheets cut to proper size and wrapped shall be used for pipe larger than 5 inches. Seams and butt joints shall be sealed with contact adhesive.
- 11.4.6. Flanges, couplings, unions, valves, anchors, and fittings shall be insulated with field fabricated sections of insulation of the same thickness as the adjoining insulation. Nesting size sections shall overlap the adjoining sections not less than 1 inch, and all seams, joints and overlaps shall be sealed with contact adhesive. Anchors shall be insulated for a sufficient distance to prevent condensation but in no case shall the distance be less than 6 inches away from the pipe surface.
- 11.4.7. Ends of insulation at termination points shall be sealed to the pipe with a brush coat of Type II vapor barrier coating. Where insulation abuts other types of insulation, the jacket or finish for other insulation shall be sealed vapor tight to the surface of the unicellular insulation.
- 11.5. Installation of Insulation on Equipment: Unicellular plastic insulation on equipment shall be installed as follows: Seams and joints shall be sealed with contact adhesive. Termination points shall be sealed; and joints with other types of insulation materials shall be made as specified for piping.
- 11.6. Finish: No additional finish is required inside the building, except that where shown insulation shall be protected with field applied aluminum jacket. Insulation exposed to weather not shown to have aluminum jacket shall be protected against ultraviolet deterioration with two coats of finish recommended by the manufacturer after the adhesive is thoroughly dry. At the option of the contractor, high-impact ultraviolet resistant PVC plastic may be used in lieu of the aluminum jacket. Plastic jacketing shall be designed by the manufacturer especially for protection of pipe insulation, and shall be at least .030 inches thick. Installation shall be in accordance with the recommendations of the manufacturer and shall include provisions for thermal expansion.

12. PAINTING AND FINISHING: Painting shall not be required on this material.

TABLE II.

REQUIRED THICKNESS (IN INCHES) OF PIPE INSULATION FOR HANDLING STEAM TO 15 PSIG AND OTHER MEDIA TO 250 DEGREES F.

k = thermal conductivity (average) Btu/hr. sq. ft. degree/in. thickness at a mean temperature of 75 degrees F.

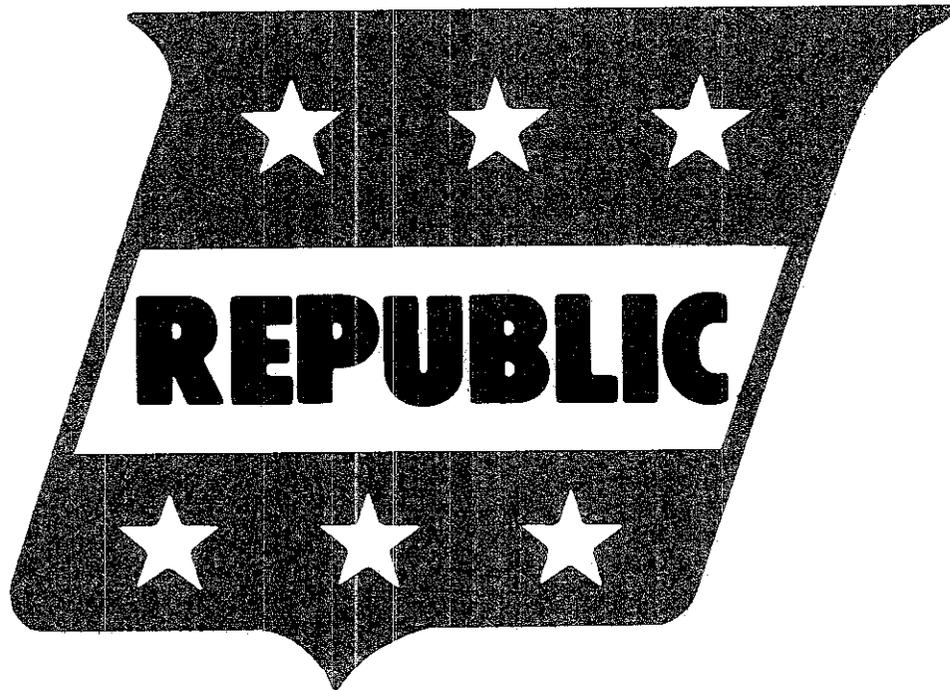
Thermal conductivity k	Pipe Size, Inches						
	2 or less	2-1/2 to 3	4	5 to 6	8	10	12
0.25	1.5	1.5	2.0	2.0	2.0	2.0	2.5
0.30	1.5	1.5	2.5	2.5	2.5	2.5	3.0
0.35	2.0	2.0	2.5	2.5	2.5	2.5	3.5
0.40	2.0	2.5	3.0	3.0	3.0	3.0	4.0
0.45	2.5	2.5	3.0	3.0	3.5	3.5	4.0

TABLE IV.

REQUIRED THICKNESS (IN INCHES) OF PIPE INSULATION FOR PIPES HANDLING HOT WATER. MF - MINERAL FIBER OR PHENOLIC FOAM. CG - CELLULAR GLASS.

Range of Service (Degrees F.)	Pipe Size, Inches						
	2 or less	2-1/2 to 3	4	5 to 6	8	10	12
60 to 200 (MF)	1.0	1.0	1.0	1.0	1.5	1.5	1.5
(CG)	1.5	1.5	1.5	1.5	2.0	2.0	2.0

# ASBESTOS ABATEMENT PLAN



U. S. ARMY RESERVE CENTERS  
E. St. Louis & Centralia, Illinois

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**Republic Industries, Inc.**

P.O. BOX 5565, STATION 1  
WILMINGTON, NORTH CAROLINA 28403  
(919) 799-2664

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**TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR  
MANUFACTURER'S CERTIFICATES OF COMPLIANCE**

DATE  
11-2-89

NEW SUBMITTAL  
 RESUBMITTAL

(Read instructions on the reverse side prior to initiating this form)

REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)

Section I

TO: Ms. Donna Hickey  
Contract Administration Bld 465  
Ft. Leonard Wood, MO. 65473-5000

FROM: Republic Industries Inc.  
P.O. Box 5565 Station 1  
Wilmington, N.C. 28403

CONTRACT NO. DABT-89-C-0087

TRANSMITTAL NO. 1

PREVIOUS TRANS. NO. (if any)

SPECIFICATION SEC. NO. (Cover only one section with each transmittal) 02075

PROJECT TITLE AND LOCATION Asbestos Removal E. St. Louis & Centralia

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type, size, model number, etc.)	MFG OR CONTR. CAT. CURVE DRAWING OR BROCHURE NO. (See instruction No. 8)	NO OF COPIES	CONTRACT REFERENCE DOCUMENT		VARIATION (See instruction No. 6)	FOR C E USE CODE
				SPEC. PARA. NO. e.	DRAWING SHEET NO. f.		
1	Automobile Insurance Certificate		1				
2	Performance Bond		1				
3	Asbestos Removal Plan		4				A

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

NAME AND SIGNATURE OF CONTRACTOR  
*Richard R. Civil*

Section II

APPROVAL ACTION

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY  
*Richard R. Civil*

DATE  
13 Nov '89



TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR  
MANUFACTURER'S CERTIFICATES OF COMPLIANCE  
(Read instructions on the reverse side prior to initiating this form)

DATE  
11-2-89

NEW SUBMITTAL  
 RESUBMITTAL

Section I REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)

TO: Ms. Donna Hickey  
Contract Administration Bld 465  
Ft. Leonard Wood, MO. 65473-5000

FROM: Republic Industries Inc.  
P.O. Box 5565 Station 1  
Wilmington, N.C. 28403

CONTRACT NO.  
DABF-89-C-0087

TRANSMITTAL NO.  
1  
PREVIOUS TRANS. NO.  
(If any)

SPECIFICATION SEC. NO. (Cover only one section with each transmittal)  
02075

PROJECT TITLE AND LOCATION  
Asbestos Removal E. St. Louis & Centralia

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED (Type, size, model number, etc.)	MFG OR CONTR CAT., CURVE DRAWING OR BROCHURE NO. (See instruction No. 8)	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT		VARIATION (See instruction No. 9)	FOR C E USE CODE
				SPEC. PARA. NO.	DRAWING SHEET NO.		
1	Automobile Insurance Certificate		1				
2	Performance Bond		1				
3	Asbestos Removal Plan		4				A

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

NAME AND SIGNATURE OF CONTRACTOR  
*David M. Morgan*

Section II

ENCLOSURES RETURNED (list by item No.)

APPROVAL ACTION

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY  
*Richard Dye Eng Tech*

DATE  
13 Nov, 89

ENG FORM 4025, Oct 84

(ER 415-J-10)

EDITION OF JUL 81 IS OBSOLETE.

(Purchaser DAEN-ECCO)

SHEET

OF

**REPUBLIC INDUSTRIES, INC.**  
**ASBESTOS ABATEMENT PLAN**  
**USAR CENTERS - E. St. Louis & Centralia, IL**

Part 1: Employee Training Program

Part 2: Decontamination Procedure

Part 3: Medical Program

Part 4: Safety and Health Program

Part 5: Respiratory Protection Program

Part 6: Air Monitoring Program

Appendix A: Employee Certification and Medical Data

Appendix B: Current State License

Appendix C: Equipment Certifications

Appendix D: Site Asbestos Removal Plan

Appendix E: Disposal Plan & Permits

Appendix F: Work Schedule

Appendix G: Certified Industrial Hygienist

## PART 1: EMPLOYEE TRAINING PROGRAM

- I. **Scope.** The objective of Republic Industries, Inc. is to maintain a well trained and safe work force by continued training efforts and low turnover of personnel.
- II. **Classroom.** All employees will participate in a scheduled session held by Company Representatives annually. In addition, each job will include impromptu session(s) held by the job supervisor. These meetings will be dedicated to:
  - A. Communicating any recent changes in rules and regulations regarding asbestos or other hazardous materials.
  - B. Discussions of changes or new developments in work practices, available equipment, or other technology affecting asbestos removal projects.
  - C. Reviews of past jobs and any particular changes that could have been made to better reduce exposure levels.
  - D. General safety practices related to normal work activities. (A new topic is to be presented in each session.)
- III. **Formal Classroom.** All employees will successfully complete an EPA approved three day worker training program and be accredited as Asbestos Workers by the State of North Carolina. (All supervision will successfully complete a five day supervisors program.) These programs shall include:
  - A. Methods of recognizing asbestos.
  - B. The health affects associated with asbestos.
  - C. The relationship between smoking and asbestos in producing lung cancer.
  - D. The nature of operations that could result in exposure to asbestos and the importance of protective controls to minimize exposure. Instruction on engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, protective clothing, decontamination procedures, and waste disposal procedures.
  - E. The purpose, proper use, fitting, and limitations of respirators.
  - F. Medical surveillance program requirements.
  - G. A review of 29 CFR 1926.58 and 40 CFR 763.
- IV. **Certification.** Each employee will complete the AHERA required annual retraining and maintain accreditation by the State of North Carolina.

## PART 2: DECONTAMINATION PROCEDURE

- I. **Decontamination Areas.** A prefabricated, mobile decontamination trailer shall be used for this removal operation. The trailer shall be located as close to the work area as possible and shall be connected via a site fabricated tunnel. (When building occupation conditions do not allow the construction of a connecting tunnel, removal personnel shall HEPA vacuum, wet-wipe themselves, and put on a clean suit in a clean area adjacent to the work area, then proceed through a restricted path to the decontamination trailer.) The trailer and work area combination will be placed under negative air pressure. The trailer shall be constructed as shown in the enclosed drawing and include:
  - A. **Clean Room.** In this room, the workers shall leave all street clothes and don clean working clothes (usually disposable coveralls). Respiratory protection equipment may be kept in this area. No asbestos-contaminated items shall enter this room. Workers enter this room either from outside the structure dressed in street clothes, or naked from the showers.
  - B. **Shower Room.** This is a separate room used for transit by cleanly dressed workers entering the job from the outside (clean) room or by workers headed for the shower after undressing in the equipment room. The shower stall shall have two entrances covered with air lock flaps and be set up to allow a single pass-through between the clean room and equipment room.
  - C. **Equipment Room (Contaminated Areas).** Work equipment, footwear and additional contaminated work clothing shall be left here. This is a change and transit area for workers.
  - D. **Work Area.** The work area shall be connected to the Equipment room via a temporary tunnel and separated from the equipment room by air lock, polyethylene barriers.
- II. **Entry Sequence (from outside to work room).**
  - A. Worker enters outside (clean area) room and removes clothing, dons clean work clothes and non-contaminated respiratory equipment, and passes through the shower area into the equipment room.
  - B. Any additional clothing and equipment left in the equipment room (contaminated area) required by the worker is put on. (When the work

area is too cold for coveralls only, the worker will usually provide himself with additional warm garments. These must be treated as contaminated clothing and left in the equipment room or work area at all times.)

C. Worker proceeds to work area.

### III. **Exit Sequence** (from contaminated work area to outside).

- A. Before leaving the work area, the workers shall remove all gross contamination and debris from himself and his clothing. (Special effort and attention is needed to clean top and bottom of shoes.)
- B. The worker shall proceed to the equipment room and remove all clothing except respiratory protection equipment. Extra work clothing may be stored in this area. Disposable work clothes are placed in a bag for disposal with other asbestos materials. The worker shall then proceed rapidly into the shower. After the employee and the respirator, and filters when used, are thoroughly wet, filters shall be removed and discarded as contaminated material.
- C. After showering, the worker shall move to the clean room and dress in either new coveralls for re-entry into the work area, or in street clothes to leave the project.
- D. After showering, each employee shall inspect, clean and fix his respirator as needed. The respirator shall be dried, placed in a suitable storage bag and properly stored.

## **PART 3: MEDICAL SURVEILLANCE PROGRAM**

- I. Purpose.** The purpose of this manual is to establish a Medical Surveillance Program for the employees of Republic Industries, Inc.
- II. Application.** This program is mandatory for all personnel employed in jobs where potential exists for exposure to asbestos.
- III. Responsibility.** Mr. David A. Nugent is responsible for the implementation and administration of this program development and subsequent revisions as required by changing governmental regulations.
- IV. Frequency and Scope.**
  - A.** Before assignment to any asbestos related work activity, employees shall submit to a medical examination, receive a minimum of three days of asbestos worker training and be fit tested for use of a negative pressure, air purifying respirator.
  - B.** Employees will not be allowed to use a negative pressure respirator or be assigned to an asbestos project until he/she has successfully completed the medical examination.
  - C.** Medical examinations shall be repeated annually for each employee covered under this program. Examinations may be performed more frequently if deemed necessary by the examining physician or the employer.
  - D.** An employee who refuses to submit to initial, periodic, and/or annual examinations will be terminated immediately.
  - E.** Final medical examinations shall be offered upon termination of employment. Republic industries, Inc., will use all possible influence to coerce an employee to accept an exit physical. Terminating employees who refuse final medical examinations must sign a waiver acknowledging that an examination has been offered at no cost and is declined by the employee.
  - F.** Medical examinations prescribed under this program are provided at no cost to the employee.
  - G.** All medical examinations shall be performed by a licensed physician selected and approved by Republic Industries, Inc.
- V. Information Supplied to Physician**

**A. Initial Examination Request Packet.** Republic Industries, Inc. shall issue an initial examination request packet to Company-approved physicians for employees covered under this program. This request packet shall contain the following:

1. Letter of Request for Initial Medical Examination;
2. A copy of this program;
3. A copy of 29 CFR Part 21926-58 Asbestos Standard for the Construction Industry, with Appendices D, E, and I;
4. The Initial Medical Questionnaire, for initial examinations;
5. The NC Division of Health Services Pre-Employment Statement (NC Form 6-OD, Part II);
6. Physician's Medical Examination Summary Form;
7. A description of the affected employee's duties as they relate to potential asbestos exposure;
8. The employee's representative or expected asbestos exposure level;
9. A description of any personal protective and respiratory equipment to be used by the employee;
10. Any information from previous medical examinations of the affected employee (not otherwise available to the examining physician);
11. Pulmonary function tests of forced vital capacity (FVC) and forced expiratory volume at one second (FEV1);
12. A chest roentgenogram, per the following:
  - a. Chest roentgenograms shall be interpreted and classified in accordance with a professionally accepted classification system on a Roentgenographic Interpretation Form CSD/NIOSH (M) 2.8.
  - b. Roentgenograms shall be interpreted and classified only by a B-reader, a board eligible/certified radiologist, or an experienced physician with known expertise in pneumoconioses.
  - c. All interpreters, whenever interpreting chest roentgenograms made under this program, shall have immediately available for reference a complete set of ILO-U/C International Classification of Radiographs for Pneumoconioses, 1980.

**B. Annual or Periodic Re-Examination.** Physicians shall perform annual or periodic medical examinations, to include the following, as a minimum:

1. The Periodic Medical Questionnaire;
2. A Re-Examination Record, NC Form 6 O-D, Part I.

**VI. Transmittal of Medical Records to Republic Industries, Inc.**

**A.** Following the completion of medical examinations, the physician shall submit all results and findings to Republic Industries. The physician shall not reveal in the written opinion or examination results, specific findings or diagnoses unrelated to occupational exposure to asbestos.

**B.** Submittals and records to be returned to the Company shall include:

1. A written opinion of the findings of each examination shall be recorded on the Physician's Medical Examination Summary Form (provided by Republic Industries, Inc.). The following information shall be included on this form, or attached thereto:

- a. The physician's written opinion as to whether the employee has any detected medical conditions that would place him/her at an increased risk of material health impairment from exposure to asbestos;
- b. Any employee medical complaints related to exposure to asbestos;
- c. Any recommended limitations on the employee or on the use of personal protective equipment, such as respirators;
- d. A statement that the employee has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure;
- e. A copy of the completed NC Pre-Employment Statement or the NC Re-Examination Record Form; and
- f. Copies of the chest x-rays, pulmonary function tests (FVC and FEV1), and the results of any other relevant tests.

**C.** All records shall be maintained by Republic Industries, Inc. for a period of 30 years and as required under 29 CFR 1926.58.

## EXAMPLE LETTER OF TRANSMITTAL

January 1, 1989

Medico  
1601 S. College Road  
Wilmington, NC 28403

Dear Sirs:

Attached you will find:

1. 6-OD Form
2. Basic Examination for Asbestos Workers
3. A copy of 29 CFR Part 1926.58 Asbestos Standard for Construction Industry. (Please keep this item on file in your office.)

The employee will be removing asbestos and will be exposed to levels up to 200 fibers per cc. Employees will be wearing respirator protection in accordance with 29 CFR 1926.58 paragraph H, Table D-4.

In order to comply with all state and federal regulations, we require the following:

1. **6-OD Form:** The completed original should be returned to Republic Industries by the employee. One copy must be sent to Occupational Health Branch, N.C. Division of Health Services, Raleigh, N.C.
2. **Basic Exam for Asbestos Workers:** Front page filled out by Physician and completed form returned to Republic Industries by employee.
3. **Chest X-ray:** One copy sent to State of N.C. (see address). One copy returned to Republic Industries by employee.

This is the manner in which we require all of our initial physicals to be performed.

Sincerely,

David A. Nugent  
President, Republic Industries, Inc.

## **PART 4: SAFETY AND HEALTH PROGRAM**

- I. Introduction.** This Safety and Health Protection Program represents a commitment by Republic Industries, Inc. to the protection of the health and well-being of its employees. This program shall apply to all company employees and authorized visitors.
- II. Purpose.** The purpose of this program is to establish the general safety and health rules necessary to provide a construction work site free of recognized hazards and to protect employees from working conditions which may be unsanitary, hazardous, or dangerous to health or safety.
- III. Scope.** This program shall apply to all employees of Republic Industries, authorized visitors and inspectors. Where not specifically addressed by this written program, hazards shall be evaluated and controlled in accordance with applicable safety and health standards as found in 29 CFR Part 1926, Occupational Safety and Health Standards for the Construction Industry.
- IV. General Safety and Health Rules.** The following rules apply to all construction sites and shall be strictly enforced by Republic Industries. Should conditions warrant additional protective measures, a qualified person shall make whatever determinations necessary to protect employees.
  - A.** Republic Industries shall conduct periodic safety and health training sessions to instruct its employees on the recognition and avoidance of unsafe conditions, and shall make employees aware of regulations which apply to their work environment to control or eliminate any hazards or other exposure to illness or injury.
  - B.** Where employees are required to handle hazardous substances, they will be instructed regarding safe handling and use practices, and be made aware of the potential hazards, personal hygiene, and personal protective measures required.
  - C.** First aid services will be made available by Republic Industries for every employee or authorized visitor.
  - D.** Republic Industries is responsible for the development and maintenance of an effective fire protection and prevention program at the job site through all stages of construction.
  - E.** Republic Industries shall maintain housekeeping, sanitation, and personal protection for its employees in accordance with applicable OSHA regulations.

## **V. Confined Space Entry.**

- A.** Confined or enclosed spaces shall mean any space having a limited means of egress, which is subject to the accumulation of toxic or flammable contaminants or has an oxygen deficient atmosphere. Confined or enclosed spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than 4 feet in depth such as pits, tubs, vaults, and vessels.
- B.** The following rules shall apply to all work in confined or enclosed spaces:
1. All employees required to enter into confined or enclosed spaces will be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of protective and emergency equipment required. Republic Industries shall comply with specific governmental standards that apply to work in dangerous or potentially dangerous areas.
  2. A qualified person will be designated for each project and will be responsible for anticipating, recognizing and evaluating employee exposure to hazardous substances or other unsafe conditions in confined spaces, and will specify the necessary controls and protection to ensure worker safety. The qualified person shall be recognized as capable of performing this type of evaluation either by education or specialized training.
  3. Entry into a confined or enclosed space by personnel, for any purpose, including hot work, will be prohibited until the qualified person has conducted appropriate tests to assure that the confined or enclosed space is safe for the work intended.
  4. Entry into a confined or enclosed space by personnel, for any purpose, including hot work, will be prohibited until the qualified person checking the space has posted an entry permit stating the required protection equipment and describing the hazards present.

## **PART 5: RESPIRATORY PROTECTION PROGRAM**

- I. Purpose.** The purpose of the Respiratory Protection Program is to establish the procedures and responsibilities for the protection of employees of Republic Industries, Inc.
- II. Responsibilities.**
  - A.** Mr. David Nugent will be responsible for the implementation and administration of this program.
  - B.** A competent individual at each site will be designated by the project management as the individual responsible for the administration and coordination of this respiratory protection program. This individual will usually be the site safety specialist. However, on small projects that do not have a safety specialist assigned, this individual will be one with sufficient training and experience in respiratory protection to adequately supervise the program. This individual will be responsible for the following:
    1. Interface with site personnel to determine the respiratory hazards to which construction personnel may be exposed.
    2. Coordination of physical examinations to ensure that all employees with the potential for exposure to respiratory hazards have been medically qualified to use respiratory protection by having satisfactorily passed a physical examination in accordance with the company's medical surveillance program.
    3. Ensuring that asbestos workers have received respiratory protection training and fit test.
    4. Supervision of respirator maintenance.
    5. Enforcement of the requirements of this program through regular inspections and reporting the results of these inspections to project management.
    6. Preparation and maintenance of all documentation as required by this program.
- III. Physical Examinations.** Employees shall be given medical examinations as required by the company's medical surveillance program, in accordance with 29 CFR 1926-58. Medical examinations must be completed before an employee is assigned a respirator.

#### **IV. Fit Testing.**

- A.** Employees having facial hair such as beards, long mustaches or sideburns which may interfere with the sealing surfaces of the respirator may not be employed in jobs where such protection is required.
- B.** Employees wearing full facepiece respirators, who also need prescription lenses for proper vision, must be provided with prescription glasses mounted inside the respirator faceshield.
- C.** Employees required to wear respiratory protection will be fit tested only after satisfactory completion of their physical examination. Employees who do not pass this examination may not be employed in a job where respiratory protection is required.
- D.** Prior to actual use, each potential user of a non-powered, air purifying respirator will be fit tested to determine the brand and model of respirator which will assure a satisfactory fit.
- E.** Fit testing shall be performed initially for each employee, and repeated every six months thereafter, or more frequently if requested by a physician or an industrial hygienist.
- F.** Qualitative fit testing shall be conducted according to 29 CFR 1926-58, Appendix C.

#### **V. Issue of Respirators.**

- A.** The individual designated as the site program administrator shall control the issue of all respiratory protective equipment.
- B.** Employees shall be issued the exact brand, model and size of respirator for which they have received a satisfactory fit test.

#### **VI. Respirator Inspection and Maintenance.**

##### **A. Inspection.**

- 1.** All respirators shall be inspected by the wearer before and after each use.
- 2.** Respirators kept for emergency use must be inspected after each use, and at least monthly to ensure that they are in satisfactory working condition. A record of all such inspection dates and findings shall be kept.

##### **B. Cleaning and Disinfection.**

1. Respirators issued for the exclusive use of each worker will be cleaned after each day's use.
2. Respirators used by more than one worker must be cleaned and disinfected after each use.

**C. Respirator Repair and Maintenance.**

1. Repair or maintenance shall be done only by experienced individuals with parts designed for the particular brand and model of respirator. Parts from one manufacturer may not be interchanged with parts from another manufacturer or style.
2. No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendation.

**D. Storage.** After inspecting, cleaning, and necessary repairs/ maintenance, respirators shall be stored to protect them against dust, sunlight, heat (140° Fahrenheit), extreme cold (20° Fahrenheit), excessive moisture, or damaging chemicals.

**VII. Respirator Monitoring and Program Evaluation.** Frequent, random inspections shall be conducted by the competent person designated for each work site, to ensure that respirators are properly selected, used, stored, cleaned, and maintained.

**VIII. Compressed Breathing Air.**

- A.** Compressed air used for breathing purposes and supplied to respirator facepieces and hoods shall be of high purity and meet the requirements of the Compressed Gas Association's Specifications for Grade "D" Breathing Air. This specification establishes a maximum allowable concentration of:
1. 20 PPM for carbon monoxide;
  2. 1000 PPM for carbon dioxide;
  3. 5 mg/cubic meter for condensed hydrocarbons and particulates; and
  4. No objectionable odors.
- B.** Breathing air systems may be supplied from compressors, breathing air cylinders, or powered air systems.
- C.** Plant breathing air systems may be used if available.

- D. If an internally oil-lubricated compressor is used, it shall have a high-temperature or carbon monoxide alarm or both. If only a high-temperature alarm is used, the air from the compressor shall be tested frequently for carbon monoxide to assure that it meets the specifications listed in Section A above.
- E. All compressors shall be equipped with suitable in-line air-purifying sorbent beds and filters to ensure Grade D quality.
- F. Air intakes for compressors shall be located to provide maximum protection against hazardous air contaminants being drawn into the system. Gasoline or diesel engine-powered equipment is a potential source of carbon monoxide and should be kept from operating near the compressor air intake.
- G. Air line couplings shall be incompatible with outlets for other gas systems in order to prevent accidental connection of air line respirators with non-respirable gases or oxygen.
- H. Supply air pressure at the point of attachment to the breathing air supply hose (or compressor discharge) shall meet the manufacturer's requirements for the type of respirators in use.
- I. Powered air systems may be used instead of compressed breathing air for some applications. This system cannot be used with Vortex cooling or heating tubes. These systems operate by battery or low-voltage power. The system draws ambient air through a filter and blows the air through a supply hose into the respirator facepiece. The filters remove only particulate matter (dusts and fumes). They do not remove gases and vapors (e.g., carbon monoxide).

## **IX. Respirator Selection.**

- A. Employees shall begin asbestos removal procedures using Type C air supplied respirators until the personal air monitoring results have shown employee exposures to be at a level which will allow the use of a respirator having a lesser protection factor. Type C respirators are not required if all job conditions are similar and exposures is expected to be similar to jobs in which documentation is available that shows that exposures will not be excessive for a lesser type equipment selection.
  - (1) **Asbestos removal work performed under this removal plan shall be performed using Powered Air Purifying Respirators for gross removal and Half-mask air-purifying respirator with HEPA filters for glove bag work.**
- B. Respirators shall be selected based on the type of contaminant present and the level to which workers may be exposed (as measured

by personal air sampling). Respirators selected for protection against asbestos fibers shall be in accordance with the respirator selection criteria listed in Table 1 on the following page.

**TABLE 1: RESPIRATOR SELECTION CRITERIA**

<b>Airborne Concentration of Asbestos</b>	<b>Required Respirator</b>
Less than 2.0 fibers/cc	1. Half-mask air-purifying respirator with HEPA filters.
Less than 10.0 fibers/cc	1. Full facepiece air-purifying respirator with HEPA filters.
Less than 20.0 fibers/cc	1. Any powered air-purifying respirator with HEPA filters. 2. Any supplied-air respirator operated in the continuous flow mode.
Less than 200.0 fibers/cc	1. Full facepiece supplied-air respirator operated in the pressure-demand mode.
Greater than 200.0 fibers/cc	1. Full facepiece supplied-air respirator operated in the pressure-demand mode, equipped with an auxiliary positive pressure, self-contained breathing apparatus (SCBA).

Table 1 has been reprinted from 29 CFR 1926.58, OSHA Asbestos Standard for the Construction Industry.

- Notes:**
1. Respirators assigned for higher environmental concentrations may be used at lower concentrations.
  2. A HEPA filter means a high efficiency filter that has at least 99.97 percent efficiency against mono-dispersed particles of 0.3 microns in diameter or larger.

## **PART 6: AIR MONITORING PROGRAM**

### **I. Responsibilities.**

- A.** Monitoring and analyses of airborne concentrations of asbestos fibers shall be performed by qualified employee under the direction of the CIH and in accordance with 29 CFR 1926.58 and the requirements of this protocol.
- B.** All air monitoring will be conducted in such a manner as to provide a valid representation of airborne fiber levels both inside and outside the work area.
- C.** If analysis of air samples indicates that the concentration of airborne asbestos exceeds any of the acceptable limits, the work will be stopped and procedures modified so as to lower fiber concentrations.
- D.** Asbestos removal work shall not commence until:
  - 1. Asbestos Control Area and Decontamination Enclosures have been erected, inspected, and proven satisfactory by the job supervisor.

### **II. Monitoring Prior to Asbestos Work.**

- A.** Since background asbestos levels are minimal for this type of removal and the existing building conditions, no pre-job air sampling will be performed.

### **III. Personal Monitoring During Asbestos Work.**

- A.** Personal air monitoring will be conducted on a daily basis to measure the exposure to approximately 25 percent of the employees engaged in each asbestos-related task. Determinations of employee exposure shall be made by taking breathing zone air samples that are representative of the maximum exposure that any of the workers engaged in the asbestos removal tasks may encounter.
- B.** Employee exposures shall be determined by the collection of representative 8-hour TWA samples consisting of one or more consecutive, full-shift samples for each employee sampled.
- C.** Proper performance of the sampling equipment will be checked periodically. Personal air samples will be drawn at a flow rate of approximately 2 liters/minute, with sampling duration to be determined by the IH.

- D. Air samples will not be drawn while personnel decontaminate in the showers.
- E. If at any time during the removal, the results of any of the personal samples exceed the protection factor of the respiratory protection in use, the type protection and/or practices will be changed accordingly.

**IV. Permissible Exposure Limit.** The permissible exposure limit for employee exposure shall be 0.2 fibers (longer than 5 microns) per cubic centimeter of air, as an 8-hour TWA. Employee exposure shall be measured by personal sampling only. The results of area samples are not appropriate for the estimation of worker's exposure levels.

**V. Area Monitoring During Removal.**

**A. Area Sampling Inside the Work Area.** In addition to personal samples, area samples will be collected daily inside the work area to determine the concentrations of airborne fibers being generated by the removal activity. These samples should be collected at a flow rate of  $\approx$  6.0 liters/minute. The results from these samples may only be used to index airborne fiber concentrations arising from work activities from one day to the next. Any radical increase in area concentrations will possibly require a modification of work practices to minimize fiber releases.

**B. Area Sampling Outside the Work Area.** Sampling shall be conducted on a daily basis, in locations outside of the work area to detect the spread of fibers during the removal project. If at any time during the removal, the results of area monitoring outside of the containment barriers have reached a detectable level, (ie. .01 fibers/cc), work shall stop and personnel be evacuated. Conditions will be corrected and affected areas cleaned prior to resuming work.

1. Typically, area samples will be taken at the following sampling locations to ensure the protection of unprotected personnel as well as the environment:
  - a. Inside the Clean Room;
  - b. Outside the entrance to the Clean Room;
  - c. Outside the area during waste load-out;
  - d. In adjacent areas occupied by unprotected personnel or any other locations deemed prudent and reasonable by the Project IH.

**VI. Other Monitoring.** Other sampling will be done as necessary. This includes, but is not limited to, bulk sampling of suspect materials or any additional air sampling deemed necessary.

## **VII. Final Inspection and Clearance Monitoring**

- A.** Following completion of cleaning, the CIH's representative shall conduct a final visual inspection to ensure that all surfaces are dry and free of visible asbestos contamination and debris. Should any signs of asbestos contamination remain, the cleanup procedure will be repeated until the work site meets this criteria for visual cleanliness.
- B.** After the work site has passed the final inspection, the CIH's representative shall begin clearance monitoring using aggressive sampling techniques used to forcefully circulate the air in the Asbestos Control Area. Aggressive air sampling is used to disturb any residual fibers remaining on the work surfaces and re-suspend them prior to clearance monitoring. This technique is employed after the completion of final cleanup and visual inspection, and requires the use of forced air equipment, such as a leaf blower.
- C.** In each work area, representative samples of the entire work area will be collected for clearance monitoring. A minimum of three samples per 5000 square feet shall be collected.
- D.** Air volumes for each clearance sample shall be at least 3000 liters, drawn at a maximum flow rate of 12 liters/minute. Sampling will be conducted with open-faced filters oriented in an upward direction to estimate "worst-case" conditions.
- E.** The results from the clearance samples shall be less than 0.01 fibers, longer than 5 microns, per cubic centimeter of air. If the results of any of the final air samples are unacceptable, final cleanup will be repeated and a visual inspection made prior to retesting. This process will be continued until the work area is found to be clean.
- F.** After a clearance air level of 0.01 fibers/cc is established, the roped perimeters and warning signs may be removed, and unrestricted access will be permitted.

## **VIII. Monitoring Equipment.**

- A. Sampling Pumps.** Area samples will be collected using Gast High Volume Air Sampling Pumps; BGI Inc. High Volume Air Samplers; and/or Dayton Speedaire Model 4Z026 Vacuum Pumps. Personal samples will be collected using MSA Model G; Gilian High Flow Air Sampling Pumps (Model IHP-113A); and/or Casella Personal Air Samplers.

- B. Pump Calibration.** Pumps will be calibrated before and after each day's use with a calibrated rotameter. All rotameters used for pump calibrations will be calibrated in the laboratory using a primary standard soap bubble meter.
- C. Collection Media.** Sampling media will consist of a 25 mm, mixed cellulose ester membrane filter with a 0.8 micron average pore size. Filters will be loaded in three-piece cassettes with extension cowls. Sampling will be conducted with open-faced filters oriented in a downward direction (except for clearance samples).
- D. Sample Integrity.** Samples will be sealed following collection with the cassette cover and secured with masking tape from one end plug to the other to prevent contamination prior to analysis. Samples will be labeled according to laboratory requirements for chain of custody and expressed to the selected laboratory for analyses.

## **IX. Air Sample Analyses.**

- A. Analytical Method.** All air samples will be analyzed by phase contrast microscopy (PCM) in accordance with the NIOSH Method 7400.
- B. Qualifications of Sample Analysts.** An analyst will have completed the NIOSH Course 582 entitled "Sampling and Analysis of Airborne Asbestos Dust." Personnel performing analyses of asbestos air or bulk samples will have successfully participated in the most recent testing rounds of the NIOSH Proficiency Analytical Testing (PAT) programs and the EPA Asbestos Bulk Analysis Quality Assurance Program.
- C. Analytical Sensitivity.** The asbestos fiber concentrations reported are only as accurate as the sensitivity of the NIOSH Method 7400 and the air sample volumes will allow. Therefore, samples showing asbestos fiber counts less than 10 fibers/square mm of filter area will be reported as a "less than value."

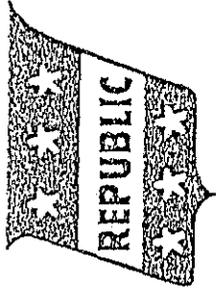
## **X. Sample Reports.** Sample Analyses Reports will include the following information:

- A. Project Description and Contract Number**
- B. Sample Number**
- C. Sample Collection Date**
- D. Name of Employee or Area Sampled**

- E.** Location and Task Sampled
- F.** Personal Protective Equipment Used
- G.** Type of Sample (Personal, Area, Bulk)
- H.** Sample Duration (in minutes)
- I.** TWA Results (in fibers/cc)
- J.** Analytical Method
- K.** Person Taking Sample
- L.** Comments
- M.** Analyst

...

**APPENDIX A:**  
**EMPLOYEE CERTIFICATION AND MEDICAL DATA**



# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

DAVID A. NUGENT

for having successfully completed a  
One Day (8 Hour) Asbestos Contractor/Supervisor Refresher Course  
in compliance with the Asbestos Hazard Emergency Response Act  
(40 CFR 763 Part A) and the North Carolina General Statute  
.130A-294.1 as amended August 3, 1989.

RII-1000CSR

Recertification Number

SEPTEMBER 14, 1989

Date Tested

SEPTEMBER 13, 1990

Expiration Date

*David A. Nugent*  
President

*George Stelger*  
Instructor

REPUBLIC INDUSTRIES, INC. (919) 799-2664  
Mailing Address: P.O. Box 5565 Wilmington, NC 28403 • Plant Location: 432 Landmark Drive Wilmington, NC 28412

N.C. Department of Human Resources  
Division of Health Services  
Asbestos Control Program

ASBESTOS ACCREDITATION

READ INSTRUCTIONS THOROUGHLY BEFORE COMPLETION

INFORMATION MUST BE COMPLETE  
AND TYPED OR PRINTED IN INK

SECTION I.

NAME: DAVID A. NUGENT  
SSN: 436-72-5851  
COMPANY: REPUBLIC INDUSTRIES, INC.  
ADDRESS: 432 LANDMARK DRIVE  
CITY: WILMINGTON STATE: N.C. ZIP: 28412  
TELEPHONE: (919) 799-2664

NOTE: It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

SECTION II.

Initial Accreditation  Accreditation Renewal Existing Number: 30006

SECTION III.

Training Agency Attended: REPUBLIC INDUSTRIES, INC. TRAINING DIVISION  
Name of Course Completed: CON/SUP REFRESHER Dates Attended: SEPTEMBER 14, 1989

SECTION IV.

ASBESTOS ACCREDITATION REQUESTED:  
(Check one only—One form per discipline)

<input type="checkbox"/> Management Consultant	<input type="checkbox"/> Air Monitor
<input type="checkbox"/> Inspector	<input type="checkbox"/> Project Designer
<input type="checkbox"/> Management Planner	<input type="checkbox"/> Worker
<input checked="" type="checkbox"/> Supervisor	

SECTION V.

Enclose an original certificate of completion of the approved training course bearing the training agency's official seal and/or an original letter from the training agency attended verifying successful completion of the required course. Also enclose documentation verifying completion of education and experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation. See instructions on back.

SECTION VI.

Enclose accreditation fees in the form of personal check, certified check or money order payable to: Asbestos Control Program.

<input type="checkbox"/> \$100.00 - Inspector	<input type="checkbox"/> \$100.00 - Management Planner
<input checked="" type="checkbox"/> \$100.00 - Supervisor	<input type="checkbox"/> \$100.00 - Project Designer
<input type="checkbox"/> \$100.00 - Management Consultant	<input type="checkbox"/> \$100.00 - Air Monitor
<input type="checkbox"/> \$ 25.00 - Worker	

SECTION VII.

OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

APPLICANT'S SIGNATURE: David A. Nugent DATE: 9/14/89

FOR DIVISION USE ONLY

ACCREDITATION NUMBER: 30006 EXPIRATION DATE: 09/30/90  
DATE OF INITIAL TRAINING: 10/23/87 DATE OF LATEST REFRESHER TRAINING: 09/14/89  
Approving Signature: Howard Bridges/JS Date: 09/29/89

CN: 5242

Hazardous Materials Institute, Inc  
 presents this  
**ANNUAL RECERTIFICATION CERTIFICATE**  
 for the  
**Building Inspection Course**

to  
DAVID NUGENT

for successful completion of all training requirements  
 in accordance with  
 40 CFR Part 763 (AHERA)

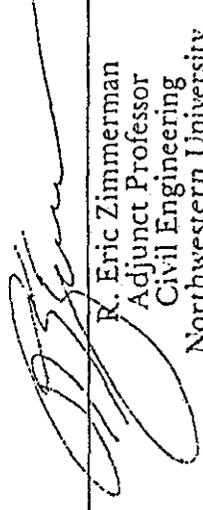
Oct. 21, 1988      Oct. 20, 1989

Date      Expiration Date

*Albert R. Wilson*

Albert R. Wilson, President

540 Frontage Road  
Northfield, IL 60093



R. Eric Zimmerman  
 Adjunct Professor  
 Civil Engineering  
 Northwestern University



North Carolina Department of Human Resources  
Division of Health Services  
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor  
David T. Flaherty, Secretary

December 16, 1988

Ronald H. Levine, M.D., M.P.H.  
State Health Director

David A. Nugent  
Republic Industries, Inc.  
P.O. Box 5565, Station 1  
Wilmington, NC 28403

Subject: North Carolina AHERA Contractor Re-accreditation for Inspector.

Dear Mr. Nugent:

In line with your request, this office has acknowledged your completion of the annual update course for Inspector. You should retain your present North Carolina accreditation number 10087, which confirms that you have successfully completed an EPA approved refresher course.

In addition, you may use this office as reference to verify that you are authorized to perform Inspector activities associated with the EPA Rules, Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, Asbestos-Containing Materials in Schools.

This reaccreditation is valid through October 31, 1989. If you wish to maintain your accreditation after this time, you must submit confirmation of retraining as required by the present EPA rules.

Please keep this office aware of any changes in your mailing address and phone number. If you have any questions or need additional information, please contact this office at (919) 733-0820. Thank you.

Sincerely,

*Howard Bridges*

Howard Bridges, Manager  
Asbestos In Buildings Program  
Occupational Health Branch

HB/twb

c. Teresa Brooks





North Carolina Department of Human Resources  
Division of Health Services  
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor  
David T. Flaherty, Secretary

December 16, 1988

Ronald H. Levine, M.D., M.P.H.  
State Health Director

David A. Nugent  
Republic Industries, Inc.  
P.O. Box 5565, Station 1  
Wilmington, NC 28403

Subject: North Carolina AHERA Contractor Re-accreditation for Management  
Planner.

Dear Mr. Nugent:

In line with your request, this office has acknowledged your completion of the annual update course for Management Planner. You should retain your present North Carolina accreditation number 20064, which confirms that you have successfully completed an EPA approved refresher course.

In addition, you may use this office as reference to verify that you are authorized to perform Management Planner activities associated with the EPA rules, Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, Asbestos-Containing Materials in Schools.

This reaccreditation is valid through October 31, 1989. If you wish to maintain your accreditation after this time, you must submit confirmation of retraining as required by the present EPA rules.

Please keep this office aware of any changes in your mailing address and phone number. If you have any questions or need additional information, please contact this office at (919) 733-0820. Thank you.

Sincerely,

*Howard Bridges JB*

Howard Bridges, Manager  
Asbestos In Buildings Program  
Occupational Health Branch

JB/twb

cc: Teresa Brooks



North Carolina Department of Human Resources  
Division of Health Services  
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor  
David T. Flaherty, Secretary

December 16, 1988

Ronald H. Levine, M.D., M.P.H.  
State Health Director

David A. Nugent  
Republic Industries, Inc.  
P.O. Box 5565, Station 1  
Wilmington, NC 28403

Subject: North Carolina AHERA Contractor Re-accreditation for Designer.

Dear Mr. Nugent:

In line with your request, this office has acknowledged your completion of the annual update course for Designer. You should retain your present North Carolina accreditation number 40002, which confirms that you have successfully completed an EPA approved refresher course.

In addition, you may use this office as reference to verify that you are authorized to perform Designer activities associated with the EPA Rules, Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, Asbestos-Containing Materials in Schools.

This reaccreditation is valid through October 31, 1989. If you wish to maintain your accreditation after this time, you must submit confirmation of retraining as required by the present EPA rules.

Please keep this office aware of any changes in your mailing address and phone number. If you have any questions or need additional information, please contact this office at (919) 733-0820 Thank you.

Sincerely,

*Howard Bridges*

Howard Bridges, Manager  
Asbestos In Buildings Program  
Occupational Health Branch

HB/lwb

cc: Teresa Brooks



Republic Industries, Inc.  
General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5565 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME DAVID A. NUGENT  
SSN 436-72-5851

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

RESPIRATOR QUALIFICATION  
BRAND/MODEL NO. 3M 7200 TEST DATE 5/4 DATE EXPIRES 11/89  
INSTRUCTOR G.N. PHELPS

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

No. ?

A chest x-ray examination made of \_\_\_\_\_

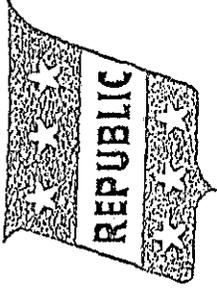
Nugent, David A. Age 38

on May 19, 1988 employed by  
Republic Industries, Inc.

is free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in one year.

*C. D. Bailew*

N. C. Department of Human Resources, Division of Health  
Services, Occupational Health Branch, Raleigh, N. C.  
DHS Form 2666 9-77



# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

TIM BROOKS

for having successfully completed the three day Asbestos Abatement  
Worker Training in compliance with Occupational Safety and  
Health Administration Regulation 1926.58 Construction Standards  
for Asbestos Industry 1910.1001 General Industry  
Standards and Environmental Protection Agency Final Rule for  
Asbestos Containing Materials in Schools 40 CFR Part 763.

26 May, 1989  
Date Tested

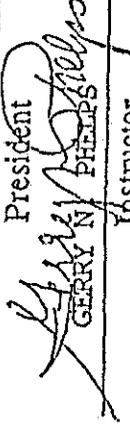
RII-0014

25 May, 1990

Date

DAVID A. NUJENT

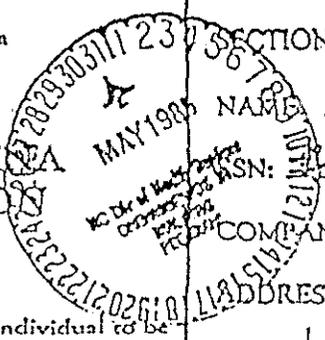
President

  
GERRY N. PHELPS

Instructor

FOLLOWING INFORMATION MUST BE COMPLETED

NORTH CAROLINA  
ACCREDITATION



SECTION I.

NAME: Timothy Brooks  
ASB#: 412-33-0197  
COMPANY: Republic Industries, Inc.  
ADDRESS: PO Box 5565 <sup>1132</sup> LANDMARK DR.  
CITY: Wilmington STATE: NC ZIP: 28403  
TELEPHONE: 919/799-2664

NOTE: It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

SECTION II.

Initial Accreditation       Accreditation Renewal  
Initial Training Date: 5/24/89      Refresher Training Date:   /  /  

SECTION III.

Training Agency Attended: Republic Industries, Inc. Training Division  
Course Completed: 3 Day Asbest Worker Dates Attended: 5/24 - 5/26/89

SECTION IV.

ASBESTOS ACCREDITATION DESIRED:  
 Inspector       Project Designer  
 Management Planner       Worker  
 Contractor/Supervisor

SECTION V.

Attach a letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

SECTION VI.

OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

SIGNATURE: Tim Brooks      DATE: 5/26/89

FOR DIVISION USE ONLY

ACCREDITATION NUMBER: 50730      EXPIRATION DATE: 05/31/90  
DATE OF INITIAL TRAINING: 05/26/89      DATE OF LATEST REFRESHER TRAINING: N/A  
Approving Signature: Howard Bridges/BB      Date: 05/31/89



Republic Industries, Inc.

General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5585 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME TIM BROOKS

SSN 412-33-0197

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

WILLSON RESPIRATOR QUALIFICATION  
BRAND/MODEL NO. 6100 TEST DATE 5-26-89 DATE EXPIRES 1-26-89

INSTRUCTOR Gerry N. Phelps

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME Tim Brooks

DATE 5/26/89

CHART # A-32916

SS# 412 33 0197

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

COMPANY: Republic Industries

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT: 76 ins AGE: 25 years

BTPS FACTOR = 1.096

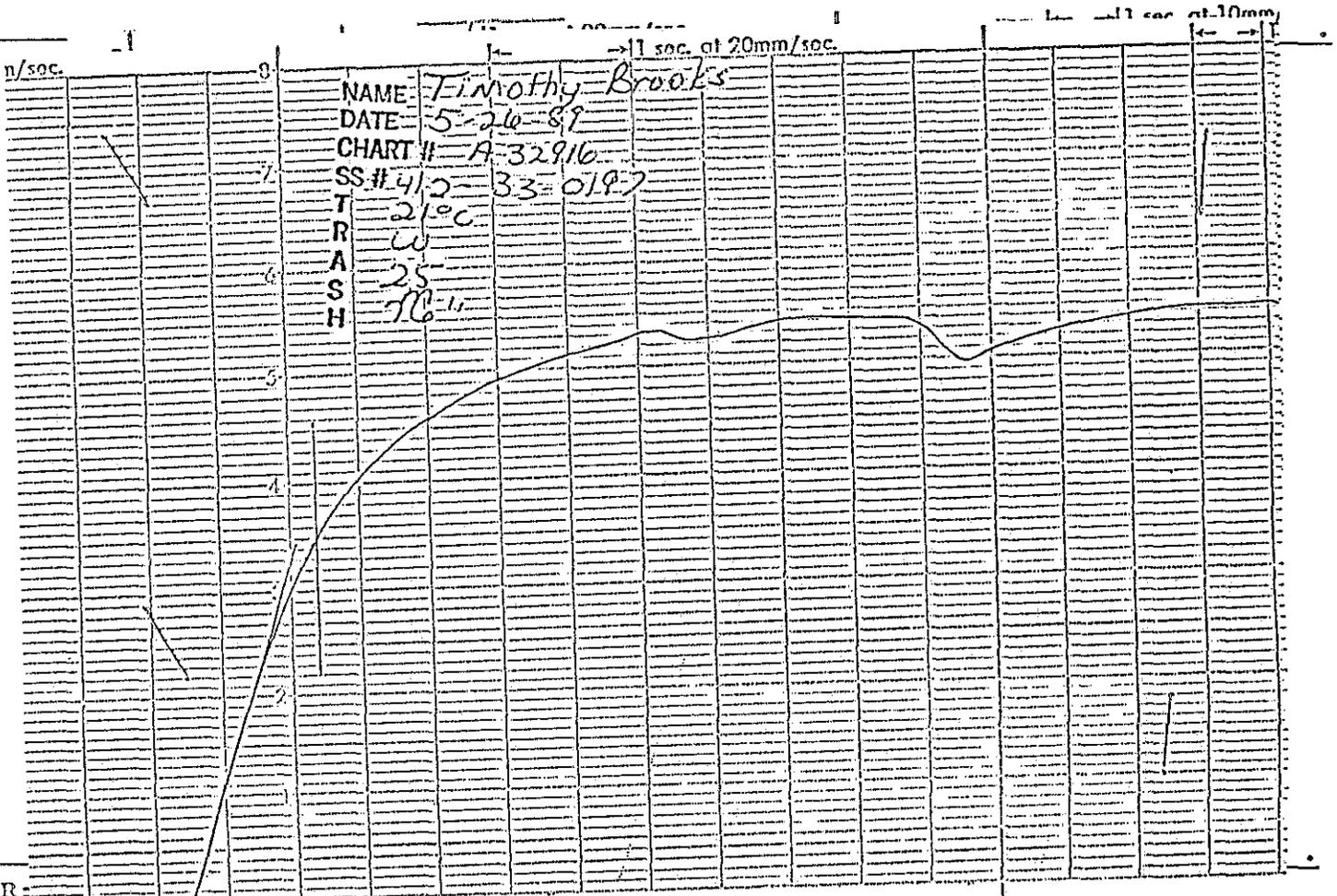
CHINE TEMP = 21° C

Medical History (reason for test) Employment

Machine Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	3.6	3.9456	5.16	76.46%
FVC	5.6	6.1376	6.36	96.5%



NAME: Timothy Brooks  
 DATE: 5-26-89  
 CHART #: A-32916  
 SS #: 412-33-0197  
 T: 21°C  
 R: W  
 A: 25  
 S: 76-11  
 H:

Additional tracings folded over

*[Signature]*

# medico

URGENT CARE CLINIC

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## INSULATION PHYSICAL

5/24/89  
 Chart # A32914  
 Date Of Birth 4-16-64  
 Name Tim Brooks  
 Address Rt 1 Box 118E Hallston City NC State NC  
 Phone 763 7928  
 Company Name Republic Industries

Height 76" Age 25 Blood Pressure 118/70

Spirometry Completed  
 Chest X-ray  
 Industrial form mailed to OSHA  
 Occupational capability to wear respirator  
 Spirometry: Spg 1.018 Ph 5.0 Alb (-) Sugar (-)  
 Place on chart  
 To OSHA, mounted  
 not read, send to OSHA. include Co.

VISION: Normal

Vision with glasses 20/  
 Vision without glasses 20/  
 Vision with glasses 20/  
 Vision without glasses 20/20  
 Vision without glasses 20/20-1  
 Vision without glasses 20/20

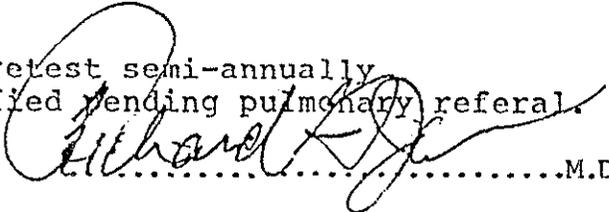
Check if abnormal, check if normal, cross out if not examined. Note on any abnormalities.

- S
- S
- E
- CAT
- K
- SL
- RT
- G
- N

### ADDITIONAL COMMENTS

Capable of wearing Respirator Equipment [ ]  
 Not capable to wear respirator please comment on.

PULMONARY FUNCTION (note report)  
 FEV1 or FEVC >70% = normal  
 FEV1 or FVC 60 - 70% = Qualified but retest semi-annually  
 FEV1 or FEVC less than 60% = Disqualified pending pulmonary referral.

  
 .....M.D.

# medico

URGENT CARE CLINIC

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## CERTIFICATION

This is to certify that the individual listed below has been medically tested and found physically able to perform work and use respiratory protective equipment pursuant to 1910.134. Determination by Chest X-Ray and Spirometer testing.

Timothy Brooks  
Individual Examined

Date 5/26/89

Physician Richard [Signature]

BASIC EXAMINATION FOR ASBESTOS WORKERS

COMPANY: Republic Industries, Inc.

DATE: 5/26/89

APPLICANT NAME: Terry F. V.

SSN: 112-8340-1

ADDRESS: Rt. 2 Box 112E Lincolnton, NC

TELEPHONE: 763-7929

DATE OF BIRTH: 11/1/42

- MEDICATIONS: NO
- KNOWN DRUG ALLERGIES: NO
- BROKEN BONES: NO
- SURGERY: NO
- DOES PATIENT WEAR GLASSES OR CONTACTS: Yes
- DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES: NO
- HAS PATIENT EVER HAD PROBLEM WITH EARS: NO

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 118 DIASTOLIC 70 PULSE 52

2. HEART: MURMURS \_\_\_\_\_  
RATE \_\_\_\_\_  
RHYTHM \_\_\_\_\_  
ENLARGEMENT \_\_\_\_\_  
HEIGHT 76" WEIGHT 170

3. LUNGS: \_\_\_\_\_

4. PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits \_\_\_\_\_  
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits \_\_\_\_\_  
(copy attached)

6. RECOMMENDATIONS: \_\_\_\_\_

It is my opinion that the above named patient is \_\_\_\_\_ is not \_\_\_\_\_ qualified to wear a respirator in the performance of his/her job:

Richard [Signature]

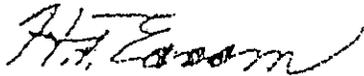
N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES  
X-RAY NO. A1391

A chest x-ray examination made of  
Brooks, Timothy W. Age 25  
(Name)  
on May 26, 1989 employed by  
(Date)  
Co. Name Republic Industries, Inc.

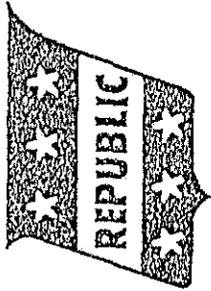
was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 12 months
- 24 months
- 60 months



Signature, Chest Consultant

DHS 2666 (Revised 7/88)  
Occupational Health (Review 7/90)



# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

TIM R. CAVENAUGH

for having successfully completed the three day Asbestos Abatement  
Worker Training in compliance with Occupational Safety and  
Health Administration Regulation 1926.58 Construction Standards  
for Asbestos Industry 1910.1001 General Industry  
Standards and Environmental Protection Agency Final Rule for  
Asbestos Containing Materials in Schools 40 CFR Part 763.

RFI-0030

Certification Number \_\_\_\_\_  
13 July, 1989  
Date Tested \_\_\_\_\_  
12 July, 1990  
Expiration Date \_\_\_\_\_

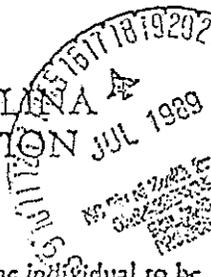
DAVID A NUGENT

President  
*Gerry N. Phelps*  
GERRY N. PHELPS  
Instructor

FOLLOWING INFORMATION MUST BE COMPLETED

SECTION I.

NORTH CAROLINA  
ACCREDITATION



NAME: Timothy Cavanaugh

SSN: 241-19-1257

COMPANY: REPUBLIC INDUSTRIES, INC.

ADDRESS: 432 LANDMARK DR.

CITY: WILMINGTON STATE: N.C. ZIP: 28403

TELEPHONE: (919) 799-2664

It is the responsibility of the individual to be aware of when retraining and/or recertification is required. This agency will not notify individuals regarding expiration dates.

SECTION II.

Initial Accreditation

Accreditation Renewal

Initial Training Date: 07/13/89

Refresher Training Date: —/—/—

SECTION III.

Training Agency Attended: REPUBLIC INDUSTRIES TRAINING DIVISION

Course Completed: 3-DAY AHERA WORKER Dates Attended: 7/11 - 7/13/89

SECTION IV.

A. ASBESTOS ACCREDITATION DESIRED:

- Inspector
- Project Designer
- Management Planner
- Worker
- Contractor/Supervisor

SECTION V.

Attach a letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

SECTION VI.

OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

SIGNATURE: Timothy R. Cavanaugh DATE: 7-13-89

FOR DIVISION USE ONLY

CREDITATION NUMBER: 51036 EXPIRATION DATE: 07/31/90

DATE OF INITIAL TRAINING: 07/13/89 DATE OF LATEST REFRESHER TRAINING: N/A

Approving Signature: Edward Bridges, JR Date: 07/17/89



Republic Industries, Inc.  
General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5565 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME TIM R. GAVENNAUGH  
SSN 241-19-1257

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

RESPIRATOR QUALIFICATION  
BRAND/MODEL NO. 3-M 7200 TEST DATE 7-89 DATE EXPIRES 1-90

INSTRUCTOR G. N. PHELPS

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME Cavanaugh Timothy DATE 7/11/89

CHART # A35654 SSI 241-19-1257

1601 S College Rd  
Wilmington, N.C. 28403  
(919) 395-1110

COMPANY: \_\_\_\_\_

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 69 ins AGE 26 years

E TEMP = 24 C

BTPS FACTOR = \_\_\_\_\_

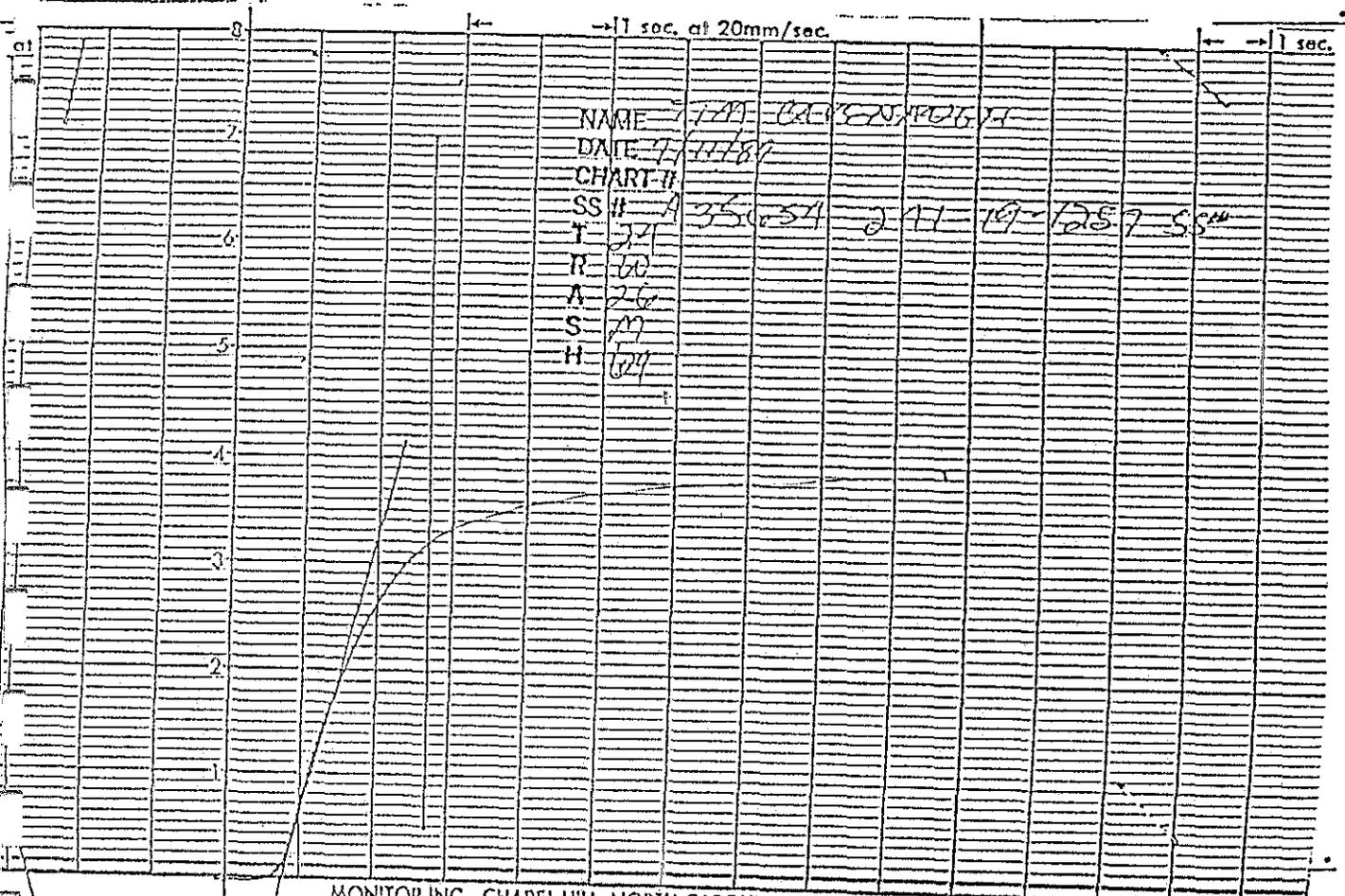
a) History (reason for test) \_\_\_\_\_

c Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

F V1  
F C

OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
3.30	3.56	4.21	85%
OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
3.90	4.21	5.18	81%



MONITOR INC., CHAPEL HILL, NORTH CAROLINA 27514

Additional tracings folded over

*[Handwritten signature]*

BASIC EXAMINATION FOR ASBESTOS WORKERS

COMPANY: REPUBLIC IND, INC

AGE: 7-11-89

APPLICANT NAME: Timothy R. CAVERNAUGH SS#: 241-19-1257

ADDRESS: RT. 4 Box. 264 LELAND TELEPHONE: 371-3789

DATE OF BIRTH: 2-16-63

MEDICATIONS: -0-

KNOWN DRUG ALLERGIES:

BROKEN BONES:

SURGERY:

DOES PATIENT WEAR GLASSES OR CONTACTS:

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES:

HAS PATIENT EVER HAD PROBLEM WITH EARS:

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 132 DIASTOLIC 90 PULSE 72

2. HEART: MURMURS NO  
RATE PSR  
RHYTHM PSR  
ENLARGEMENT NLS HEIGHT 69 WEIGHT 124 1/2

3. LUNGS: clear - A PA fields

4. PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits   
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits   
(copy attached) Warrington Pool & Services

6. RECOMMENDATIONS:

It is my opinion that the above named patient is  is not  qualified to wear a respirator in the performance of his/her job:

Dr. W. S. ...

N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

X-RAY NO. A1767

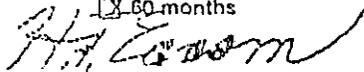
A chest x-ray examination made of  
Cavanaugh, Timothy R. Age 26  
(Name)

on July 11, 1989 employed by  
(Date)

Co. Name Republic Industries, Inc.

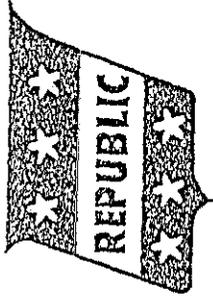
was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 12 months  
 24 months  
 60 months



\_\_\_\_\_  
Signature, Chest Consultant

DHS 2606 (Revised 7/88)  
Occupational Health (Review 7/90)



# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

ERIC E. CHARLES

for having successfully completed the three day Asbestos Abatement  
Worker Training in compliance with Occupational Safety and  
Health Administration Regulation 1926.58 Construction Standards  
for Asbestos Industry 1910.1001 General Industry  
Standards and Environmental Protection Agency Final Rule for  
Asbestos Containing Materials in Schools 40 CFR Part 763.

RII-0029

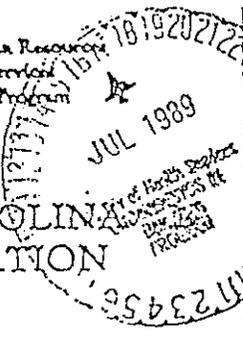
Certification Number  
13 July, 1989  
Date Tested  
12 July, 1990  
Expiration Date

DAVID A. NUGENT

President

GERRY N. PHELPS

Instructor



**NORTH CAROLINA  
ACCREDITATION**

**FOLLOWING INFORMATION MUST BE COMPLETED**

**SECTION I.**

NAME: Eric Charles  
ID NUMBER: 238-27-8709  
COMPANY: REPUBLIC INDUSTRIES, INC.  
ADDRESS: 432 LANDMARK DR.  
CITY: WILMINGTON STATE: N.C. ZIP: 28403  
TELEPHONE: (919) 799-2654

It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

**SECTION II.**

Initial Accreditation

Accreditation Renewal

Initial Training Date: 07/13/89

Refresher Training Date:     /    /    

**SECTION III.**

Training Agency Attended: REPUBLIC INDUSTRIES TRAINING DIVISION

Course Completed: 3-DAY AHERA WORKER Dates Attended: 7/11 - 7/13/89

**SECTION IV.**

Inspector  Project Designer

ACCRETION CATEGORIES DESIRED:

Management Planner  Worker

Contractor/Supervisor

**SECTION V.**

Attach a letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

**SECTION VI.**

**OATH**

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties or perjury for false statements contained in this application.

SIGNATURE: Eric E. Charles

DATE: 7-13-89

**FOR DIVISION USE ONLY**

ACCREDITATION NUMBER: 51037

EXPIRATION DATE: 07/31/90

DATE OF INITIAL TRAINING: 07/13/89

DATE OF LATEST REFRESHER TRAINING: N/A

Approving Signature: Howard Bridges

Date: 07/17/89



Republic Industries, Inc.

General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5565 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME ERIC E. CHARLES

SSN 238-27-8709

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

RESPIRATOR QUALIFICATION  
MXXKXON 3-M TEST DATE 7-13-88 EXPIRES 7-13-90  
Brand/Model No. 7300

INSTRUCTOR G. N. PHELPS

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME Eric Charles DATE 7/11/89  
 CHART # A-35659 SS# 238-27-8709

1601 S. College Rd.  
 Wilmington, N.C. 28403  
 (919) 395-1110

COMPANY: \_\_\_\_\_

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 74 ins AGE 21 years  
 BTPS FACTOR = 1.080

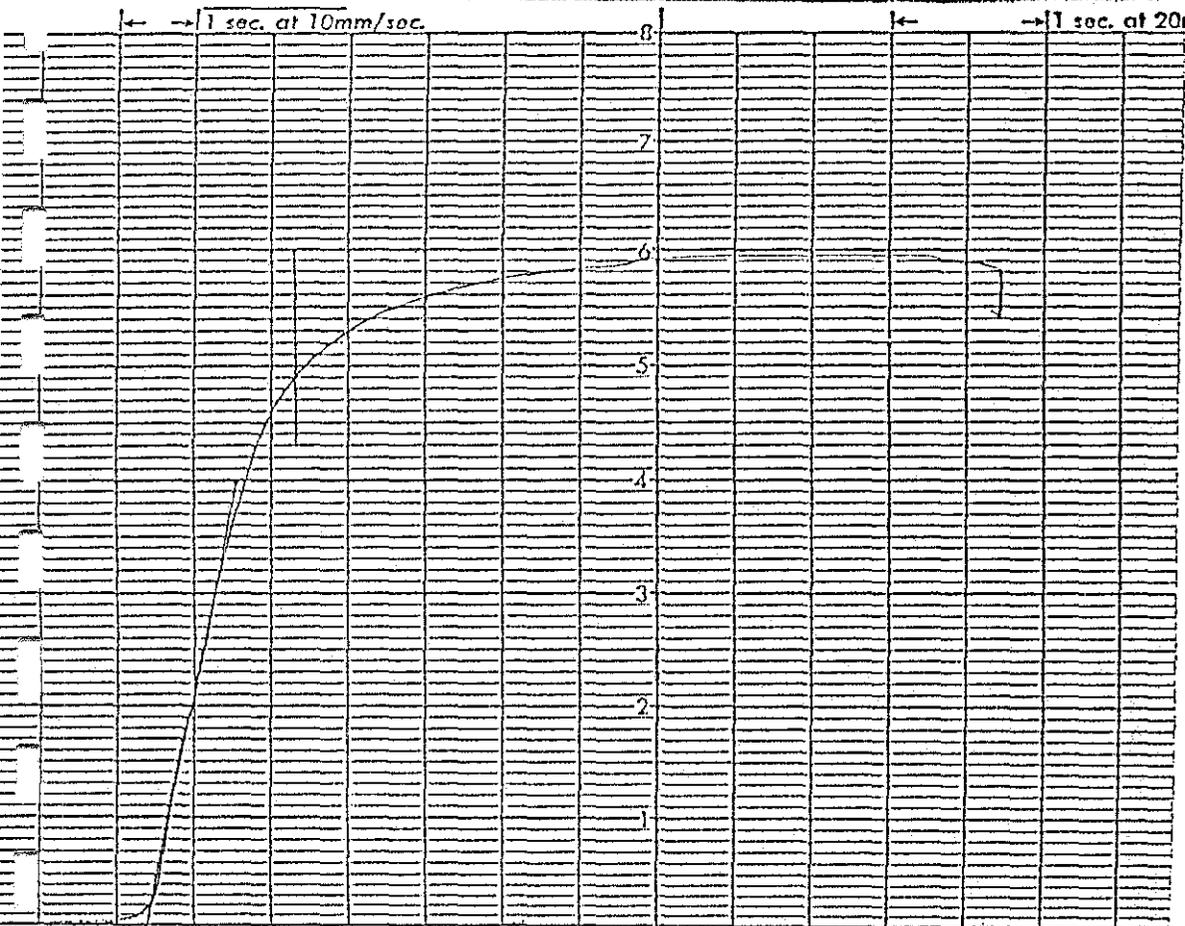
TEMP = 24 C

Medical History (reason for test) \_\_\_\_\_

Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	4.9	5.29	4.78	111%
FVC	5.95	6.43	5.53	116%



REVIEWING PHYSICIAN: \_\_\_\_\_

PRINTED IN U.S.A.

*[Handwritten Signature]*

Additional tracings folded over

BASIC EXAMINATION FOR ASBESTOS WORKERS

COMPANY: Republic TND. INC.

DATE: 7-11-89

APPLICANT NAME: ERIC E. CHARLES

SSN: 238-27-8709

ADDRESS: P.O. Box 164  
Riegelwood, NC. 28456

TELEPHONE: 655-4766-655-2887

DATE OF BIRTH: 12-03-67

MEDICATIONS: no

KNOWN DRUG ALLERGIES: no

BROKEN BONES: no

SURGERY: no

DOES PATIENT WEAR GLASSES OR CONTACTS: glasses

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES no

HAS PATIENT EVER HAD PROBLEM WITH EARS: no

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 134 DIASTOLIC 68 PULSE 72

2. HEART: MURMURS  
RATE  
RHYTHM  
ENLARGEMENT  
HEIGHT 74 WEIGHT 183

3. LUNGS: clear

4. PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits   
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits   
(copy attached)

6. RECOMMENDATIONS: No restrictions

It is my opinion that the above named patient is  is not  qualified to wear a respirator in the performance of his/her job:

Richard E. Jones

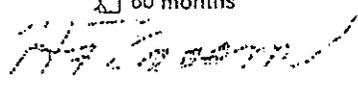
N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES  
X-RAY NO. A1771

A chest x-ray examination made of  
Charles, Eric E. Age 21  
(Name)  
on July 11, 1989 employed by  
(Date)  
Co. Name Republic Industries, Inc.

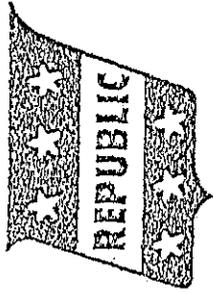
was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 12 months
- 24 months
- 60 months



\_\_\_\_\_  
Signature, Chest Consultant

DHS 2666 (Revised 7/88)  
Occupational Health (Review 7/90)



# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

SAMUEL CHARLES III

for having successfully completed a  
One Day (8 hour) Asbestos Abatement Worker Refresher Course  
in compliance with the Asbestos Hazard Emergency Response Act  
(40 CFR 763 Part A) and the North Carolina General Statute  
130A-294.1 as amended August 3, 1989.

RII-0051R

Recertification Number

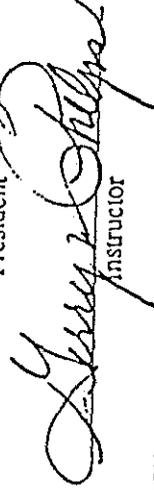
SEPTEMBER 01, 1989

Date Tested

AUGUST 31, 1990

Expiration Date

  
President

  
Instructor

REPUBLIC INDUSTRIES, INC. (919) 799-2664  
Mailing Address: P.O. Box 5565 Wilmington, NC 28403 • Plant Location: 432 Landmark Drive Wilmington, NC 28412



READ INSTRUCTIONS THOROUGHLY BEFORE COMPLETION

INFORMATION MUST BE COMPLETE AND TYPED OR PRINTED IN INK SECTION I.

NAME: SAMUEL CHARLES III
SSN: 241-94-8490
COMPANY: REPUBLIC INDUSTRIES, INC.
ADDRESS: 432 LANDMARK DRIVE
CITY: WILMINGTON STATE: N.C. ZIP: 28412
TELEPHONE: (919) 799-2664

NOTE: It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

SECTION II.

Initial Accreditation [ ] Accreditation Renewal [X] Existing Number: 50459

SECTION III.

Training Agency Attended: REPUBLIC INDUSTRIES, INC. TRAINING DIVISION
Name of Course Completed: WORKER REFRESHER Dates Attended: SEPTEMBER 01, 1989

SECTION IV.

ASBESTOS ACCREDITATION REQUESTED: (Check one only—One form per discipline)
Management Consultant [ ] Air Monitor [ ]
Inspector [ ] Project Designer [ ]
Management Planner [ ] Worker [X]
Supervisor [ ]

SECTION V.

Enclose an original certificate of completion of the approved training course bearing the training agency's official seal and/or an original letter from the training agency attended verifying successful completion of the required course. Also enclose documentation verifying completion of education and experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation. See instructions on back.

SECTION VI.

Enclose accreditation fees in the form of personal check, certified check or money order payable to: Asbestos Control Program.

\$100.00 - Inspector [ ] \$100.00 - Management Planner [ ]
\$100.00 - Supervisor [ ] \$100.00 - Project Designer [ ]
\$100.00 - Management Consultant [ ] \$100.00 - Air Monitor [ ]
[X] \$ 25.00 - Worker

SECTION VII.

OATH

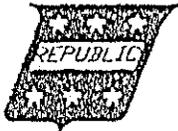
I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

APPLICANT'S SIGNATURE: Samuel Charles III DATE: 9/1/89

FOR DIVISION USE ONLY

ACCREDITATION NUMBER: 50459 EXPIRATION DATE: 09/30/90
DATE OF INITIAL TRAINING: 09/02/88 DATE OF LATEST REFRESHER TRAINING: 09/01/89

Approving Signature: Howard Bridges Date: 09/29/89



Republic Industries, Inc.  
General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5565 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME Samuel Charles III  
SSN 241-94-8490

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

RESPIRATOR QUALIFICATION  
BRAND/MODEL NO. Willson 6100 TEST DATE 9-89 DATE EXPIRES 3-90  
INSTRUCTOR [Signature]

1 in @ 20mm/sec

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME Samuel Charles DATE 9/13/8

CHART # A 39544 SS# 241-94-8490

1601 S. College Rd.  
Wilmington, N.C. 28403  
(910) 395-1110

COMPANY: Rep Industries

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 73 ins AGE 35 years

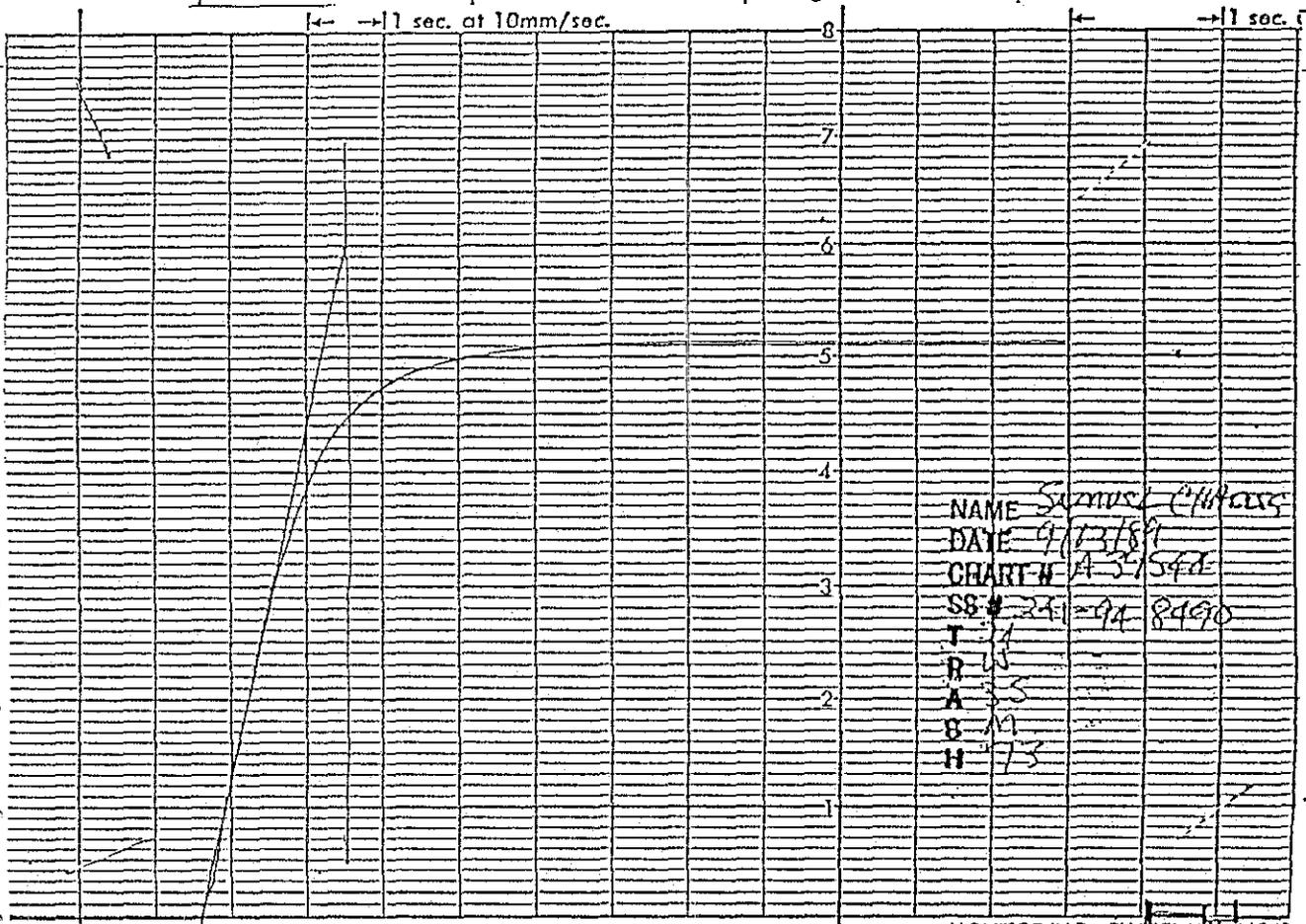
MACHINE TEMP = ~~1000~~ 24 C BTPS FACTOR = 1.080

Clinical History (reason for test)

Machine Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	4.50	4.86	4.49	108%
FVC	5.10	5.51	5.58	99%



NAME Samuel Charles  
 DATE 9/13/89  
 CHART # A 39544  
 SS # 241-94-8490  
 T 71  
 R W  
 A 35  
 B M  
 H 73

MONITOR INC., CHAPEL HILL, N.C.

ESTER: Steve Hanks REVIEWING PHYSICIAN: [Signature]

Additional testing...

BASIC EXAMINATION FOR ASBESTOS WORKERS

ANNUAL RE-EXAMINATION

COMPANY: REPUBLIC IND.

DATE: 9.13.89

APPLICANT NAME: SAMUEL CHARLES III SS#: 241-94-8190

ADDRESS: RT 1 Box 164 RIEGELWOOD NC 28156 TELEPHONE: 655-4766

DATE OF BIRTH: 10.13.53

MEDICATIONS: NO

KNOWN DRUG ALLERGIES: NKA

BROKEN BONES: BOTH KNEES, R WRIST, R. SHOULDER BLADE

SURGERY: DOUBLE HERNIA

DOES PATIENT WEAR GLASSES OR CONTACTS: NO

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES: NO

HAS PATIENT EVER HAD PROBLEM WITH EARS: NO

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 118 DIASTOLIC 86 PULSE 60

2. HEART: MURMURS NO  
RATE 60  
RHYTHM Sinus  
ENLARGEMENT NO HEIGHT 73 WEIGHT 195

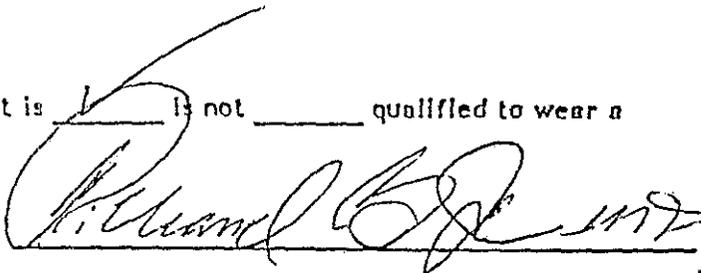
3. LUNGS:

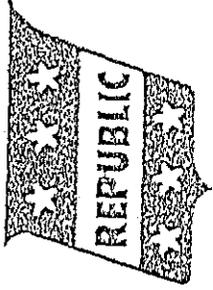
4. PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits   
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits   
(copy attached)

6. RECOMMENDATIONS:

It is my opinion that the above named patient is  is not  qualified to wear a respirator in the performance of his/her job:





# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

CHRISTOPHER GORE

for having successfully completed a  
One Day (8 Hour) Asbestos Contractor/Supervisor Refresher Course  
in compliance with the Asbestos Hazard Emergency Response Act  
(40 CFR 763 Part A) and the North Carolina General Statute  
130A-294.1 as amended August 3, 1989.

RII-1002CSR

Recertification Number

SEPTEMBER 14, 1989

Date Tested

SEPTEMBER 13, 1990

Expiration Date

*David A. Blaylock*  
President

*Shirley A. Blaylock*  
Instructor

REPUBLIC INDUSTRIES, INC. (919) 799-2664  
Mailing Address: P.O. Box 5565 Wilmington, NC 28403 • Plant Location: 432 Landmark Drive Wilmington, NC 28412

N.C. Department of Human Resources  
Division of Health Services  
Asbestos Control Program

# ASBESTOS ACCREDITATION



READ INSTRUCTIONS THOROUGHLY BEFORE COMPLETION

INFORMATION MUST BE COMPLETE AND TYPED OR PRINTED IN INK

### SECTION I.

NAME: CHRISTOPHER GORE  
SSN: 243-11-8061  
COMPANY: REPUBLIC INDUSTRIES, INC.  
ADDRESS: 432 LANDMARK DRIVE  
CITY: WILMINGTON STATE: N.C. ZIP: 28412  
TELEPHONE: (919) 799-2664

NOTE: It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

SECTION II.  Initial Accreditation  Accreditation Renewal, Existing Number: 30005

SECTION III.  
Training Agency Attended: REPUBLIC INDUSTRIES, INC. TRAINING DIVISION  
Name of Course Completed: CON/SUP REFRESHER Dates Attended: SEPTEMBER 14, 1989

SECTION IV.  
ASBESTOS ACCREDITATION REQUESTED:  
(Check one only—One form per discipline)  
 Management Consultant  Air Monitor  
 Inspector  Project Designer  
 Management Planner  Worker  
 Supervisor

SECTION V.  
Enclose an original certificate of completion of the approved training course bearing the training agency's official seal and/or an original letter from the training agency attended verifying successful completion of the required course. Also enclose documentation verifying completion of education and experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation. See instructions on back.

SECTION VI.  
Enclose accreditation fees in the form of personal check, certified check or money order payable to: Asbestos Control Program.  
 \$100.00 - Inspector  \$100.00 - Management Planner  
 \$100.00 - Supervisor  \$100.00 - Project Designer  
 \$100.00 - Management Consultant  \$100.00 - Air Monitor  
 \$ 25.00 - Worker

### SECTION VII. OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

APPLICANT'S SIGNATURE: Christopher Gore DATE: 9/14/89

#### FOR DIVISION USE ONLY

ACCREDITATION NUMBER: 30005 EXPIRATION DATE: 09/30/90  
DATE OF INITIAL TRAINING: 10/23/87 DATE OF LATEST REFRESHER TRAINING: 09/14/89  
Approving Signature: Howard Bridges Date: 09/29/89

N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

X-RAY NO. 241948490

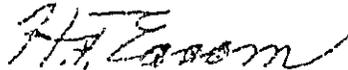
A chest x-ray examination made of  
Charles, Samuel, III Age 35  
(Name)

on Sept. 13, 1989 employed by  
(Date)

Co. Name Republic Industries, Inc.

was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 12 months  
 24 months  
 60 months



Signature, Chest Consultant

DHS 2666 (Revised 7/88)  
Occupational Health (Review 7/90)



Republic Industries, Inc.

General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5565 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME CHRISTOPHER GORE  
SSN 243-11-8061

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

BRAND/MODEL No. 3M RESPIRATOR QUALIFICATION  
7200 TEST DATE 5/89 DATE EXPIRES 11/89  
INSTRUCTOR G.N. PHELPS

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME Cory, Chris

DATE 7-3-89

CHART # A 35205

SSI 243-11-8061

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

COMPANY: Republic Industries

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 75 ins AGE 27 years

BTPS FACTOR = 1.091

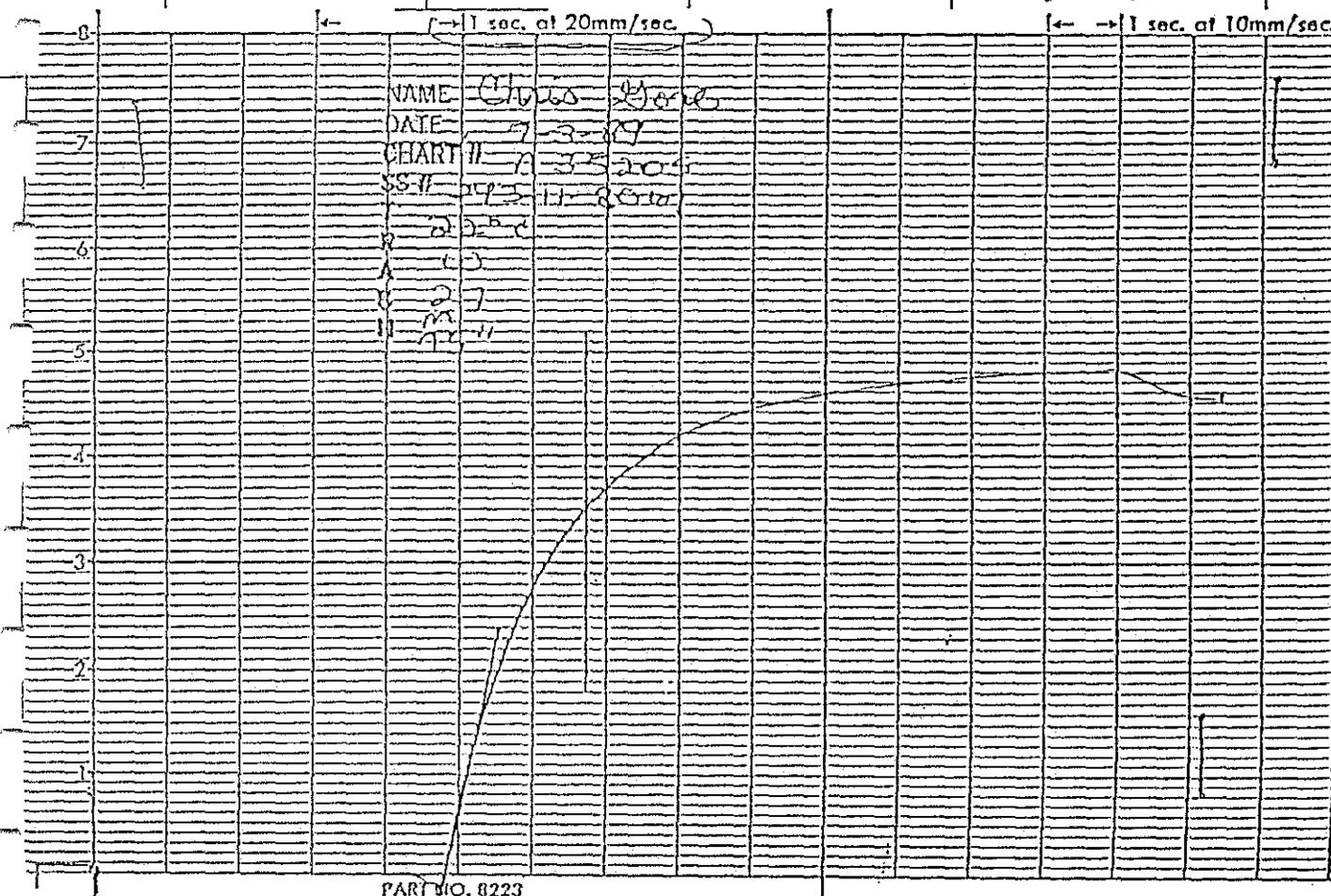
N TEMP = 22 C

cal History (reason for test) employment (re-exam)

ne Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
EV1	3.6	3.9276	4.97	79%
VC	4.8	5.2368	6.14	85%



PART NO. 8223

Dr: C. Byington

REVIEWING PHYSICIAN: T. Harvey MD

Additional tracings folded over



1501 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

INSULATION PHYSICAL

em 7-3-89 Chart # A35205  
e Chris Gore Date of Birth 1-28-62  
r sse PO Box 1274 City Whiteville State NC  
p Phone 642-6076  
p ny Name Republic Industrials

g t 75" Age 27 Blood Pressure 114/86  
ig Completed not required  Place on chart  
r metry Completed  To OSHA, mounted  
C. est x-ray  not read, send to OSHA. include Co.  
ustrial form mailed to OSHA   
t r on capability to wear respirator   
N : Spg 1.028 Ph 510 Alb  Sugar

OR VISION normal

VISION :  
eye with glasses 20/  
eye with glasses 20/  
h eyes with glasses 20/  
Rt. eye without glasses 20/25  
Lt. eye without glasses 20/25  
Both eyes without glasses 20/25

circle if abnormal, check if normal, cross out if not examined. Note on any normals.

ADDITIONAL COMMENTS

- RS
- EC
- SI
- ROAT
- CK
- ES
- ART
- VGS
- II

Capable of wearing Respirator Equipment   
Not capable to wear respirator please comment on.

PULMONARY FUNCTION (note report)  
 FEV1 or FEVC >70% = normal  
 FEV1 or FVC 60 - 70% = Qualified but retest semi-annually  
 FEV1 or FEVC less than 60% = Disqualified pending pulmonary referral.

.....T. H. Harty.....M.D.

N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES  
X-RAY NO. A1712

A chest x-ray examination made of

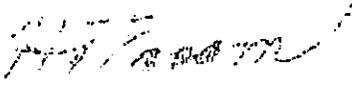
Gore, Christopher Age 27  
(Name)

on July 3, 1989 employed by  
(Date)

Co. Name Republic Industries, Inc.

was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 12 months
- 24 months
- 60 months

  
\_\_\_\_\_  
Signature, Chest Consultant

DHS 2666 (Revised 7/88)  
Occupational Health (Review 7/90)



# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

JEFFERY W. GORE

for having successfully completed the three day Asbestos Abatement  
Worker Training in compliance with Occupational Safety and  
Health Administration Regulation 1926.58 Construction Standards  
for Asbestos Industry 1910.1001 General Industry  
Standards and Environmental Protection Agency Final Rule for  
Asbestos Containing Materials in Schools 40 CFR Part 763.

RII-0034

Certification Number

13 July, 1989

Date Tested

12 July, 1990

Expiration Date

DAVID A NUGENT

President

*Gerry A Phelps*  
GERRY A PHELPS  
Instructor

NORTH CAROLINA  
ACCREDITATION



FOLLOWING INFORMATION MUST BE COMPLETED

SECTION I.

NAME: Jeffery Gore  
SSN: 245-08-5382  
COMPANY: REPUBLIC INDUSTRIES, INC.  
ADDRESS: 432 LANDMARK DR.  
CITY: WILMINGTON STATE: N.C. ZIP: 28403  
TELEPHONE: (919) 799-2664

It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

SECTION II.

Initial Accreditation

Accreditation Renewal

Initial Training Date: 07/13/89

Refresher Training Date: —/—/—

SECTION III.

Training Agency Attended: REPUBLIC INDUSTRIES TRAINING DIVISION

Course Completed: 3-DAY AHERA WORKER Dates Attended: 7/11-7/13/89

SECTION IV.

ASBESTOS ACCREDITATION DESIRED:

- Inspector
- Management Planner
- Contractor/Supervisor
- Project Designer
- Worker

SECTION V.

Attach a letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

SECTION VI.

OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

SIGNATURE: X Jeffery Gore DATE: 7-13-89

FOR DIVISION USE ONLY

ACCREDITATION NUMBER: 51038 EXPIRATION DATE: 07/31/90  
 DATE OF INITIAL TRAINING: 07/13/89 DATE OF LATEST REFRESHER TRAINING: N/A  
 Approving Signature: Howard Bridges Date: 07/17/89



Republic Industries, Inc.  
General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5585 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME JEFFERY W. GORE

SSN 245-08-5382

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

WILLSON RESPIRATOR QUALIFICATION  
BRAND/MODEL NO. 6100M TEST DATE 7-89 DATE EXPIRES 1-90

INSTRUCTOR G. N. PHELPS

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME Jeff Gore

DATE 7/11/89

CHART # A-35657 SS# 245-08-5382

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

COMPANY: \_\_\_\_\_

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 73 ins AGE 18 years

BTPS FACTOR = 1.080

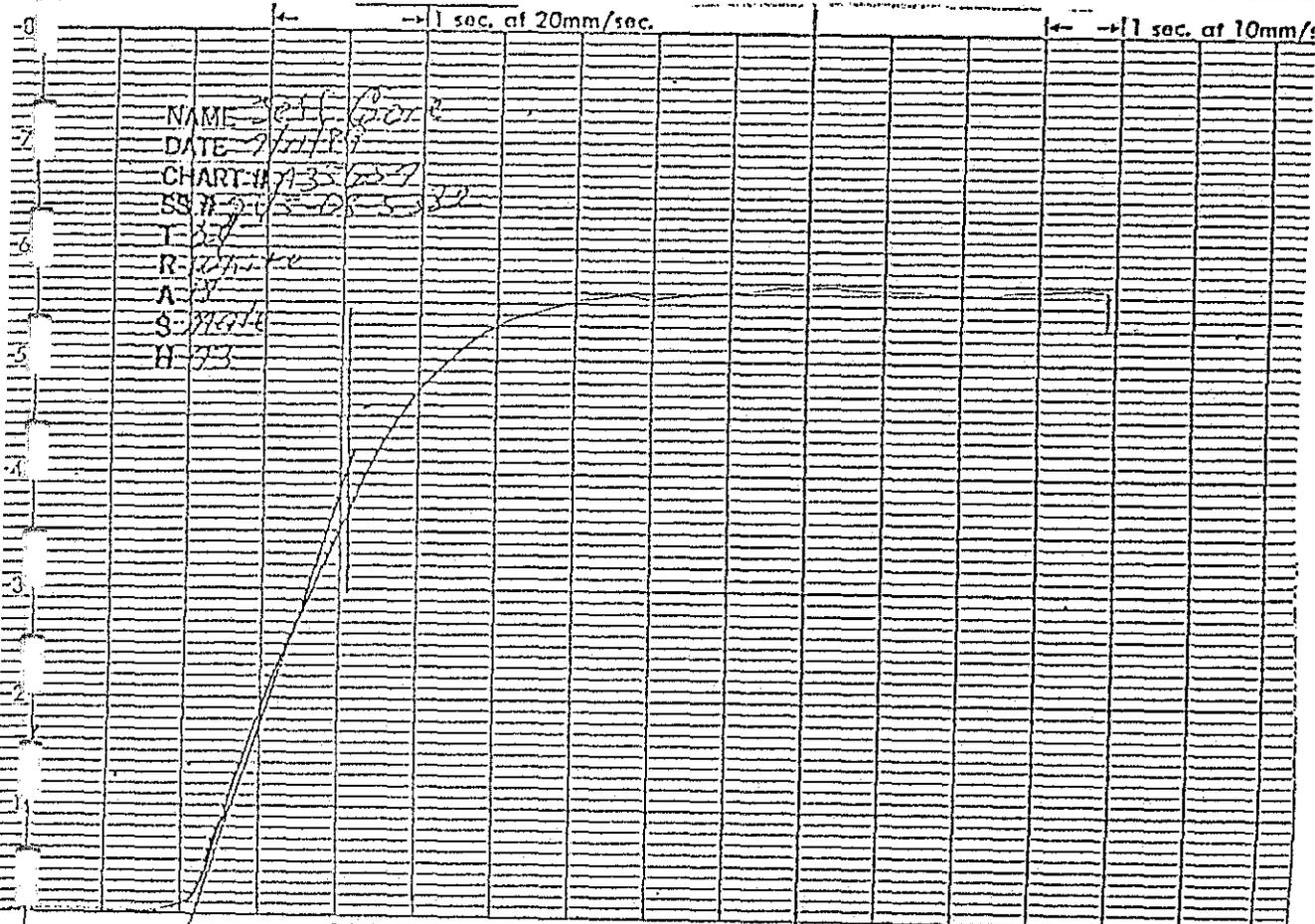
TEMP = 24 C

Medical History (reason for test) \_\_\_\_\_

Machine Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	3.70	3.99	4.53	188%
FVC	5.65	6.10	5.17	118%



PART NO. 8223

ORDER: 2 copies

REVIEWING PHYSICIAN: \_\_\_\_\_

Additional tracings folded over

*[Handwritten signature]*

BASIC EXAMINATION FOR ASBESTOS WORKERS

COMPANY: Republic Ind. Inc.

DATE: 7-11-89

APPLICANT NAME: Jeffery W. Gere

SSN: 245-04-5382

ADDRESS: Rt 1 Box 105A. Chubbuck, N.H.

TELEPHONE: (603) 653-2397

DATE OF BIRTH: 6-7-71

MEDICATIONS: - no

KNOWN DRUG ALLERGIES: - no

BROKEN BONES: - ~~no~~ finger

SURGERY: no

DOES PATIENT WEAR GLASSES OR CONTACTS: no

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES: no

HAS PATIENT EVER HAD PROBLEM WITH EARS: no

CARDIO-PULMONARY EXAMINATION

BLOOD PRESSURE: SYSTOLIC 120 DIASTOLIC 80 PULSE 68

HEART: MURMURS Regular No murmur

RATE 80

RHYTHM Regular

ENLARGEMENT No

HEIGHT 73"

WEIGHT 215

LUNGS: clear

PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits   
(copy attached)

PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits   
(copy attached)

RECOMMENDATIONS:

It is my opinion that the above named patient is  is not  qualified to wear a respirator in the performance of his/her job:

Dr. H. Schneider

N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

X-RAY NO. A1769

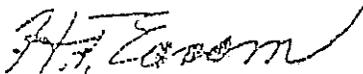
A chest x-ray examination made of  
Gore, Jeffery W. Age 18  
(Name)

on July 11, 1989 employed by  
(Date)

Co. Name Republic Industries, Inc.

was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 12 months  
 24 months  
 60 months



Signature, Chest Consultant

DHS 2666 (Revised 7/88)  
Occupational Health (Review 7/90)

# Certificate of Completion

This certifies that

TERRY GORE

has attended and satisfactorily passed  
an examination covering the contents of a  
continuing education course entitled:

SUPERVISOR REFRESHER COURSE

**IND • T RA • CO**  
Ltd.

Training Programs  
Richmond, Virginia  
23223-7024

Dates: APRIL 19, 1989

Location: RICHMOND, VIRGINIA

Instructor: *Fred J. Greene*

Certificate Number: KSR240-19-6209

# NORTH CAROLINA ACCREDITATION

NOTE: It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

## FOLLOWING INFORMATION MUST BE COMPLETED

### SECTION I.

NAME: Terry Gore  
SSN: 240-19-6209  
COMPANY: Republic Industries, Inc.  
ADDRESS: P.O. Box 5565 Landmark Dr. 432  
CITY: Wilmington STATE: NC ZIP: 28403  
TELEPHONE: (919) 799-2664

### SECTION II.

Initial Accreditation

Accreditation Renewal

Initial Training Date:     /    /    

Refresher Training Date: 04/19/89

### SECTION III.

Training Agency Attended: Ind-TEA-Co

Course Completed: Supervisor Refresher Dates Attended: 04/19/89

### SECTION IV.

Inspector

Project Designer

ASBESTOS ACCREDITATION DESIRED:

Management Planner

Worker

Contractor/Supervisor

### SECTION V.

Attach a letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

### SECTION VI.

#### OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

SIGNATURE: Terry Gore

DATE: 5/8/89

#### FOR DIVISION USE ONLY

ACCREDITATION NUMBER:

30009

EXPIRATION DATE:

04/30/90

DATE OF INITIAL TRAINING:

04/30/87

DATE OF LATEST

REFRESHER TRAINING:

04/19/89

Approving Signature: Howard Bridges

Date: 05/16/89



Republic Industries, Inc.  
General Contractor  
Asbestos Removal  
Retrofit  
P.O. BOX 5585 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME TERRY B. CORE

SSN 240-19-6209

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

RESPIRATOR QUALIFICATION

BRAND/3M MODEL NO. 7200 TEST DATE 5/4 DATE EXPIRES 11/89  
INSTRUCTOR G.N. PHELPS

BEFORE  AFTER BRONCHO DILATION



NAME TERRY GORSE

DATE 3/21/89

CHART #

SS# 240-19-6209

1001 S. College Rd.  
Wilmington, N.C. 28403  
(910) 395-1110

COMPANY: Republic

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 75 ins AGE 27 years

BTPS FACTOR = 1.011

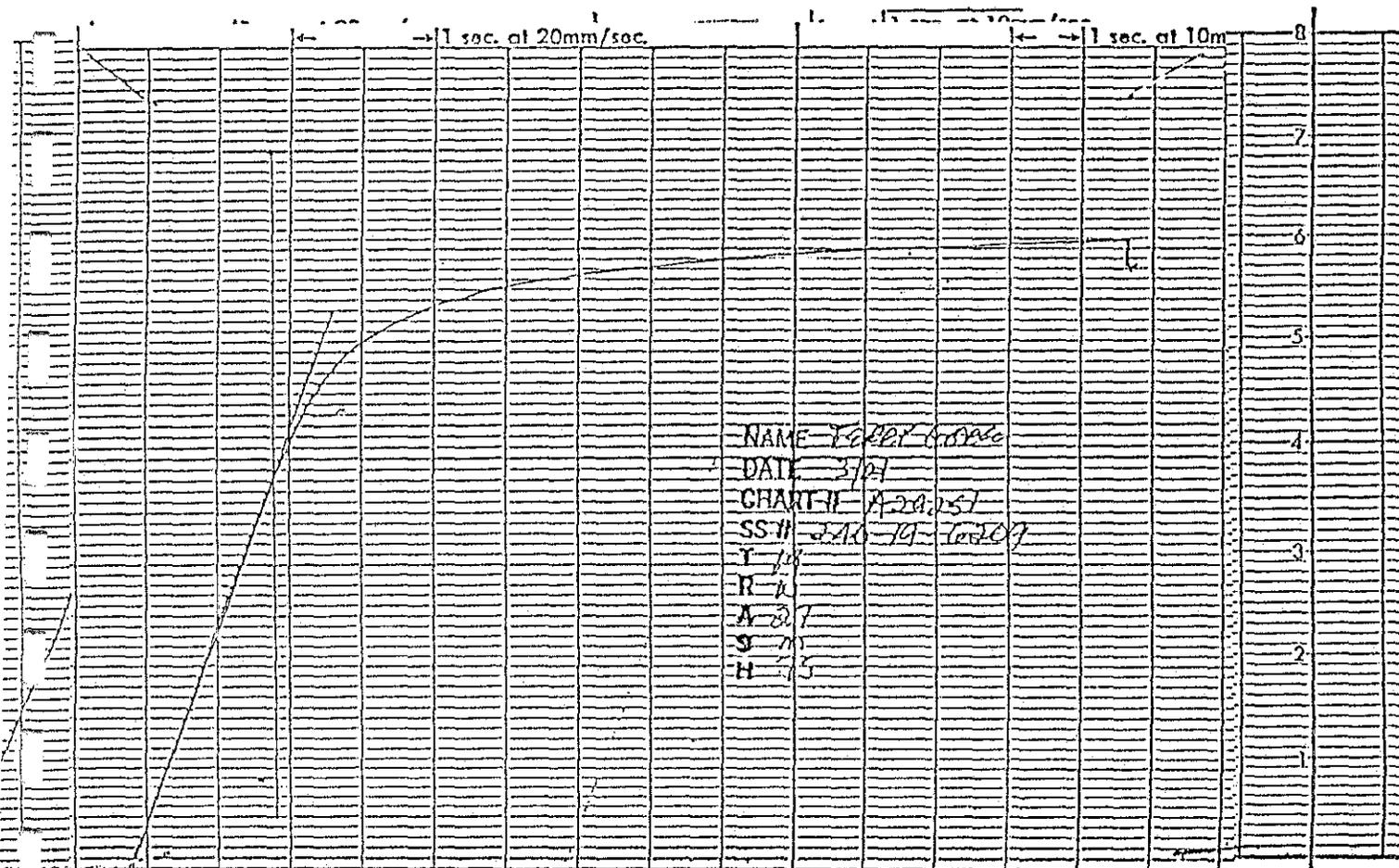
RE TEMPERATURE = 19 C

History (reason for test)

Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	3.81	4.23	4.97	85%
FVC	6.1	6.78	6.14	110%



Additional tracings folded over

*[Handwritten signature]*

BASIC EXAMINATION FOR ASBESTOS WORKERS

ANNUAL RE-EXAMINATION

COMPANY: Republic

DATE: 3/21/89

APPLICANT NAME: Terry Gore

SSN: 240-19-6209

ADDRESS: \_\_\_\_\_

TELEPHONE: 642-0493

DATE OF BIRTH: \_\_\_\_\_

MEDICATIONS: NO

KNOWN DRUG ALLERGIES: NO

BROKEN BONES: NO

SURGERY: NO

DOES PATIENT WEAR GLASSES OR CONTACTS: NO

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES: NO

HAS PATIENT EVER HAD PROBLEM WITH EARS: NO

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 130 DIASTOLIC 90 PULSE 72

2. HEART: MURMURS NO  
RATE NSR  
RHYTHM NSR  
ENLARGEMENT NONE HEIGHT 75 WEIGHT 252

3. LUNGS: Clear A PAH Joints

4. PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits \_\_\_\_\_  
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits \_\_\_\_\_  
(copy attached)

6. RECOMMENDATIONS: use wt. have Rx checked  
regularly

It is my opinion that the above named patient is  is not \_\_\_\_\_ qualified to wear a respirator in the performance of his/her job:

[Signature]

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

No. 240196209

A chest x-ray examination made of \_\_\_\_\_  
Gore, Terry Byron Age 27  
on March 21, 1989 employed by  
Republic Industries, Inc.

is free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in ~~XXXXXX~~ 60 months.

---

N. C. Department of Human Resources, Division of Health  
Services, Occupational Health Branch, Raleigh, N. C.  
DHS Form 2666 9-77

# Certificate of Completion

This certifies that

THOMAS R. MORRIS

has attended and satisfactorily passed  
an examination covering the contents of a  
continuing education course entitled:

ASBESTOS WORKER REFRESHER TRAINING

**IND • TRA • CO**  
Ltd.

Training Programs  
Richmond, Virginia  
23223-7024

Dates: FEBRUARY 21, 1989

Location: RICHMOND, VIRGINIA

Instructor: David J. Brown

Certificate Number: AVR198-32-0911



North Carolina Department of Human Resources  
Division of Health Services  
P.O. Box 2091 • Raleigh, North Carolina 27602-2091

James G. Martin, Governor  
David T. Flaherty, Secretary

March 17, 1989

Ronald H. Levine, M.D., M.P.H.  
State Health Director

Mr. Thomas R. Morris  
Republic Industries, Inc.  
P.O. Box 5565, Station 1  
Wilmington, NC 28403

Subject: North Carolina AHERA Contractor Re-accreditation for Worker.

Dear Mr. Morris:

In line with your request, this office has acknowledged your completion of the annual update course for Worker. You should retain your present North Carolina accreditation number 50046, which confirms that you have successfully completed an EPA approved refresher course.

In addition, you may use this office as reference to verify that you are authorized to perform Worker activities associated with the EPA Rules, Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, Asbestos-Containing Materials in Schools.

This reaccreditation is valid through February 28, 1990. If you wish to maintain your accreditation after this time, you must submit confirmation of retraining as required by the present EPA rules.

Please keep this office aware of any changes in your mailing address and phone number. If you have any questions or need additional information, please contact this office at (919) 733-0820. Thank you.

Sincerely,

*Howard Bridges/jb*

Howard Bridges, Manager  
Asbestos In Buildings Program  
Occupational Health Branch

HB/twb

cc: Teresa Brooks



Republic Industries, Inc.

General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5555 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME THOMAS R. MORRIS  
SSN 198-32-0911

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

3-M RESPIRATOR QUALIFICATION  
BRAND/MODEL NO. 7300 TEST DATE 10-89 DATE EXPIRES 1-90  
INSTRUCTOR GERRY N. PHELPS *Gerry Phelps*

BEFORE  AFTER BRONCHO DILATION



NAME Thomas Morris DATE \_\_\_\_\_  
CHART # A29772 SSI 198-32-0911

1601 S. College Rd.  
Wilmington, N.C. 28403  
(910) 395-1110

COMPANY: Republic Indusday

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT... 70 ins AGE... 46 years  
BTPS FACTOR = 1.002

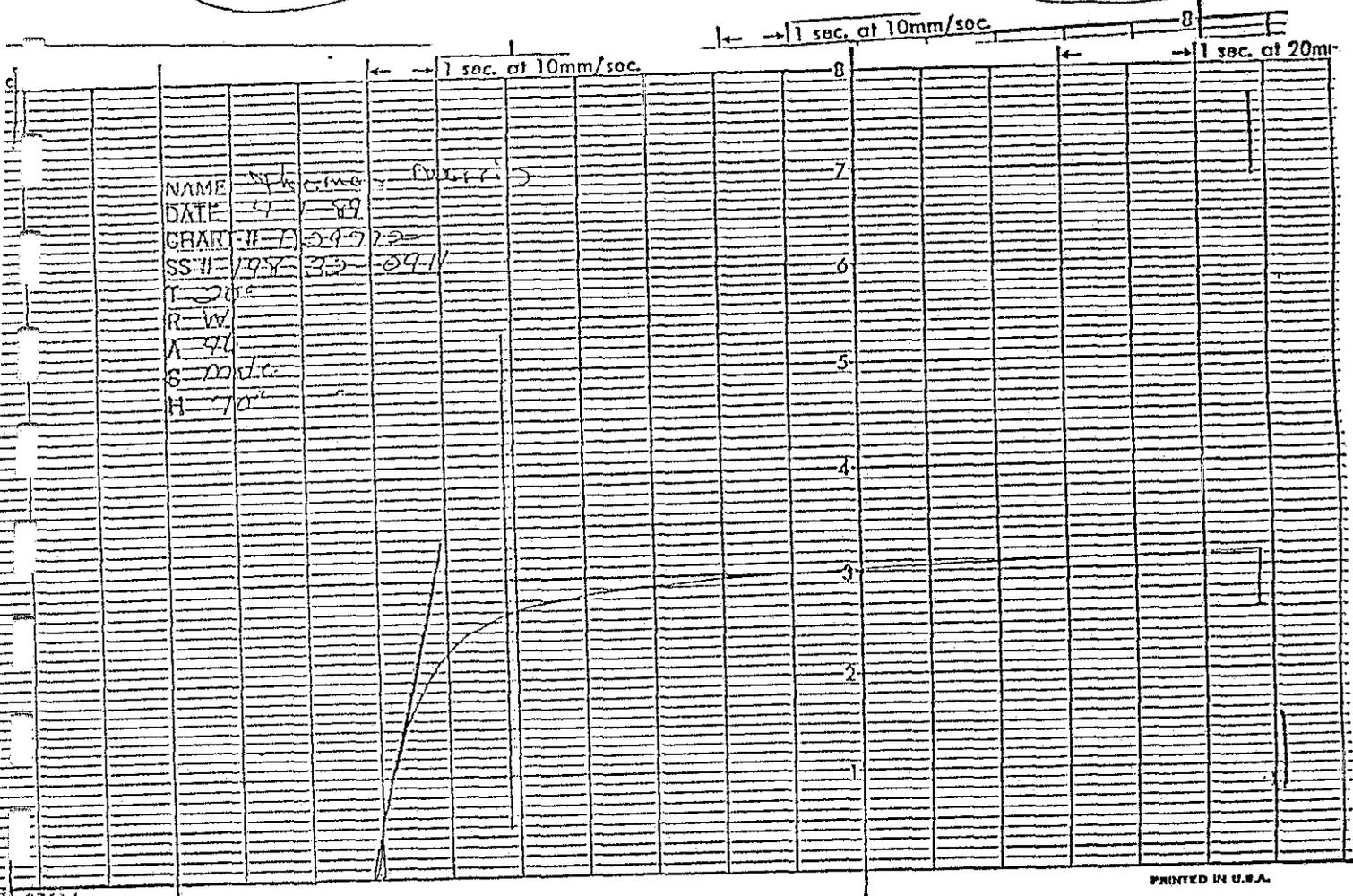
TEMP = 20°C

Medical History (reason for test)

Car Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	<u>2.70</u>	<u>2.98</u>	<u>3.80</u>	<u>78%</u>
FVC	<u>3.10</u>	<u>3.42</u>	<u>4.76</u>	<u>72%</u>



PRINTED IN U.S.A.

27514

folded over  
Dr. Summers Should be rechecked at LEAST every

# medico

URGENT CARE CLINIC

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## INSULATION PHYSICAL

e-4-1-89  
 e-Thomas Morris  
 Chart # A29772  
 Date Of Birth 5-9-42  
 Home 2016 W Lakeshore Dr. City Wilmington State N.C.  
 P 28403 Phone 763-5620  
 Company Name Republic Industry

Height 70 1/2" Age 46 Blood Pressure 130/78  
 Spirometry Completed  Place on chart  
 Chest x-ray  To OSHA, mounted  
 Questionnaire mailed to OSHA  not read, send to OSHA. include Co.  
 Test on capability to wear respirator   
 NE: Spg 1.025 Ph 7.0 Alb Neg Sugar Neg  
 O VISION Normal  
 IAN :  
 Right eye with glasses 20/ Rt. eye without glasses 20/20  
 Left eye with glasses 20/ Lt. eye without glasses 20/20  
 Both eyes with glasses 20/ Both eyes without glasses 20/20

Circle if abnormal, check if normal, cross out if not examined. Note on any abnormalities.

### ADDITIONAL COMMENTS

- S
- S
- E
- ECG  Sinus rhythm
- HR
- RAST
- RF
- RC
- RI

Capable of wearing Respirator Equipment   
 not capable to wear respirator please comment on.

RESPIRATORY FUNCTION (note report)  
 FEV1 or FEVC >70% = normal  
 FEV1 or FVC 60 - 70% = Qualified but retest semi-annually  
 FEV1 or FEVC less than 60% = Disqualified pending pulmonary referral.

.....M.D.

BASIC EXAMINATION FOR ASBESTOS WORKERS

ANNUAL RE-EXAMINATION

COMPANY: REPUBLIC IND.

DATE: \_\_\_\_\_

APPLICANT NAME: THOMAS R. MORRIS SSN: 198-320911

ADDRESS: 2076 W. LAKE SHORE DR. W.L.M. TELEPHONE: 763-5620

DATE OF BIRTH: 5-9-42

MEDICATIONS: NO  
KNOWN DRUG ALLERGIES: NO

BROKEN BONES:

SURGERY:

DOES PATIENT WEAR GLASSES OR CONTACTS: NO

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES

HAS PATIENT EVER HAD PROBLEM WITH EARS: NO

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 130 DIASTOLIC 78 PULSE 68

2. HEART: MURMURS  
RATE  
RHYTHM  
ENLARGEMENT

HEIGHT 70 1/2" WEIGHT 200 lbs

3. LUNGS:

4. PULMONARY FUNCTION: Within Normal Limits NDL Outside Normal Limits \_\_\_\_\_  
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits NOB Outside Normal Limits \_\_\_\_\_  
(copy attached)

6. RECOMMENDATIONS:

? poss Borderline  
CARDIOMEGALY ??

It is my opinion that the above named patient is  is not \_\_\_\_\_ qualified to wear a respirator in the performance of his/her job:

[Signature]

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

No. 198210911

A chest x-ray examination made of \_\_\_\_\_

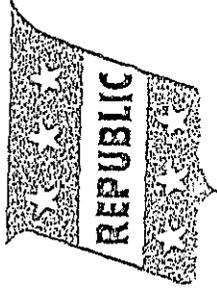
Morris, Thomas R. Age 46

on April 1, 1989 employed by

Republic Industries, Inc.

is free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in one year.

N. C. Department of Human Resources, Division of Health  
Services, Occupational Health Branch, Raleigh, N. C.  
DHS Form 2666 9-77



# REPUBLIC INDUSTRIES, INC. - TRAINING DIVISION -

Presents This Certificate To

SYLVESTER L. PARKER

for having successfully completed the three day Asbestos Abatement  
Worker Training in compliance with Occupational Safety and  
Health Administration Regulation 1926.58 Construction Standards  
for Asbestos Industry 1910.1001 General Industry  
Standards and Environmental Protection Agency Final Rule for  
Asbestos Containing Materials in Schools 40 CFR Part 763.

RII-0043

Certification Number

27 July, 1989

Date Tested

26 July, 1990

Expiration Date

DAVID A. NUGENT

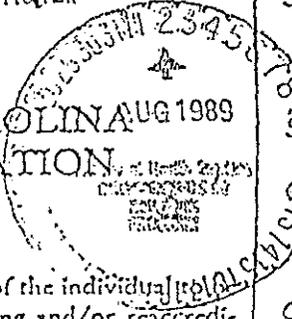
President

*Gerry M. Phelps*  
GERRY M. PHELPS  
Instructor

FOLLOWING INFORMATION MUST BE COMPLETED

SECTION I.

NORTH CAROLINA AUG 1989  
ACCREDITATION



NAME: Sylvester Parker  
SSN: 243-84-1332  
COMPANY: REPUBLIC INDUSTRIES, INC.  
ADDRESS: 432 LANDMARK DR.  
CITY: WILMINGTON STATE: N.C. ZIP: 28403  
TELEPHONE: (919) 799-2664

It is the responsibility of the individual aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

SECTION II.

Initial Accreditation

Accreditation Renewal

Initial Training Date: 7/27/89

Refresher Training Date: —/—/—

SECTION III.

Training Agency Attended: REPUBLIC INDUSTRIES TRAINING DIVISION

Courses Completed: 3-DAY AHERA WORKER Dates Attended: 7/25-7/27/89

SECTION IV.

Inspector  Project Designer

A-BESTOS ACCREDITATION DESIRED:

Management Planner  Worker

Contractor/Supervisor

SECTION V.

Attach a letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

SECTION VI.

OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

SIGNATURE: Sylvester L. Parker

DATE: 7-27-89

FOR DIVISION USE ONLY

ACCREDITATION NUMBER:

51072

EXPIRATION DATE:

07/31/90

DATE OF INITIAL TRAINING:

07/27/89

DATE OF LATEST

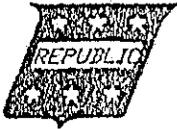
REFRESHER TRAINING:

N/A

Approving Signature:

Howard Bridges

Date: 08/03/89



Republic Industries, Inc.  
General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5565 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME SYLVESTER L. PARKER

SSN 243-84-1332

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

3-M RESPIRATOR QUALIFICATION  
BRAND/MODEL NO. 7200 TEST DATE 8-89 DATE EXPIRES 2-90

INSTRUCTOR Gerry N. Phelps *G. Phelps*

BEFORE  AFTER BRONCHIO DILATION



NAME Parker Sylvester DATE 7/27/87

CHART # A 36628 SSI 243-84-1334

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

COMPANY: Republic Industries

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 69 1/4 ins AGE 41 years  
BTPS FACTOR = 1.085

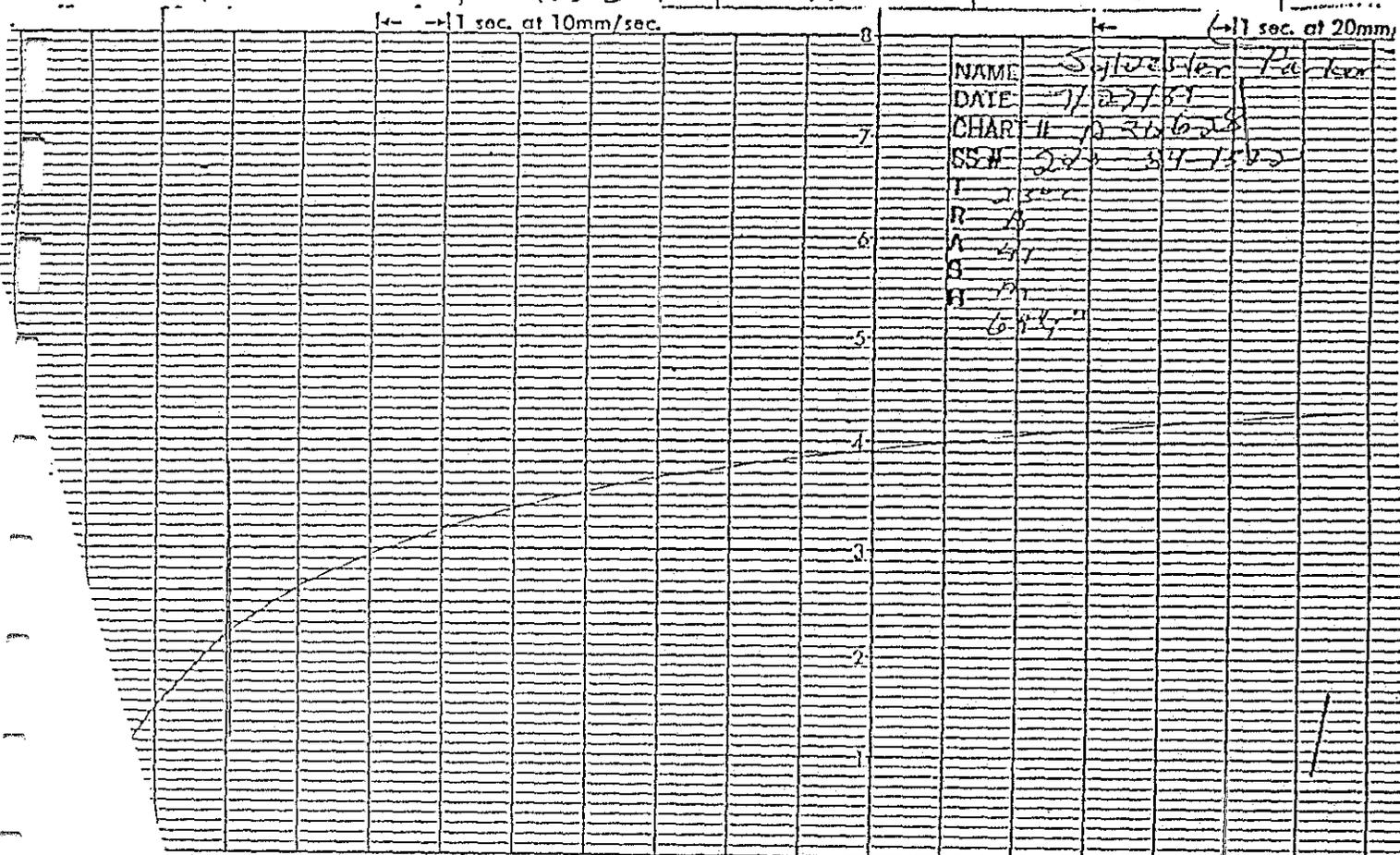
DIAPHRAGM TEMP = 23 C

Medical History (reason for test) employment

Machine Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	2.7	2.387	3.23	73.9%
FVC	4.2	4.557	4.03	113%



REVIEWING PHYSICIAN: Sylvester  
Additional tracings folded over Robert S. Swigg



1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

INSULATION PHYSICAL

Chart # .....  
Date July 27, 1987 ..... Date of Birth 4-25-48 .....  
Name Sylvester L. Parker ..... City Wilm. State .....  
Address 511 Queen St. ....  
Zip 2801 ..... Phone 251-1600 .....  
Company Name Republic Ind. ....

Height 6'4" ..... Age 41 ..... Blood Pressure 135/65

ECG Completed  Place on chart  
Spirometry Completed  To OSHA, mounted  
Chest x-ray  not read, send to OSHA. include Co.  
Industrial form mailed to OSHA   
Enter on capability to wear respirator   
I E : Spg 1.028 Ph 6.0 Alb  Sugar

OR VISION normal

VISION :  
Rt. eye with glasses 20/ ..... Rt. eye without glasses 20/25  
Lt. eye with glasses 20/ ..... Lt. eye without glasses 20/25  
Both eyes with glasses 20/ ..... Both eyes without glasses 20/25

Circle if abnormal, check if normal, cross out if not examined. Note on any normals.

ADDITIONAL COMMENTS

- RS
- EA
- OS
- THROAT
- HEAR
- HEAT
- JNCS
- KT

Is Capable of wearing Respirator Equipment   
If not capable to wear respirator please comment on.

PULMONARY FUNCTION (note report)  
 FEV1 or FEVC >70% = normal FEV1 74% would advise follow company protocols  
FEV1 or FVC 60 - 70% = Qualified but retest semi-annually  
FEV1 or FEVC less than 60% = Disqualified pending pulmonary referral.  
..... M.D.

# medico

URGENT CARE CLINIC

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## CERTIFICATION

This is to certify that the individual listed below has been medically tested and found physically able to perform work and use respiratory protective equipment pursuant to 1910.134. Determination by Chest X-Ray and Spirometer testing.

Sylvester L. Parker  
Individual Examined

Date 7/27/89

Physician [Signature]

BASIC EXAMINATION FOR ASBESTOS WORKERS

COMPANY: Republic Industries

DATE: 7-25-89

APPLICANT NAME: Sylvester L. Parker. SSN: 243-84-1332

ADDRESS: 511 Queen St. Wilmington N.C. TELEPHONE: 251-1600

DATE OF BIRTH: 4-25-48

MEDICATIONS: none

KNOWN DRUG ALLERGIES: none

BROKEN BONES: none

SURGERY: none

DOES PATIENT WEAR GLASSES OR CONTACTS: no

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES: no

HAS PATIENT EVER HAD PROBLEM WITH EARS: no

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 135 DIASTOLIC 65 PULSE 80

2. HEART: MURMURS no  
RATE NSR  
RHYTHM  
ENLARGEMENT no

HEIGHT 69 1/4 WEIGHT 153

3. LUNGS: clear: a PAU fields

4. PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits   
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits   
(copy attached)

6. RECOMMENDATIONS:

It is my opinion that the above named patient is  is not  qualified to wear a respirator in the performance of his/her job:

Walter Summerville MD

N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

X-RAY NO. A1890

A chest x-ray examination made of

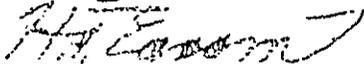
Parker, Sylvester L. Age 41  
(Name)

on July 27, 1989 employed by  
(Date)

Co. Name Republic Industries

was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 4 months  
 24 months  
 60 months



\_\_\_\_\_  
Signature, Chest Consultant

DHS 2666 (Revised 7/88)  
Occupational Health (Review 7/90)

# Certificate of Completion

This certifies that

EDWARD ST. GEORGE

has attended and satisfactorily passed  
an examination covering the contents of a  
continuing education course entitled:

SUPERVISOR REFRESHER COURSE

**IND • TRA • CO**  
Ltd.

Training Programs  
Richmond, Virginia  
23223-7024

Dates: APRIL 19, 1989

Location: RICHMOND, VIRGINIA

Instructor: *Fred J. Brune*

Certificate Number: A8R244-21-1072

NORTH CAROLINA  
ACCREDITATION



NOTE: It is the responsibility of the individual to be aware of when retraining and/or reaccreditation is required. This agency will not notify individuals regarding expiration dates.

FOLLOWING INFORMATION MUST BE COMPLETED

SECTION I.

NAME: EDWARD ST. GEORGE  
SSN: 244-21-1072  
COMPANY: Republic Industries, Inc.  
ADDRESS: PO Box 5565 432 Landmark Dr.  
CITY: Wilmington STATE: NC ZIP: 28403  
TELEPHONE: (919) 799-2664

SECTION II.

Initial Accreditation

Accreditation Renewal

Initial Training Date:    /   /   

Refresher Training Date: 04/19/89

SECTION III.

Training Agency Attended: IND-TRA-PO

Course Completed: Supervisor Refresher Dates Attended: 4/19/89

SECTION IV.

ASBESTOS ACCREDITATION DESIRED:

- Inspector                       Project Designer  
 Management Planner            Worker  
 Contractor/Supervisor

SECTION V.

Attach a letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

SECTION VI.

OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties for perjury for false statements contained in this application.

SIGNATURE: Edward St. George

DATE: 5/8/89

FOR DIVISION USE ONLY

ACCREDITATION NUMBER: 30008

EXPIRATION DATE: 04/30/90

DATE OF INITIAL TRAINING: 02/27/87

DATE OF LATEST REFRESHER TRAINING: 04/19/89

Approving Signature: Edward Bridges

Date: 05/16/89



Republic Industries, Inc.

General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 5565 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME EDWARD ST. GEORGE

SSN 244-21-1072

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

RESPIRATOR QUALIFICATION

BRAND/MODEL NO. 3M 7200 TEST DATE 5/4 DATE EXPIRES 11/89

INSTRUCTOR G.N. PHELPS

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME St George Edward

DATE 5-8-89

CHART # A 311664 SSI 244-21-1072

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

COMPANY: Ropivacaine Indications

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 70 ins AGE 29 years

BTPS FACTOR = 1.102

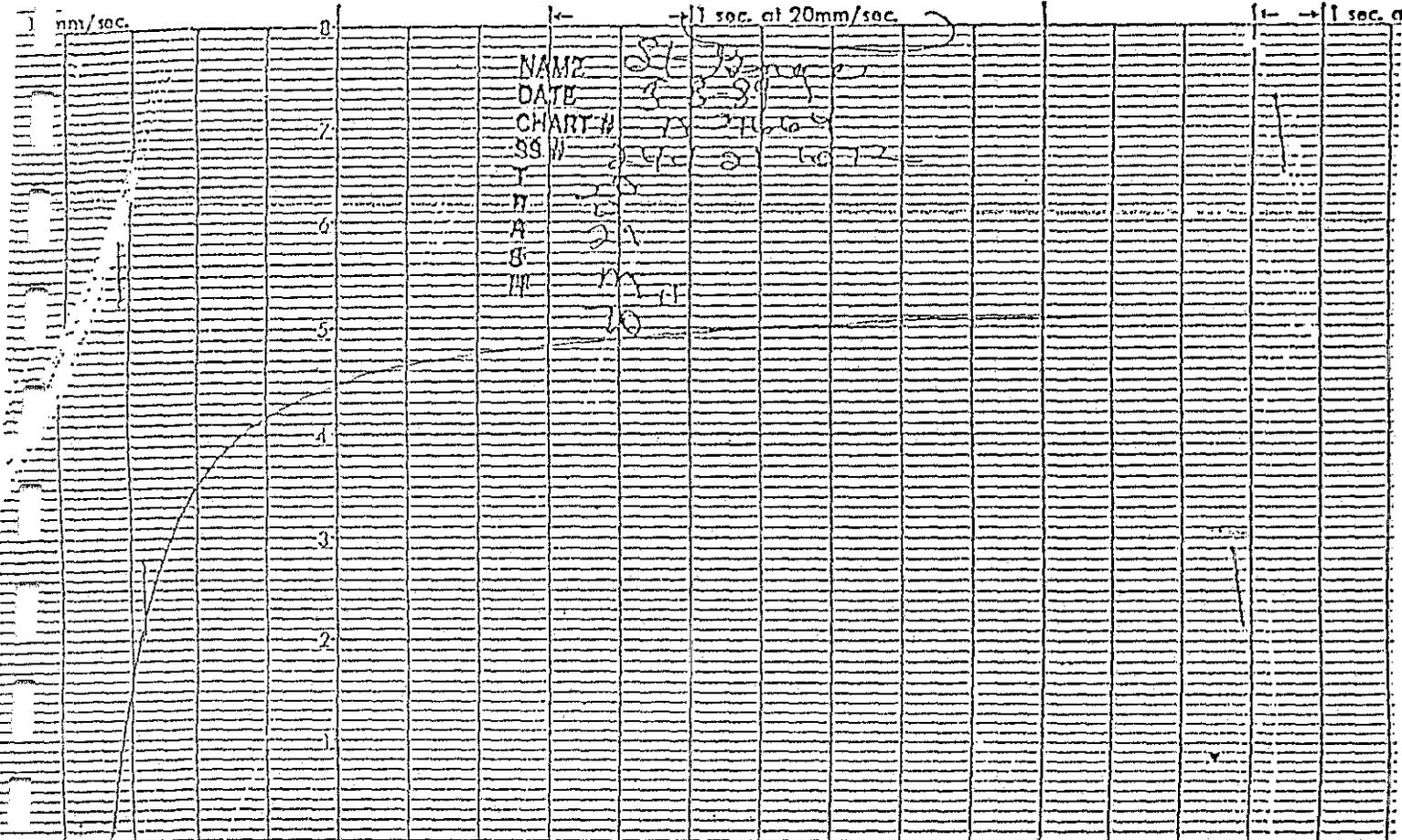
E-TEMP = 20 °C

Medical History (reason for test) emphysema

Machine Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

	OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
FEV1	4.0	4.408	4.26	103%
FVC	5.2	5.7304	5.26	108%



NAME St George  
DATE 5-8-89  
CHART # A 311664  
SSI # 244-21-1072  
T 25  
H 21  
A 21  
S 11  
IP 20

PRINTED IN U.S.A.

PART NO. 3223

REVIEWING PHYSICIAN [Signature]

Additional tracings folded over

# medico

URGENT CARE CLINIC

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## INSULATION PHYSICAL

5-8-89 ..... Chart # A 31604 .....  
 Date Of Birth 5-6-60 .....  
Edward ST. GEORGE .....  
 402 W. Williamson ..... City Whiteville ..... State NC .....  
 Phone 919-642-9266 .....  
 28472 .....  
 any Name Republic Industries .....

h 70" Age 29 Blood Pressure 104/70

of Completed  Place on chart  
 of entry Completed  To OSHA, mounted  
 chest x-ray  not read, send to OSHA. include Co.  
 industrial form mailed to OSHA   
 e on capability to wear respirator   
 E : Spg 1.018 Ph 5.0 Alb neg Sugar neg

VISION normal

ON :  
 eye with glasses 20/  
 eye with glasses 20/  
 eyes with glasses 20/  
 ( Rt. eye without glasses 20/20  
 Lt. eye without glasses 20/20  
 Both eyes without glasses 20/20 )

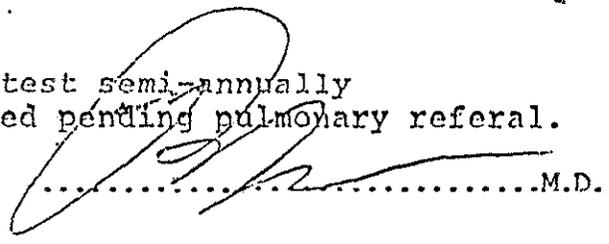
If if abnormal, check if normal, cross out if not examined. Note on any  
 initials.

### ADDITIONAL COMMENTS

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

Capable of wearing Respirator Equipment   
 if not capable to wear respirator please comment on.

MONARY FUNCTION (note report)  
 FEV1 or FEVC >70% = normal  
 FEV1 or FVC 60 - 70% = Qualified but retest semi-annually  
 FEV1 or FEVC less than 60% = Disqualified pending pulmonary referral.

 M.D.

BASIC EXAMINATION FOR ASBESTOS WORKERS

ANNUAL RE-EXAMINATION

COMPANY: Republic Industries

DATE: 5-8-87

APPLICANT NAME: Edward ST. GEORGE SSII: 244-21-1072

ADDRESS: 402 W. Williamson St. TELEPHONE: 919-642-9266  
Whiteville, N.C. 28472

DATE OF BIRTH: 5-6-60

MEDICATIONS: None

KNOWN DRUG ALLERGIES: None Known

BROKEN BONES: 1977 - broke (R) wrist - @ problems

SURGERY: NO

DOES PATIENT WEAR GLASSES OR CONTACTS: NO

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES: NO

HAS PATIENT EVER HAD PROBLEM WITH EARS: NO

CARDIO-PULMONARY EXAMINATION

1. BLOOD PRESSURE: SYSTOLIC 104 DIASTOLIC 70 PULSE 60

2. HEART: MURMURS  
RATE  
RHYTHM  
ENLARGEMENT

HEIGHT 70" WEIGHT 194 1/2

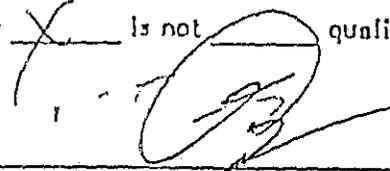
3. LUNGS:

4. PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits   
(copy attached)

5. PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits   
(copy attached)

6. RECOMMENDATIONS:

It is my opinion that the above named patient is  is not  qualified to wear a respirator in the performance of his/her job:

  
\_\_\_\_\_

# medico

URGENT CARE CLINIC

1001 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## CERTIFICATION

This is to certify that the individual listed below has been medically tested and found physically able to perform work and use respiratory protective equipment pursuant to 1910.134. Determination by Chest X-Ray and Spirometer testing.

Edward St. George  
Individual Examined

Date 5-8-89

Physician 



N.C. Department of Human Resources  
Division of Health Services  
Occupational Health Branch

REPORT OF EXAMINATION  
FOR  
NORTH CAROLINA DUSTY TRADES

X-RAY NO. A1204

A chest x-ray examination made of

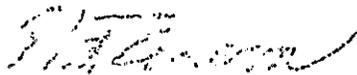
St. George, Edward Age 29  
(Name)

on May 8, 1989 employed by  
(Date)

Co. Name Republic Industries

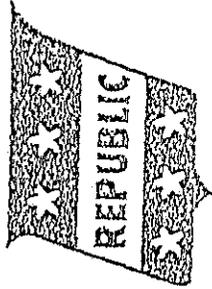
was free of occupational lung disease identifiable by x-ray  
on the above date. If dusty trade employment is continued,  
a re-examination is required in:

- 12 months  
 24 months  
 60 months



\_\_\_\_\_  
Signature, Chest Consultant

DHS 2666 (Revised 7/88)  
Occupational Health (Review 7/90)



# REPUBLIC INDUSTRIES, INC.

## - TRAINING DIVISION -

Presents This Certificate To

SHELTON R. TATE JR.

for having successfully completed the three day Asbestos Abatement  
Worker Training in compliance with Occupational Safety and  
Health Administration Regulation 1926.58 Construction Standards  
for Asbestos Industry 1910.1001 General Industry  
Standards and Environmental Protection Agency Final Rule for  
Asbestos Containing Materials in Schools 40 CFR Part 763.

RII-0040

Certification Number

27 July, 1989

Date Tested

26 July, 1990

Expiration Date

David A. Nugent

President

Gerry N. Phelps

Instructor

NORTH CAROLINA  
ACCREDITATION

It is the responsibility of the individual to be aware of when retraining and/or recertification is required. This agency will not notify individuals regarding expiration dates.

FOLLOWING INFORMATION MUST BE COMPLETED

SECTION I.

NAME: SHELTON R. TATE, JR.

SSN: 242-17-9310

COMPANY: New Hanover Board of Education

ADDRESS: 6612 Gordon Rd (Lot 13)

CITY: Wilmington, NC STATE: NC ZIP: 28405

TELEPHONE: 799-9052

II.

Accreditation

Accreditation Renewal

Initial Training Date: 7/25/89

Refresher Training Date:     /    /    

III.

Training Agency Attended: REPUBLIC INDUSTRIES TRAINING DIVISION

Course Completed: 3-DAY AHERA WORKER Dates Attended: 25, 26 & 27 July, 1989

IV.

Inspector

Project Designer

BESTOS ACCREDITATION DESIRED:

Management Planner

Worker

Contractor/Supervisor

V.

A letter from the training agency (addressed to this office) verifying successful completion of an EPA-approved training course and that a passing score was achieved on the accompanying exam. Also, attach diploma or other written documentation verifying the required education and/or experience requirements for requested discipline accreditation. Failure to supply required information shall result in denial of accreditation.

VI.

OATH

I hereby acknowledge that I have read and understand this application and hereby swear or affirm that the contents of this application are true and correct to the best of my belief and knowledge. I acknowledge that I will be subject to the penalties of perjury for false statements contained in this application.

SIGNATURE: Shelton R. Tate Jr. DATE: 7-27-89

FOR DIVISION USE ONLY

ACCREDITATION NUMBER: 51080

EXPIRATION DATE: 07/31/90

DATE OF INITIAL TRAINING: 07/27/89

DATE OF LATEST REFRESHER TRAINING: N/A

Approving Signature: Howard Bridges Date: 08/11/89



Republic Industries, Inc.  
General Contractor  
Asbestos Removal  
Refractory

P.O. BOX 8585 STA. 1  
WILMINGTON, N.C. 28403

CERTIFIES THAT

NAME SHELTON R. TATE JR.  
SSN 242-17-9310

HAS ATTENDED AN APPROVED TRAINING COURSE IN ASBESTOS REMOVAL AND  
HANDLING AND RESPIRATORY PROTECTION AND FIT TEST

RESPIRATOR QUALIFICATION  
NAME Willson  
EQUIP/NO. G-100M TEST DATE 8-89 DATE EXPIRES 2-90  
INSTRUCTOR Gerry Phelps

...

PULMONARY FUNCTION TESTING

BEFORE  AFTER BRONCHO DILATION



NAME John, Shelton

DATE 7-24-89

CHART # A36403

SSI 242-17-9310

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

COMPANY: Republic Industries, Inc.

MALE  FEMALE RACE:  WHITE  BLACK

HEIGHT 75 ins AGE 30 years

BTPS FACTOR = 1.091

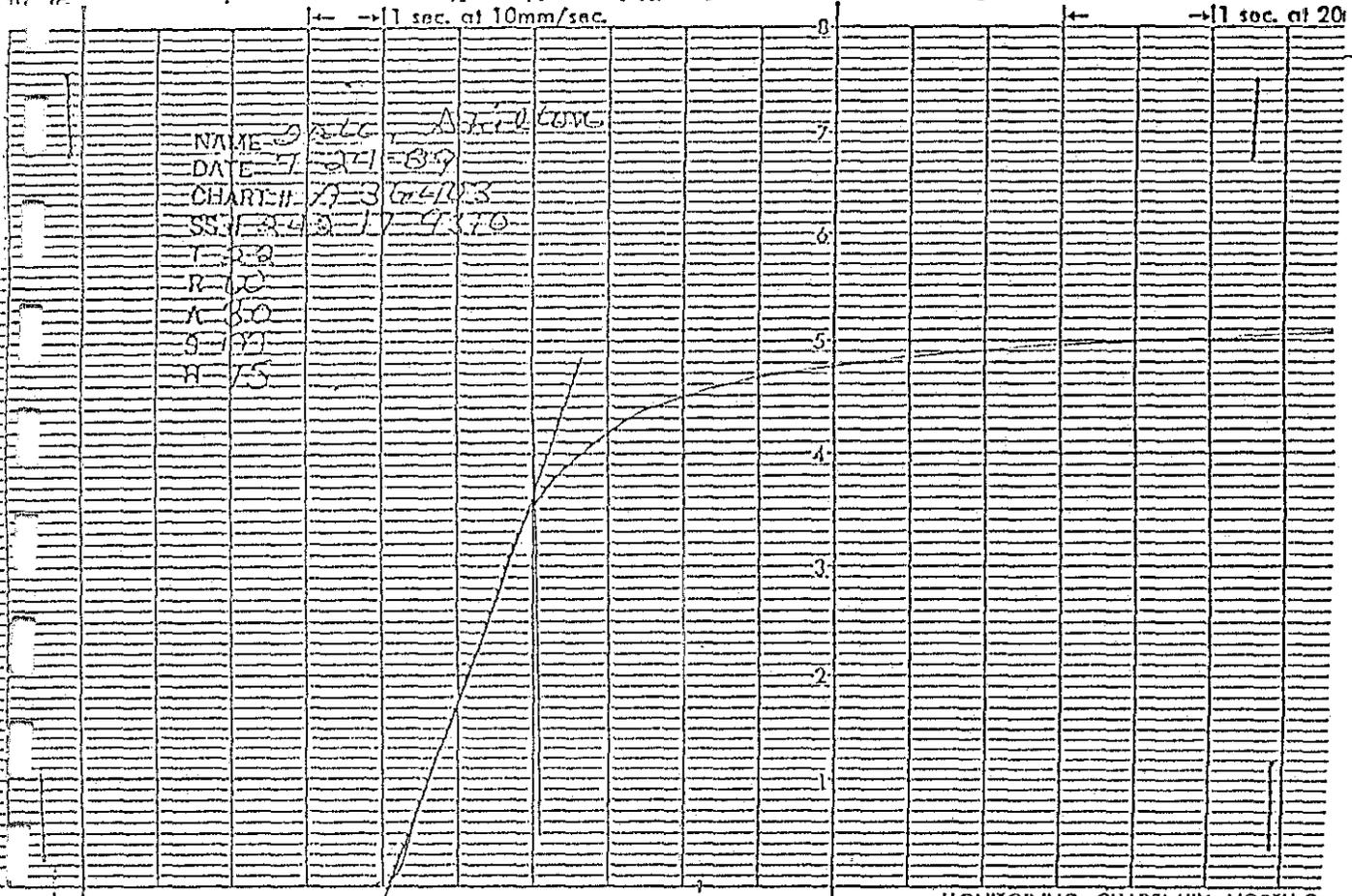
TEMP = 22 C

History (reason for test) Physical

Make: OHIO 822 : Model # JADD000382 : Knudson 1976 Values

OBSERVED X BTPS = CORRECTED : PREDICTED = % of PREDICTED

OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
3.60	3.93	4.89	80%
OBSERVED	CORRECTED	PREDICTED	% of PREDICTED
5.10	5.56	6.05	92%



NAME John, Shelton  
 DATE 7-24-89  
 CHART # A36403  
 SSI 242-17-9310  
 T 22  
 R 60  
 A 80  
 S 77  
 H 75

MONITOR INC., CHAPEL HILL, NORTH C.

REVIEWING PHYSICIAN: [Signature]

Additional tracings folded over

# medico

URGENT CARE CLINIC

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## INSULATION PHYSICAL

1-24-89 Chart # A36403  
 Shelton Ray Tate, Jr Date of Birth 04-07-59  
 6612 Gordon Rd Lot 13 City Wilmington State N.C.  
 28405 Phone 799-9052  
 Employer Name Republic Industries, Inc.

75 Age 30 Blood Pressure 140/85  
 Completed  Place on chart  
 X-ray Completed  To OSHA, mounted  
 X-ray  not read, send to OSHA. include Co.  
 Serial form mailed to OSHA   
 Ability to wear respirator  Audio  
 Spg 1.017 Ph 5 Alb neg Sugar neg  
 500 ✓ 1000 ✓ 2000 ✓  
 4000 ✓

VISION Normal

Rt. eye with glasses 20/ Rt. eye without glasses 20/20  
 Lt. eye with glasses 20/ Lt. eye without glasses 20/20-1  
 Both eyes with glasses 20/ Both eyes without glasses 20/28

If abnormal, check if normal, cross out if not examined. Note on any

### ADDITIONAL COMMENTS

- 
- 
- 
- 
- 
- 
- 
- 

Capable of wearing Respirator Equipment   
 Not capable to wear respirator please comment on.

RESPIRATORY FUNCTION (note report)  
 FEV1 or FEVC >70% = normal  
 FEV1 or FVC 60 - 70% = Qualified but retest semi-annually  
 FEV1 or FEVC less than 60% = Disqualified pending pulmonary referral.

*[Signature]* M.D.  
*[Signature]*

BASIC EXAMINATION FOR ASBESTOS WORKERS

COMPANY: Republic Ind.

DATE: July 27, 1989

APPLICANT NAME: Shelton Ray Tate, Jr.

SSN: 242-17-9310

ADDRESS: 6612 Gordon Rd Lot 13

TELEPHONE: 799-9052

DATE OF BIRTH: 04-07-59

MEDICATIONS: None

KNOWN DRUG ALLERGIES: None

BROKEN BONES: Finger

SURGERY: Knee

DOES PATIENT WEAR GLASSES OR CONTACTS: No

DOES PATIENT HAVE KNOWN PROBLEMS REGARDING HEIGHTS OR CONFINED SPACES: No

HAS PATIENT EVER HAD PROBLEM WITH EARS: No

CARDIO-PULMONARY EXAMINATION

BLOOD PRESSURE: SYSTOLIC 140 DIASTOLIC 86 PULSE 80

HEART: MURMURS RSRS @ S4  
RATE  
RHYTHM  
ENLARGEMENT

HEIGHT 75" WEIGHT 277 1/2

LUNGS:

PULMONARY FUNCTION: Within Normal Limits  Outside Normal Limits   
(copy attached)

PA CHEST X-RAY: Within Normal Limits  Outside Normal Limits   
(copy attached) already sent to OSHA

RECOMMENDATIONS:

It is my opinion that the above named patient is  is not  qualified to wear a respirator in the performance of his/her job:

[Signature]

# medico

URGENT CARE CLINIC

1601 S. College Rd.  
Wilmington, N.C. 28403  
(919) 395-1110

## CERTIFICATION

I am to certify that the individual listed below has been medically tested and found physically able to perform work and use respiratory protective equipment pursuant to 1910.134. Determination by Chest X-Ray and Spirometer testing.

Shelton Ray Tate JR.  
Individual Examined

on: 7-24-89

Physician 

N.C. Industrial Commission  
and the  
Occupational Health Branch  
NC Division of Health Services

No. \_\_\_\_\_

Date \_\_\_\_\_

I. RE-EXAMINATION RECORD

To Shelton Ray Tate, Jr Date of Birth 04-07-59  
12 Gordon Rd Lot 13 County New Hanover No. 30  
1, EWI, Hanover County Schools Address 424 S 13th St

OCCUPATIONAL HISTORY SINCE LAST EXAMINATION

SPECIFIC JOB	INDUSTRY	NUMBER OF YEARS	WHERE

HISTORY

Shortness of Breath No Loss of energy No  
Strength or weight in the last year N/O

SMOKE CIGARETTES YES NO  
NO. PACKS DAILY 1 2 3

I hereby certify that I have read the answers to the above questions before signing, and that they have been correctly written, as given by me, and that they are full and complete, and that there are no exceptions to any such answers.

WITNESS: Shelton Ray Tate, Jr. Shelton Ray Tate, Jr.  
Signature of Applicant

X-RAY INTERPRETATION

To OSHA

RECOMMENDATIONS

Accept \_\_\_\_\_ Reject \_\_\_\_\_ Re-examination \_\_\_\_\_

Approved [Signature] M.D. Card Mailed \_\_\_\_\_

Part 11

INITIAL MEDICAL QUESTIONNAIRE

1. NAME Shelton Ray Tate Jr.

2. SOCIAL SECURITY # 2 4 2 1 7 9 3 1 0  
1 2 3 4 5 6 7 8 9

3. CLOCK NUMBER \_\_\_\_\_  
10 11 12 13 14 15

4. PRESENT OCCUPATION Asbestos Remover

5. PLANT Republic Industries, Inc.

6. ADDRESS P.O. Box 5565 Sta. 1

7. Wilmington, N.C. 28403  
(Zip Code)

8. TELEPHONE NUMBER \_\_\_\_\_

9. INTERVIEWER \_\_\_\_\_

10. DATE 07-27-87 \_\_\_\_\_  
16 17 18 19 20 21

11. Date of Birth 04-07-59 \_\_\_\_\_  
22 23 24 25 26 27

12. Place of Birth Wilmington

13. Sex 1. Male  2. Female \_\_\_\_\_

14. What is your marital status? 1. Single  4. Separated/Divorced \_\_\_\_\_  
2. Married \_\_\_\_\_  
3. Widowed \_\_\_\_\_

15. Race 1. White  4. Hispanic \_\_\_\_\_  
2. Black \_\_\_\_\_ 5. Indian \_\_\_\_\_  
3. Asian \_\_\_\_\_ 6. Other \_\_\_\_\_

16. What is the highest grade completed in school? 12 yrs  
(For example, 12 years is completion of high school)

OCCUPATIONAL HISTORY

17A. Have you ever worked full time (30 hours per week or more) for 6 months or more? 1. Yes  2. No \_\_\_\_\_

IF YES TO 17A:

Have you ever worked for a year or more in any dusty job? 1. Yes \_\_\_ 2. No  3. Does Not Apply \_\_\_

Specify job/industry Plumbing Total Years Worked 8

Was dust exposure: 1. Mild  2. Moderate \_\_\_ 3. Severe \_\_\_

Have you ever been exposed to gas or chemical fumes in your work? 1. Yes \_\_\_ 2. No

Specify job/industry \_\_\_\_\_ Total Years Worked \_\_\_

Was exposure: 1. Mild \_\_\_ 2. Moderate \_\_\_ 3. Severe \_\_\_

D. What has been your usual occupation or job -- the one you have worked at the longest?

1. Job occupation Plumbing

2. Number of years employed in this occupation 8

3. Position/job title Plumber Helper

4. Business, field or industry N.H. Bd of Ed

Record on lines the years in which you have worked in any of these industries, e.g., 1960-1969)

Have you ever worked:

	YES	NO
E. In a mine? . . . . .	___	<input checked="" type="checkbox"/>
F. In a quarry? . . . . .	___	<input checked="" type="checkbox"/>
G. In a foundry? . . . . .	___	<input checked="" type="checkbox"/>
H. In a pottery? . . . . .	___	<input checked="" type="checkbox"/>
I. In a cotton, flax, or hemp mill? . . . . .	___	<input checked="" type="checkbox"/>
J. With asbestos? . . . . .	___	<input checked="" type="checkbox"/>

18. PAST MEDICAL HISTORY

A. Do you consider yourself to be in good health?  YES \_\_\_ NO

If "NO" state reason \_\_\_\_\_

B. Have you any defect of vision? . . . . . \_\_\_

If "YES" state nature of defect \_\_\_\_\_



2A. Pneumonia (include bronchopneumonia)?

1. Yes  2. No

IF YES TO 2A:

B. Was it confirmed by a doctor?

1. Yes  2. No   
3. Does Not Apply

C. At what age did you first have it?

Age in Years   
Does Not Apply

3A. Hay Fever?

1. Yes  2. No

IF YES TO 3A:

B. Was it confirmed by a doctor?

1. Yes  2. No   
3. Does Not Apply

C. At what age did it start?

Age in Years   
Does Not Apply

23A. Have you ever had chronic bronchitis?

1. Yes  2. No

IF YES TO 23A:

B. Do you still have it?

1. Yes  2. No   
3. Does Not Apply

C. Was it confirmed by a doctor?

1. Yes  2. No   
3. Does Not Apply

D. At what age did it start?

Age in Years   
Does Not Apply

24A. Have you ever had emphysema?

1. Yes  2. No

IF YES TO 24A:

B. Do you still have it?

1. Yes  2. No   
3. Does Not Apply

C. Was it confirmed by a doctor?

1. Yes  2. No   
3. Does Not Apply

D. At what age did it start?

Age in Years   
Does Not Apply

25A. Have you ever had asthma?

1. Yes  2. No

IF YES TO 25A:

B. Do you still have it?

1. Yes  2. No   
3. Does Not Apply

C. Was it confirmed by a doctor?

1. Yes  2. No   
3. Does Not Apply

D. At what age did it start?

Age in Years   
Does Not Apply

E. If you no longer have it, at what age did it stop?

Age Stopped   
Does Not Apply

Have you ever had:

1. Any other chest illness? 1. Yes  2. No

If yes, please specify \_\_\_\_\_

2. Any chest operations? 1. Yes  2. No

If yes, please specify \_\_\_\_\_

3. Any chest injuries? 1. Yes  2. No

If yes, please specify Pull muscles

4. Has a doctor every told you that you had heart trouble? 1. Yes  2. No

IF YES TO 27A:

5. Have you ever had treatment for heart trouble in the past 10 years? 1. Yes  2. No   
3. Does Not Apply

6. Has a doctor every told you that had high blood pressure? 1. Yes  2. No

IF YES TO 28A:

7. Have you had any treatment for high blood pressure (hypertension) in the past 10 years? 1. Yes  2. No   
3. Does Not Apply

8. When did you last have your chest x-rayed? (Year) 25 26 27 28

9. Where did you last have your chest x-rayed (if known)? Medien

What was the outcome? Neq

FAMILY HISTORY

Were either of your natural parents ever told by a doctor that they had a chronic lung condition such as:

	FATHER			MOTHER		
	1. Yes	2. No	3. Don't Know	1. Yes	2. No	3. Don't Know
A. Chronic Bronchitis?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. Emphysema?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Asthma?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D. Lung cancer?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

FATHER

1. Yes    2. No    3. Don't Know

MOTHER

1. Yes    2. No    3. Don't Know

E. Other chest conditions?

1  
       

F. Is parent currently alive?

G. Please Specify

53    Age if Living  
 \_\_\_    Age at Death  
 \_\_\_    Don't Know

49    Age if Living  
 \_\_\_    Age at Death  
 \_\_\_    Don't Know

H. Please specify cause of death

\_\_\_\_\_

\_\_\_\_\_

COUGH

32A. Do you usually have a cough? (Count a cough with first smoke or on first going out of doors. Exclude clearing of throat.) (If no, skip to question 32C.)

1. Yes \_\_\_    2. No

B. Do you usually cough as much as 4 to 6 times a day 4 or more days out of the week?

1. Yes \_\_\_    2. No

C. Do you usually cough at all on getting up or first thing in the morning?

1. Yes \_\_\_    2. No

D. Do you usually cough at all during the rest of the day or at night?

1. Yes \_\_\_    2. No

IF YES TO ANY OF ABOVE (32A, B, C, or D), ANSWER THE FOLLOWING. IF NO TO ALL, CHECK DOES NOT APPLY AND SKIP TO NEXT PAGE.

E. Do you usually cough like this on most days for 3 consecutive months or more during the year?

1. Yes \_\_\_    2. No \_\_\_  
 3. Does Not Apply \_\_\_

F. For how many years have you had the cough?

Number of Years \_\_\_  
 Does Not Apply \_\_\_

33A. Do you usually bring up phlegm from your chest? (Count phlegm with the first smoke or on first going out of doors. Exclude phlegm from the nose. Count swallowed phlegm.) (If no, skip to 33C.)

1. Yes \_\_\_    2. No \_\_\_

B. Do you usually bring up phlegm like this as much as twice a day 4 or more days out of the week?

1. Yes \_\_\_    2. No \_\_\_

you usually bring up phlegm at all on  
waking-up or first thing in the morning?

1. Yes  2. No

you usually bring up phlegm at all  
during the rest of the day or at night?

1. Yes  2. No

TO ANY OF THE ABOVE (33A, B, C, or D), ANSWER THE FOLLOWING:  
IF ALL, CHECK DOES NOT APPLY AND SKIP TO 34.

you bring up phlegm like this on most  
days for 3 consecutive months or more  
during the year?

1. Yes  2. No

for how many years have you had trouble  
with phlegm?

Number of Years   
Does Not Apply

35 OF COUGH AND PHLEGM

do you have periods or episodes of  
(increased\*) cough and phlegm lasting  
for 3 weeks or more each year?  
(For persons who usually have cough  
and/or phlegm)

1. Yes  2. No

IF YES TO 34A:  
or how long have you had at least 1 such  
episode per year?

Number of Years   
Does Not Apply

36

or your chest ever sound wheezy or  
whistling

- 1. When you have a cold?
- 2. Occasionally apart from colds?
- 3. Most days or nights?

1. Yes  2. No   
1. Yes  2. No   
1. Yes  2. No

IF YES TO 1, 2, or 3 in 35A:  
or how many years has this been present?

Number of Years   
Does Not Apply

have you ever had an attack of wheezing  
that has made you feel short of breath?

1. Yes  2. No

IF YES TO 36A:  
how old were you when you had your first  
such attack?

Age in Years   
Does Not Apply

have you have 2 or more such episodes?

1. Yes  2. No   
3. Does Not Apply

have you ever required medicine or  
treatment for the(se) attack(s)?

1. Yes  2. No   
3. Does Not Apply

F  
1947

BREATHLESSNESS

If disabled from walking by any condition other than heart or lung disease, please describe and proceed to question 39A.  
Nature of condition(s) \_\_\_\_\_

Are you troubled by shortness of breath when hurrying on the level or walking up a slight hill?

1. Yes \_\_\_ 2. No

IF YES TO 38A:

Do you have to walk slower than people of your age on the level because of breathlessness?

1. Yes \_\_\_ 2. No \_\_\_  
3. Does Not Apply \_\_\_

Do you ever have to stop for breath when walking at your own pace on the level?

1. Yes \_\_\_ 2. No   
3. Does Not Apply \_\_\_

Do you ever have to stop for breath after walking about 100 yards (or after a few minutes) on the level?

1. Yes \_\_\_ 2. No   
3. Does Not Apply \_\_\_

Are you too breathless to leave the house or breathless on dressing or climbing one flight of stairs?

1. Yes \_\_\_ 2. No   
3. Does Not Apply \_\_\_

TOBACCO SMOKING

Have you ever smoked cigarettes? (No means less than 20 packs of cigarettes or 12 oz. of tobacco in a lifetime or less than 1 cigarette a day for 1 year.)

1. Yes \_\_\_ 2. No

IF YES TO 39A:

Do you now smoke cigarettes (as of one month ago)?

1. Yes \_\_\_ 2. No

How old were you when you first started regular cigarette smoking?

Age in Years \_\_\_  
Does Not Apply \_\_\_

If you have stopped smoking cigarettes completely, how old were you when you stopped?

Age Stopped \_\_\_  
Check if still smoking \_\_\_  
Does Not Apply \_\_\_

How many cigarettes do you smoke per day now?

Cigarettes per day \_\_\_  
Does Not Apply \_\_\_

On the average of the entire time you smoked, how many cigarettes did you smoke per day?

Cigarettes per day \_\_\_  
Does Not Apply \_\_\_

G. Do or did you inhale the cigarette smoke?

- 1. Does Not Apply
- 2. Not At All
- 3. Slightly
- 4. Moderately
- 5. Deeply

A. Have you ever smoked a pipe regularly? (Yes means more than 12 oz. of tobacco in a lifetime.)

- 1. Yes
- 2. No

IF YES TO 40A:  
FOR PERSONS WHO HAVE EVER SMOKED A PIPE

1. How old were you when you started to smoke a pipe regularly?

Age

2. If you have stopped smoking a pipe completely, how old were you when stopped?

Age Stopped

Check if still

smoking pipe

Does Not Apply

On the average over the entire time you smoked a pipe, how much pipe tobacco did you smoke per week?

oz. per week  
(a standard pouch of tobacco contains 1-1/2 oz.)

Does Not Apply

How much pipe tobacco are you smoking now?

Oz. per week

Not currently smoking a pipe

Do you or did you inhale the pipe smoke?

- 1. Never smoked
- 2. Not at all
- 3. Slightly
- 4. Moderately
- 5. Deeply

Have you ever smoked cigars regularly? (Yes means more than 1 cigar a week for a year)

- 1. Yes
- 2. No

IF YES TO 41:  
FOR PERSONS WHO HAVE EVER SMOKED CIGARS

1. How old were you when you started smoking cigars regularly?

Age

If you have stopped smoking cigars completely, how old were you when stopped?

Age Stopped

Check if still

smoking cigars

Does Not Apply

On the average over the entire time you smoked cigars, how many cigars did you smoke per week?

Cigars per week

Does Not Apply

How many cigars are you smoking per week  
now?

Cigars per week  
Check if not  
smoking cigars  
currently

—

—

do you or did you inhale the cigar smoke?

1. Never smoked
2. Not at all
3. Slightly
4. Moderately
5. Deeply

—

—

—

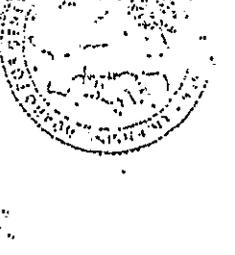
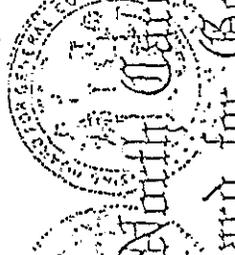
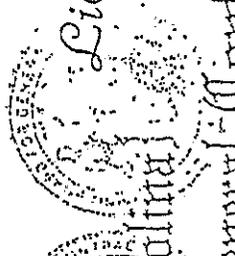
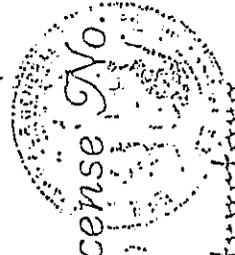
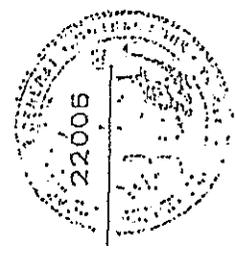
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—

Signature

*Shelton Ray Tate, Jr.* Date *July 23, 1988*

APPENDIX B:  
CURRENT STATE LICENSE



# Licensing Board for General Contractors

License No.

North Carolina

This is to Certify That  
is duly registered and entitled to practice

REPUBLIC INDUSTRIES, INC.  
STATION 1  
WILMINGTON, NC

## General Contracting

Classification:

( INTERIOR CONSTRUCTION )

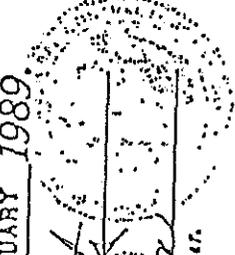
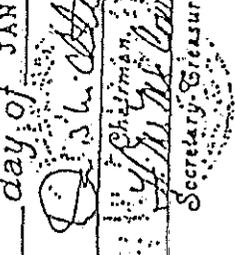
Limitation:

INTERMEDIATE

until December 31, 1989, when this Certificate expires.

Witness our hands and seal of the Board

Dated, Raleigh, N. C., 17TH day of JANUARY 1989.



This Certificate Expires December 31, 1989.

*[Signature]*  
Secretary-Treasurer

# LICENSE CERTIFICATE

License Number: 89050181

Date Issued: May 16, 1989

Expiration Date: May 16, 1990

This certifies that  
*Republic Industries, Inc.*

of  
*Wilmington, NC 28403*  
has been granted a license for the

Reduced Pressure and Filtration System

under

U.S. Patent Number 4,604,111  
as issued by the United States Patent & Trademark Office  
Washington, D.C.

**GPAG**\*

A TECHNOLOGY MANAGEMENT COMPANY

P.O. Box 662, Maple Shade, NJ 08052 609-486-1555 FAX 609-486-0848

.....

**APPENDIX C:**  
**EQUIPMENT CERTIFICATIONS**

## MAJOR EQUIPMENT OWNED BY REPUBLIC INDUSTRIES

Five Cube body enclosed trucks

Six 1/2 ton pickups

One 3/4 ton pickup

One Trailer totter truck

Three passenger vans

Two Station wagons

Three 28 ft. Fully equipped decon trailers

One 24 ft. Fully equipped decon trailers

Five portable decons and showers

Twenty-four 2000 CFM negative air machines

One twenty-man Type C air system complete

Twenty-three PAPR's

Eight 55 gallon HEPA Vac's

Two 10 Gallon HEPA Vac's

Six gasoline driven High Pressure Washers

One 3/4 HP airless sprayer

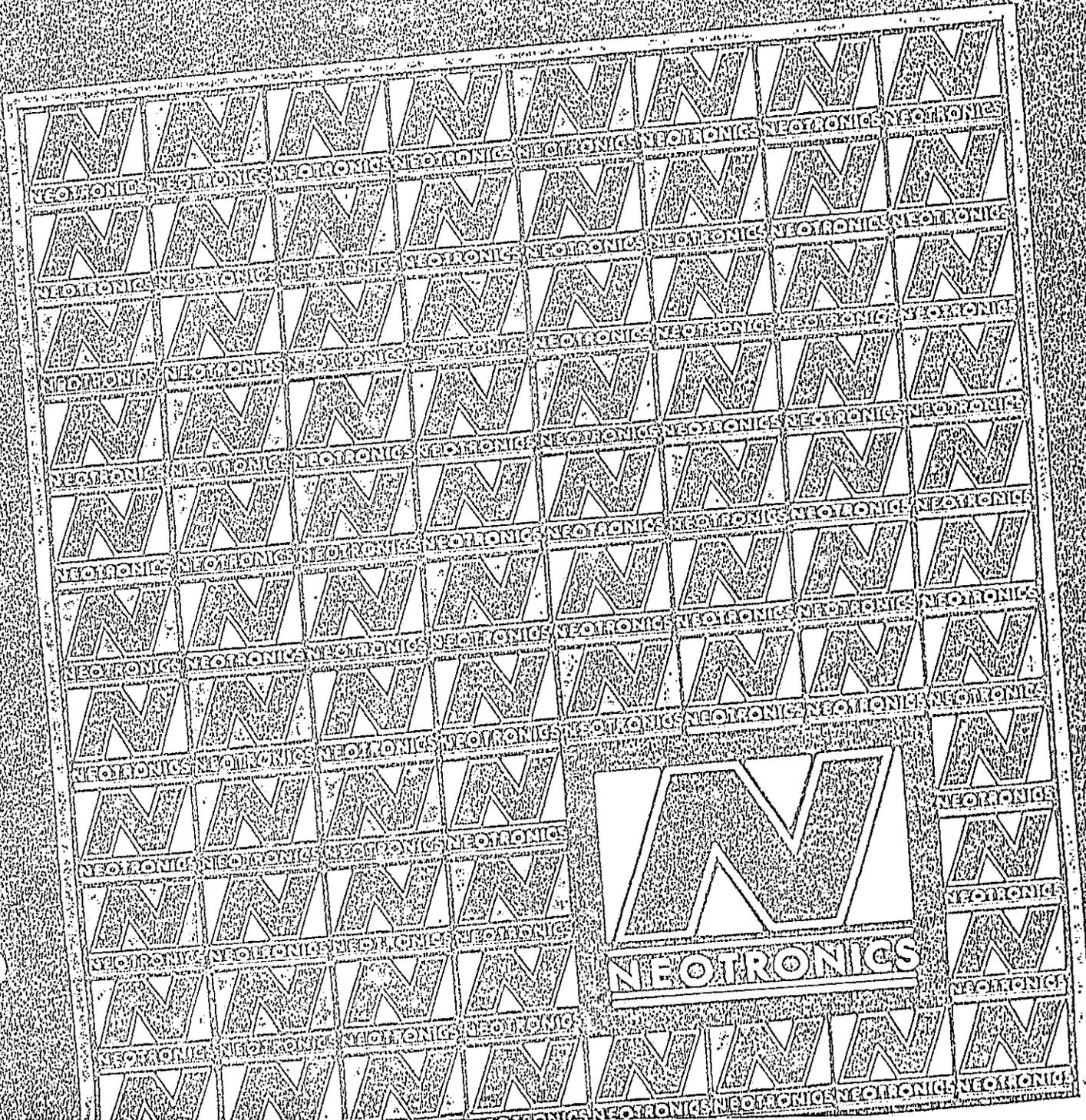
One insulation pin welder

One four ft. sheet metal brake

One 50 gallon per minute five micron vacuum filter system

Five MSA personal sample pumps

*As the questions get harder  
Our answers get better!*



PDM - POCKET DIGITAL MICROMANOMETER  
USERS MANUAL

1. DESCRIPTION

The PDM - Pocket Digital Micromanometer is a precision pressure measuring instrument. Highly accurate, the rugged PDM will provide the operator with many years of reliable performance provided you take care when operating and storing the instrument.

The PDM was designed as a modern electronic alternative to old-fashioned liquid/glass and dial pressure gauges. The revolutionary design of the compact PDM relieves the user of the operational difficulties found with setting up and leveling of the older liquid manometers.

2. FEATURES

2.1 On/Off Switch

Slide this switch to the On position and the instrument will immediately power up.

2.2 Zero Thumbwheel

Moving this control allows you to set the differential pressure zero offset.

2.3 Signal In Port (+)

The PDM measures the difference between the pressure applied to this port and the pressure at the Reference (-) Port. A negative pressure (or suction) applied to this port, which is lower than the reference, will cause a negative (-) display reading (eg: -12.6). The negative reading is shown by a minus sign on the left of the display.

2.4 Reference Port (-)

See section 2.3. All measurements are made with respect to the pressure applied to this port. When making GAUGE or DUCT STATIC measurements this port is normally left open to the atmosphere. Certain other users are detailed later in this manual.

## 2.5 Electrical Output

This is a -1V/OV/+1V analog output. The output socket is a 3.5 mm Jack-plug with the signal on the center pin. The signal output is positive when the display has a positive pressure reading. +1V corresponds to a display count of 19.99. The output is isolated from the instruments measuring circuits and is short circuit protected. The output is designed to operation into signal loads of greater than 500 Ohms.

## 3. PRESSURE CONNECTIONS

The PDM pressure ports have an outside diameter of 4 mm and are designed to accept extra-flexible silicone rubber tubing with a bore of 2 to 2.5 mm. Tubing of this kind is easy to push on yet grips firmly enough to provide a pressure seal. Cheaper tubing can be used but you will need to use a larger bore because of its lower elasticity.

Connect as detailed below for your required pressure measurements.

MEASUREMENT TYPE	SIGNAL IN PORT	REFERENCE PORT
GAUGE PRESSURE	SIGNAL	OPEN TO ATMOSPHERE
DUCT STATIC	SIGNAL	OPEN TO ATMOSPHERE
PITOT STATIC	TOTAL PRESSURE TAPPING	STATIC PRESSURE TAPPING
ORIFICE PLATES	UPSTREAM TAPPING	DOWN STREAM TAPPING
FLOW GRIDS	PLUS TAPPING	MINUS TAPPING
INLET CONES	TAPPINGS	OPEN TO ATMOSPHERE

## 4. RULES OF THUMB

- a. Never apply direct pressure with your mouth. Moisture can rapidly build-up and cause a blockage and permanently damage the PDM.
- b. Never moisten the tubes to ease fitting. Moisture can rapidly build-up and cause a blockage. If you have to do this then you're using the wrong type of tubing.

Use the longest length of tubing available. This is especially important when taking measurements in wet or dirty air streams. The further contamination has to travel in the tube the lower the chance of damage to the PDM sensor.

Always replace the jumper tube. This is a short length of tube which is connected between the two ports when the PDM is not in use. This prevents contamination and must always be replaced when you finish using the instrument.

Stay Cool. Do not expose the PDM to excessive heat or long periods of direct sunlight. LDC Displays do not like excesses. Ambient temperatures for over 55 degrees Celsius may damage the instrument.

Warm Up. Allow the PDM to warm up for at least 1 minute before using it for measurements.

Never apply more than 10 volts to the battery terminals.

Always switch off before changing the battery.

Never tug the battery leads. Always lever them off.

Always remove the battery before storing the PDM for long periods.

Never apply a differential pressure of greater than 165 kPa or 25 psi.

## CALIBRATION

### Test Equipment

Reference Manometer. Use a high quality standard manometer.

Range	20 Inch H <sub>2</sub> O	Resolution	0.01 Inch H <sub>2</sub> O
(for calibrating 19.99 Inch instruments)			

Range	20 PSI	Resolution	0.01 PSI
(for calibrating 19.99 PSI Instruments)			

Make sure the reference manometer has a valid calibration certificate and clean fresh fluid.

### Digital Voltmeter. (DVM)

Range 1	10V dc	Resolution	0.1V dc
Range 2	1V dc	Resolution	1mV dc

- c. Pressure Source.  
Capable of generating small static pressures.
- d. Adjustment Tool. Don't damage pots, use the right tool.
- e. Small non-conductive box (ie. plastic)  
Approximately 200 x 100 x 75 mm.

## 5.2 Notes about Calibration

- a. The PDM is calibrated by applying a positive pressure to the signal in port. The reference port is left open to the atmosphere. The best results are obtained by calibrating at 80% of Full Scale. This keeps linearity errors to a minimum keeping the instrument accuracy performance to +/- 1% of reading +/- 1 count.
- b. The + and - response is tested by applying a constant pressure to each port in turn. By checking that the readings differ by 1% or less the response performance can be assured.
- c. The analog output is checked to ensure that it gives 0.5 mV per display count (0 to 19.99)
- d. By setting the zero on the most sensitive range and then switching to the least sensitive range, the zero offset is readily checked. The resultant offset must not exceed 2 counts.
- e. Pressure sensor hysteresis is checked by zeroing, applying full scale pressure for at least 1 minute and then rechecking the zero. The zero must not shift by more than 2 counts and a further repeat of this test must not cause another shift.
- f. Liquid filled manometers take a number of seconds to stabilize. The PDM will exhibit an unstable reading which may go overrange as the liquid settles. This effect is acutely noticeable with the inclined liquid manometers.
- g. Inclined liquid manometers may take up to 60 seconds to drain back to the zero level after large excursions.
- h. Many pneumatic systems are hyper sensitive to temperature changes and long-term stable readings are difficult to obtain with liquid manometers.

### 3 Calibration Preparations.

Calibration is normally performed at a constant room temperature (65-70 degrees F). If the instrument is to be frequently used at higher temperatures, greater accuracy will be achieved by calibrating it at temperatures equivalent to the workplace.

DO NOT recalibrate the PDM on a stormy day as changing atmospheric pressures cause liquid manometer readings to become unstable.

Remove the rear cover of the PDM, install a fresh battery and switch the PDM on.

Switch the DVM on.

Set up the Reference Manometer.

Allow the Reference Liquid Manometer to stabilize for at least two hours.

Check the positions of the "BAL" and "CAL" controls on the rear PCM inside the back of the PDM. Memorize these positions to simplify adjustments.

Set the equipment up as shown in Fig.1.

20 Inch H<sub>2</sub>O models      Apply 16 Inch H<sub>2</sub>O to the Signal In Port (+) and allow the PDM to sit under pressure.

20 PSI models            Apply 16 PSI to the Signal In Port (+) and allow the PDM to sit under pressure.

The pneumatic leakage from the system will be such that the reference manometer will show no drop in its reading in 15 seconds. If the drop through leakage is noticeable, call Neotronics for Service Instructions.

#### Calibration

Place the instruments (the back cover should already be removed) on top of the plastic box in a horizontal position. Make sure that nothing is connected to either inlet port.

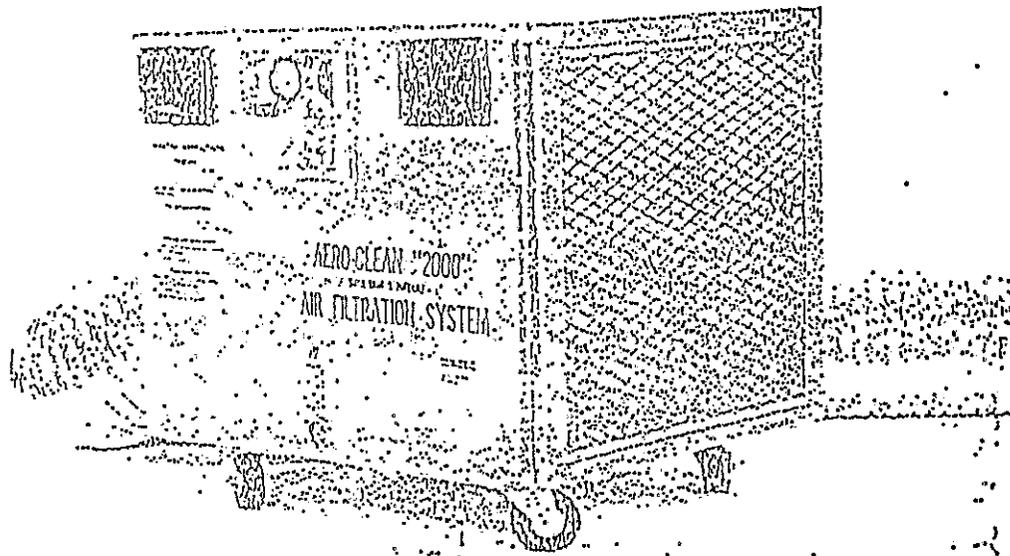
Set the zero thumbwheel fully counter clockwise. Using the notch on the thumbwheel as a marker, turn the thumbwheel five turns clockwise.

Select the most sensitive pressure range (if more than one range is available).

- ON/OFF
- d. The display should not read within  $\pm 5$  counts of zero. If not, carefully adjust the "BAL" control on the rear PCB until the display indicates zero  $\pm 2$  counts. This adjustment is very sensitive -- use a calibration tool -- not a screwdriver -- and keep your fingers away from the PCB.
  - e. Set the display on zero using the thumbwheel. Switch display range (on two range models) and check that the zero shift is not excessive. Switch back to the most sensitive range and check that the zero shift is again no excessive.
  - f. Connect up the equipment as shown in Fig.1.
  - g. Adjust the Pressure Source for a pressure equal to 80% of the PDM's most sensitive range. Allow the Reference Manometer to settle.
  - h. If the PDM reading does not agree with the Reference Manometer, stand the PDM on end and carefully adjust the "CAL" control until the two manometers agree within  $\pm 1$  count on the PDM display.
  - i. Connect the DVM to the analog output, apply a pressure at 80% of full scale and check for an output of 0.5mV per display count. (eg: 16.00 Inch H<sub>2</sub>O on the 19.99 Inch H<sub>2</sub>O range = 1600 x 05 = 800 mV)
  - j. Select the most sensitive range. Apply a pressure at 20% of Full Scale and check the display readout is within tolerance ( $\pm 1\%$  of reading  $\pm 1$  count).
  - k. Repeat step j for pressures of 40% and 80% of full scale.
  - l. Remove the pressure. Set Zero. Reapply an 80% Full Scale Pressure and note the display reading. Remove the pressure.
  - m. Set Zero. Apply the same pressure to the reference port that was applied to the signal port in step l. The negative reading made in step m must be within 1% of the positive reading from step l (ignoring the polarity).

# AERO-CLEAN "2000"

AIR FILTRATION SYSTEM

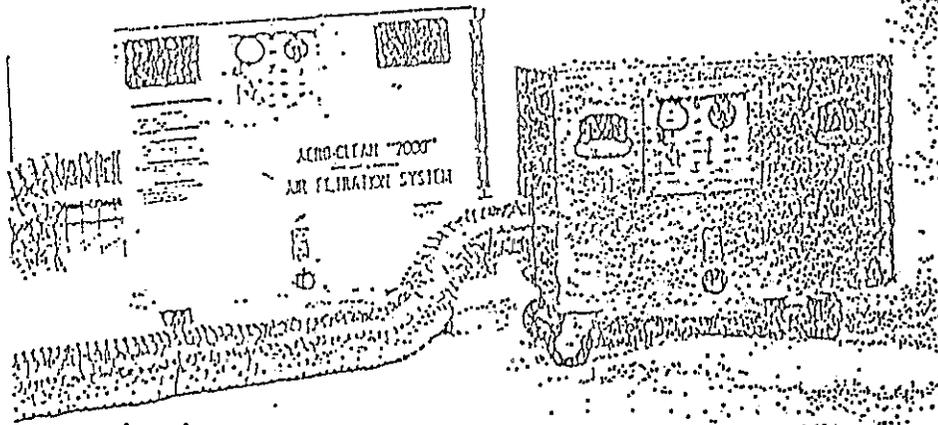


DUAL SPEED, 2000 AND 1000 CFM  
COMPACT SIZE, LIGHT WEIGHT  
SUPERIOR QUALITY PERFORMANCE  
NEW IMPROVED DESIGN

MANUFACTURED BY AEROSPACE AMERICA, INC.

BRINGING AEROSPACE TECHNOLOGY TO THE ASBESTOS ABATEMENT INDUSTRY





SYSTEMS	AEROCLEAN	AEROCLEAN	AEROCLEAN	AEROCLEAN
SPECIFICATIONS	6000 CFM	2000/1000 CFM	800 CFM	500 CFM
DIMENSIONS	WIDTH 30" HEIGHT 80" LENGTH 52"	WIDTH 26" HEIGHT 26" LENGTH 32"	WIDTH 20 1/2" HEIGHT 25 1/2" LENGTH 32"	WIDTH 14" HEIGHT 42" LENGTH 14"
WEIGHT	595 LBS.	175 LBS.	98 LBS.	90 LBS.
POWER SUPPLY	220 VOLTS 15 AMP	115 VOLTS 15 AMP	115 VOLTS 5.0 AMP	120 VOLTS 8 AMP
MOTOR	3 HP Thermal Protection Sealed Lubrication	1 1/2 HP 1725 60 HZ Thermal Protection Sealed Lubrication	1 HP 3450 RPM Thermal Protection Auto Capacitor Start	1/2 HP
AIR CAPACITY	6000 CFM at .5 W/C Static Pressure on Gauge	HIGH (SPEEDS) LOW 1850 CFM 1000 CFM at 1.5 W/C at .5 W/C Static Pressure. on Gauge	800 CFM @ 1" W/C 745 CFM @ 2" W/C 680 CFM @ 3" W/C	500 CFM at 1" W/C Static Pressure on Gauge
FILTERS	1st., 2nd. H.E.P.A. Filters 0.3 Microns at 99.97	1st., 2nd. H.E.P.A. Filters 0.3 Microns at 99.97	1st., 2nd. H.E.P.A. Filters 0.3 Microns at 99.97	1st., 2nd. H.E.P.A. Filters 0.3 Microns at 99.97
FAN	AMCA Rated Fan	AMCA Rated Fan	AMCM Rated	AMCA Rated

---

TO WHOM IT MAY CONCERN:

Regulations promulgated by the Occupational Safety and Health Administration, specifically 29 C.F.R. 1910 and 1926, require that special protective clothing be provided for any employee whose occupational duties expose him to airborne concentrations of asbestos fibers greater than the published ceiling levels.

KLEENGUARD® Coveralls by Kimberly-Clark, composed of a unique triple-layer non-woven fabric, have been tested by several independent laboratories for asbestos barrier properties.

Results show that the fabric in KLEENGUARD® Coveralls provides an equivalent and effective alternative to Type-14 TYVEK\* Fabric for asbestos handling operations.

W. R. McGrath, Ph.D.  
Director of Product Safety

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® Registered trademark of Kimberly-Clark Corporation, Roswell, GA 30076  
\* TYVEK is a registered trademark of E.I. DuPont.

Product Group of

# Tyvek®

spunbonded olefin

## BARRIER EFFECTIVENESS TO ASBESTOS FIBERS

### Tyvek® vs. "Air Permeable" SB/Meltblown Polypropylene Fabric

The toxicity of fine asbestos fibers (less than .5 microns in diameter) is of concern to industrial health professionals. For this reason Quebec Grade 7R Chrysotile Asbestos containing fibers down to submicron size were used in this study.

Transmission Electron Microscopy (TEM) was used for fiber counting and size analysis. Phase Contrast Optical Microscopy does not have adequate resolution to detect the fine fibers.

The study of the barrier performance of the fabrics listed were conducted by an independent test laboratory. The test involved challenging fabrics simultaneously with the asbestos laden atmosphere.

This study using TEM, confirms that "Tyvek" spunbonded olefin is a more effective barrier to all asbestos fibers than air permeable fabrics.

\*Du Pont registered trademark

The five fabrics tested and the percentage of asbestos fibers penetrating each of them are as follows:

FABRIC	PERCENTAGE OF ASBESTOS FIBERS PENETRATING FABRIC
Tyvek® Style 1422A (893-80-1*)	0.9
Tyvek® Style 1443CS (893C-80-3A*)	0.3
1.5 oz. "air permeable" SB/Meltblown polypropylene fabric (893C-80-6D*)	26.1
2.1 oz. "air permeable" SB/Meltblown polypropylene fabric (893C-80-13*)	29.7
2.5 oz. "air permeable" SB/Meltblown polypropylene fabric (893-80-7*)	18.9

\*Code numbers used in full report prepared by the testing laboratory.



Minuteman, Inc.

111 South Route 53, Addison, Illinois 60101 USA • Phone (312) 627-6900 Telex 910-991-3092 Telefax 312-627-1130

March 1, 1987

RE: 800 Series H.E.P.A. Equipped Vacuums

To Whom It May Concern:

We wish to take this opportunity to advise you that all our 800 Series H.E.P.A. filter vacuums including the Model 80315 Asbestos vacuum meet the ANSI Z9.2 standards.

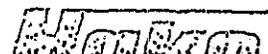
All our H.E.P.A. filters are DOP tested in accordance with MIL-STD 282 and are registered and labeled on each individual unit by the manufacturer. All the filters we use meet, and in most cases, exceed the minimum standard of 99.99% efficiency for .12 micrometer particles.

Regards,

A handwritten signature in cursive script, appearing to read "Gary Palmer". The signature is written in dark ink and is positioned above the typed name.

Gary Palmer  
Director of Engineering

GP/nam





# Powered Air-Purifying Respirator

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## Type A instructions

### WARNING

THIS MANUAL MUST BE CAREFULLY READ BY ALL PERSONS WHO HAVE OR WILL HAVE THE RESPONSIBILITY FOR USING OR SERVICING THE PRODUCT. Like any complex piece of equipment, the Powered Air-Purifying Respirator (PAPR) from MSA will perform as designed only if it is used and serviced according to the instructions. OTHERWISE, IT COULD FAIL TO PERFORM AS DESIGNED, AND PERSONS WHO RELY ON THIS RESPIRATOR COULD SUSTAIN SEVERE RESPIRATORY INJURY OR DEATH.

The warranties made by Mine Safety Appliances Company with respect to the product are voided if the product is not installed, used, and serviced in accordance with the instructions in this manual. Please protect yourself and your employees by following the instructions.

Please read and observe the WARNINGS and CAUTIONS inside. We encourage our customers to write or call for a demonstration of this equipment prior to use or for any additional information relative to use or repairs.

Call 1-800-MSA-2222 during regular working hours, or 1-800-MSA-5555 after working hours or during emergencies.

Manufactured by

MINE SAFETY APPLIANCES COMPANY  
PITTSBURGH, PENNSYLVANIA, U.S.A. 15230

PERMISSIBLE  
HIGH-EFFICIENCY POWERED AIR-PURIFYING RESPIRATOR FOR ASBESTOS DUSTS AND MISTS



MINE SAFETY AND HEALTH ADMINISTRATION  
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH  
APPROVAL NO. TC-21C-354



ISSUED TO  
MINE SAFETY APPLIANCES COMPANY, Pittsburgh, Pennsylvania, U.S.A.  
LIMITATIONS

Approved for respiratory protection against dust, fumes, and mists having a time-weighted average less than 2 million particles per cubic foot and asbestos-containing dusts and mists.

The manufacturer limits the respirator to use against asbestos-containing dusts and mists.

Not approved for radionuclides.

Not for use in atmospheres containing less than 19.5 percent oxygen.

Not for entry into atmospheres immediately dangerous to life or health.

Evaluated under Part 18 for use in methane air atmospheres only, not evaluated as an ignition source in any other flammable or explosive atmosphere by MSHA/NIOSH.

CAUTION

Replace filters when the air flow falls below 4 cubic feet per minute.

In making renewals or repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

Follow the manufacturer's instructions for changing filters.

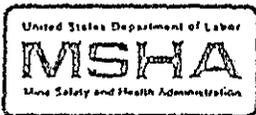
This respirator shall be selected, fitted, used, and maintained in accordance with Mine Safety and Health Administration, Occupational Safety and Health Administration, and other applicable regulations.

MSHA - NIOSH Approval TC-21C-354

Issued to Mine Safety Appliances Company, August 13, 1987

The approved Respirator consists of the following MSA parts: 7-727-1, 7-727-2, 7-727-3, 7-476-1, 7-476-2, 7-476-3, 7-250-1, 7-250-2, 7-250-3, 7-285-1, 7-285-2, or 7-285-3 facepiece; 463380 or 484082 motor-blower and hose assembly; 478782 (TC-21C-354) filters; 463239 battery and 463469 or 473902 belt.

PERMISSIBLE  
HIGH-EFFICIENCY POWERED AIR-PURIFYING RESPIRATOR FOR ASBESTOS DUSTS AND MISTS



MINE SAFETY AND HEALTH ADMINISTRATION  
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH  
APPROVAL NO. TC-21C-355



ISSUED TO  
MINE SAFETY APPLIANCES COMPANY, Pittsburgh, Pennsylvania, U.S.A.  
LIMITATIONS

Approved for respiratory protection against dust, fumes, and mists having a time-weighted average less than 2 million particles per cubic foot and asbestos-containing dusts and mists.

The manufacturer limits the respirator to use against asbestos-containing dusts and mists.

Not approved for radionuclides.

Not for use in atmospheres containing less than 19.5 percent oxygen.

Not for entry into atmospheres immediately dangerous to life or health.

Evaluated under Part 18 for use in methane air atmospheres only, not evaluated as an ignition source in any other flammable explosive atmosphere by MSHA/NIOSH.

CAUTION

Replace filters when the air flow falls below 4 cubic feet per minute.

In making renewals or repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

Follow the manufacturer's instructions for changing filters.

This respirator shall be selected, fitted, used, and maintained in accordance with Mine Safety and Health Administration, Occupational Safety and Health Administration, and other applicable regulations.

MSHA - NIOSH Approval TC-21C-355

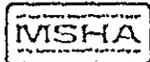
Issued to Mine Safety Appliances Company, August 13, 1987

The approved Respirator consists of the following MSA parts: 7-203-1, 7-203-2, 7-203-3, 7-361-1, 7-361-2, 7-361-3 facepiece; 463380 or 484082 motor-blower and hose assembly; 478782 (TC-21C-354) filters; 463239 battery and 463469 or 473902 belt.



PERMISSIBLE POWER ASSISTED RESPIRATOR

APPROVAL  
2G-3374-2



TESTED IN METHANE-AIR MIXTURE ONLY

WARNING: MSHA APPROVED FOR USE WITH 4.8 VOLT  
BATTERY MODULE PART NUMBER 463239 ONLY



Intrinsically Safe for use in Class 1, Division 1.  
Groups C and D hazardous locations when used  
with MSA Battery Pack Part No. 463239.

Any substitution of components may impair intrinsic safety.

COMMONWEALTH  
OF  
PENNSYLVANIA

APPROVAL NO. BFE-911-83

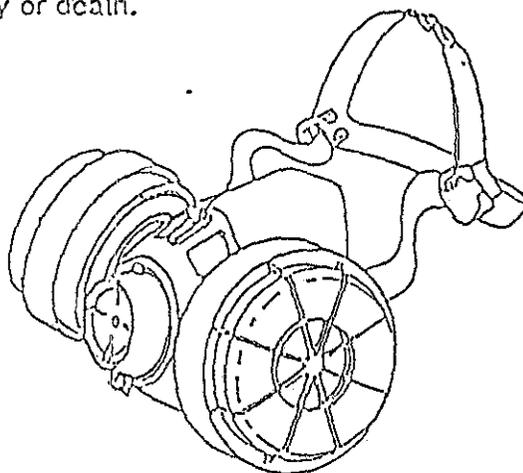
WILSON<sup>®</sup>

## 6100 SERIES RESPIRATOR

### INSTRUCTIONS FOR USE AND APPROVAL

BEFORE USING THE RESPIRATOR, CAREFULLY READ THE FOLLOWING INSTRUCTIONS AND REFER TO THE NIOSH/MSHA APPROVAL LABEL SHEET WHENEVER NECESSARY.

The instructions furnished with these respirators are for your benefit, to inform you of the specific limitations, proper use and required maintenance of your Wilson respirators. For your effective protection, read and understand them before using the respirator. They must be followed to obtain adequate levels of protection. Failure to follow all instructions, cautions and warnings on the use of this product and/or failure to wear this respirator during all times of exposure will reduce respirator effectiveness and wearer protection, which may result in serious injury, disability or death.



SEE PAGE 15 FOR RESPIRATOR SELECTION CHART

PERMISSIBLE  
RESPIRATOR FOR  
DUSTS, FUMES, AND  
MISTS, ASBESTOS, AND  
RADIONUCLIDES



MINING SAFETY AND HEALTH ADMINISTRATION  
NATIONAL INSTITUTE FOR OCCUPATIONAL  
SAFETY AND HEALTH

APPROVAL NO. TC-21C-377

ISSUED TO  
WILLSON SAFETY PRODUCTS  
READING, PENNSYLVANIA, U. S. A.

LIMITATIONS

Approved for respiratory protection against dusts, fumes, and mists having a time weighted average - less than 0.05 milligram per cubic meter, asbestos containing dusts and mists, and radionuclides.

Not for use in atmospheres containing less than 19.5 percent oxygen.

Not for use in atmospheres immediately dangerous to life or health.

This respirator shall be selected, fitted, used, and maintained in accordance with Mine Safety and Health Administration, Occupational Safety and Health Administration, and other applicable regulations.

CAUTION

In making renewals or repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

Follow the manufacturer's instructions for changing filters.

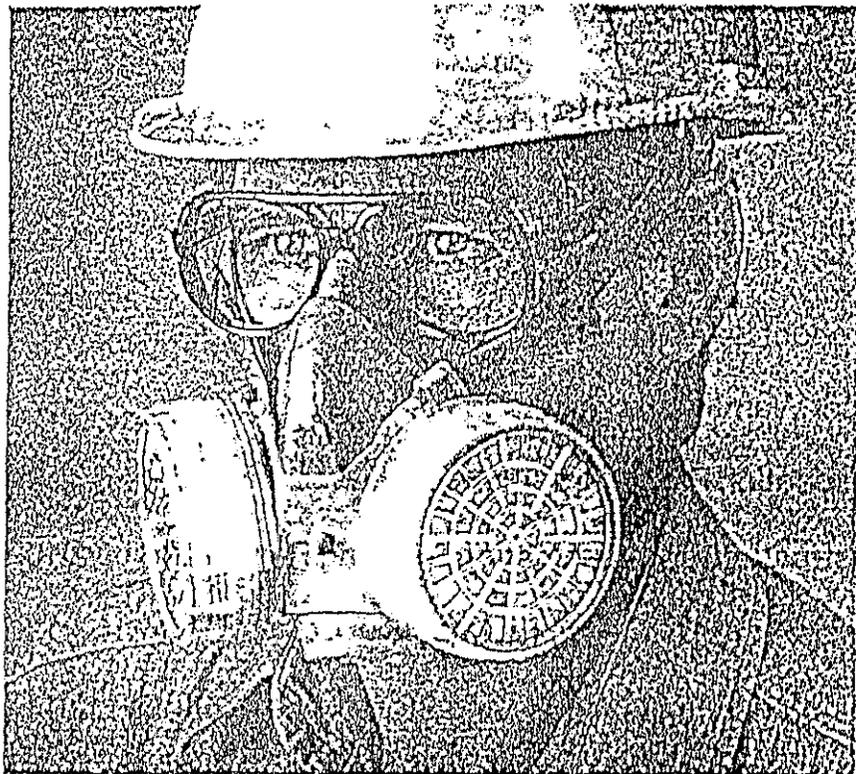
MSHA - NIOSH Approval TC-21C-377

Issued to Willson Safety Products October 3, 1986 for dusts, fumes, and mists, asbestos, and radionuclides.

The approved assembly consists of the following Willson parts numbers: (1) NP1, 2, or 3 facemask, (1) NP4 Cradle Suspension, (1) NP10 Exhalation Valve Assembly, (2) NP16 Connectors, (2) NP17 Inhalation Valves, and (2) T40 (TC-21C-377) Filters.



Easi-Air™  
Dual Cartridge Half Mask  
Respirators  
Instructions for Use and Approvals



*Includes:*

- Parts List
- Instructions for Use
- Maintenance and Assembly Procedures

# High Efficiency Respirators

Permissible  
Respirator  
for  
Dusts, Fumes, Mists, Radionuclides, Radon Daughters  
and Asbestos-Containing Dusts and Mists

MINE SAFETY AND HEALTH ADMINISTRATION  
**MSHA**  
U.S. DEPARTMENT OF LABOR

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH  
**NIOSH**  
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Mine Safety and Health Administration  
National Institute for  
Occupational Safety and Health  
Approval No. TC-21C-265  
Issued To  
**Minnesota Mining and Manufacturing Company**  
St. Paul, Minnesota, U.S.A.

**Limitations**

Approved for respiratory protection against dusts, fumes, and mists having a time-weighted average less than 10 mg/m<sup>3</sup> for dusts, fumes, radionuclides, radon daughters attached to the dusts, fumes, and mists, and radon daughters and asbestos containing dusts and mists.

Not for use in atmospheres containing less than 19.5 percent oxygen.

Not for use in atmospheres immediately dangerous to life or health.

Not for use in atmospheres containing toxic gases and odors.

**Caution**

In making repairs or repairs parts, consult all those furnished by the manufacturer when the pertinent approval stamp is present.

Follow the manufacturer's instructions for changing filters.

This respirator shall be selected, fitted, used, and maintained in accordance with the Mine Safety and Health Administration, Occupational Safety and Health Administration, and other applicable regulations.

**MSHA-NIOSH Approval TC-21C-265**  
**Issued to Minnesota Mining and Manufacturing Company**  
**May 24, 1985**

**For Dusts, Fumes, Mists, Radionuclides, Radon Daughters  
and Asbestos-Containing Dusts and Mists**

The approved TC-21C-265 is for dusts, fumes, mists, radionuclides, radon daughters and asbestos containing dusts and mists, carriers of the following job parts: 2200 or 2300 or 2300B or 2300C, for example: 2200-21C, 21C, Job: filter and 2300 return.

# POWERFLOW

Air You Can Wear—Almost Anywhere!



### A Major Breakthrough:

Powerflow—Racal's new powered air purifying respirator, needs no breathing tube, no supplied-air hose. The motor and HEPA filter are fitted directly onto the facepiece.

Positive pressure Powerflow is lightweight and comfortable to wear, and eliminates the need for fit-testing. Easily decontaminated, Powerflow provides NIOSH/MSHA approved HEPA protection against dusts (including asbestos), mists and fumes, radionuclides and radon daughters, and supplies a constant flow of cool, clean, filtered air.

Powerflow is powered by a rechargeable Nickel Cadmium battery to give up to 8 hours continuous use. Powerflow reduces physical stress and increases productivity. Workers can wear Powerflow all day, even in confined spaces, without the fatigue associated with negative pressure respirators.

For further information call Toll-Free 800-682-9500. (In MD call 301-695-8200.)

## RACAL

The Air You Wear

NIOSH/MSHA  
APPROVED  
TC-21C-353

# POWERFLOW

## General Information and Operating Data

### FEATURES

- NIOSH/MSHA approved (TC-21C-353)
- Positive Pressure, Constant Flow
- Mask-mounted Motor/Airflow Unit
- Minimum 4 cu. ft. (115 liters) air/minute
- Lightweight, compact, mobile
- Eye, Face and Respiratory Protection
- Eliminates need for fit-testing
- Rechargeable Nickel Cadmium Battery Pack
- Up to 8 hours continuous battery use
- Easily decontaminated

### BENEFITS

- **Compatibility** The Powerflow Motor/Airflow Unit can be used with the existing Racal Full Facepiece (55-01-01), Nickel Cadmium, Rechargeable Battery pack (60-03-09) and Charger (AS4001-1).
- **Versatility** Can be used in a wide range of applications and working environments.
- **Productivity** Eliminates respiratory fatigue associated with negative pressure respirators. Increases efficiency and output.
- **Worker Acceptance** Cool, clean, filtered air for increased comfort and protection — less downtime.
- **Compactness** Elimination of breathing tube assembly or supplied-air line.
- **Protection** New, single High Efficiency (HEPA) filter for Dusts (including Asbestos), Fumes, Mists, Radionuclides, and Radon Daughters.

### SPECIFICATIONS

#### Filtration Limitation

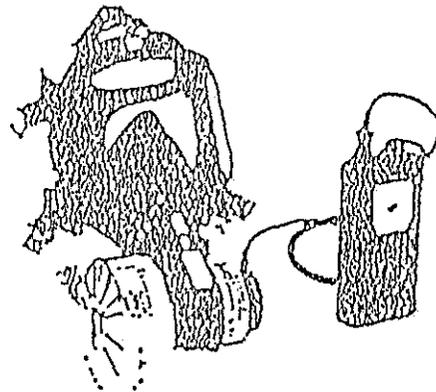
Approved for respiratory protection against dusts, fumes and mists having a time weighted average less than 0.05 milligrams per cubic meter or 2 million particles per cubic foot, radionuclides and radon daughters attached to the above, and for respiratory protection against asbestos containing dusts and mists.

#### IMPORTANT NOTICE

Powerflow is not NIOSH/MSHA approved for use with gas, vapor or combination gas, vapor/particulate canisters and cartridges.

#### Operational limitations

Not for use in atmospheres containing less than 19.5% oxygen or in atmospheres containing toxic gases and vapors.



Not for use in atmospheres immediately dangerous to life and health (IDLH) as a result of the following, or any other circumstance:

- contaminant concentration
- contaminant identity
- oxygen deficiency

#### Intrinsic Safety

Meets Factory Mutual requirements for Intrinsic Safety when used with 60-03-09 Battery Pack.

#### Airflow

POWERFLOW delivers minimum 4 cu. ft. (115 liters) of air/minute when used with HEPA filter 09-00-20.

#### Battery Pack

Nickel cadmium, rechargeable battery pack (60-03-09). Up to 8 hours use per charge. Two years battery life with normal use.

#### Weight (approx.)

Full Facepiece .....	20.0 oz.
POWERFLOW Motor/Airflow Unit .....	8.0 oz.
Battery Pack .....	26.0 oz.
SP3 HEPA Filter .....	4.5 oz.

#### Powerflow System Package (PF7/SP3) includes:

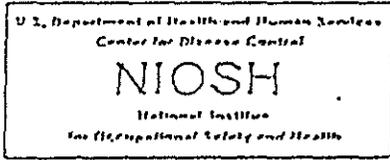
55-01-01	Full Facepiece (with storage bag)
24-00-02	POWERFLOW Motor/Airflow Unit
60-03-09	Battery Pack
AS4001-1	Battery Charger
30-29-01	POWERFLOW Airflow Indicator
09-00-20	SP3 HEPA Filter
RAS 9583	General User Instructions
... (All items are available individually.)	

Racal Airstream, Inc.  
7309A Grove Road  
Frederick, MD 21701

Toll Free • 800-682-9500  
in MD • 301-695-8200

# Organic Vapor Respirators

Permissible  
Chemical Cartridge Respirator  
for  
Organic Vapors and  
Dusts, Fumes, Mists, Radionuclides, Radon Daughters  
and Asbestos-Containing Dusts and Mists



Mine Safety and Health Administration  
National Institute for  
Occupational Safety and Health

Approval No. TC-23C-438

Issued To  
Minnesota Mining and Manufacturing Company  
St. Paul, Minnesota, U.S.A.

### Limitations

- Approved for respiratory protection against not more than 1,000 parts per million organic vapor and dusts, fumes and mists having a time-weighted average less than .05 milligrams per cubic meter, radionuclides, radon daughters and asbestos containing dusts and mists.
- Maximum use concentration will be lower than 1,000 parts per million organic vapors where that concentration produces atmospheres immediately dangerous to life or health.
- Do not use in concentrations which generate high heats of reaction with sorbent material.
- Do not wear for protection against organic vapors with poor warning properties.
- Not for use in atmospheres containing less than 19.5 percent oxygen.
- Not for use in atmospheres immediately dangerous to life or health.

### Caution

- In making renewals or repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.
- Follow the manufacturer's instructions for changing cartridges and filters.
- This respirator shall be selected, fitted, used, and maintained in accordance with the Mine Safety and Health Administration, Occupational Safety and Health Administration, and other applicable regulations.

Delex Chemicals, Inc.

3540 Aubusson Traco  
Alpharetta, Ga. 30201  
(404) 587-3719



Control 6000 Surfactant:

Freezing Temperature: 32 Degrees F.

Freeze Thaw Stability: Stable 2 Cycles

MATERIAL SAFETY  
DATA SHEET

REVISED: 6/16/88

Manufacturer: Delex Chemicals, Inc.  
1018 Branch Drive.  
Alpharetta, Ga. 30201

PHONE-- (404) 587-3719

IDENTIFICATION

PRODUCT NAME: Control 2000 EPA PRODUCT REGISTRAT. NO.: NA

CAS. NO.: 41487-53-0 EPA ESTABLISHMENT NO.: NA

CHEMICAL NAME: SODIUM METHACRYLATE COPOLYMER

HAZARDOUS INGREDIENTS - % COMPOSITION	OSHA-TWA, ppm	ACGIH-TWA, ppm	OTHER
ETHYL ACRYLATE	<0.05	25	NA
METHACRYLIC ACID	<0.05	NE	20 NA

PHYSICAL DATA

BOILING POINT (F/C): >212/100 SPECIFIC GRAVITY (Water = 1): 1.03  
 VAPOR PRESSURE (mm Hg): NA MELTING POINT: NA  
 VAPOR DENSITY (AIR = 1): NA EVAPORATION RATE: NA  
 (Water = 1)  
 SOLUBILITY IN WATER: COMPLETE FREEZING POINT (F/C): 32/0  
 % VOLATILE: 96  
 APPEARANCE AND ODOR: Purple viscous liquid with mild odor.

FIRE AND EXPLOSION DATA

FLAMMABLE LIMITS IN  
AIR, % BY VOLUME

UPPER: NA LOWER: NA

FLASH POINT (TEST METHOD)

TAG CLOSED CUP (ASTM D56): NA

TAG OPEN CUP (ASTM D1310): NA

SPECIAL HAZARD DESIGNATIONS

	NFPA	KEY
HEALTH:	1	0 - MINIMAL
FLAMMABILITY:	0	1 - SLIGHT
REACTIVITY:	0	2 - MODERATE
PROTECTIVE EQUIPMENT:	2	3 - SERIOUS
		4 - SEVERE

FIRE AND EXPLOSION DATA CONT'D

EXTINGUISHING MEDIA: Product is non-flammable as supplied. Use water, foam, carbon dioxide or dry chemical to extinguish fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus while extinguishing fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Product is non-flammable as supplied. It may spatter if temperature exceeds boiling point (100C/212F). Dried polymer films are capable of burning.

REACTIVITY DATA

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Strong oxidizers.

MATERIALS TO AVOID: No information available.

HAZARDOUS DECOMPOSITIONS OR BY-PRODUCTS: Thermal decomposition may release carbon dioxide and carbon monoxide.

HEALTH HAZARD DATA

EFFECTS OF EXPOSURE ROUTE(S) OF ENTRY: Skin, Inhalation

Inhalation: Residual monomer vapors may be irritating to nose, throat, and respiratory tract producing symptoms of nausea in poorly ventilated areas.

Skin contact: Slightly irritating to skin.

Eye contact: Possibly irritating to eyes.

Delayed effects: NA

TOXICITY DATA: NE

EMERGENCY AND FIRST AID DATA

Inhalation: Remove subject to fresh air. Obtain medical attention.

Skin and Eye contact: Wash affected skin with soap and water. Wash eyes with large amounts of water for at least 15 minutes. Obtain medical attention.

Ingestion: If swallowed, dilute by drinking two glasses of water and obtain

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Soak up spills with absorbent material and scoop into drums. Follow all local, state, and federal regulations for disposal. Do not discharge into lakes and streams. The floor may be slippery. Use caution to avoid falls.

WASTE DISPOSAL METHOD:

Non-hazardous waste. Follow all local, state, and federal regulations for waste disposal.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Wear rubber gloves and safety goggles. Avoid breathing vapors and avoid skin contact.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: None required if good ventilation is maintained. Otherwise, wear self-contained breathing apparatus. (Pressure Demand, MSHA/NIOSH approved or equivalent).

VENTILATION PROTECTION

Local exhaust: Yes.

Mechanical (general): Yes.

PROTECTIVE GLOVES: Impervious/Rubber.

EYE PROTECTION: Safety goggles.

OTHER PROTECTION: None.

WORK/HYGIENIC PRACTICES: Follow normal hygienic practices for handling chemicals.

## PRODUCTS

### EPA 55 asbestos removal agent

Aqueous formulation saturates dense/cementitious asbestos insulation — including Amosite — and keeps them wet up to 3 times longer than water amended with surfactants. EPA 55 does NOT harden quickly or become crusty like silicate based removal encapsulants.

Through a process known as Hydrogen Bonding (recognized as one of the most stable molecular bonds) EPA 55 strongly attaches itself to the molecular structure of the fiber's inherent water content. This process results in outstanding penetration into the treated matrix generating a soft, easy-to-remove surface. Additionally, hydrogen bonding allows EPA 55 to stay within the matrix and not leach out like amended water, keeping the insulation wet and reducing the possibility of water damage in the work area.

Based upon independent tests and actual field reports, the distinct advantages to using EPA 55 are:

- Minimal airborne fibers during gross removal.
- Elimination of costly and time-consuming rewetting.
- Faster, easier removal and cleaner substrates.
- Cuts project "down time" and overall labor expenses.

Will asbestos retain EPA 55 longer than amended water? Tests consisting of ten series of 10 samples each were run to determine liquid retention. EPA 55 and a surfactant containing 50% polyoxyethylene ether and 50% polyoxyethylene polyglycol ester were each diluted 1:1 and 1:2 with water and used to treat asbestos materials. Asbestos samples of approximately 5,000 grams were prepared and weighed. Approximately 1 ml volumes of EPA 55 and amended water dilutions were then added to the respected samples. Each sample was then reweighed to determine the amount of liquid (in grams) added to each. Samples were then placed in a drying dessicator for 24 hours. After drying, each sample was reweighed to determine weight loss, representing liquid lost, and recorded. Results are stated as an average of the ten samples in terms of percentage of liquid lost to the weight of liquid added.

Wetting Agent	Dilution Agent: H <sub>2</sub> O	Weight Liquid Added (Grams)	Weight Liquid Lost (Grams)	% Liquid Wgt Lost
20% CHRYSOTILE CEILING MATERIAL SAMPLES				
EPA 55	1:1	1.0432	.0009	0.09%
Amended Water	1:1	.8993	.4730	52.50%
EPA 55	1:2	.9919	.0016	.16%
Amended Water	1:2	.9397	.5961	63.40%
99% CHRYSOTILE FIBER SAMPLES				
EPA 55	1:1	1.0143	.0014	.14%
Amended Water	1:1	.9271	.5051	54.40%
EPA 55	1:2	.8854	.0029	.33%
Amended Water	1:2	.9020	.5017	54.40%

EPA 55 is readily applied by spray or injection and may be used in cold temperatures. Depending upon the physical condition of the affected insulation, EPA 55 can be used full-strength or diluted up to 2:1 with clean water. Field tests are recommended to determine the most effective concentration of EPA 55 for each insulation.

There is NO substitute for the safety EPA 55 yields during asbestos removal.

### CABLE COATING 2B bridging encapsulant

Polyvinyl acetate emulsion which forms a tough, non-porous membrane over the asbestos containing surface. 2B has been classified as "Highly Acceptable" in the encapsulant testing program conducted for the Environmental Protection Agency.

The smooth, mastic-like consistency of 2B provides quick and easy application by brush, trowel, roller or conventional airless spray. Once dried, 2B maintains outstanding flexibility to accommodate the structural/mechanical movement and temperature variations, intrinsic to thermal insulations, without damage. Its Impact Resistance of 60 inch pounds is the highest level achieved during the Battelle Columbus Laboratory testing program. Together with its exceptional adhesion, 2B is the ideal product for treating asbestos insulated pipes, boilers and tanks.

Upon curing, 2B is water insoluble and resistant to chemicals, heat and abrasives. 2B is compatible with virtually all thermal insulation surfaces and features:

- 'A' Flame Spread Classification.
- Complies with established standards for smoke and toxic gas emission levels.
- Generates a strong, durable surface which is highly resistant to physical impact and abuse.
- Dries to a fine aesthetic finish which may be topcoated with conventional latex paints when desired.

For ease of application, 2B is manufactured in two densities, Spray Grade or Palm Grade, in standard colors of white and gray. Special colors are available upon request or 2B may be tinted on site with any latex tint.

#### CONVERSION TABLE

OUTER DIAMETER	FACTOR	OUTER DIAMETER	FACTOR
1 INCH	.26	10 INCHES	2.62
2 INCHES	.52	11 INCHES	2.00
3 INCHES	.79	12 INCHES	3.14
4 INCHES	1.05	14 INCHES	3.67
5 INCHES	1.31	16 INCHES	4.19
6 INCHES	1.57	18 INCHES	4.71
7 INCHES	1.83	20 INCHES	5.24
8 INCHES	2.09	22 INCHES	5.76
9 INCHES	2.36	24 INCHES	6.28

LINEAR FEET X CONVERSION FACTOR = SQUARE FEET

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## SECTION VII — SPILL OR LEAK PROCEDURES

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### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Small spills: absorb on paper, floor compound or other absorbent and transfer to hood.

Large spills: contain and take up with sand, clay, earth, floor absorbent and shovel into containers.

WASTE DISPOSAL - Small spills - allow volatile portion to evaporate completely and dispose of residue in accordance with applicable regulations.

Large spills - destroy by liquid incineration or landfill in accordance with all regulations.

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## SECTION VIII — SAFE HANDLING AND USE INFORMATION

---

RESPIRATORY PROTECTION - In areas where mist or spray may be generated, use an approved chemical vapor respirator.

VENTILATION Local ventilation

PROTECTIVE GLOVES Resistant gloves, such as polyethylene

EYE PROTECTION Chemical splash goggles

OTHER PROTECTIVE EQUIPMENT Impervious clothing and boots.

HYGIENIC PRACTICES: Wash thoroughly after handling. Launder contaminated clothing before reuse.

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## SECTION IX — SPECIAL PRECAUTIONS

---

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid application to hot surfaces, as vapors may be irritating.

Keep container closed when not in use.

Use with adequate ventilation.

Store indoors at temperatures of 40 - 90°F.

### OTHER PRECAUTIONS

For industry/professional use only. Do not reuse containers for potable or edibles. Concentrated solution with water may become very slippery.

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MATERIAL SAFETY DATA SHEET  
 FOR COATINGS, RESINS, AND RELATED MATERIALS  
 REPLACES NFCA 1-82

MANUFACTURER'S NAME  
 American Coatings Corp.,  
 P. O. Box 516, Nitro, W.Va. 25143  
 DATE OF PREPARATION  
 January 31, 1986

EMERGENCY TELEPHONE NO.  
 (304) 755-3328  
 INFORMATION TELEPHONE NO.  
 (304) 755-3328

SECTION I — PRODUCT IDENTIFICATION

PRODUCT NUMBER EPA 55  
 PRODUCT NAME Wetting Concentrate for Amibenton Removal  
 PRODUCT CLASS Mixture

SECTION II — HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT By Weight	OCCUPATIONAL EXPOSURE LIMITS TLV	VAPOR PRESSURE
Propylene Glycol [57-55-6]	< 9-10	Not established Oral LD <sub>50</sub> (rat) = 25ml/kg	.22mmHg 60°F.

SECTION III — PHYSICAL DATA

BOILING RANGE 212°F. VAPOR DENSITY  HEAVIER  LIGHTER THAN AIR  
 EVAPORATION RATE  FASTER  SLOWER THAN OTHER % VOLATILE VOLUME WT/GAL. 0.3 lbs.

## SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION OSHA Class IIIB FLASH POINT 214°F. LEL 2.6%  
 DOT Not regulated TCC

## EXTINGUISHING MEDIA:

OAM  "ALCOHOL"  
 FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER FOG  OTHER

## UNUSUAL FIRE AND EXPLOSION HAZARDS

- NONE KNOWN

## SPECIAL FIREFIGHTING PROCEDURES

Use self-contained breathing apparatus and protective clothing. Do not use a solid stream of water as it may scatter fire. Product will not burn until water has evaporated. For residual solid, use self-contained breathing apparatus.

## SECTION V — HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE - Eyes and skin: can cause irritation. Inhalation: no effects known. Ingestion: gastrointestinal irritation, nausea, vomiting, diarrhea.

## MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:

None known.

PRIMARY ROUTE(S) OF ENTRY:  DERMAL  INHALATION  INGESTION

EMERGENCY AND FIRST AID PROCEDURES Skin: wash thoroughly with soap and water. Eyes: flush with water, holding lids apart, if irritation persists, consult physician. Inhalation: remove to fresh air; if labored breathing, apply oxygen. Ingestion: two glasses of water and induce vomiting. Get medical attention immediately. Do not give an unconscious person anything by mouth.

## SECTION VI — REACTIVITY DATA

STABILITY  UNSTABLE  STABLE

HAZARDOUS POLYMERIZATION  MAY OCCUR  WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS - Thermal decomposition yields, CO, CO<sub>2</sub>, propionaldehyde, lactic acid, pyruvic and acetic acids.

## CONDITIONS TO AVOID

- See below.

## INCOMPATIBILITY (MATERIALS TO AVOID)

Strong oxidizing agents.

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## SECTION VII — SPILL OR LEAK PROCEDURES

---

### STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

- Small spills: absorb on paper, floor compound or other absorbent and transfer to hood.
- Large spills: contain and take up with sand, clay, earth, floor absorbent and shovel into containers.

WASTE DISPOSAL - Small spills - allow volatile portion to evaporate completely and dispose of residue in accordance with applicable regulations.  
Large spills - destroy by liquid incineration or landfill in accordance with all regulations.

---

## SECTION VIII — SAFE HANDLING AND USE INFORMATION

---

RESPIRATORY PROTECTION - In areas where mist or spray may be generated, use an approved chemical vapor respirator.

VENTILATION            Local ventilation

PROTECTIVE GLOVES    Resistant gloves, such as polyethylene

EYE PROTECTION        Chemical splash goggles

OTHER PROTECTIVE EQUIPMENT    Impervious clothing and boots.

HYGIENIC PRACTICES:    Wash thoroughly after handling. Launder contaminated clothing before reuse.

---

## SECTION IX — SPECIAL PRECAUTIONS

---

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

- Avoid application to hot surfaces, as vapors may be irritating.
- Keep container closed when not in use.
- Use with adequate ventilation.
- Store indoors at temperatures of 40 - 90°F.

### OTHER PRECAUTIONS

For industry/professional use only. Do not reuse containers for potable or edible. Concentrated solution with water may become very slippery.

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MATERIAL SAFETY DATA SHEET NPCA 1-84  
 FOR COATINGS, RESINS, AND RELATED MATERIALS  
 REPLACES NPCA 1-82

MANUFACTURER'S NAME  
 SULLIVAN COATINGS CORP.  
 P.O. BOX 516  
 W. VA. 25143  
 DATE OF PREPARATION  
 March 11, 1987

EMERGENCY TELEPHONE NO.  
 (304) 755-3328

INFORMATION TELEPHONE NO.  
 (304) 755-3328

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NUMBER ACC 22-P PRODUCT NAME Asbestos Encapsulating Penetrant  
 PRODUCT CLASS Latex Coating (water-based mixture)

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT By Weight	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE
		TWA	ACGIH STEL	
BIBENYL MONOMERS:				
Vinylidene Chloride [75-35-4]	<.5%	5ppm	20 ppm	N/A
Butyl-Acrylate [141-32-2]		10ppm	N/A	10mmHg 35.5°

< \* less than

N/A \* Not available

SECTION III - PHYSICAL DATA

MELTING RANGE 212°F. VAPOR DENSITY HEAVIER X LIGHTER THAN AIR  
 EVAPORATION RATE FASTER X SLOWER THAN ETHER % VOLATILE VOLUME  
 1/GAL 9 lbs. 76-80Z

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION OSHA 1115 FLASH POINT LEL Not established  
DOT Not regulated over 200°F. (TCC)

EXTINGUISHING MEDIA:

X FOAM X "ALCOHOL" X CO2 X DRY CHEMICAL X WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE KNOWN

SPECIAL FIREFIGHTING PROCEDURES

Product will not burn until water has boiled or evaporated. For dried film or residual product, all protective equipment is recommended, including self-contained breathing apparatus.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE

See bottom of Page 3.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:

NONE KNOWN.

PRIMARY ROUTE(S) OF ENTRY: X DERMAL X INHALATION INGESTION

EMERGENCY AND FIRST AID PROCEDURES - Skin: wash with soap and water. Eyes: flush with clean water at least 15 minutes, if irritation persists, consult physician. Inhalation: move to fresh air. If breathing is difficult, administer oxygen. Ingestion: consult physician for advice.

SECTION VI - REACTIVITY DATA

STABILITY UNSTABLE X STABLE

HAZARDOUS POLYMERIZATION MAY OCCUR X WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS

CO, CO<sub>2</sub>, HCl

CONDITIONS TO AVOID

NONE KNOWN.

INCOMPATIBILITY (MATERIALS TO AVOID)

Materials incompatible with water.

Strong oxidizers.

respirator

of airborne particulates.

#### VENTILATION

General (mechanical) room ventilation is expected to be satisfactory.

PROTECTIVE GLOVES Impervious gloves

EYE PROTECTION Goggles, face shield, or other eyewear to protect from splash

OTHER PROTECTIVE EQUIPMENT Eyebath

HYGIENIC PRACTICES: Thoroughly cleanse hands after handling. Launder contaminated clothing before reuse.

---

#### SECTION IX — SPECIAL PRECAUTIONS

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##### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid breathing vapors. Avoid application to hot surfaces, as vapors may be irritating. Keep container closed. Use with adequate ventilation. Store indoors at temperatures of 45 - 90°F.

##### OTHER PRECAUTIONS

For industry/professional use only. Not intended for retail sale or use by individual consumers. Do not reuse containers for potables or edibles.

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#### SECTION V - EFFECTS OF OVEREXPOSURE

---

A TLV for this mixture has not been established. Therefore, the following effects of overexposure are those of the components listed in Section II.

1. VINYLDENE CHLORIDE RESIDUAL MONOMER: Irritant to skin and mucous membranes. Exposure to high concentrations may result in central nervous system depression and the associated symptoms of drunkenness which may progress to unconsciousness. Chronic exposure to low concentrations may result in injury to the liver and kidneys. Oral LD<sub>50</sub> (male rats) = 1500 mg/kg.
2. BUTYL ACRYLATE RESIDUAL MONOMER: Eye irritant, with the cornea being particularly sensitive. Allergic reactions of sensitive individuals may include smarting of the eyes, headache, and skin eruptions. Oral LD<sub>50</sub> (rat) = 3730 mg/kg. Dermal LD<sub>50</sub> (rabbit) = 2000 mg/kg.

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## SECTION VII — SPILL OR LEAK PROCEDURES

---

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Major spills should be collected for disposal. Minor spills may be flushed to sewer if regulations permit. Before drying, product may be washed away with water; after drying, remove with a paint scraper and strong solvent.

WASTE DISPOSAL In accordance with all applicable regulations. Review hazard section of this sheet before attempting clean-up. Empty containers are non-hazardous under RCRA as industrial waste.

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## SECTION VIII — SAFE HANDLING AND USE INFORMATION

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RESPIRATORY PROTECTION In restricted ventilation areas, use approved chemical vapor respirator. In applications where mists or spray may be generated, avoid inhalation of airborne particulates, by using an approved respirator.

### VENTILATION

General (mechanical) room ventilation is expected to be satisfactory.

### PROTECTIVE GLOVES

Impervious gloves

### EYE PROTECTION

Goggles, faceshield, or other eyewear to protect from splash

### OTHER PROTECTIVE EQUIPMENT

Eyebath

HYGIENIC PRACTICES: Thoroughly cleanse hands after handling. Launder contaminated clothing before reuse.

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## SECTION IX — SPECIAL PRECAUTIONS

---

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Avoid breathing vapors. Avoid application to hot surfaces, as vapors may be irritating. Keep container closed. Use with adequate ventilation. Store indoors at temperatures of 45 - 90°F.

### OTHER PRECAUTIONS

For industry/professional use only. Not intended for retail sale or use by individual consumers. Do not reuse containers for potables or edibles.

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## SECTION V - EFFECTS OF OVEREXPOSURE

---

A TLV for this mixture has not been established. Therefore, the following effects of overexposure are those of the components listed in Section II.

1. VINYLDENE CHLORIDE RESIDUAL MONOMER: Irritant to skin and mucous membranes. Exposure to high concentrations may result in central nervous system depression and the associated symptoms of drunkenness which may progress to unconsciousness. Chronic exposure to low concentrations may result in injury to the liver and kidneys. Oral LD<sub>50</sub> (male rats) = 1500 mg/kg.
2. BUTYL ACRYLATE RESIDUAL MONOMER: Eye irritant, with the cornea being particularly sensitive. Allergic reactions of sensitive individuals may include smarting of the eyes, headache, and skin eruptions. Oral LD<sub>50</sub> (rat) = 3730 mg/kg. Dermal LD<sub>50</sub> (rabbit) = 2000 mg/kg.

MATERIAL SAFETY DATA SHEET  
 FOR COATINGS, RESINS, AND RELATED MATERIALS  
 REPLACES NFPA 1-02

MANUFACTURER'S NAME  
 AMERICAN COATINGS CORPORATION  
 P. O. Box 516, Hlero, WV 25143  
 DATE OF PREPARATION  
 March 11, 1987

EMERGENCY TELEPHONE NO.  
 (304) 755-3328  
 INFORMATION TELEPHONE NO.  
 (304) 755-3328

SECTION I — PRODUCT IDENTIFICATION

PRODUCT NUMBER ACC 7-B  
 PRODUCT NAME ACC 7-B  
 PRODUCT CLASS Fire Retardant Latex Coating (water-based mixture)

SECTION II — HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT By Weight	OCCUPATIONAL EXPOSURE LIMITS		VAPOR PRESSURE
		TWA	STEL	
1. Ethylene Glycol (Vapor) [107-21-1]	< 2	50 ppm (ceiling)	N/A	< .10 mmHg 68°F.
2. Tri(N-Chloroethyl) Phosphate [115-96-8]	< 5	Not established	N/A	17.5 mmHg 70°F.
3. Vinyl Acetate (residual monomer) [100-05-4]	< .2	10 ppm	20 ppm	N/A
4. Chlorinated Paraffin [61780-76-9]	< 7	Not established	N/A	N/A

< = less than  
 N/A = Not available

SECTION III — PHYSICAL DATA

BOILING RANGE 212°F, VAPOR DENSITY  HEAVIER  LIGHTER THAN AIR  
 EVAPORATION RATE  FASTER  SLOWER THAN ETHER 50% VOLATILE VOLUME WT/GAL 10.0

## SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED - Major spills should be reported to the appropriate authority for disposal. Minor spills may be flushed to sewer if regulations permit. Before cleaning, product may be washed away with water; after drying, remove with a paint scraper or strong solvent.

**SEE DISPOSAL METHOD** - In accordance with all applicable regulations. Review hazard information of this sheet before attempting clean-up. Empty containers are non-hazardous under 49 CFR, as industrial waste.

## SECTION VIII - SAFE HANDLING AND USE INFORMATION

**RESPIRATORY PROTECTION** - In restricted ventilation areas, use approved chemical vapor respirator. In applications where mists or spray may be generated, avoid inhalation of airborne particulates, by using an approved respirator. General (mechanical) room ventilation is expected to be satisfactory.

**PROTECTIVE GLOVES**  
Impervious gloves.

**FACE PROTECTION**  
Goggles, face shield; or other eyewear to protect from splash.

**OTHER PROTECTIVE EQUIPMENT**  
Eyebath

**HYGIENIC PRACTICES:**

Thoroughly cleanse hands after handling. Launder contaminated clothing before reuse.

## SECTION IX - SPECIAL PRECAUTIONS

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**  
Avoid breathing vapors. Avoid application to hot surfaces, as vapors may be irritating. Keep container closed. Use with adequate ventilation. Store indoors at temperatures of 5-90°F.

**OTHER PRECAUTIONS** - For industry/professional use only. Not intended for retail sale or use by individual consumers. Do not reuse containers for potable or edible.

## SECTION V - EFFECTS OF OVEREXPOSURE

A TLV for this mixture has not been established. Therefore, the following effects of overexposure are those of the components listed in Section II.

- ETHYLENE GLYCOL:** Can cause skin irritation. Excessive inhalation can cause nasal and respiratory irritation. Ingestion causes drunkenness, rapidly passing into coma, with serious kidney injury, which may proceed to kidney failure and death.
- TRI(D-CHLOROETHYL)PHOSPHATE:** Mildly irritating to skin (LD<sub>50</sub> rabbits >2150 mg/kg). Ingestion: LD<sub>50</sub> rats 500 mg/kg. Tremors, muscular spasms, labored breathing, lacrimation, and excreta urination.
- VINYL ACETATE (RESIDUAL MONOMER):** Contains some residual monomer which is toxic if inhaled in high concentrations and may cause respiratory and skin irritation.
- CHLORINATED PARAFFIN:** Under normal conditions, not expected to produce toxicity via any route of exposure. Under chronic exposure, is a slight hazard with the liver as the target organ, should massive systemic poisoning occur.

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION OSHA TYPE FLASH POINT IEL R/A  
 DOT Not Regulated No flash, to boiling  
 212°F. (TCC)

EXTINGUISHING MEDIA:  
 FOAM  "ALCOHOL"  
 FOAM  CO<sub>2</sub>  DRY CHEMICAL  WATER FOG  OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS  
 None known.

SPECIAL FIREFIGHTING PROCEDURES

Product will not burn until water has boiled or evaporated. For dried film or residue solid, full protective equipment is recommended, including self-contained breathing apparatus.

SECTION V — HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE

See bottom of Page 3.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:

None known.

PRIMARY ROUTE(S) OF ENTRY:  DERMAL  INHALATION  INGESTION

EMERGENCY AND FIRST AID PROCEDURES Skin: wash with soap and water. Eyes: flush with clear water at least 15 minutes, if irritation persists, consult physician. Inhalation: remove to fresh air. If breathing is difficult, administer oxygen. Ingestion: give two glasses of water, induce vomiting, consult physician or poison control center. (Never give anything by mouth to an unconscious person).

SECTION VI — REACTIVITY DATA

STABILITY  UNSTABLE  STABLE

HAZARDOUS POLYMERIZATION  MAY OCCUR  WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition will yield CO, CO<sub>2</sub>, HCl, antimony oxychloride and traces of fragmented short chain hydrocarbons.

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY (MATERIALS TO AVOID)

Materials incompatible with water.

**APPENDIX D:**  
**SITE ASBESTOS REMOVAL PLAN**

## **I. ASBESTOS REMOVAL PLAN**

### **GENERAL NOTES**

1. Pipe insulation removals from piping with a temperature of less than 150 degrees shall be performed using glove bag techniques in all areas of the building that cannot be isolated and contained under negative air. Personnel will be restricted from these areas until visual inspection by the CIH's representative has been accepted. Removal personnel shall decontaminate, if necessary, in a centrally located decontamination trailer after performing glove bag work.
2. Insulation on piping that is too hot for glove bag removal and not feasible to contain under negative air shall have the insulation removed by installing controls such as poly barriers, poly flooring and physical barricades, to prevent contamination of other areas. The insulation shall be thoroughly wet, carefully removed and then placed into sealed six mill poly bags.
3. The boiler room at East St. Louis shall be put under negative air by installing critical barriers. Six-mil poly shall be spread on the floor as necessary to assist in gross removal clean-up. All electrical and other items that may be damaged from water will be cleaned and covered. After gross removal, the room will be washed with high pressure water. All water will be filtered through 5 micron filters before disposal in a sanitary sewer. A decontamination trailer shall be located at the nearest available doorway and connected to the boiler room enclosure.

**APPENDIX E:**  
**DISPOSAL PLAN & PERMITS**

## **I. ASBESTOS DISPOSAL**

Asbestos will be disposed of at the St. Clair County Landfill, Belleville, IL, in accordance to the rules and procedure established by the landfill operators. This includes giving 24 hours notice before dumping.

Notifications for removal of asbestos will be placed upon receiving a notice to proceed in accordance to the attached list of agencies.



Republic Industries, Inc.

## Notice of Demolition and/or Renovation Involving Asbestos Removal

(Pursuant to Title 15, North Carolina Administrative Code, Chapter 2D.0526)

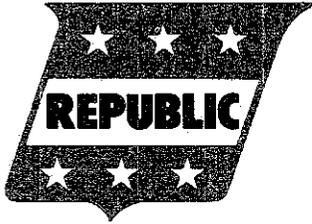
FACILITY		ASBESTOS CONTRACTOR	
OWNER OF FACILITY United States Army Reserve		<b>Republic Industries, Inc.</b> <b>P.O. Box 5565, Station 1</b> <b>Wilmington, NC 28403</b> <b>(919) 799-2664</b>	
NAME OF FACILITY USAR Center			
ADDRESS 5020 State St., East St. Louis, IL 62205			
RESPONSIBLE CONTACT Marvin Sack		PHONE (314)263-2633	RESPONSIBLE CONTACT David A. Nugent
		CONTRACT LET DATE Sep 29 89	
<input type="checkbox"/> DEMOLITION		<input checked="" type="checkbox"/> RENOVATION	
STARTING DATE		COMPLETION DATE	
APPROXIMATE AMOUNT OF FRIABLE ASBESTOS MATERIAL TO BE REMOVED		FACILITY DESCRIPTION	
LINEAR FEET OF PIPE <p style="text-align: center;">950 ft.</p>	SIZE <p style="text-align: center;">4,000 ft.<sup>2</sup></p>	AGE <p style="text-align: center;">N/A yrs.</p>	
SQUARE FEET OF DUCT, CEILING, WALLS <p style="text-align: center;">360 ft.<sup>2</sup></p>	PRIOR USE		
NATURE OF DEMOLITION/RENOVATION (INCLUDE METHOD TO BE USED)			
Glovebag & negative air enclosures to remove thermal system insulation.			
DOES THIS OPERATION INVOLVE A CONDEMNED BUILDING?	IF YES, GIVE NAME, TITLE, AND AUTHORITY OF PERSON ORDERING THE DEMOLITION		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
DISPOSAL SITE			
NAME AND LOCATION OF DISPOSAL SITE	WAS THIS SITE APPROVED BY Illinois EPA?	IF YES, GIVE APPROVAL DATE	
St. Clair county Landfill	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N/A	
OTHER AGENCIES NOTIFIED			
See attached			
PROCEDURES TO BE FOLLOWED TO COMPLY WITH FEDERAL REGISTER REQUIREMENTS			
Glovebag & negative air enclosures to remove thermal system insulation.			

I CERTIFY THAT THE INFORMATION SUBMITTED IS ACCURATE TO THE BEST OF MY KNOWLEDGE

David A. Nugent, President  
NAME / TITLE

*David A. Nugent*  
SIGNATURE

Nov 2 1989  
DATE



Republic Industries, Inc.

## Notice of Demolition and/or Renovation Involving Asbestos Removal

(Pursuant to Title 15, North Carolina Administrative Code, Chapter 2D.0525)

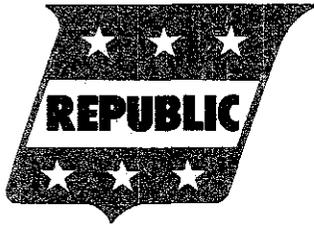
FACILITY		ASBESTOS CONTRACTOR	
OWNER OF FACILITY United States Army Reserve		<b>Republic Industries, Inc.</b> <b>P.O. Box 5565, Station 1</b> <b>Wilmington, NC 28403</b> <b>(919) 799-2664</b>	
NAME OF FACILITY USAR Center			
ADDRESS 904 E. McCord Rd., Centralia, IL 62801			
RESPONSIBLE CONTACT Marvin Sack		PHONE (314)263-2633	RESPONSIBLE CONTACT David A. Nugent
		CONTRACT LET DATE Sep 29 89	
<input type="checkbox"/> DEMOLITION		<input checked="" type="checkbox"/> RENOVATION	
STARTING DATE		COMPLETION DATE	
<b>APPROXIMATE AMOUNT OF FRIABLE ASBESTOS MATERIAL TO BE REMOVED</b>		<b>FACILITY DESCRIPTION</b>	
LINEAR FEET OF PIPE 100 ft.	SIZE 4,000 ft. <sup>2</sup>	AGE N/A yrs.	
SQUARE FEET OF DUCT, CEILING, WALLS 88 ft. <sup>2</sup>	PRIOR USE		
NATURE OF DEMOLITION/RENOVATION (INCLUDE METHOD TO BE USED)  Glovebag & negative air enclosures to remove thermal system insulation.			
DOES THIS OPERATION INVOLVE A CONDEMNED BUILDING? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		IF YES, GIVE NAME, TITLE, AND AUTHORITY OF PERSON ORDERING THE DEMOLITION	
<b>DISPOSAL SITE</b>			
NAME AND LOCATION OF DISPOSAL SITE St. Clair county Landfill		WAS THIS SITE APPROVED BY ILLINOIS EPA? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	IF YES, GIVE APPROVAL DATE N/A
OTHER AGENCIES NOTIFIED See attached			
PROCEDURES TO BE FOLLOWED TO COMPLY WITH FEDERAL REGISTER REQUIREMENTS  Glovebag & negative air enclosures to remove thermal system insulation.			

I CERTIFY THAT THE INFORMATION SUBMITTED IS ACCURATE TO THE BEST OF MY KNOWLEDGE

David A. Nugent, President  
NAME / TITLE

*David A. Nugent*  
SIGNATURE

Nov 2 1989  
DATE



## Republic Industries, Inc.

Mr. Otto Klein  
Illinois EPA  
P. O. Box 19276  
Springfield, IL 62794-9276

Mr. Rochel Marsilla  
United States EPA  
230 South Dearborn  
Chicago, IL 60604

**APPENDIX F:**  
**WORK SCHEDULE**

**I. WORK SCHEDULE**

Work will begin approximately 25 days from a notice to proceed and require 45 days for completion. The job will be manned with a five man crew working 40 hours per week, Monday thru Friday, 7:30 AM to 4:00 PM.

**APPENDIX G:**  
**CERTIFIED INDUSTRIAL HYGIEIST**  
**&**  
**LABORATORY**



## ENVIROSCIENCES, INC.

3810 F MERTON DR. RALEIGH, NC 27609 919-782-1487

October 30, 1989

Mr. David Nugent  
President  
Republic Industries, Inc.  
P.O. Box 5565  
Wilmington, NC 28905

Dear Mr. Nugent:

This memo is to confirm that all of our industrial hygienist are accredited air monitors and have been trained under the supervision of a Certified Industrial Hygienist (CIH).

EnviroSciences will provide 1 industrial hygienist for 2 days to train Republic Industries employees in the proper procedure for collecting PCM air samples as required by job specifications and asbestos abatement plans for the St. Louis project. The analysis of PCM air samples will be performed by EnviroSciences, Raleigh, NC.

EnviroSciences staff CIH is Mr. Andrew G. Schauder, ABIH certificate No. 1824. (Expiration date 12/31/92 - see attached).

If you have any questions, please contact me at (919) 782-1487.

Sincerely,

E. Raymond Childress, CHCM  
Operations Manager

## E. Raymond Childress, CHCM

Raymond Childress is Manager of North Carolina Operations. He is responsible for directing the technical and administrative activities of a staff of 15 employees. He is a Certified Hazard Control Manager (Master Level - Certificate Number 1826) with 16 years experience in industrial hygiene and environmental affairs. Prior to joining ESI, Mr Childress was the President (1984-1989) Modufil, Inc. an environmental engineering company, Corporate Manager in Industrial Hygiene and Environmental Affairs (1981-1984) for M. Lowenstein Corp., and Senior Industrial Hygienist (1973-1981) for J.P. Stevens Corp., Inc.

He holds a Bachelor of Science degree in Environmental Health (1973) from East Tennessee State University.

PERSONNEL QUALIFICATIONS, ORIENTATION, AND TRAINING DOCUMENTATION  
 ENVIROSCIENCES, INC.  
 INDUSTRIAL HYGIENE PERSONNEL QUALIFICATION

NAME: E. Raymond Childress ESI ID No. 133

Position: Manager, I.H. Services (N.C.) Date Hired: 1-9-89

EXPERIENCE PRIOR TO HIRE

Education

· Bachelor of Science in Environmental Health  
 East Tennessee State University, 1973

Experience

- 1) Modufil, Inc. - President 6/84-1/89
- 2) M. Lowenstein Corp. - Corp. Manager, Industrial Hygiene and Environmental Affairs 1/81-6/84
- 3) J.P. Stevens Co., Inc. - Senior Industrial Hygienist 12/73-1/81

PROFESSIONAL ORGANIZATIONS

American Industrial Hygiene Association (AIHA)  
 Carolina Section - AIHA  
 National Asbestos Council (NAC)

PUBLICATIONS

Author of "Cotton Dust Control" AIHA publication  
 "Dust and Lint Control by Modular Filtration" 1985  
 Beltline Cotton Conference

Title of Course, Seminar, Meeting, Publication, Etc.	Date(s)	Hours	Exam Y/N	Certificate * Y/N
1. Seminar on Solvent Hazards	5/22/75	8	N	Y
2. General Industrial Hygiene	4/2/76	6	N	Y
3. Environmental Health Institute Industrial Hygiene	8/23/76	40	Y	Y
4. NIOSH 588 - Industrial Ventilation	6/19/78	40	Y	Y
5. NIOSH - Industrial Noise Control	9/6/78	40	Y	Y
6. The 2nd Annual Course in Noise Measurement & Control	7/20/79	40	Y	Y
7. Hazardous Chemical Safety School & Workshop	10/26/79	16	Y	Y
8. Rocky Mountain Board Review for Industrial Hygiene	4/21-25/80	40	Y	Y

9. Principles and Practice of Industrial Toxicology	12/5/80	40	Y	Y
10. Asbestos Symposium: Supervision of Asbestos Abatement Contracts	3/22/83	24	Y	Y
11. National Hazardous Materials Training Course	7/6/83	40	Y	Y
12. Interpersonal Communications	2/6-8/89	24	N	N
13. NIOSH 582 - Sampling and Evaluating Airborne Asbestos Dust	10/9-13/89	40	Y	Y

# AMERICAN INDUSTRIAL HYGIENE ASSOCIATION

*Enviro Sciences  
Industrial Hygiene Laboratory  
Raleigh, North Carolina*

has fulfilled AIHA criteria for  
Industrial Hygiene Laboratory Accreditation  
since January 1, 1988

This accreditation shall be effective until  
the 1 day of January 1991

subject to continued compliance with  
AIHA accreditation criteria.

*Ray C Abel*

Chairman  
Laboratory Accreditation  
Committee

*Emil Christensen*

President  
American Industrial Hygiene  
Association

#354

Accreditation Number

February 5, 1988

Date



## SCOPE OF ACCREDITATION

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 1128

EnviroSciences Inc.  
3810 F Merton Drive  
Raleigh, NC 27609  
Raymond H. Schmidt Phone: 919-782-1487

Accreditation Renewal Date: April 1, 1990

NVLAP Test

Method Code

Test Method Designation

18/A01

40 Code of Federal Regulations Chapter I (1-1-87 edition)  
Part 763, Subpart F, Appendix A, pages 293-299 or the current  
U.S. Environmental Protection Agency method for the analysis  
of asbestos in building materials by polarized light  
microscopy.



A handwritten signature in cursive script, appearing to read 'R. H. Schmidt', written over a horizontal line.

For the National Institute of Standards and Technology

United States Department of Commerce  
National Institute of Standards and Technology

# NWLAB

Certificate of Accreditation

**ENVIROSCIENCES INC.**  
RALEIGH, NC

*is recognized under the National Voluntary Laboratory Accreditation Program  
for satisfactory compliance with criteria established in Title 15, Part 7 Code of Federal Regulations  
Accreditation is awarded for specific services, listed on the Scope of Accreditation for*

**ASBESTOS FIBER ANALYSIS**

April 1, 1990

Effective until



A handwritten signature in dark ink, appearing to read "R. F. Mendenhall".

For the National Institute of Standards and Technology

88TH REGIONAL SUPPORT COMMAND  
OIL/WATER SEPARATOR ENGINEERING STUDY  
904 MARTIN LUTHER KING JR. DRIVE  
CENTRALIA, ILLINOIS (IL009)

*Prepared for:*

HARZA ENVIRONMENTAL SERVICES, INC.  
233 South Wacker Drive  
Chicago, Illinois 60606

*Prepared by:*

TERRACON  
White Bear Lake, Minnesota 55110  
Terracon Project No. 47975056  
May 15, 1998

**Terracon**

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Figure 1 - Site Map

### Appendix A

OWS Questionnaire

### Appendix B

Safety Kleen Manifest Documents

### Appendix C

Engineering Drawings

### Appendix D

Photographs

### Appendix E

Rainfall Map

**88TH REGIONAL SUPPORT COMMAND  
OIL/WATER SEPARATOR ENGINEERING STUDY  
CENTRALIA, ILLINOIS (IL009)**

**INTRODUCTION**

Terracon, as a subcontractor to Harza Environmental Services (Harza), has been retained by the Corps of Engineers Omaha District to evaluate the condition of oil/water separators (OWS) at various facilities under the 88th Regional Support Command and report the findings. The OWS evaluation included observing the physical condition of each OWS and documenting the location, condition, maintenance/upgrade requirements, system connections, discharge location, permits required for operations and potential liabilities for each OWS.

This report presents the results of our observations and data obtained at the SFC Earl L. Cople United States Army Reserve Center (USARC) facility in Centralia, Illinois (IL009)

**DESCRIPTION OF THE FACILITY**

The SFC Earl L. Cople USARC facility is located at 904 Martin Luther King Jr Drive, Centralia, Illinois. The facility is home to the 476th Replacement Company and the 735th Replacement Company. The facility consists of two buildings, a Reserve Center and an Organization Maintenance Shop (OMS) building. The Reserve Center contains administrative offices, classrooms, and an assembly hall and storage space. The OMS building is located approximately 80 feet east by southeast of the Reserve Center. An outdoor vehicle wash rack is located approximately 20 feet north of the OMS building. The wash rack discharges to the OWS which is located in a grass covered area approximately 20 feet southeast of the southeast corner of the Reserve Center. Floor drains, trench drains or other potential discharges into the OWS were not observed in the OMS building.

The facility manager, Mr. Robert Smith, indicated that vehicle maintenance and washing is not performed at the facility and has not been performed for the past 8 to 10 years.

**INVESTIGATION ACTIVITIES**

A questionnaire was submitted to the facility manager to obtain information regarding the OWS systems and operations. A copy of the completed questionnaire is included in Appendix A.

On March 25, 1998, Terracon visited the facility to meet with the facility manager, Mr. Robert Smith, to inspect the OWS and conduct additional investigations. Additional investigations included confirming information provided in the questionnaire, confirming discharge to the sanitary sewer system, and identifying and locating potential discharges into the OWS.

including sources of wash water as well as potentially hazardous materials. Terracon also photographed the OWS and where possible measured the potential discharges to the OWS

Safety-Kleen Corp. pumped the contents of the OWS and vacuumed and washed the OWS interior. Washing was conducted using the on-site water supply and a garden type hose. Copies of Safety-Kleen's bill of lading/manifest and invoice for disposal of the waste are included in Appendix B

Discharge into the OWS from the wash rack and from the OWS to the sanitary sewer system were confirmed with a dye test. Kingscote fluorescent FLT Yellow/Green dye was used. Dye solution was prepared by mixing a small amount of dye concentrate (tablet form) with approximately 5 gallons of water. The dye solution was poured into the OWS and the manhole cover at the sanitary sewer was removed and the sewer pipe observed for the presence of the dye. In general, a few minutes were required for the dye to appear in the sewer.

## FINDINGS OF THE SITE VISIT

The facility manager provided site drawings of the facility during the site visit. The drawings included a partial site utility drawing and a general site layout of the reserve facility. Details of the wash rack and OWS were not available. Copies of the relevant portions of the drawings are included in Appendix C. Figure 1 presents a schematic of the OWS system based on a review of the site utility plan and field observations.

The OMS building is located approximately 80 feet east by southeast of the Reserve Center. An outdoor vehicle wash rack is located approximately 20 feet north of the OMS building. The wash rack is a rectangular concrete pad measuring 30 feet by 20 feet. The concrete wash rack is sloped to provide drainage to a catch basin at the approximate center of the wash rack. The catch basin measured 2 feet by 1½ feet by 3½ feet deep. The catch basin is constructed of cast-in-place concrete and is covered by a cast iron grate. The discharge pipe from the catch basin consisted of a 6 inch diameter pipe set with the pipe invert flush with the bottom of the catch basin. The wash rack catch basin discharges to the OWS, as confirmed by the dye test.

The OWS consists of a gravity type oil/water separator unit. The OWS appeared to be constructed of pre-cast concrete components set on a cast-in-place concrete base. The OWS is generally rectangular in shape with overall dimensions of 4½ feet by 8 feet by 80 inches deep. Access into the OWS is through a 2 foot diameter manhole. Three concrete baffles were visible through the manhole. The center baffle extended upward approximately 24 inches from the bottom of the OWS. The two baffles on the ends were suspended from the top of the OWS. The baffles appeared to be configured within the OWS to allow the separated oil to rise to the water surface while allowing the waste water to flow under the baffles suspended from the top of the OWS and discharge to the sewer system. The baffles prevented observations of the inlet and discharge pipes.

The OWS appeared to be in generally sound condition, although the observations were limited because of the size of the OWS and the presence of the baffles. The concrete base appeared rough, but cracks or holes were not observed. The manhole cover over the manway covered the OWS completely and securely and was observed to be in good condition. The concrete wash rack and associated catch basin also appeared to be in good condition. The concrete appeared sound and the metal grate covered the catch basin completely and securely.

At the time of the site visit, the OWS contained approximately 516 gallons of liquid waste and approximately 45 gallons of solid waste. These wastes along with approximately 10 gallons of wash water were removed and disposed of by Safety-Kleen.

Flow into the OWS is from the catch basin at the wash rack. Wash water for the wash rack is from one exterior hose bib located at the northwest corner of the OMS building. This hose bib is located approximately 20 feet from the wash rack. Discharge from the hose bib was measured at 5 gallons per 30 seconds, yielding approximately 10 gallons per minute (gpm) which is equivalent to 1.34 cubic feet per minute (cfm). An exterior hose bib is also located on the east side of the Reserve Center. This hose bib is not considered a wash water source since it is located at least 80 feet from the wash rack. Additional flow into the OWS from the wash rack includes stormwater run-off and snow melt.

The OWS discharges to a sanitary sewer manhole located approximately 50 feet southwest of the OWS. The sanitary sewer lateral associated with the manhole discharges to the south to the sanitary sewer main located beneath Martin Luther King Jr. Drive. Discharge to the sanitary sewer system was confirmed with a dye test. The manhole cover at the intersection of Martin Luther King Jr. Drive and Franklin Avenue was removed and the sewer pipe observed for the presence of the dye. Approximately 20 minutes was required for the dye to appear in the sewer.

Photographs of the OWS, wash rack and the sewer discharge are located in Appendix D.

## EVALUATION OF OWS CAPACITY

The American Petroleum Institute (API) has established design standards for sizing oil/water separators. These standards provide for efficient removal of oil globules greater than 0.015 centimeters (cm) in diameter. The design is based on three relationships: the minimum horizontal surface area of the OWS, the minimum vertical cross-sectional area of the OWS, and a minimum depth-to-width ratio.

The minimum horizontal surface area is determined by the equation:

$$A_H = F(Q_D/V_t) \text{ where:}$$

**APPENDIX A**

**OWS QUESTIONNAIRE**

88th REGIONAL SUPPORT COMMAND  
OIL/WATER SEPARATOR (OWS) QUESTIONNAIRE  
CONTRACT NO. DACW 45-94-D-0044

1) Facility Identification

- a) FACID 43030 / IL 210443030 15 Dec 97
- b) Facility Name SFC Earl L. Copple USAR Center
- c) Address 904 M.L. King Jr. Drive  
Centralia, IL 62801
- d) Facility Contact Robert W. Smith
- e) Telephone Number 618-532-5666
- f) Date Questionnaire Completed 15 dec 97

2) General Information

- a) How many OWS's does the facility have? 1
- b) When were they constructed? 1957
- c) Are they connected?  Yes  No

If so, please explain the connection and piping arrangement:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

For each OWS at the facility complete separate copies of this questionnaire.

3) Physical Characteristics

- a) Indicate the direction and distance from the nearest facility building:

Direction South

Distance (feet) \_\_\_\_\_

From Building # L 20\*

b) Is the OWS currently operational?  Yes  No

If yes, how often is it used per month? \_\_\_\_\_

c) When was the last time it was inspected and cleaned (date)? 9/1/95

d) Was this maintenance done by a commercial contractor?  Yes  No  NA

e) Did the contractor issue a report?  Yes  No  NA

If so, please attach a copy.

f) What is the approximate capacity of the OWS? UK gal

If unknown, attempt to estimate based on the dimensions

Length 8' ft

Width 8' ft

Depth 6' ft

Depth of liquid 3' ft

g) Does the OWS currently contain liquid?  Yes  No

If yes, approximately how many gallons are currently present? 20 gal

h) What are the walls and base of the OWS constructed of?

Circle One: concrete brick steel unknown other \_\_\_\_\_ (specify)

i) Size of access manways to OWS diameter 2' or feet \_\_\_\_\_ x \_\_\_\_\_

j) Can the cover be removed?  Yes  No

k) Is the cover locked?  Yes  No

l) Does the OWS have a sand grit chamber?  Yes  No

Estimated size UK

Depth of grit present in the chamber and/or on the base of OWS UK ft

m) Is there a collection trench connected to the OWS?  Yes  No

n) Is there liquid in the trench?  Yes  No

If so, estimate the volume (length x width x depth in feet x 7.48) = \_\_\_\_\_ gal

o) Is there sediment in the trench?  Yes  No

If so, estimate the amount (length x width x depth in feet x 7.48) = \_\_\_\_\_ gal

p) What are the dimensions of the collection trenching?

Length UK ft

Width UK ft

Depth UK ft

q) What are the walls and base of the trenching constructed of?

Circle One: Concrete Steel Unknown Other UK  
(specify)

r) What operations are the OWS used in conjunction with at the facility (check all that apply).

vehicle wash rack

vehicle maintenance bay drains

POV or MEP parking area runoff

other (specify) HASN'T BEEN USED IN 8-10 YRS

s) Do you have a copy of the following at the facility?

Scaled site drawing of the facility  Yes  No

Engineers drawings of OWS  Yes  No

\*As built\* drawings of OWS  Yes  No

Construction specifications of OWS  Yes  No

Engineers drawing of the OWS, collection trench discharge lines, outfalls, manholes, etc.  Yes  No

If yes, please furnish copies.

t) Distance from OWS to nearest source of wash water (min. 1/2" hose bib) 50'

4) Operation and Discharge Conditions

a) Where does the OWS discharge (check as applicable)

- municipal storm sewer
- municipal sanitary sewer
- septic tank
- septic drain field
- holding tank  ← NO
- adjoining ditch, pond or stream
- french drain (open bottom OWS)
- unknown
- other (specify) \_\_\_\_\_

b) Describe the approximate location of the OWS discharge in terms of the distance and direction from the OWS.

Direction South  
 Distance 100' ft.

c) What is the estimated discharge flow rate in gallons per month? None gal

Describe basis for discharge rate estimates (i.e., actual flow rate measurements; number of vehicles washed x gallons per wash; other)

d) Does the facility have an NPDES or POTW permit?  Yes  No

If yes, please attach a copy.

If no, or if permit is not available, please forward any information regarding discharge limits, sampling requirements, and reporting requirements.

e) Do you have laboratory analytical data (total suspended solids, oil & grease, BOD, pH, etc.)

- characterizing flows into the OWS?  Yes  No
- characterizing discharge from the OWS?  Yes  No

If yes, please furnish copies.

f) Has your facility had any violations of discharge limits or standards?

Yes  No

If yes, please furnish copies of reports describing nature, causes, and responses.

5) Emergency Response

a) Does your facility have an SPCC (Spill Prevention, Control & Countermeasure) Plan?

Yes  No

b) Has your facility had spills of oils and/or hazardous materials which have entered the OWS system?

Yes  No

If yes, please furnish copies of reports describing nature, causes, impacts, and responses.

6) Miscellaneous

a) Describe any other information, circumstances or events associated with the OWS.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**APPENDIX B**

**SAFETY-KLEEN MANIFEST DOCUMENTS**





SAFETY-KLEEN CORP.  
777 Big Timber Road  
Eggin, Illinois 60123



# USED OIL CERTIFICATION

safety-kleen®



Illinois Generators

## Customer Information

Company: Capelle Reseal Center  
 Address: 904 M.L. King Jr. Dr.  
Centerville IL  
62801  
 State: IL Zip: 62801  
 S-K Customer No.: 513671  
 S-K Oil Services Sales Rep: JAC BAYOR  
 S-K Branch No.: 513671

## Used Oil Certification (check appropriate box)

- Used oils generated at this facility originate only from automotive sources. Automotive sources include, but are not limited to, commercial service stations, oil change stations, and truck / automobile fleet maintenance.
- Used oils generated at this facility may include oils from sources other than automotive including, but not limited to, industrial lubricating oils, cutting oils, or gear oils.

## Hazardous Waste Certification (check appropriate box)

- This facility generates less than 100 kg of hazardous waste in a calendar month (approximately 27 gallons), and is classified as a CESQG.
- This facility generates between 100 kg and 1000 kg of hazardous waste in a calendar month (approximately 27 to 270 gallons), and is classified as a SOG.
- This facility generates more than 1000 kg of hazardous waste in a calendar month (approximately 270 gallons), and is classified as a LQG.

## Waste Segregation Certification (check if applicable)

- This facility has available on-site the equipment / services necessary to properly segregate all waste streams generated at the facility, and ensure that RCRA hazardous wastes are not mixed into the used oils.

## Total Chlorine Analysis

Automotive Oil: Chlorine: 1000 ppm  
 (if > 1000 ppm, a sample must be sent to the Tech Center for rebuttal)

Industrial Oil: Date of Preshipment: \_\_\_\_\_  
 Approval: \_\_\_\_\_  
 Chlorine Test: \_\_\_\_\_  
 (must be performed at the time of each service to ensure the oil matches the preshipment analysis)

Analysis Not Required: Automotive Oil Only / CESQG  
 Automotive Oil Only and segregates the oil from all hazardous wastes.  
 Analysis Required: \_\_\_\_\_  
 (Complete information at right)

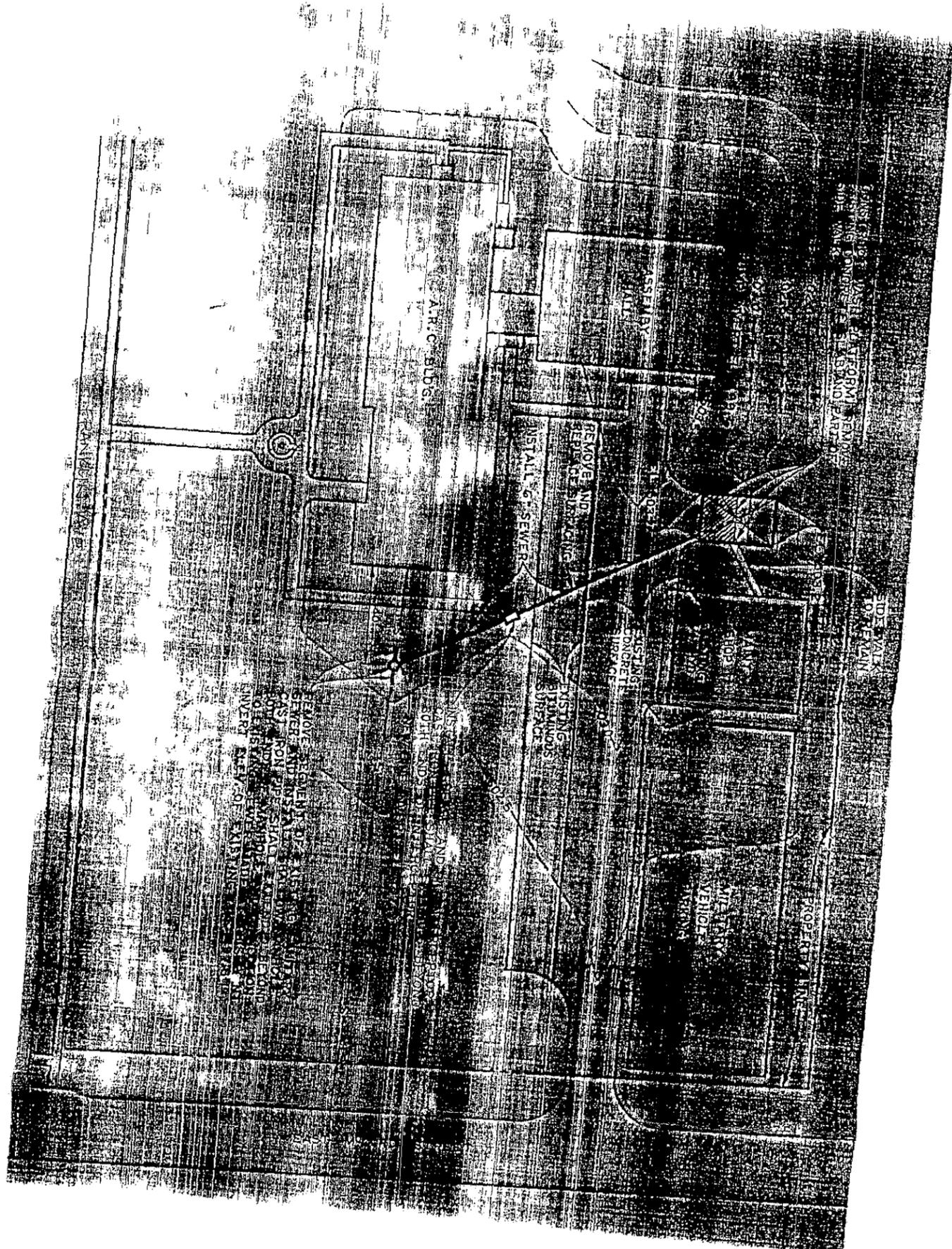
I hereby certify that the information provided above is true and correct. I also certify that the used oils supplied to Safety-Kleen or its subsidiary will not be mixed, combined, or otherwise blended in any quantity with materials containing polychlorinated biphenyls (PCBs) halogenated solvents, or any other material defined as hazardous waste under 40 CFR Part 261 or applicable State regulations.

By: Capelle Reseal Center  
 (Print Customer's Name)  
 Signature: [Signature]  
 Title: \_\_\_\_\_

**APPENDIX C**

**ENGINEERING DRAWINGS**





PLAN OF THE BUILDING FOR THE  
PURPOSES OF THE  
CITY OF NEW YORK

ASSEMBLY  
ROOM

A.F.C. BLDG.

REMOVE NO.  
OF PLUMBING

INSTALL SEWER

PL. 00-22

EXISTING  
CONCRETE  
FLOOR

EXISTING  
CONCRETE  
FLOOR

NUMBER OF  
STAIRS

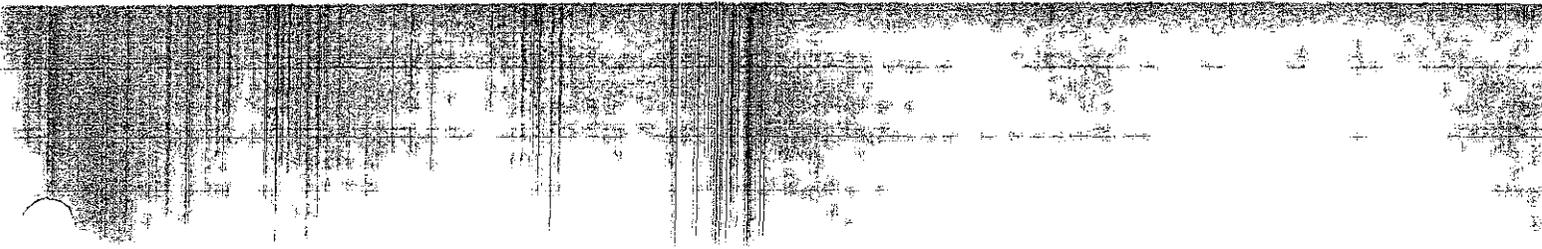
REMOVE AND REINSTALL  
ELECTRICAL PANEL IN  
KITCHEN AND RELOCATE  
TO THE ADJACENT ROOM  
BY THE WALL ON THE  
NORTH SIDE OF THE  
KITCHEN. REMOVE  
EXISTING PANEL IN  
ADJACENT ROOM AND  
INSTALL NEW PANEL IN  
KITCHEN. REMOVE  
EXISTING PANEL IN  
ADJACENT ROOM AND  
INSTALL NEW PANEL IN  
KITCHEN.

REMOVE  
EXISTING  
CONCRETE  
FLOOR

REMOVE  
EXISTING  
CONCRETE  
FLOOR

REMOVE  
EXISTING  
CONCRETE  
FLOOR

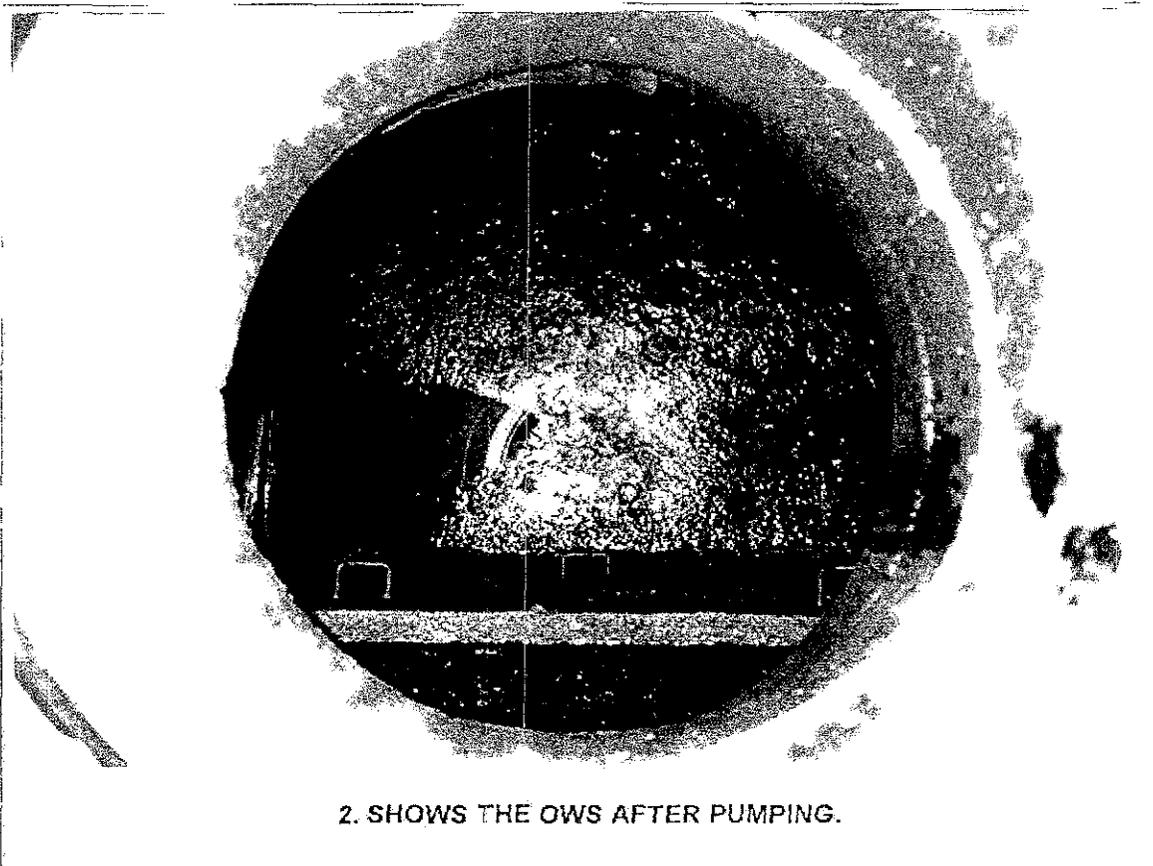
REMOVE  
EXISTING  
CONCRETE  
FLOOR



**APPENDIX D**  
**PHOTOGRAPHS**



1. SHOWS THE LOCATION OF THE OIL/WATER SEPARATOR.  
THIS VIEW IS LOOKING NORTH.



2. SHOWS THE OWS AFTER PUMPING.

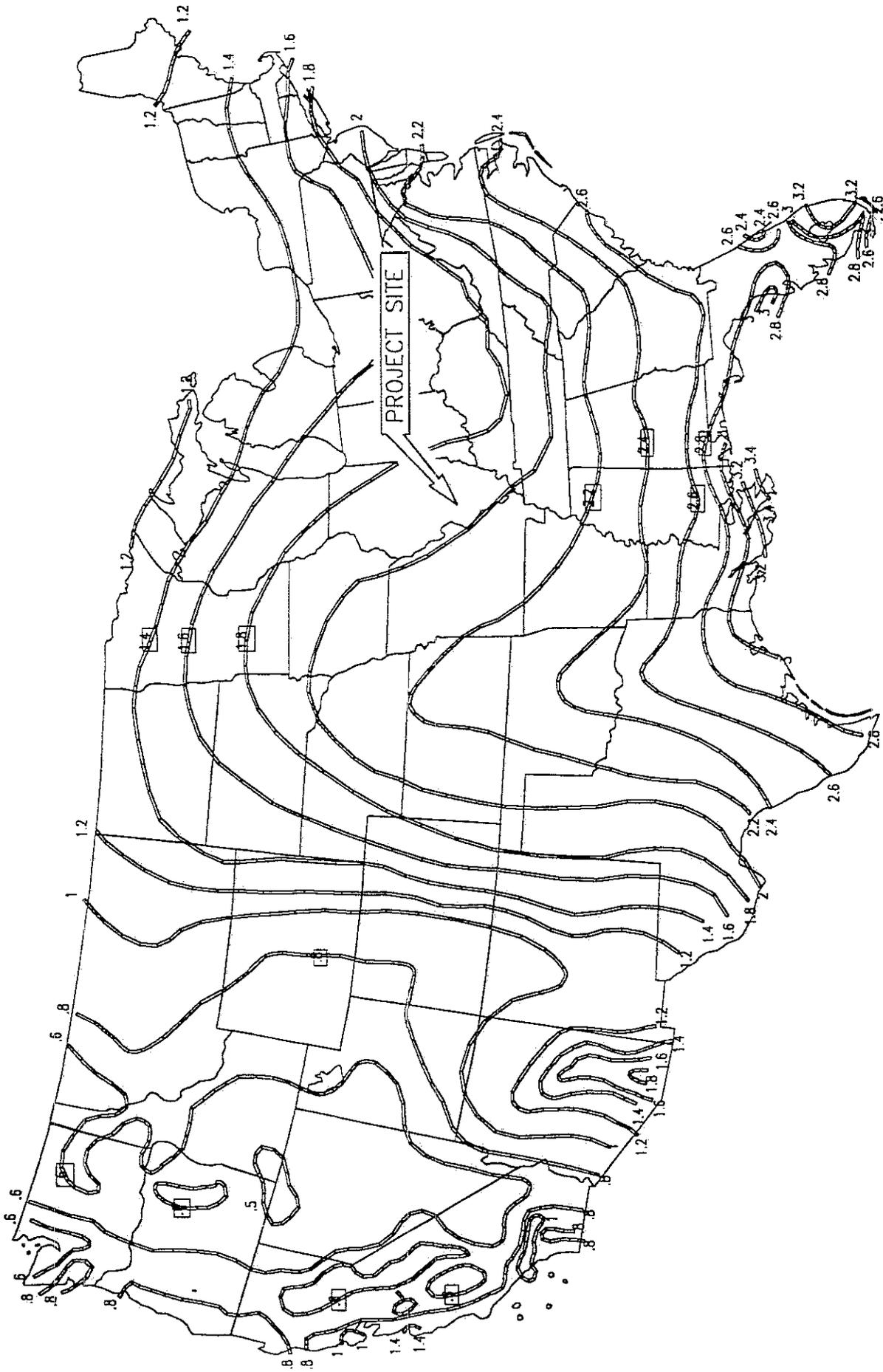


3. SHOWS THE WASH RACK ON THE NORTH SIDE OF THE OMS BUILDING. THIS VIEW IS LOOKING EAST.



4. SHOWS THE SANITARY SEWER MANHOLE AT THE INTERSECTION OF MARTIN LUTHER KING JR DRIVE AND FRANKLIN AVE.

APPENDIX E  
RAINFALL MAP



RAINFALL - INCHES  
(Return Period - 5 Years, Duration - 1 Hour)  
USARC (IL009)  
CENTRALIA, ILLINOIS

**Terracon**

**FINAL**

**OWS SYSTEM CLOSURE REPORT  
SFC E.L. COPPLE USARC (IL009)  
CENTRALIA, ILLINOIS**

**88<sup>TH</sup> REGIONAL READINESS COMMAND - ILLINOIS**

**DATE:** February 2004

**CLIENT:** U.S. Army Armor Center and  
Fort Knox Environmental Management Division

**PROJECT NAME:** OWS System Closure Report

**PROJECT LOCATION:** SFC E.L. Copple USARC, Centralia, Illinois

**CONTRACT NUMBER:** DABT23-00-D-1012, Delivery Order #04

**PREPARED BY:** Jones Technologies, Inc.

## EXECUTIVE SUMMARY

Jones Technologies, Inc. (JTI) was retained by the 88th Regional Readiness Command (RRC) to remove an Oil/Water Separator (OWS) and Vehicle Wash Facility (VWF) with associated grit trap at the SFC E.L. Copple United States Army Reserve Center (USARC), Centralia, Illinois. The USARC is located in Centralia approximately eight miles west of I-57 North and 12 miles north of I-64 East. Centralia is located in Marion County. JTI subcontracted Summit Environmental Services (SES) to provide the field personnel and services for the cleaning, removal and restoration. JTI and SES accomplished the field work from May 14-15, 2001

JTI identified one OWS at the Centralia USARC. The OWS is located in a grassy area. The OWS receives a discharge from the VWF, and, in-turn, discharges to the sanitary sewer system. Excess oil separated from the OWS is collected in the separator. The OWS is identified at the surface by a circular manhole cover. The OWS was not used by Army Reserve Personnel.

SES used a vacuum pump and drums to remove liquid/sludge from the OWS prior to pressure washing. Liquid/sludge and pressure wash rinsate were removed and transported off-site for disposal as a non-hazardous waste. SES removed soil overburden from the OWS area and stockpiled the material at a site adjacent to the OWS for use in backfilling the excavation. The OWS was partially demolished and removed from the excavation and secured at the surface for inspection. The OWS was constructed of concrete and had no visible holes. Debris not used for backfilling the OWS excavation was transported off-site for disposal. The OWS inlet and outlet lines were plugged with concrete. A sealed bag Photo Ionization Detector (PID) headspace analysis of a sample from the OWS excavation floor showed no evidence of release. A confirmatory basal soil sample was collected from the floor of the OWS excavation and shipped under chain-of-custody to Pace Analytical for analysis of Total Petroleum Hydrocarbons (TPH), Volatile Organic Compound (VOC), and metals. Analytical results showed no concentrations above levels of concern. The OWS excavation was back filled with concrete rubble from the VWF, clean soil, and purchased fill. The excavation was compacted with a backhoe, contoured and seeded with grass.

The VWF consisted of an approximately 20 by 40 foot concrete slab with a curb and center drain grit trap that discharged through the OWS to the sanitary sewer. The complete VWF and curb were excavated to base material using an excavator and pneumatic hammer. Rubble from the removal was transported off-site for disposal or set aside for backfilling the OWS and grit trap excavations. Purchased fill material was used to backfill the VWF excavation. The VWF excavation area was compacted with a backhoe, contoured and paved with asphalt.

SES used a vacuum truck to remove liquid/sludge from the VWF grit trap prior to pressure washing. Liquid/sludge and pressure wash rinsate were removed and transported off-site for disposal as a non-hazardous waste. The VWF grit trap was partially demolished in-place and outlet line plugged with concrete. The top of the grit trap was sealed with concrete and the grit trap was then abandoned in-place. The grit trap was made of concrete and appeared to be in good condition. A trench was excavated next to the grit trap to facilitate collection of soil samples. A sealed bag Photo Ionization Detector (PID) headspace analysis of a sample from the VWF excavation wall showed no evidence of release. A confirmatory soil sample was collected from the wall of the VWF grit trap excavation and shipped under chain-of-custody to Pace Analytical for analysis of Total Petroleum Hydrocarbons (TPH), Volatile Organic Compound (VOC), and metals. Analytical results showed no concentrations above levels of concern. The VWF grit trap excavation was back filled with concrete rubble from the VWF, clean soil, and purchased fill. The excavation was compacted with a backhoe, contoured and paved with asphalt.

The OWS and VWF grit trap are part of the Centralia USARC's wastewater collection system. This collection system discharges to the City of Centralia's sanitary sewer. JTI reviewed State of Illinois Regulations pertaining to underground storage tanks (UST). The State of Illinois Underground Storage Tank Regulations (Section 731.110 (b) (2) and Section 731.110 (c) (2)) excludes these types of flow-through wastewater process tanks from management as USTs. However, to prudently manage OWS and grit trap removal, JTI utilized the State of Illinois' Tiered Approach to Corrective Action Objectives (TACO) regulations. The TACO regulations detail metals and VOC remediation objectives for industrial and commercial properties in the State of Illinois. TPH analyses by EPA method 8015 were below detection levels. The GC/MS volatile organic compounds (VOC) by EPA method 8260 were all non-detect. The metals analyses by method EPA 6010 showed no concentrations above the applicable limits.

No further action is recommended for this site based on:

- The OWS was inspected after pressure cleaning and appeared to be intact with no visible cracks or breaches of the structure.
- The VWF grit trap was inspected and appeared to be intact with no visible cracks or breaches of the structure.
- Visible and odor observations in the OWS and VWF grit trap excavations noted no evidence of leakage, spillage, or other conditions that would indicate either of these structures released liquids to the environment.
- Head space bag sample PID screening of OWS and VWF grit trap samples did not indicate any release of chemicals of concern.
- Laboratory analysis of the basal soil confirmatory samples from the OWS and VWF grit trap excavations showed no levels of TPH, VOC, or metals above applicable limits.

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**LIST OF ATTACHMENTS**

Attachment A	Figures
Attachment B	Photographs
Attachment C	Laboratory Analysis Documentation
Attachment D	GPS Locations

## LIST OF ACRONYMS

BDL	Below Detection Limits
BUST	Bureau of Underground Storage Tanks
CDR	Commander
DRO	Diesel Range Organics
EPA	Environmental Protection Agency
GC/MS	Gas Chromatography/Mass Spectrometer
GRO	Gasoline Range Organics
GPS	Global Positioning System
ID	Identification
JTI	Jones Technologies Incorporated
ug/kg	micrograms/kilogram
mg/kg	milligram/kilogram
NA	Not Applicable
OWS	Oil Water Separator
OMS	Organizational Maintenance Shop
ppm	parts per million
PID	Photo Ionization Detector
RRC	Regional Readiness Command
SES	Summit Environmental Services
TACO	Tiered Approach to Corrective Action
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
USARC	United States Army Reserve Center
VWF	Vehicle Wash Facility
VOC	Volatile Organic Compound

**OWS SYSTEM CLOSURE REPORT  
SFC E.L. Copple USARC  
904 East Martin Luther King Drive  
Centralia, Illinois 62801**

**1.0 INTRODUCTION**

Jones Technologies, Inc. (JTI) was retained by the 88th Regional Readiness Command (RRC) to remove an Oil/Water Separator (OWS) and Vehicle Wash Facility (VWF) with associated grit trap at the SFC E.L. Copple USARC, Centralia, Illinois. JTI subcontracted Summit Environmental Services (SES) to provide the field personnel and services for the cleaning, removal and restoration. JTI and SES accomplished the field work from May 14-15, 2001

**1.1 Project Location**

The USARC is located in Centralia approximately eight miles west of I-57 North and 12 miles north of I-64 East. Centralia is located in Marion County (Figure 1, Attachment A).

**1.2 Responsible Party Information**

The following list identifies the points of contact for the 88<sup>th</sup> RRC and the Centralia USARC:

Point of Contact/Address	Telephone Number	Fax Number
<b>Program Manager:</b> Kurt Zacharias		
CDR, 88 <sup>th</sup> Regional Readiness Command ATTN: AFRC-CMN-EN (Zacharias) 506 Roeder Circle Fort Snelling, MN 55111-4009	(612) 713-3821	(612) 713-3516
<b>State Environmental Manager:</b> Tony Bridges		
88 <sup>th</sup> Regional Readiness Command, CST#2 ATTN: AFRC-CMN-EN-Illinois (Bridges) 100 Anderson Avenue Wood River, Illinois 62095	(618) 254-0175 ext. 14	(618) 254-0192
<b>Facility Manager:</b> Wayne Smith		
SFC E.L. Copple USARC ATTN: Wayne Smith 904 E. Martin Luther King Drive Centralia, IL 62801	(618) 532-5666	NA

### 1.3 OWS Contractor Information

The 88<sup>th</sup> RRC contracted JTI through Fort Knox (Contract DABT23-00-D-1012; Delivery Order #04). JTI subcontracted Summit Environmental Services, Evansville, Indiana to supply the personnel and equipment required for the cleaning, excavation and removal of the OWS, VWF, site restoration, and soil testing.

Point of Contact/Address	Telephone Number	Fax Number
<b>Consultant:</b> Jones Technologies, Inc.		
Jones Technologies, Inc. ATTN: Mr. Tom Walker 5100 Springfield Pike, Suite 305 Dayton, OH 45431	(937) 256-1558	(937) 256-1755
<b>Contractor:</b> Summit Environmental Services, Inc.		
Summit Environmental Services, Inc. ATTN: Mr. Jim Reed 2125 Glenview Dr. Evansville, IN 47720	(812) 421-1744	(812) 421-8106
<b>Laboratory:</b> Pace Analytical		
Pace Analytical ATTN: Ms. Donna Spyker 7726 Moller Road Indianapolis, IN 46268	(317) 875-5894	(317) 872-6189

### 2.0 FACILITY INFORMATION

This section provides information regarding the facility structures and a description of surrounding property.

#### 2.1 Site Surroundings

The SFC E.L. Copple USARC is a one-story brick building, located on the east side of East Martin Luther King Drive in Centralia, Illinois. Surrounding property is residential. The single-story maintenance building has a brick exterior with two bays (Figure 2, Attachment A).

#### 2.2 GPS Locations

Global Positioning System (GPS) data is included in Figure 3, Attachment A and Attachment D.

#### 2.3 Oil/Water Separator

JTI identified one OWS at the USARC. The OWS receives a discharge from the VWF, and discharges to the sanitary sewer system (Photo 1, Attachment B). Excess oil separated from the OWS is collected in the separator. The OWS is identified at the surface by a circular manhole cover. The OWS was not used by Army Reserve Personnel.

Details on the size and construction of the OWS are:

- Depth to OWS (from top to grade): 2 feet 8 inches
- Length of OWS: 9 feet, 6 inches
- Width of OWS: 4 feet
- Depth of OWS: 4 feet
- Volume of OWS: 1035 gallons
- Diameter of inlet pipe: 6 inches
- Diameter of outlet pipe: 6 inches
- OWS material: concrete

#### **2.4 Vehicle Wash Facility**

The VWF consisted of an approximately 20 by 40 foot concrete slab with a center drain grit trap that discharged through the OWS to the sanitary sewer.

#### **2.5 Vehicle Wash Facility Grit Trap**

A steel grate identified the location of the center VWF drain/grit trap. The VWF drain/grit trap discharged to the OWS. The VWF was not being used by Army Reserve personnel at the time of the removal.

Details on the size and construction of the VWF grit trap are:

- Depth to grit trap (from top of grade): 0 feet
- Length of grit trap: 1 foot 4 inches
- Width of grit trap: 2 feet
- Depth of grit trap: 3 foot, 5 inches
- Volume of grit trap: 62 gallons
- Diameter of outlet pipe: 6 inches
- Grit trap material: concrete

#### **2.6 Elevated Grease Rack**

This facility does not have an elevated grease rack.

#### **2.7 Elevated Grease Rack Grit Trap**

This facility does not have an elevated grease rack grit trap.

#### **2.8 Can Wash**

This facility does not have a can wash.

### **3.0 REMOVAL ACTION**

On May 14, 2001, JTI and SES initiated the removal of the OWS, VWF, and VWF grit trap at the Centralia USARC, Centralia, Illinois.

### **3.1 Free Liquid Removal/Disposal**

SES used a vacuum pump and drums to remove liquid/sludge from the OWS and VWF grit trap prior to pressure washing (Photo 2, Attachment B). Liquid/sludge and pressure wash rinsate were removed and transported off-site for disposal as a non-hazardous waste. No disposal documentation is available for this facility.

### **3.2 OWS Condition/Information**

SES removed soil overburden from the OWS area and stockpiled the material at a site adjacent to the OWS for use in backfilling the excavation. The OWS was partially demolished and removed from the excavation and secured at the surface for inspection. The OWS was constructed of concrete and had no visible holes. Debris not used for backfilling the OWS excavation was transported off-site for disposal. The OWS inlet and outlet lines were plugged with concrete (Photo 3, Attachment B). A sealed bag Photo Ionization Detector (PID) headspace analysis of a sample from the OWS excavation floor showed no evidence of release. A confirmatory basal soil sample was collected from the floor of the OWS excavation and shipped under chain-of-custody to Pace Analytical for analysis of Total Petroleum Hydrocarbons (TPH), Volatile Organic Compound (VOC), and metals. Analytical results showed no concentrations above levels of concern (results discussed in section 4) The OWS excavation was back filled with concrete rubble from the VWF, clean soil, and purchased fill. The excavation was compacted with a backhoe, contoured and seeded with grass.

### **3.3 VWF Condition/Information**

The VWF was excavated to the depth of base material (Photos 4 and 5, Attachment B). The area was graded and paved with asphalt.

### **3.4 VWF Grit Trap Condition/Information**

The VWF grit trap was partially demolished in-place and outlet line plugged with concrete. The top of the grit trap was sealed with concrete and the grit trap was then abandoned in-place (Photo 6, Attachment B). The grit trap was made of concrete and appeared to be in good condition. Excess rubble from the excavation was transported off-site for disposal. A trench was excavated next to the grit trap to facilitate collection of soil samples. A sealed bag Photo Ionization Detector (PID) headspace analysis of a sample from the VWF excavation wall showed no evidence of release. A confirmatory soil sample was collected from the wall of the VWF grit trap excavation and shipped under chain-of-custody to Pace Analytical for analysis of Total Petroleum Hydrocarbons (TPH), Volatile Organic Compound (VOC), and metals. Analytical results showed no concentrations above levels of concern (results discussed in section 4). The VWF grit trap excavation was back filled with concrete rubble from the VWF, clean soil, and purchased fill. The excavation was compacted with a backhoe, contoured and paved with asphalt (Photo 7, Attachment B).

### **3.5 Elevated Grease Rack Condition/Information**

This facility does not have an elevated grease rack.

### **3.6 Elevated Grease Rack Grit Trap Condition/Information**

This facility does not have an elevated grease rack grit trap.

### 3.7 Can Wash Condition/Information

This facility does not have a can wash.

### 3.8 Soil Sampling Methods

A SES representative wearing new nitrile gloves collected the soil samples. The samples were scooped into laboratory-cleaned, 4-oz. glass-sampling containers. Sampling equipment was used only once. After collection the samples were immediately placed in approved sample containers, double bagged, put on ice and shipped to Pace Analytical for analysis (Figure 4, Attachment A).

#### 3.8.1 Type of Sample Containers and Preservation Techniques

All sample containers were certified clean, EPA-approved, laboratory-prepared glass sample jars with Teflon-lined lids. All samples were filled with an effort to minimize both headspace in the jar and disturbance to the sample. After each sample was placed into a sample jar, the jar was capped, wiped clean, labeled, put in an ice-filled cooler and chilled to approximately 4° Celsius.

#### 3.8.2 Labeling/Designation of Soil Samples

The sample identification used a prefix that indicates the general location from which the samples were collected. The scheme used was: Facility ID–Structure and Location in excavation.

#### 3.8.3 Field Screening Methodology

A field headspace analysis was performed for each soil sample collected for laboratory analysis. Aliquots of soil from each sampling location were placed in a sealable plastic bag. Sealed sample bags were allowed to warm for at least 15 minutes. The procedure for headspace analysis consisted of opening the bag and inserting the tip of a PID into the bag. The PID tip was held in place for approximately 30 seconds and readings were recorded. Table 3-1 lists the PID readings for each sample.

**Table 3-1: Soil Sample Information**

Sample Identification	Sample Description	Sample Location	Time of Sample Collection	PID Reading ppm
IL009-GTNW	Grit trap; north wall of excavation	From NW corner of OMS; 33 feet north, 33 feet east, 3 feet, 4 inches deep	3:00 pm	0 ppm
IL009-OWSWF	Oil/water separator; west floor of excavation	From SE corner of USARC; 25 feet east, 20 feet south, 7 feet deep	7:35 am	0 ppm

### **3.8.4 Decontamination**

All sampling equipment was used specifically for each sample and then disposed. Therefore, decontamination of sampling equipment was not required.

### **3.9 Site Specific Soil Conditions**

The native soil in the excavation consisted of moist mottled clay.

## **4.0 ANALYTICAL RESULTS**

Soil samples were collected by SES on May 14 and 15, 2001 and shipped overnight under chain-of-custody to Pace Analytical for analysis. The soil sample was analyzed using the following criteria:

- Total Petroleum Hydrocarbons (TPH): (Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) fractions using EPA method 8015; detection limit 10 mg/kg)
- Volatile organic compounds (VOC): (EPA method 8260; detection limit 5 - 100 ug/kg)
- Metals: barium, cadmium, chromium (total), lead, nickel, and zinc (EPA Method 6010), and mercury (EPA method 7471)

### **4.1 Soil Analysis**

Table 4-1 is a summary of the results above the detection limit for a given laboratory method. A copy of the laboratory data and chain of custody are located in Attachment C. Also listed is the applicable limit for the specified compound in soil. OWS and grit traps are part of the Centralia USARC facility's wastewater collection system. The State of Illinois Underground Storage Tank Regulations (Section 731.110 (b) (2) and Section 731.110 (c) (2)) excludes these types of wastewater process tanks from management as USTs. However, to prudently manage OWS and grit trap removal, JTI utilized the State of Illinois' TACO regulations. The TACO regulations detail metals and VOCs remediation objectives for industrial and commercial properties in the State of Illinois. JTI also reviewed the State of Indiana's UST regulations to seek guidance on the use of TPH as a screening parameter for OWS-type closures.

**Table 4-1: Soil Analysis Summary (see notes)**

	<b>IL009-GTNW VWF Grit Trap North Wall</b>	<b>IL009-OWSWF OWS West Floor</b>	<b>Applicable Limits</b>
<b>TOTAL PETROLEUM HYDROCARBONS (DRO AND GRO) mg/kg</b>			
Diesel (DRO)	BDL	BDL	<100
Gasoline (GRO)	BDL	BDL	<100
<b>VOLATILE ORGANIC COMPOUNDS ug/kg</b>			
None			NA
<b>METALS (mg/kg)</b>			
Arsenic	6.61	4.57	11.3
Barium	41.3	59.4	122
Chromium	13.9	10.8	420
Lead	11.8	8.16	400
Mercury CVAAS	BDL	BDL	23

BDL – Below Detection Limits

NA – Not Applicable

**Note 1:** Applicable limits for Total Petroleum Hydrocarbons (DRO/GRO) were derived from the State of Indiana BUST regulations.

**Note 2:** Applicable limits for Volatile Organic Compounds were derived from the lowest exposure routes in TACO Appendix B, Table B.

**Note 3:** Limits for Arsenic and barium in Illinois soils were derived from Section 742 (TACO), Appendix A, Table G Background soil values for metals in the state of Illinois.

**Note 4:** Applicable limits for chromium and lead were derived from the lowest exposure limits in TACO Appendix B, Table B.

**Note 5:** Applicable limits for mercury were derived from TACO Section 742, TABLE A: Tier 1 Soil Remediation Objectives for Residential Properties

TPH (DRO and GRO) results, using EPA method 8015, for the confirmatory samples were below detection limits. The GC/MS analyses for volatile organic compounds by EPA method 8260 were all non-detect. The metals analyses by method EPA 6010 on all confirmatory samples showed no concentrations above the applicable limits.

## 5.0 SUMMARY OF FIELD WORK-SITE RESTORATION

The following actions were completed in removing the OWS, VWF, VWF grit trap, and EGR at the Centralia, Illinois USARC:

- Power washing to clean the OWS
- Removal of free liquid from the OWS and VWF grit trap with a vacuum pump and drums
- Plugging the inlet and discharge lines for the OWS
- Plugging the discharge line for the VWF grit trap
- Excavation and removal of the OWS
- VWF grit trap abandoned in-place
- Excavation and removal of the VWF
- Backfilling, compacting, and paving the OWS excavation
- Backfilling, compacting, and paving the VWF area with asphalt

- Off-site disposal of non-hazardous liquid/sludge waste
- Disposal of concrete and rebar scrap by transportation off-site

## **6.0 CONCLUSION**

No Further action is recommended for this site based on:

- The OWS was inspected after pressure cleaning and appeared to be intact with no visible cracks or breaches of the structure.
- The VWF grit trap was inspected and appeared to be intact with no visible cracks or breaches of the structure.
- Visible and odor observations in the OWS and VWF grit trap excavations noted no evidence of leakage, spillage, or other conditions that would indicate either of these structures released liquids to the environment.
- Head space bag sample PID screening of OWS and VWF grit trap samples did not indicate any release of chemicals of concern.
- Laboratory analysis of the basal soil confirmatory samples from the OWS and VWF grit trap excavations showed no levels of TPH, VOC, or metals above applicable limits.

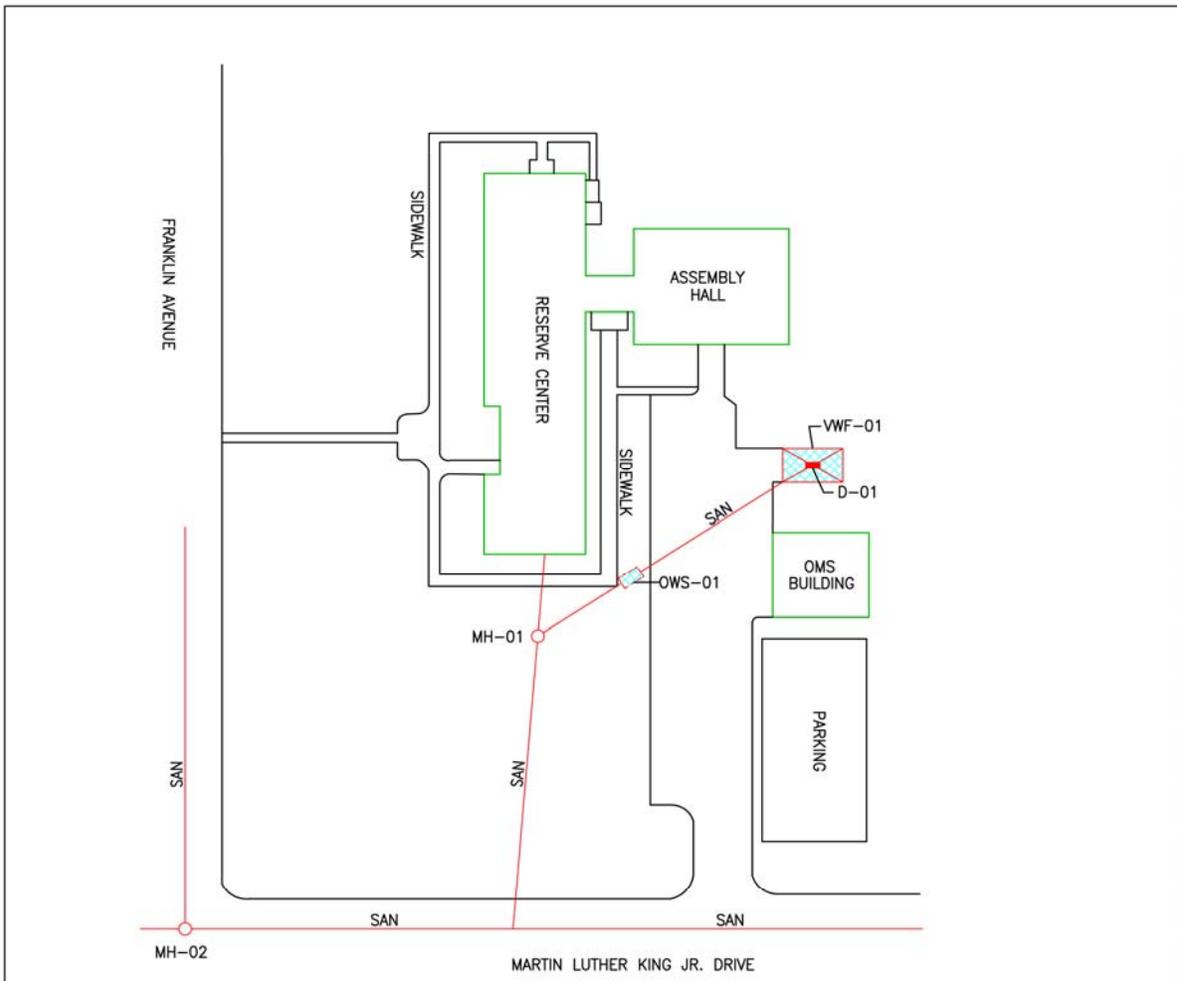
**ATTACHMENT A**

**FIGURES**

**Figure 1  
Centralia, Illinois Area Map**



REVISION	DATE	DESCRIPTION	BY
<b>FIGURE 1: FACILITY LOCATION</b>			
DRAWN BY:			
CHECKED BY:			
DESIGNED BY:			
REVIEWED:			
SECTION CHIEF			
SUBMITTED:		RECOMMENDED:	
CHIEF, DESIGN BRANCH		CHIEF, ENGINEERING DIVISION	
APPROVED:		SCALE: AS SHOWN	
COLONEL C.E. DISTRICT ENGINEER		DRAWING NUMBER	
DATE:		SHEET OF	



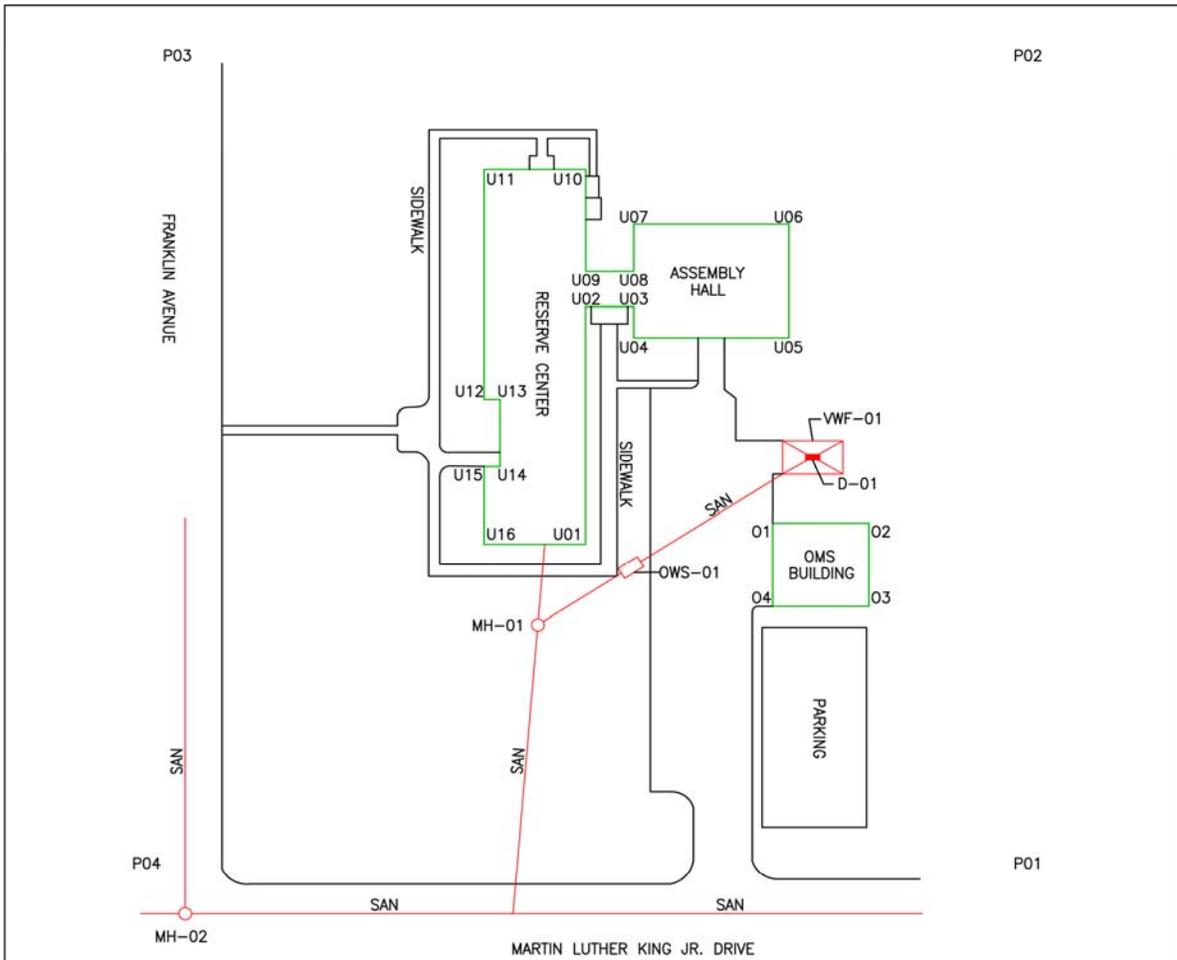
### SITE PLAN

 NOTE:  
HIGHLIGHTED STRUCTURES HAVE  
BEEN REMOVED OR CLOSED

LEGEND	
SAN	SANITARY LINE
VWF-01	VEHICLE WASH FACILITY
D-01	DRAIN
OWS-01	OIL / WATER SEPARATOR
MH-01	MANHOLE

  
NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY
	02/02/04	SINGLE-LINE SITE PLAN; FILE: IL009A_REV_020204.DWG	JTI
FIGURE 2: OIL / WATER SEPARATOR CLOSURE PROJECT FACILITY STRUCTURES			
DRAWN BY: JTI		88th REGIONAL READINESS COMMAND - IL	
CHECKED BY: JTI		SFC E.L. COPPLE USARC FACILITY IL009	
DESIGNED BY: JTI			
REVIEWED: _____		CENTRALIA ILLINOIS	
SUBMITTED: _____		RECOMMENDED: _____	
_____ CHIEF, DESIGN BRANCH		_____ CHIEF, ENGINEERING DIVISION	
APPROVED: _____		SCALE: AS SHOWN	
_____ COLONEL C.E. DISTRICT ENGINEER		DRAWING NUMBER	
DATE: _____		SHEET _____ OF _____	



### SITE PLAN

LEGEND	
SAN	SANITARY LINE
VWF-01	VEHICLE WASH FACILITY
D-01	DRAIN
OWS-01	OIL / WATER SEPARATOR
MH-01	MANHOLE

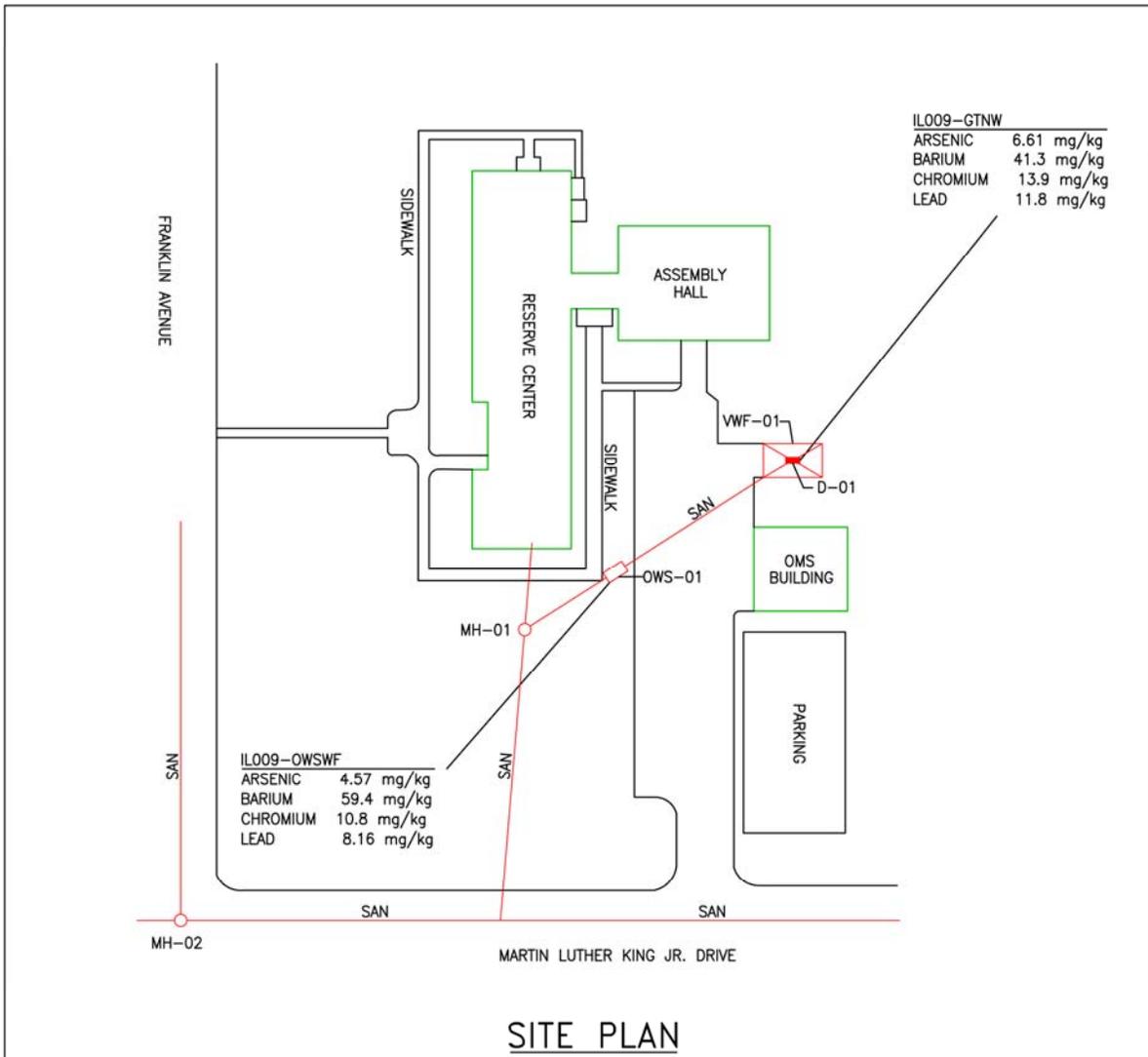
  
 NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY
	02/02/04	SINGLE-LINE SITE PLAN; FILE: IL009B_REV_020204.DWG	JTI

**FIGURE 3: OIL / WATER SEPARATOR CLOSURE PROJECT  
GPS LOCATION OF FACILITY STRUCTURES**

DRAWN BY: JTI CHECKED BY: JTI DESIGNED BY: JTI REVIEWED: _____ SUBMITTED: _____	88th REGIONAL READINESS COMMAND - IL <b>SFC E.L. COPPLE USARC</b> <b>FACILITY ILO09</b> CENTRALIA ILLINOIS
APPROVED: _____ COLONEL C.E. DISTRICT ENGINEER	RECOMMENDED: _____ CHIEF, ENGINEERING DIVISION

DATE: \_\_\_\_\_ SCALE: AS SHOWN  
 SHEET \_\_\_\_\_ OF \_\_\_\_\_



LEGEND	
SAN	SANITARY LINE
VWF-01	VEHICLE WASH FACILITY
D-01	DRAIN
OWS-01	OIL / WATER SEPARATOR
MH-01	MANHOLE



02/05/04	SINGLE-LINE SITE PLAN; FILE: ILO09C_REV_020504.DWG	JTI
REVISION	DATE	DESCRIPTION
FIGURE 4: OIL / WATER SEPARATOR CLOSURE PROJECT SAMPLE LOCATIONS AND ANALYTICAL RESULTS		
DRAWN BY:	JTI	88th REGIONAL READINESS COMMAND - IL
CHECKED BY:	JTI	SFC E.L. COPPLE USARC
DESIGNED BY:	JTI	FACILITY ILO09
REVIEWED:	SECTION CHIEF	CENTRALIA ILLINOIS
SUBMITTED:	RECOMMENDED:	
APPROVED:	CHIEF, DESIGN BRANCH	CHIEF, ENGINEERING DIVISION
DATE:	COLONEL C.E. DISTRICT ENGINEER	SCALE: AS SHOWN
		DRAWING NUMBER
		SHEET ____ OF ____

**ATTACHMENT B**

**PHOTOGRAPHS**



**Photograph 1**  
**OWS in Grassy Area Pre Cleaning**



**Photograph 2**  
**OWS Cleaning**

**Outlet Plugged  
with Concrete**



**Photograph 3  
OWS Outlet Line Plugged**

**Grit Trap**



**Photograph 4  
VWF with Center Grit Trap Pre Removal**



**Photograph 5**  
**VWF Grit Trap Pre Cleaning**



**VWF Grit Trap  
Top Sealed with  
Concrete**

**Photograph 6**  
**VWF Grit Trap Top Sealed with Concrete**

**VWF  
Restored**



**Photograph 7  
VWF Area Paved with Asphalt**

**ATTACHMENT C**

**LABORATORY ANALYSIS DOCUMENTATION**



# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

556096

**Required Client Information:**  
 Company: JONES TECHNOLOGIES  
 Address: 280 REGENCY RIDGE  
Suite 100  
DAYTON OH 45459  
 Phone: 937 428 7884 Fax: 937 428 7887

**Section A**  
 Report To: RICK TIBBITS  
 Invoice To: RICK TIBBITS  
 P.O.: 01-4006  
 Project Name: 8877RSC  
 Project Number: 1019-412

**Section B**  
 Client Information (Check quote/contract):  
 Requested Due Date: TAT  
 Turn Around Time (TAT) in calendar days:  
 \* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

**Section C**  
 To Be Completed by Pace Analytical and Client  
 Quote Reference: Jones 012601 JPK  
 Project Manager:  
 Project #:  
 Profile #:  
 Requested Analysis:

ITEM #	SAMPLE ID	Valid Matrix Codes	DATE COLLECTED	TIME COLLECTED	# Containers	Preservatives					Remarks / Lab ID	
						Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	Unpreserved		
1	IL009 - VWF6TNU	SC	05/14/01	03:00 P	3 X						X	501049250 PCD=0 PPM
2	IL009 - GWSWF	SC	05/15/01	07:55a	3 X						X	501049308 PCD=0 PPM
3	IL009 -	SC			3 X						X	
4												
5												
6												
7												
8												
9												
10												
11												
12												

**Sample Condition**  
 Temp in °C: 3.0C  
 Received on ICE: 01 N  
 Sealed Cooler: 01 N  
 Samples Intact: 01 N

**Additional Comments:**  
Please Return Coolers to JTI

**Relinquished By / Company:** M. Loesen JTI Date: 5/16/01 Time: 13:35  
**Accepted By / Company:** [Signature] Date: 5/16/01 Time: 19:29

**SAMPLER NAME AND SIGNATURE:**  
 PRINT Name of SAMPLER: Mark Loesen  
 SIGNATURE of SAMPLER: [Signature] DATE Signed: 05/16/01



**Pace Analytical Services, Inc.**  
7726 Moller Road  
Indianapolis, IN 46268  
Phone: 317.875.5894  
Fax: 317.872.6189

May 22, 2001

Mr. Rick Tibbitts  
Jones Technologies, Inc.  
280 Regency Ridge, Suite 100  
Dayton, OH 45459

RE: Lab Project Number: 5014724  
Client Project ID: 88th RSC/1019-4IL

Dear Mr. Tibbitts:

Enclosed are the analytical results for sample(s) received by the laboratory on May 17, 2001. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jill Kofoed  
Project Manager

Enclosures

## **REPORT OF LABORATORY ANALYSIS**

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 7726 Moller Road  
 Indianapolis, IN 46268  
 Phone: 317.875.5894  
 Fax: 317.872.6189

Jones Technologies, Inc.  
 280 Regency Ridge, Suite 100  
 Dayton, OH 45459

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

Attn: Mr. Rick Tibbitts  
 Phone: 937-428-7994

Solid results are reported on a wet weight basis

Lab Sample No: 501049290      Project Sample Number: 5014724-001      Date Collected: 05/14/01 15:00  
 Client Sample ID: IL009-VWFGTNW      Matrix: Soil      Date Received: 05/17/01 09:29

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Ftnote	Limit
------------	---------	-------	-----	----------	---------	------	--------	-------

**Metals**

Metals, Trace ICP	Method: EPA 6010	Prep Method: EPA 3050
Arsenic	6.51 mg/kg	2.00
Barium	41.3 mg/kg	2.00
Cadmium	ND mg/kg	2.00
Chromium	13.9 mg/kg	2.00
Lead	11.8 mg/kg	2.00
Selenium	ND mg/kg	2.00
Silver	ND mg/kg	2.00
Date Digested		05/21/01

Mercury, CVAAS	Method: EPA 7471	Prep Method: EPA 7471
Mercury	ND mg/kg	1.00
		05/21/01 21:27 HEB 7439-97-6

**GC Semivolatiles**

TPH-Diesel, Soil Mod. 8015	Method: EPA 8015 Mod Ext	Prep Method: EPA 8015 Mod Ext
TPH - Diesel	ND mg/kg	10.
o-Terphenyl (S)	90 %	
Date Extracted		05/17/01

**GC Volatiles**

TPH, Low (tphg)Purge Mod. 8015	Method: EPA 8015 Mod Pur	Prep Method: EPA 8015 Mod Pur
TPH - Gasoline	ND mg/kg	1.0
4-Bromofluorobenzene (S)	89 %	
		05/18/01 20:17 JAH 460-00-4

Date: 05/22/01

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 Fax: 317.872.6189

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

Lab Sample No: 501049290 Project Sample Number: 5014724-001 Date Collected: 05/14/01 15:00  
 Client Sample ID: IL009-VWFGTNW Matrix: Soil Date Received: 05/17/01 09:29

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Fnote	Limit
GC/MS Volatiles								
GC/MS VOCs by 8260		Method: EPA 8260		Prep Method: EPA 8260				
Dichlorodifluoromethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-71-8		
Chloromethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	74-87-3		
Vinyl chloride	ND	ug/kg	2.0	05/17/01 15:34	CAC	75-01-4		
Bromomethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	74-83-9		
Chloroethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-00-3		
Trichlorofluoromethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-69-4		
Methylene chloride	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-09-2		
1,1-Dichloroethene	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-35-4		
trans-1,2-Dichloroethene	ND	ug/kg	5.0	05/17/01 15:34	CAC	156-60-5		
1,1-Dichloroethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-34-3		
2,2-Dichloropropane	ND	ug/kg	5.0	05/17/01 15:34	CAC	594-20-7		
cis-1,2-Dichloroethene	ND	ug/kg	5.0	05/17/01 15:34	CAC	156-59-2		
Chloroform	ND	ug/kg	5.0	05/17/01 15:34	CAC	67-66-3		
Bromochloromethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	74-97-5		
1,1,1-Trichloroethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	71-55-6		
Carbon tetrachloride	ND	ug/kg	5.0	05/17/01 15:34	CAC	56-23-5		
1,1-Dichloropropene	ND	ug/kg	5.0	05/17/01 15:34	CAC	563-58-6		
Benzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	71-43-2		
1,2-Dichloroethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	107-06-2		
Trichloroethene	ND	ug/kg	5.0	05/17/01 15:34	CAC	79-01-6		
1,2-Dichloropropane	ND	ug/kg	5.0	05/17/01 15:34	CAC	78-87-5		
Bromodichloromethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-27-4		
Dibromomethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	74-95-3		
Toluene	ND	ug/kg	5.0	05/17/01 15:34	CAC	108-88-3		
1,1,2-Trichloroethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	79-00-5		
Tetrachloroethene	ND	ug/kg	5.0	05/17/01 15:34	CAC	127-18-4		
1,3-Dichloropropane	ND	ug/kg	5.0	05/17/01 15:34	CAC	142-28-9		
Dibromochloromethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	05/17/01 15:34	CAC	106-93-4		
Chlorobenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	108-90-7		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	630-20-6		
Ethylbenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	100-41-4		
m&p-Xylene	ND	ug/kg	5.0	05/17/01 15:34	CAC			
o-Xylene	ND	ug/kg	5.0	05/17/01 15:34	CAC	95-47-6		
Styrene	ND	ug/kg	5.0	05/17/01 15:34	CAC	100-42-5		

Date: 05/22/01

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 Indianapolis, IN 46268  
 Phone: 317.875.5894  
 Fax: 317.872.6189

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

Lab Sample No: 501049290 Project Sample Number: 5014724-001 Date Collected: 05/14/01 15:00  
 Client Sample ID: IL009-VWFGTNW Matrix: Soil Date Received: 05/17/01 09:29

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Ftnote	Limit
Bromoform	ND	ug/kg	5.0	05/17/01 15:34	CAC	75-25-2		
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	05/17/01 15:34	CAC	98-82-8		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	05/17/01 15:34	CAC	79-34-5		
Bromobenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	108-86-1		
1,2,3-Trichloropropane	ND	ug/kg	5.0	05/17/01 15:34	CAC	96-18-4		
n-Propylbenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	103-65-1		
2-Chlorotoluene	ND	ug/kg	5.0	05/17/01 15:34	CAC	95-49-8		
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	108-67-8		
4-Chlorotoluene	ND	ug/kg	5.0	05/17/01 15:34	CAC	106-43-4		
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	95-63-6		
sec-Butylbenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	135-98-8		
tert-Butylbenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	98-06-6		
p-Isopropyltoluene	ND	ug/kg	5.0	05/17/01 15:34	CAC	99-87-6		
1,3-Dichlorobenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	106-46-7		
n-Butylbenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	104-51-8		
1,2-Dichlorobenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	95-50-1		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	05/17/01 15:34	CAC	96-12-8		
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	120-82-1		
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	05/17/01 15:34	CAC	87-68-3		
Naphthalene	ND	ug/kg	5.0	05/17/01 15:34	CAC	91-20-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	05/17/01 15:34	CAC	87-61-6		
trans-1,3-Dichloropropene	ND	ug/kg	5.0	05/17/01 15:34	CAC	10061-02-6		
cis-1,3-Dichloropropene	ND	ug/kg	5.0	05/17/01 15:34	CAC	10061-01-5		
2-Chloroethylvinyl ether	ND	ug/kg	50.	05/17/01 15:34	CAC	110-75-8		
Acetone	ND	ug/kg	100	05/17/01 15:34	CAC	67-64-1		
2-Butanone (MEK)	ND	ug/kg	10.	05/17/01 15:34	CAC	78-93-3		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.	05/17/01 15:34	CAC	108-10-1		
Carbon disulfide	ND	ug/kg	10.	05/17/01 15:34	CAC	75-15-0		
Acrolein	ND	ug/kg	100	05/17/01 15:34	CAC	107-02-8		
Acrylonitrile	ND	ug/kg	100	05/17/01 15:34	CAC	107-13-1		
2-Hexanone	ND	ug/kg	100	05/17/01 15:34	CAC	591-78-6		
Vinyl acetate	ND	ug/kg	100	05/17/01 15:34	CAC	108-05-4		
Iodomethane	ND	ug/kg	100	05/17/01 15:34	CAC	74-88-4		
Methyl-tert-butyl ether	ND	ug/kg	5.0	05/17/01 15:34	CAC	1634-04-4		
Ethyl methacrylate	ND	ug/kg	100	05/17/01 15:34	CAC	97-63-2		
trans-1,4-Dichloro-2-butene	ND	ug/kg	100	05/17/01 15:34	CAC	110-57-6		
Dibromofluoromethane (S)	135	%		05/17/01 15:34	CAC			

Date: 05/22/01

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Phone: 317.875.5894  
Fax: 317.872.6189

Lab Project Number: 5014724  
Client Project ID: 88th RSC/1019-4IL

Lab Sample No: 501049290      Project Sample Number: 5014724-001      Date Collected: 05/14/01 15:00  
Client Sample ID: IL009-VWFGTNW      Matrix: Soil      Date Received: 05/17/01 09:29

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Ftnote	Limit
Toluene-d8 (S)	158	%		05/17/01 15:34	CAC	2037-26-5		
4-Bromofluorobenzene (S)	138	%		05/17/01 15:34	CAC	460-00-4	1	

Date: 05/22/01

Page: 4

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Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

Lab Sample No: 501049308      Project Sample Number: 5014724-002      Date Collected: 05/15/01 07:35  
 Client Sample ID: IL009-OWSWF      Matrix: Soil      Date Received: 05/17/01 09:29

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Ftnote	Limit
------------	---------	-------	-----	----------	---------	------	--------	-------

**Metals**

Metals, Trace ICP		Method: EPA 6010		Prep Method: EPA 3050	
Arsenic	4.57	mg/kg	2.00	05/21/01 18:55	HEB 7440-38-2
Barium	59.4	mg/kg	2.00	05/21/01 18:55	HEB 7440-39-3
Cadmium	ND	mg/kg	2.00	05/21/01 18:55	HEB 7440-43-9
Chromium	10.8	mg/kg	2.00	05/21/01 18:55	HEB 7440-47-3
Lead	8.16	mg/kg	2.00	05/21/01 18:55	HEB 7439-92-1
Selenium	ND	mg/kg	2.00	05/21/01 18:55	HEB 7782-49-2
Silver	ND	mg/kg	2.00	05/21/01 18:55	HEB 7440-22-4
Date Digested				05/21/01	
Mercury, CVAAS		Method: EPA 7471		Prep Method: EPA 7471	
Mercury	ND	mg/kg	1.00	05/21/01 21:27	HEB 7439-97-6

**GC Semivolatiles**

TPH-Diesel, Soil Mod. 8015		Method: EPA 8015 Mod Ext		Prep Method: EPA 8015 Mod Ext	
TPH - Diesel	ND	mg/kg	10.	05/18/01 13:30	SRS
o-Terphenyl (S)	94	%		05/18/01 13:30	SRS 84-15-1
Date Extracted				05/17/01	

**GC Volatiles**

TPH, Low (tphg)Purge Mod. 8015		Method: EPA 8015 Mod Pur		Prep Method: EPA 8015 Mod Pur	
TPH - Gasoline	ND	mg/kg	1.0	05/18/01 20:44	JAH
4-Bromofluorobenzene (S)	87	%		05/18/01 20:44	JAH 460-00-4

**GC/MS Volatiles**

GC/MS VOCs by 8260		Method: EPA 8260		Prep Method: EPA 8260	
Dichlorodifluoromethane	ND	ug/kg	5.0	05/17/01 16:05	CAC 75-71-8
Chloromethane	ND	ug/kg	5.0	05/17/01 16:05	CAC 74-87-3
Vinyl chloride	ND	ug/kg	2.0	05/17/01 16:05	CAC 75-01-4
Bromomethane	ND	ug/kg	5.0	05/17/01 16:05	CAC 74-83-9
Chloroethane	ND	ug/kg	5.0	05/17/01 16:05	CAC 75-00-3
Trichlorofluoromethane	ND	ug/kg	5.0	05/17/01 16:05	CAC 75-69-4

Date: 05/22/01

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 Phone: 317.875.5894  
 Fax: 317.872.6189

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-4IL

Lab Sample No: 501049308 Project Sample Number: 5014724-002 Date Collected: 05/15/01 07:35  
 Client Sample ID: IL009-OWSWF Matrix: Soil Date Received: 05/17/01 09:29

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Ftnote	Limit
Methylene chloride	ND	ug/kg	5.0	05/17/01 16:05	CAC	75-09-2		
1,1-Dichloroethene	ND	ug/kg	5.0	05/17/01 16:05	CAC	75-35-4		
trans-1,2-Dichloroethene	ND	ug/kg	5.0	05/17/01 16:05	CAC	156-60-5		
1,1-Dichloroethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	75-34-3		
2,2-Dichloropropane	ND	ug/kg	5.0	05/17/01 16:05	CAC	594-20-7		
cis-1,2-Dichloroethene	ND	ug/kg	5.0	05/17/01 16:05	CAC	156-59-2		
Chloroform	ND	ug/kg	5.0	05/17/01 16:05	CAC	67-66-3		
Bromochloromethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	74-97-5		
1,1,1-Trichloroethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	71-55-6		
Carbon tetrachloride	ND	ug/kg	5.0	05/17/01 16:05	CAC	56-23-5		
1,1-Dichloropropene	ND	ug/kg	5.0	05/17/01 16:05	CAC	563-58-6		
Benzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	71-43-2		
1,2-Dichloroethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	107-06-2		
Trichloroethene	ND	ug/kg	5.0	05/17/01 16:05	CAC	79-01-6		
1,2-Dichloropropane	ND	ug/kg	5.0	05/17/01 16:05	CAC	78-87-5		
Bromodichloromethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	75-27-4		
Dibromomethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	74-95-3		
Toluene	ND	ug/kg	5.0	05/17/01 16:05	CAC	108-88-3		
1,1,2-Trichloroethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	79-00-5		
Tetrachloroethene	ND	ug/kg	5.0	05/17/01 16:05	CAC	127-18-4		
1,3-Dichloropropane	ND	ug/kg	5.0	05/17/01 16:05	CAC	142-28-9		
Dibromochloromethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/kg	5.0	05/17/01 16:05	CAC	106-93-4		
Chlorobenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	108-90-7		
1,1,1,2-Tetrachloroethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	630-20-6		
Ethylbenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	100-41-4		
m&p-Xylene	ND	ug/kg	5.0	05/17/01 16:05	CAC			
o-Xylene	ND	ug/kg	5.0	05/17/01 16:05	CAC	95-47-6		
Styrene	ND	ug/kg	5.0	05/17/01 16:05	CAC	100-42-5		
Bromoform	ND	ug/kg	5.0	05/17/01 16:05	CAC	75-25-2		
Isopropylbenzene (Cumene)	ND	ug/kg	5.0	05/17/01 16:05	CAC	98-82-8		
1,1,2,2-Tetrachloroethane	ND	ug/kg	5.0	05/17/01 16:05	CAC	79-34-5		
Bromobenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	108-86-1		
1,2,3-Trichloropropane	ND	ug/kg	5.0	05/17/01 16:05	CAC	96-18-4		
n-Propylbenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	103-65-1		
2-Chlorotoluene	ND	ug/kg	5.0	05/17/01 16:05	CAC	95-49-8		
1,3,5-Trimethylbenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	108-67-8		
4-Chlorotoluene	ND	ug/kg	5.0	05/17/01 16:05	CAC	106-43-4		

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Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

Lab Sample No: 501049308 Project Sample Number: 5014724-002 Date Collected: 05/15/01 07:35  
 Client Sample ID: IL009-OWSWF Matrix: Soil Date Received: 05/17/01 09:29

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Ftnote	Limit
1,2,4-Trimethylbenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	95-63-6		
sec-Butylbenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	135-98-8		
tert-Butylbenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	98-06-6		
p-Isopropyltoluene	ND	ug/kg	5.0	05/17/01 16:05	CAC	99-87-6		
1,3-Dichlorobenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	541-73-1		
1,4-Dichlorobenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	106-46-7		
n-Butylbenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	104-51-8		
1,2-Dichlorobenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	95-50-1		
1,2-Dibromo-3-chloropropane	ND	ug/kg	5.0	05/17/01 16:05	CAC	96-12-8		
1,2,4-Trichlorobenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	120-82-1		
Hexachloro-1,3-butadiene	ND	ug/kg	5.0	05/17/01 16:05	CAC	87-68-3		
Naphthalene	ND	ug/kg	5.0	05/17/01 16:05	CAC	91-20-3		
1,2,3-Trichlorobenzene	ND	ug/kg	5.0	05/17/01 16:05	CAC	87-61-6		
trans-1,3-Dichloropropene	ND	ug/kg	5.0	05/17/01 16:05	CAC	10061-02-6		
cis-1,3-Dichloropropene	ND	ug/kg	5.0	05/17/01 16:05	CAC	10061-01-5		
2-Chloroethylvinyl ether	ND	ug/kg	50.	05/17/01 16:05	CAC	110-75-8		
Acetone	ND	ug/kg	100	05/17/01 16:05	CAC	67-64-1		
2-Butanone (MEK)	ND	ug/kg	10.	05/17/01 16:05	CAC	78-93-3		
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10.	05/17/01 16:05	CAC	108-10-1		
Carbon disulfide	ND	ug/kg	10.	05/17/01 16:05	CAC	75-15-0		
Acrolein	ND	ug/kg	100	05/17/01 16:05	CAC	107-02-8		
Acrylonitrile	ND	ug/kg	100	05/17/01 16:05	CAC	107-13-1		
2-Hexanone	ND	ug/kg	100	05/17/01 16:05	CAC	591-78-6		
Vinyl acetate	ND	ug/kg	100	05/17/01 16:05	CAC	108-05-4		
Iodomethane	ND	ug/kg	100	05/17/01 16:05	CAC	74-88-4		
Methyl-tert-butyl ether	ND	ug/kg	5.0	05/17/01 16:05	CAC	1634-04-4		
Ethyl methacrylate	ND	ug/kg	100	05/17/01 16:05	CAC	97-63-2		
trans-1,4-Dichloro-2-butene	ND	ug/kg	100	05/17/01 16:05	CAC	110-57-6		
Dibromofluoromethane (S)	121	%		05/17/01 16:05	CAC			
Toluene-d8 (S)	121	%		05/17/01 16:05	CAC	2037-26-5		
4-Bromofluorobenzene (S)	116	%		05/17/01 16:05	CAC	460-00-4		

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Lab Project Number: 5014724  
Client Project ID: 88th RSC/1019-4IL

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PARAMETER FOOTNOTES

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
(S) Surrogate  
[1] All surrogate recoveries are outside (high) established limits. No reported values are above the PRL.  
Therefore, no bias is present. CAC 05-18-01

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QUALITY CONTROL DATA

QC Batch: 24460  
 Analysis Method: EPA 8015 Mod Pur  
 Associated Lab Samples: 501049290

QC Batch Method: EPA 8015 Mod Pur  
 Analysis Description: TPH, Low (tphg)Purge Mod. 8015  
 501049308

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

METHOD BLANK: 501054803  
 Associated Lab Samples:

Parameter	Units	501049290	501049308 Method Blank Result	PRL	Footnotes
TPH - Gasoline	mg/kg		ND	1	
4-Bromofluorobenzene (S)	%		76		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 501054837 501054845

Parameter	Units	501049308	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
TPH - Gasoline	mg/kg	0	25.00	23.93	96	26.16	105	9	
4-Bromofluorobenzene (S)					91		91		

LABORATORY CONTROL SAMPLE & LCSD: 501054811 501054829

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
TPH - Gasoline	mg/kg	25	24.59	98	26.52	106	8	
4-Bromofluorobenzene (S)				89		91		

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QUALITY CONTROL DATA

QC Batch: 24390  
 Analysis Method: EPA 8260  
 Associated Lab Samples: 501049290

QC Batch Method: EPA 8260  
 Analysis Description: GC/MS VOCs by 8260  
 501049308

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-4IL

METHOD BLANK: 501051502  
 Associated Lab Samples:

Parameter	Units	501049290	501049308	PRL	Footnotes
			Method Blank Result		
Dichlorodifluoromethane	ug/kg		ND	5	
Chloromethane	ug/kg		ND	5	
Vinyl chloride	ug/kg		ND	2	
Bromomethane	ug/kg		ND	5	
Chloroethane	ug/kg		ND	5	
Trichlorofluoromethane	ug/kg		ND	5	
Methylene chloride	ug/kg		ND	5	
1,1-Dichloroethene	ug/kg		ND	5	
trans-1,2-Dichloroethene	ug/kg		ND	5	
1,1-Dichloroethane	ug/kg		ND	5	
2,2-Dichloropropane	ug/kg		ND	5	
cis-1,2-Dichloroethene	ug/kg		ND	5	
Chloroform	ug/kg		ND	5	
Bromochloromethane	ug/kg		ND	5	
1,1,1-Trichloroethane	ug/kg		ND	5	
Carbon tetrachloride	ug/kg		ND	5	
1,1-Dichloropropene	ug/kg		ND	5	
Benzene	ug/kg		ND	5	
1,2-Dichloroethane	ug/kg		ND	5	
Trichloroethene	ug/kg		ND	5	
1,2-Dichloropropane	ug/kg		ND	5	
Bromodichloromethane	ug/kg		ND	5	
Dibromomethane	ug/kg		ND	5	
Toluene	ug/kg		ND	5	
1,1,2-Trichloroethane	ug/kg		ND	5	
Tetrachloroethene	ug/kg		ND	5	
1,3-Dichloropropane	ug/kg		ND	5	
Dibromochloromethane	ug/kg		ND	5	
1,2-Dibromoethane (EDB)	ug/kg		ND	5	
Chlorobenzene	ug/kg		ND	5	

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Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

METHOD BLANK: 501051502  
 Associated Lab Samples:

Parameter	Units	501049290	501049308	PRL	Footnotes
			Method Blank Result		
1,1,1,2-Tetrachloroethane	ug/kg		ND	5	
Ethylbenzene	ug/kg		ND	5	
m&p-Xylene	ug/kg		ND	5	
o-Xylene	ug/kg		ND	5	
Styrene	ug/kg		ND	5	
Bromoform	ug/kg		ND	5	
Isopropylbenzene (Cumene)	ug/kg		ND	5	
1,1,2,2-Tetrachloroethane	ug/kg		ND	5	
Bromobenzene	ug/kg		ND	5	
1,2,3-Trichloropropane	ug/kg		ND	5	
n-Propylbenzene	ug/kg		ND	5	
2-Chlorotoluene	ug/kg		ND	5	
1,3,5-Trimethylbenzene	ug/kg		ND	5	
4-Chlorotoluene	ug/kg		ND	5	
1,2,4-Trimethylbenzene	ug/kg		ND	5	
sec-Butylbenzene	ug/kg		ND	5	
tert-Butylbenzene	ug/kg		ND	5	
p-Isopropyltoluene	ug/kg		ND	5	
1,3-Dichlorobenzene	ug/kg		ND	5	
1,4-Dichlorobenzene	ug/kg		ND	5	
n-Butylbenzene	ug/kg		ND	5	
1,2-Dichlorobenzene	ug/kg		ND	5	
1,2-Dibromo-3-chloropropane	ug/kg		ND	5	
1,2,4-Trichlorobenzene	ug/kg		ND	5	
Hexachloro-1,3-butadiene	ug/kg		ND	5	
Naphthalene	ug/kg		ND	5	
1,2,3-Trichlorobenzene	ug/kg		ND	5	
trans-1,3-Dichloropropene	ug/kg		ND	5	
cis-1,3-Dichloropropene	ug/kg		ND	5	
2-Chloroethylvinyl ether	ug/kg		ND	50	
Acetone	ug/kg		ND	100	
2-Butanone (MEK)	ug/kg		ND	10	
4-Methyl-2-pentanone (MIBK)	ug/kg		ND	10	
Carbon disulfide	ug/kg		ND	10	

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Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-4IL

METHOD BLANK: 501051502  
 Associated Lab Samples:

Parameter	Units	501049290	501049308	PRL	Footnotes
			Method Blank Result		
Acrolein	ug/kg		ND	100	
Acrylonitrile	ug/kg		ND	100	
2-Hexanone	ug/kg		ND	100	
Vinyl acetate	ug/kg		ND	100	
Iodomethane	ug/kg		ND	100	
Methyl-tert-butyl ether	ug/kg		ND	5	
Ethyl methacrylate	ug/kg		ND	100	
trans-1,4-Dichloro-2-butene	ug/kg		ND	100	
Dibromofluoromethane (S)	%		121		
Toluene-d8 (S)	%		117		
4-Bromofluorobenzene (S)	%		100		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 501051528 501051536

Parameter	Units	501047740	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Benzene	ug/kg	0	20.00	17.39	87	16.22	81	7	
Trichloroethene	ug/kg	0	20.00	14.61	73	14.79	74	1	
Toluene	ug/kg	0	20.00	20.70	104	22.02	110	6	
Chlorobenzene	ug/kg	0	20.00	14.53	73	14.06	70	3	
Dibromofluoromethane (S)					98		126		
Toluene-d8 (S)					110		126		
4-Bromofluorobenzene (S)					105		124		

LABORATORY CONTROL SAMPLE: 501051510

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Dichlorodifluoromethane	ug/kg	20	18.14	91	
Chloromethane	ug/kg	20	12.90	64	
Vinyl chloride	ug/kg	20	20.26	101	

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Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

LABORATORY CONTROL SAMPLE: 501051510

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Bromomethane	ug/kg	20	18.70	94	
Chloroethane	ug/kg	20	20.33	102	
Trichlorofluoromethane	ug/kg	20	21.28	106	
Methylene chloride	ug/kg	20	24.77	124	
1,1-Dichloroethene	ug/kg	20	22.12	111	
trans-1,2-Dichloroethene	ug/kg	20	23.63	118	
1,1-Dichloroethane	ug/kg	20	23.81	119	
2,2-Dichloropropane	ug/kg	20	29.19	146	
cis-1,2-Dichloroethene	ug/kg	20	22.42	112	
Chloroform	ug/kg	20	23.01	115	
Bromochloromethane	ug/kg	20	19.39	97	
1,1,1-Trichloroethane	ug/kg	20	23.12	116	
Carbon tetrachloride	ug/kg	20	26.74	134	
1,1-Dichloropropene	ug/kg	20	24.70	124	
Benzene	ug/kg	20	21.71	109	
1,2-Dichloroethane	ug/kg	20	22.74	114	
Trichloroethene	ug/kg	20	20.87	104	
1,2-Dichloropropane	ug/kg	20	20.14	101	
Bromodichloromethane	ug/kg	20	24.00	120	
Dibromomethane	ug/kg	20	24.30	121	
Toluene	ug/kg	20	19.86	99	
1,1,2-Trichloroethane	ug/kg	20	21.68	108	
Tetrachloroethene	ug/kg	20	8.742	44	
1,3-Dichloropropane	ug/kg	20	21.76	109	
Dibromochloromethane	ug/kg	20	20.23	101	
1,2-Dibromoethane (EDB)	ug/kg	20	25.33	127	
Chlorobenzene	ug/kg	20	18.85	94	
1,1,1,2-Tetrachloroethane	ug/kg	20	20.99	105	
Ethylbenzene	ug/kg	20	22.63	113	
m&p-Xylene	ug/kg	40	53.05	133	
o-Xylene	ug/kg	20	27.68	138	
Styrene	ug/kg	20	29.05	145	
Bromoform	ug/kg	20	17.03	85	
Isopropylbenzene (Cumene)	ug/kg	20	30.09	150	
1,1,1,2,2-Tetrachloroethane	ug/kg	20	20.70	104	
Bromobenzene	ug/kg	20	22.30	112	
1,2,3-Trichloropropane	ug/kg	20	19.16	96	

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Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-4IL

LABORATORY CONTROL SAMPLE: 501051510

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
n-Propylbenzene	ug/kg	20	25.43	127	
2-Chlorotoluene	ug/kg	20	25.22	126	
1,3,5-Trimethylbenzene	ug/kg	20	23.81	119	
4-Chlorotoluene	ug/kg	20	23.80	119	
1,2,4-Trimethylbenzene	ug/kg	20	23.21	116	
sec-Butylbenzene	ug/kg	20	26.17	131	
tert-Butylbenzene	ug/kg	20	23.41	117	
p-Isopropyltoluene	ug/kg	20	24.70	123	
1,3-Dichlorobenzene	ug/kg	20	21.38	107	
1,4-Dichlorobenzene	ug/kg	20	21.68	108	
n-Butylbenzene	ug/kg	20	24.43	122	
1,2-Dichlorobenzene	ug/kg	20	21.05	105	
1,2-Dibromo-3-chloropropane	ug/kg	20	18.85	94	
1,2,4-Trichlorobenzene	ug/kg	20	18.52	93	
Hexachloro-1,3-butadiene	ug/kg	20	19.08	95	
Naphthalene	ug/kg	20	18.23	91	
1,2,3-Trichlorobenzene	ug/kg	20	17.22	86	
trans-1,3-Dichloropropene	ug/kg	20	23.48	117	
cis-1,3-Dichloropropene	ug/kg	20	23.46	117	
Dibromofluoromethane (S)				122	
Toluene-d8 (S)				92	
4-Bromofluorobenzene (S)				117	

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QUALITY CONTROL DATA

QC Batch: 24478  
 Analysis Method: EPA 7471  
 Associated Lab Samples: 501049290

QC Batch Method: EPA 7471  
 Analysis Description: Mercury, CVAAS  
 501049308

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

METHOD BLANK: 501055347  
 Associated Lab Samples:

Parameter	Units	501049290	501049308 Method Blank Result	PRL	Footnotes
Mercury	mg/kg		ND	1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 501055362 501055370

Parameter	Units	501047344	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Mercury	mg/kg	0.2593	0.8333	1.017	91	1.031	93	1	

LABORATORY CONTROL SAMPLE: 501055354

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Mercury	mg/kg	0.8333	0.8277	99	

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QUALITY CONTROL DATA

QC Batch: 24449  
 Analysis Method: EPA 6010  
 Associated Lab Samples: 501049290

QC Batch Method: EPA 3050  
 Analysis Description: Metals, Trace ICP  
 501049308

Lab Project Number: 5014724  
 Client Project ID: 88th RSC/1019-41L

METHOD BLANK: 501054241  
 Associated Lab Samples:

Parameter	Units	501049290	501049308	PRL	Footnotes
			Method Blank Result		
Arsenic	mg/kg		ND	2	
Barium	mg/kg		ND	2	
Cadmium	mg/kg		ND	2	
Chromium	mg/kg		ND	2	
Lead	mg/kg		ND	2	
Selenium	mg/kg		ND	2	
Silver	mg/kg		ND	2	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 501054266 501054274

Parameter	Units	Spike		Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup. % Rec	RPD	Footnotes
		501049290	Conc.						
Arsenic	mg/kg	6.506	50.00	50.13	87	49.32	86	2	
Barium	mg/kg	41.33	50.00	83.29	84	85.20	88	2	
Cadmium	mg/kg	0	5.000	4.091	82	3.990	80	2	
Chromium	mg/kg	13.89	50.00	58.10	88	59.05	90	2	
Lead	mg/kg	11.75	50.00	54.22	85	54.10	85	0	
Selenium	mg/kg	0.1798	50.00	42.29	84	41.31	82	2	
Silver	mg/kg	0	5.000	4.132	83	4.000	80	3	

LABORATORY CONTROL SAMPLE: 501054258

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Arsenic	mg/kg	50	50.17	100	
Barium	mg/kg	50	44.05	88	
Cadmium	mg/kg	5.000	5.074	101	
Chromium	mg/kg	50	48.72	97	

Date: 05/22/01

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**REPORT OF LABORATORY ANALYSIS**

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QUALITY CONTROL DATA

**Pace Analytical Services, Inc.**  
7726 Moller Road  
Indianapolis, IN 46268  
Phone: 317.875.5894  
Fax: 317.872.6189

Lab Project Number: 5014724  
Client Project ID: 88th RSC/1019-4IL

LABORATORY CONTROL SAMPLE: 501054258

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Lead	mg/kg	50	49.74	100	
Selenium	mg/kg	50	47.25	94	
Silver	mg/kg	5.000	4.435	89	

Date: 05/22/01

Page: 18

## REPORT OF LABORATORY ANALYSIS

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7726 Moller Road  
Indianapolis, IN 46268  
Phone: 317.875.5894  
Fax: 317.872.6189

Lab Project Number: 5014724  
Client Project ID: 88th RSC/1019-41L

---

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
RPD Relative Percent Difference  
(S) Surrogate

Date: 05/22/01

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## **REPORT OF LABORATORY ANALYSIS**

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**ATTACHMENT D**  
**GPS LOCATION DATA**

	<b>Site map coordinate</b>	<b>Latitude North (Degrees- Minutes)</b>	<b>Longitude West (Degrees- Minutes)</b>
<b>Property Boundary</b>	P01	38-31.736	89-07.362
	P02	38-31.813	89-07.357
	P03	38-31.813	89-07.418
	P04	38-31.740	89-07.421
<b>Reserve Center</b>	U01	38-31.778	89-07.392
	U02	38-31.789	89-07.391
	U03	38-31.792	89-07.388
	U04	38-31.790	89-07.376
	U05		
	U06	38-31.798	89-07.357
	U07	38-31.796	89-07.359
	U08	38-31.792	89-07.361
	U09	38-31.793	89-07.382
	U10	38-31.801	89-07.385
	U11	38-31.803	89-07.400
	U12	38-31.785	89-07.402
	U13		
	U14		
	U15	38-31.778	89-07.404
	U16	38-31.772	89-07.404
<b>Maintenance shop</b>	M01	38-31.775	89-07.371
	M02	38-31.781	89-07.358
	M03	38-31.763	89-07.354
	M04	38-31.772	89-07.373
<b>Oil/water Separator</b>	OWS-01	38-31.773	89-07.383
<b>Grit trap</b>	D-01	38-31.780	89-07.369

**Title V Determinations  
Illinois USARC Facilities**

*IL009 (Centralia, IL)*

**(Telephone Surveys)**

**Illinois USARC Facilities**

*Prepared for:*

Fort McCoy  
Environmental Management Division  
2160 South J Street  
Fort McCoy, Wisconsin 54656-5162

*Prepared by:*

WW Engineering & Science  
5555 Glenwood Hills Parkway SE  
Grand Rapids, Michigan 49588-0874

*November 1995*

91119

*Prepared by:*

*Brandon Mieras* *mrc*

Brandon Mieras, Air Engineer  
Air Quality Services

*Reviewed by:*

*Amy L. Dean*

Amy L. Dean, Project Scientist  
Air Quality Services

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2	Applicable AP-42 Emission Factors
3	Potential Lead Emissions from Firing Ranges
4	Potential Emissions for Illinois Phone Survey Facilities
5	Estimated Actual Emissions for Illinois Phone Survey Facilities
6	Estimated Actual Pb Emissions from Firing Ranges

### *Appendix*

Letters to USARCs

## EXECUTIVE SUMMARY

WW Engineering & Science, Inc. (WWES) was retained to determine the air emission status of selected US Army Reserve Centers (USARCs) located within the state of Illinois. The USARCs included in this phone survey were identified by Fort McCoy. An air emissions inventory, including emission calculations, was required to determine the emission status. The determination of emission status for each facility was carried out in two phases, as described in Sections 1.0 and 2.0 of this document.

Based upon information supplied by the individual facilities, WWES has concluded that no USARCs included in the phone survey project are required to obtain either a Title V operating permit under Illinois' Clean Air Act Permit Program (CAAPP) or a Federally Enforceable State Operating Permit. Additionally, it appears as though no state air permits are required. It is WWES' opinion that the firing ranges located at the various facilities may potentially require state air permits. However, according to Mr. Bob Bernoteit of Illinois Environmental Protection Agency (IEPA), firing ranges are not considered emission sources, and, therefore, do not require state air permits. This issue is being further pursued.

### 1.0 PHASE I

Phase I consisted of emission inventory surveys of each facility. These surveys were conducted through telephone communication between WWES representatives, Gail Walker and Wendi DenOuden, and, in general, the facility manager at each USARC. The surveys consisted of general questions identifying significant and applicable emission sources and activities at each facility, identifying unusual facility situations, and notifying appropriate Army personnel.

As instructed by Ft. McCoy Environmental Protection Specialist, Ms. Susan Herzog-Blumer, the following facilities and personnel were contacted for the survey:

- PFC R. Gantner USARC, Bellville, Illinois--Facility Manager Mr. Ted Mosier and Mr. Dave Jennings;
- Bloomington USARC, Bloomington, Illinois--Facility Manager Sgt. Hallendorf, Sgt. Caldwell, and Mr. Dave Jennings,
- Copple USARC, Centralia, Illinois--Facility Manager Mr. Robert Smith and Mr. Dave Jennings;

- North Park USARC, Chicago, Illinois--Facility Manager Mr. Roy McRae and Mr Gary Cox;
- Chapman USARC, Danville, Illinois--Facility Manager Mr. Bill Battle and Mr Dave Jennings;
- Dexter USARC, Decatur, Illinois--Facility Manager Mr. Arthur Demps and Mr Dave Jennings;
- Modrow USARC, East St. Louis, Illinois--Unit Administrator Mr. Harry Henderson, Facility Engineer Mr. Jim Jones, Facility Engineer Mr. Mark Golav, and Mr. Dave Jennings;
- Joliet LTA Tank Maintenance Bldg., Elwood, Illinois--Facility Manager Mr. Fred Miley, PSYOP Battalion Unit Administrator 1st Sgt. Kevin Greene, and Mr. Gary Cox;
- Walton USARC, Fairfield, Illinois--Facility Manager Charlie Vaughn, Unit Administrator Billie Penland, and Mr. Dave Jennings;
- Forest Park AFRC, Forest Park, Illinois--Facility Manager Mr. Doug Bixler and Mr. Dave Jennings;
- Glenview (Hangar 1) USAR, 1Lt Harold Goettler USARC, ASF 26, Glenview, Illinois--Commanding Officer SFC Finsen, Facility Manager Mr. Anthony Hannel, Mr. Dave Jennings, and Ms. Susan Herzog-Blumer;
- Granite City USARC, Granite City, Illinois--Unit Trainer Sgt. Caudell, Mr. Dave Jennings, and Ms. Susan Herzog-Blumer;
- Zega Bros. USARC, Harvey, Illinois--Facility Manager Ms. Angela Rhodehouse and Mr. Gary Cox;
- Vietnam Veterans Memorial, Homewood, Illinois--Facility Manager Mr. Norm Richter and Mr. Gary Cox;
- Louis Joliet AFRC, Joliet, Illinois--Facility Manager Mr. Mike Mulligan and Mr Gary Cox;
- Joliet USARC, Joliet, Illinois--Facility Manager Mr. Nathan Carroll and Mr. Gary Cox;
- Stefanich USARC, Stefanich AFRC, Kankakee, Illinois--Facility Manager Mr. Ben Gerdes;
- Wilson USARC, Marion, Illinois--Facility Manager Mr. Charlie Vaughn and Mr. Dave Jennings;

- Veterans Memorial USARC, Peru, Illinois--Facility Manager Mr. Frank Suarez and Mr Gary Cox;
- Lincoln-Douglas USARC, Quincy, Illinois--Facility Manager Mr. Wilbur Knotts and Mr. Dave Jennings;
- Fort Dearborn USARC, Rosemont, Illinois--Ms. Julie Hallman and Mr Gary Cox ;
- Savanna Army Depot USARC, Savanna, Illinois--Facility Manager Ms. Barbara Homan, Safety Manager Ms. Bridget Cottral, Environmental Manager Mr. John Clark, Mr. Dave Jennings, and Ms. Susan Herzog-Blumer;
- ASF #44, Scott AFB, Illinois--Facility Manager Ms. Cherie Toebben, Mr. Dave Jennings, and Ms. Susan Herzog-Blumer;
- O'Donnell USARC, Springfield, Illinois--Facility Manager MSG Park and Mr. Dave Jennings;
- Stephens USARC, Urbana, Illinois--Facility Manager Mr. Paul Reynolds and Mr Dave Jennings;
- Waukegan AFRC, Waukegan, Illinois--Facility Manager Mr. Mike Tortorici, Sgt. 1st Class Southern, and Mr. Gary Cox; and
- 1Lt. Albert J. Ellison USARC, Wood River, Illinois--Facility Manager Mr. Gary Miller and Mr. Dave Jennings.

Mr. Dave Jennings is the Environmental Manager for all USARCs under the 86th and 88th Command located in the state of Illinois. Mr. Jennings assisted with providing additional information regarding facility activities, combustion source ratings, and facility contact personnel. Mr. Gary Cox, the Maintenance Supervisor at the Schulstad USARC in Arlington Heights, Illinois, provided combustion source ratings for various sources located at the Illinois USARC facilities. Mr. Jennings and/or Mr. Cox were contacted concerning combustion source (boilers, water heaters, generators, etc.) rating information in instances where this information was not readily available from Army personnel at the USARC facilities.

Based on information resulting from the survey, WWES determined that the three Glenview Facilities, Granite City USARC, Savanna Army Depot USARC, and the ASF #44 at Scott AFB presented difficulty in identifying emission units, operations, and activities associated with the Army Reserves at each facility. It is WWES' understanding that, in each case, the Army Reserves lease only a small portion of the entire facility for their operations. Obtaining information relevant only to *Army Reserve* operations was nearly impossible. Consequently,

additional guidance was sought from Mr. Jennings and Ms. Herzog-Blumer. WWES was instructed to remove the four above-mentioned facilities from the initial list of USARCs requiring the emission inventory. The removal was due to either closure of a facility or the involvement of another contracted firm, therefore, making it unnecessary for WWES to pursue the matter further. *The remaining facilities will hereafter be referred to as the modified list.* The remaining facilities' associated emission units, activities, and operations were identified and applicable emission rates calculated for each. This information can be found in Section 2.0.

Upon the completion of each survey and subsequent emission calculations, a letter was sent to each facility manager summarizing the results, applicable requirements, and the status of each particular site. Copies of each letter have been included in this report as Appendix A.

## **2.0 PHASE II**

Phase II consisted of developing facility descriptions, calculating potential and estimated actual emissions, determining emission status, and investigating any associated permitting requirements pertaining to each facility.

### **2.1 FACILITY DESCRIPTIONS**

The facilities in the modified list are used primarily for administrative activities and reserve officer training. Some "very minor" vehicle maintenance is performed at the majority of the facilities. "Very minor" vehicle maintenance was described by Army Reserve personnel as being "mainly parts replacement with possible, but infrequent, oil changes". Based on information gathered from the Phase I survey, none of the facilities on the list were determined to be either Operation Maintenance Support (OMS) or Area Maintenance Support Activities (AMSA). Both OMS and AMSA facilities provide significantly more maintenance services than any of the facilities which are the subjects of the telephone survey. There are ten facilities on this modified list at which a firing range is either currently in operation or has the potential to be operated. A summary list of possible emission sources identified at each location during Phase I are provided in Table 1.

### **2.2 GENERAL PERMITTING REQUIREMENTS**

Potential emissions from combustion sources and firing ranges were calculated for each facility in the modified list. All other possible emission sources were determined to be fugitive in nature and, therefore, emissions were not calculated for these units, operations, or

activities. Although fugitive emissions of Hazardous Air Pollutants (HAPs) are required to be included in facility potential emission totals, WWES did not quantify and include these in the emission inventory. (Possible sources of fugitive HAP emissions at these facilities may include janitorial cleaning and the very minor vehicle maintenance.) Fugitive HAP emissions from these facilities are assumed to be negligible (based upon emission quantifications performed for larger facilities) and inclusion of these HAPs in the facility totals is not expected to affect the source emission status.

As defined in the Clean Air Act Amendments of 1990 (CAAA) and the Illinois CAAPP, potential emissions from an emission source must be based upon *continual operation* of the source (8,760 hours per year) at its *maximum rated capacity* unless federally enforceable conditions are accepted to limit operation. This is true even for a source that may be operated only a few times a year or not operated at all. This approach was followed for all point sources (combustion and firing range sources) at each facility. Once potential emissions were calculated for sources at each facility, the emissions of the various criteria pollutants and HAPs were totaled. A facility is classified as a major source and subject to Title V permitting requirements under the CAAPP if the *potential* emissions exceed any one of the major source thresholds. The major source thresholds are as follows, with information in brackets representing nonattainment area thresholds:

- 100 tons per year (tpy) of nitrogen oxides (NO<sub>x</sub>) [25 tpy (IEPA is currently petitioning US EPA to have this increased to 100 tpy)],
- 100 tpy of volatile organic material (VOM) [25 tpy];
- 100 tpy of carbon monoxide (CO);
- 100 tpy of sulfur dioxide (SO<sub>2</sub>);
- 100 tpy of particulate matter that is less than or equal to 10 microns in diameter (PM-10); and
- 10 tpy of a single HAP or 25 tpy of cumulative HAPs.

The following facilities (along with the respective county in which they are located) are classified as being in nonattainment areas:

- North Park USARC--Cook County
- Joliet LTA Tank Maintenance Building--Will County
- Forest Park AFRC--Cook County
- Zega Bros. USARC--Cook County

- Vietnam Veterans Memorial--Cook County
- Louis Joliet AFRC--Will County
- Joliet USARC--Will County
- Fort Dearborn USARC--Cook County
- Waukegan USARC--Lake County

## **2.3 DETERMINATION OF SOURCE EMISSION STATUS**

### **2.3.1 DETERMINATION OF POTENTIAL-TO-EMIT**

#### **2.3.1.1 Combustion Sources**

All combustion sources (such as boilers, furnaces, water heaters, etc.) were considered point sources of emissions. Potential to emit (PTE) calculations were made for all combustion sources for NO<sub>x</sub>, VOM, CO, SO<sub>2</sub>, and PM-10 based on emission factors obtained from US EPA's *Compilation of Air Pollution Emission Factors* (AP-42). These emission factors are included as Table 2. (For the purposes of estimating PM-10 emissions, it was conservatively assumed that 100% of all particulate emissions are PM-10.) Assumptions were made regarding source input ratings in instances where information was not available through Army Reserve personnel. In cases where the input rating was unavailable, it was assumed that a source's input rating was equivalent to the maximum input rating found at other USARC facilities for similar sources. This approach resulted in conservative emission estimates for combustion sources with unknown ratings. All PTE calculations for combustion sources were based on maximum operating capacity and 8,760 hours of operation per year.

#### **2.3.1.2 Firing Ranges**

Although it appears as though IEPA does not consider firing ranges to be sources of emissions, WWES did include these firing ranges in the emission inventory. (Refer to Section 2.5 for further information on this IEPA policy and WWES's position.)

Potential lead (Pb) emission calculations were made for all potentially usable firing ranges based on emission factors obtained from AP-42. All PTE calculations were based on 8,760 hours of operation. According to ARCOM personnel, the average number of firing stations available per range is five. The five-station average was used in calculating emissions from the firing ranges. This approach resulted in conservative emission estimates for firing range

sources. See Table 3 for more information regarding firing range potential emission calculations.

### **2.3.1.3 Potential Emission Totals and Source Status**

Facility totals for the potential emissions are located in Table 4. As can be seen from these totals, potential emissions for all facilities are below major source thresholds for all pollutants.

The paint spray guns that are located at some of the facilities have not been included in the potential emission calculations, since these facilities are not set up to use the spray guns. (It is WWES's understanding that these spray guns have never been used.) *WWES recommends that these spray guns be removed from the facilities.*

## **2.3.2 DETERMINATION OF ESTIMATED ACTUAL EMISSIONS**

### **2.3.2.1 Combustion Sources**

Estimated actual NO<sub>x</sub>, VOM, CO, SO<sub>2</sub>, and PM-10 emissions were calculated for all natural gas-fired combustion sources. WWES estimated the combustion sources to operate eight out of twelve months per year and at 75% capacity. In addition, AP-42 emission factors were used to estimate the actual emissions. See Table 5 for these calculations.

### **2.3.2.2 Firing Ranges**

Estimated actual Pb emissions were calculated for all firing ranges currently in use. These emissions were based upon an operating schedule of six hours per day, four days per month, twelve months per year resulting in a total of 288 hours per year. This estimated operating schedule was provided by Army Reserve personnel. AP-42 emission factors were used to estimate the actual emissions. A firing range with five stations was used as a conservative estimate for calculating these emissions. See Table 6 for these calculations.

### **2.3.2.3 Estimated Actual Emission Totals and Source Status**

Facility totals for the estimated actual emissions can be found in Table 5. As can be seen from these totals, the estimated actual emissions are well below all major source thresholds.

## **2.4 TITLE V PERMITTING STRATEGY FOR FACILITY**

### **2.4.1 TYPE OF PERMIT REQUIRED**

As shown in Sections 3.3.1.3 and 3.32.3, all listed facilities have potential and estimated actual emissions below all major source thresholds. Based on potential emission calculations, WWES determined that not one facility on the modified list can be classified as a major source. Therefore, the facilities are not subject to Title V permitting requirements under the CAAPP. Furthermore, since potential emissions are below major source thresholds, there is no need to obtain a FESOP to restrict potential emissions below these thresholds.

### **2.4.2 CURRENT REQUIREMENTS**

At a minimum, the facilities should maintain accurate fuel consumption and material usage records on a monthly and annual basis. It is not expected that the facilities will be required to track hours of operation, but recording this information may be useful.

Even though some of the facilities possess paint spray guns in the maintenance and storage buildings, they were not included in the potential emission calculations (the facilities are not set up for use of these guns and they have never been used). *It is WWES' recommendation that the spray guns be removed from the sites.*

### **2.4.3 FUTURE REQUIREMENTS**

Prior to any significant modifications to existing sources or addition of new sources (including increases in maintenance operations), it should be determined if a facility's emission status would be changed and if any possible permitting requirements are associated with these changes. (Modifications or additions of new equipment may also require construction and operation permitting at the state level.) Modifications and/or new permits should be applied for and obtained from IEPA before making changes at any facility.

## **2.5 STATE PERMITTING REQUIREMENTS**

It appears as though none of the facilities is subject to state permitting requirements. The only exception to this, however, *may* be the facilities with firing ranges. IEPA does not currently require permits for firing ranges because they are not considered emission sources according to Mr. Bernoteit of IEPA. WWES is further pursuing this issue during the application review period for another base, which is not part of this telephone emission inventory project.

Table 1  
Phone Emission Survey for Illinois USARC Facilities

Facility Name	Facility Location	Natural Gas Heat	A/C	Water Heater	Heavy Equipment	Painting	Chemical Storage	Firing Range	Welding	Generator	Parts Washer	Metal Works	Misc.
PFC R. Ganier	Belleville	1.6 MMBtu/hr	yes	yes	trucks	brush	vehicle/paint		yes	3 @ 3kw	yes		
Bloomington	Bloomington	1.1 MMBtu/hr	yes	yes	trucks	brush	paint	usable [2]		3 kw			
North Park	Bryn Mawr	1.5 MMBtu/hr	yes	yes	trucks	brush	vehicle		yes	1.5-3kw			
Copple	Centralia	3.0 MMBtu/hr	yes	yes									
Chapman	Danville	2.1 MMBtu/hr	yes	yes		brush	vehicle	usable [2]		1-5kw			
Dexter	Decatur	1.9 MMBtu/hr		yes		brush	yes			3kw			
Modrow	E. St. Louis	2.0 MMBtu/hr	yes	yes		brush	vehicle/paint			3-10 kw			
Walton	Fairfield	0.6 MMBtu/hr	yes	yes	trucks	brush	vehicle						
Forest Park	Forest Park	8.4 MMBtu/hr	yes	yes	trucks	brush				<10 kw			
Zega Bros.	Harvey	1.5 MMBtu/hr		yes	yes	brush	vehicle	usable [3]	yes	1.5-15 kw	yes		
Vietnam Vet. Mem.	Homewood	3.3 MMBtu/hr	yes	yes	trucks	brush	vehicle			3-15 kw			
Joliet LTA [5]	Elwood	<10 MMBtu/hr	yes	yes									
Joliet USARC	Joliet	Electric	yes	yes	trucks	brush	vehicle		yes	yes	yes		
Joliet AFRC	Joliet	7.6 MMBtu/hr	yes	yes		brush	vehicle	usable [3]	yes	yes			
Stefanich	Kankakee	<10 MMBtu/hr	yes	yes	yes	brush [1]	vehicle/paint	usable [3]	yes		on order	ordered	UST
Wilson	Marion	1.6 MMBtu/hr	yes	yes	trucks	brush	paint	in use		5kw			
Veterans Mem.	Peru	2.2 MMBtu/hr	yes	yes		brush	vehicle	usable [2]					
Lincoln-Douglas	Quincy	2.1 MMBtu/hr	yes	yes			vehicle						
Ft. Dearborn	Rosemont	1.8 MMBtu/hr	yes	yes	trucks		vehicle	usable [3]		3-5kw			
O'Donnell	Springfield	1.6 MMBtu/hr	yes	yes	trucks	brush [1]	vehicle/paint	in use		3-5kw	yes		
Stephens [6]	Urbana	0.9 MMBtu/hr	yes	elec	trucks	brush	vehicle/paint	in use	yes	comb. eng.	yes	grinding	Oil UST
		0.2 MMBtu/hr											
Waukegan	Waukegan	2.4 MMBtu/hr	yes	yes		brush	paint						
Ill. A.J. Ellison	Wood River	3.3 MMBtu/hr	yes	yes	trucks	brush [1]	vehicle/paint		yes	5-60 kw	yes	degrease	dryers[4]

[1] This facility has a spray gun as part of a tool set, however, the facility does not have the capability to use it.

[2] The firing range is usable; however, it is closed pending OSHA approval.

[3] The firing range is usable, but it is not currently in use. The facility is used for storage.

[4] These are for drying clothing.

[5] The PSYOP Battalion from Arlington Heights will be moving here. At the time of the survey, no operations were being performed here.

[6] This facility utilizes a No. 1 Fuel Oil boiler for comfort heating.

Table 2  
Applicable AP-42 Emission Factors

Source	Rating	CO	NOx	PM	SO2	VOC	Units	Source
Natural Gas Combustion	0.3-10 MMBtu/hr	21 lb/MMcf	100 lb/MMcf	12 lb/MMcf	0.6 lb/MMcf	8 lb/MMcf		AP-42 Table 1.4-2, 1/95
No. 1 Fuel Oil Combustion	Commercial	5 lb/10 <sup>3</sup> gal	20 lb/10 <sup>3</sup> gal	2 lb/10 <sup>3</sup> gal	0.26 lb/10 <sup>3</sup> gal	0.2 lb/MMcf		AP-42 Table 1.3-2, 1/95

Source	Rating	Pb	Units	Source
Explosives Detonation-Small Arms	Not Applicable	>6 mg/158 gr		AP-42 Table 13.3-1

**Table 3**  
**Potential Lead Emissions From Firing Ranges**

No. of Stations	Maximum Usage[1] (rounds/yr)	Maximum Possible Lead Content (mg/round)	Maximum Possible Lead Emissions (lbs/yr)	% of Lead Emitted [3] (%)	Lead Emissions (tpy)
1	7.88E+06	6	104	50%	0.03
2	1.58E+07	6	209	50%	0.05
3	2.37E+07	6	313	50%	0.08
4	3.15E+07	6	417	50%	0.10
5	3.94E+07	6	521	50%	0.13

- [1] A firing rate of 30 rounds per minute was provided by USARCOM personnel. Usage information was estimated assuming that for every minute of firing time used, an equal minute would be used for reloading the gun. Therefore, 50% of an hour is used for reloading. Potential range usage was estimated to be 24 hours/day, 365 days/year = 8760 hr/year.
- [2] Based on information provided by ARCOM personnel, the caliber ratings of guns used in the firing range are 0.22, 0.45, and 9mm. Average grain weight for each caliber type are as follows:  
0.22 = 35 grains, 0.45 = 150 grains, 9mm = 120 grains.  
To determine the maximum lead content per bullet type, the 0.45 rating was used as a conservative estimate. Information regarding lead content in small arms was found in AP-42, Table 13.3-1.  
It is suggested that > 6 mg of lead can be found in a 158 grain projectile. A lead content of 6 mg was estimated for the 0.45 caliber bullet used in the calculation of lead emissions from firing ranges.
- [3] It has been assumed that 50% of the lead emissions remain in the confines of the range. The other 50% are conservatively assumed to have escaped through the filtration and ventilation system.

**Table 4**  
**Potential Emissions for Illinois Phone Survey Facilities**

Location	Total Source Input Rating (MMBtu/hr)	Potential Emissions (tpy)					
		CO	NOx	PM	SO2	VOM	HAP[4]
Belleville	1.64	0.14	0.68	0.08	0.00	0.05	
Bloomington	1.13	0.10	0.47	0.06	0.00	0.04	0.43
Centralia	2.96	0.26	1.24	0.15	0.01	0.10	
Bryn Mawr [1]	1.50	0.13	0.63	0.08	0.00	0.05	
Danville	2.12	0.19	0.88	0.11	0.01	0.07	0.43
Decatur	1.93	0.17	0.80	0.10	0.00	0.06	
E. St.Louis	2.03	0.18	0.85	0.10	0.01	0.07	
Fairfield	0.64	0.06	0.27	0.03	0.00	0.02	
Forest Park	8.37	0.73	3.49	0.42	0.02	0.28	
Harvey [1]	1.45	0.13	0.60	0.07	0.00	0.05	0.43
Homewood [1]	3.33	0.29	1.39	0.17	0.01	0.11	
JolietMcD St. [1]	7.58	0.66	3.16	0.38	0.02	0.25	0.43
Joliet LTA [2]	10.00	0.88	4.17	0.50	0.03	0.33	
Kankakee [2]	10.00	0.88	4.17	0.50	0.03	0.33	0.43
Marion	1.56	0.14	0.65	0.08	0.00	0.05	0.43
Peru [1]	2.13	0.19	0.89	0.11	0.01	0.07	0.43
Quincy	2.14	0.19	0.89	0.11	0.01	0.07	
Rosemont [1]	1.84	0.16	0.77	0.09	0.00	0.06	0.43
Springfield	1.57	0.14	0.66	0.08	0.00	0.05	0.43
Urbana [3]	0.90	0.14	0.56	0.06	0.01	0.01	0.43
Urbana	0.16	0.01	0.07	0.01	0.00	0.01	
Waukeegan [1]	2.40	0.21	1.00	0.12	0.01	0.08	
Wood River	1.81	0.16	0.75	0.09	0.00	0.06	

- [1] The heat source input ratings were conservatively determined by increasing the output ratings provided by ARCOM Engineering personnel at Arlington Heights) by 25%.
- [2] Heat source input ratings were not available for this facility The total rating for the facility was conservatively estimated to be 10.0 MMBtu/hr.
- [3] The fuel used for this boiler is No. 1 Fuel Oil.
- [4] HAPs were determined from lead emissions from the firing ranges located at these facilities.

**Table 5**  
**Estimated Actual Emissions for Illinois Phone Survey Facilities**

Location	Total Source Input Rating (MMBtu/hr)	Estimated Actual Emissions (tpy)					
		CO	NO <sub>x</sub>	PM	SO <sub>2</sub>	VOM	HAP[4]
Belleville	1.64	0.07	0.34	0.04	0.00	0.03	
Bloomington	1.13	0.05	0.24	0.03	0.00	0.02	0.01
Centralia	2.96	0.13	0.62	0.07	0.00	0.05	
Bryn Mawr [1]	1.50	0.07	0.31	0.04	0.00	0.03	
Danville	2.12	0.09	0.44	0.05	0.00	0.04	0.01
Decatur	1.93	0.08	0.40	0.05	0.00	0.03	
E. St.Louis	2.03	0.09	0.42	0.05	0.00	0.03	
Fairfield	0.64	0.03	0.13	0.02	0.00	0.01	
Forest Park	8.37	0.37	1.75	0.21	0.01	0.14	
Harvey [1]	1.45	0.06	0.30	0.04	0.00	0.02	0.01
Homewood [1]	3.33	0.15	0.69	0.08	0.00	0.06	
JolietMcD St. [1]	7.58	0.33	1.58	0.19	0.01	0.13	0.01
Joliet LTA [2]	10.00	0.44	2.09	0.25	0.01	0.17	
Kankakee [2]	10.00	0.44	2.09	0.25	0.01	0.17	0.01
Marion	1.56	0.07	0.33	0.04	0.00	0.03	0.01
Peru [1]	2.13	0.09	0.44	0.05	0.00	0.04	0.01
Quincy	2.14	0.09	0.45	0.05	0.00	0.04	
Rosemont [1]	1.84	0.08	0.38	0.05	0.00	0.03	0.01
Springfield	1.57	0.07	0.33	0.04	0.00	0.03	0.01
Urbana [3]	0.90	0.07	0.28	0.03	0.00	0.00	0.01
Urbana	0.16	0.01	0.03	0.00	0.00	0.00	
Waukeegan [1]	2.40	0.11	0.50	0.06	0.00	0.04	
Wood River	1.81	0.08	0.38	0.05	0.00	0.03	

- [1] The heat source input ratings were conservatively determined by increasing the output ratings (provided by ARCOM Engineering Personnel at Arlington Heights) by 25%.
- [2] Heat source input ratings were not available for this facility. The total rating for the facility was conservatively estimated to be <10 MMBtu/hr
- [3] The fuel used for this boiler is #1 oil.
- [4] HAPs were determined from lead emissions from the firing ranges located at these facilities.

**Table 6**  
**Estimated Actual Pb Emissions From Firing Ranges**

No. of Stations	Maximum Usage[1] (rounds/yr)	Maximum Possible Lead Content (mg/round)	Maximum Possible Lead Emissions (lbs/yr)	% of Lead Emitted (%)	Lead Emissions (tpy)
1	2.59E+05	6	3	50%	0.001
2	5.18E+05	6	7	50%	0.002
3	7.78E+05	6	10	50%	0.003
4	1.04E+06	6	14	50%	0.003
5	1.30E+06	6	17	50%	0.004

- [1] A firing rate of 30 rounds per minute was provided by USARCOM personnel. Usage information was estimated assuming that for every minute of firing time used, an equal minute would be used for reloading the gun. Therefore, 50% of an hour is used for reloading. Actual range usage was estimated to be 6hrs/day, 4 days/month, 12 months/yr = 288 hours/year.
- [2] Based on information provided by ARCOM personnel, the caliber ratings of guns used in the firing range are 0.22, 0.45, and 9mm. Average grain weight for each caliber type are as follows:  
0.22 = 35 grains, 0.45 = 150 grains, 9mm = 120 grains.  
To determine the max. lead content per bullet type, the 0.45 rating was used as a conservative estimate. Information regarding lead content in small arms was found in AP-42, Table 13.3-1. It is suggested that > 6 mg of lead can be found in a 158 grain projectile. A lead content of 6 mg was estimated for the 0.45 caliber bullet used in the calculation of lead emissions from firing ranges.
- [3] It has been assumed that 50% of the lead emissions remain in the confines of the range. The other 50% are conservatively assumed to have escaped through the filtration and ventilation system.



Commander 88th Regional Support Command

Mr. Jennings

November 6, 1995

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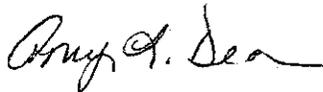
WWES has completed the emission inventory based upon information provided by the facility. Based upon the outcome of this study, it appears as though potential emissions are below applicable major source thresholds. Therefore, the Copple USARC is not required to obtain either a Title V operating permit or a FESOP. Additionally, it appears as though no state air permits are required.

Prior to any significant modifications to existing emission sources or addition of new sources, Copple USARC should determine how such changes may affect permitting requirements. Copple USARC should also maintain records of fuel usage.

Additional data regarding the emission inventory survey and emission calculations can be obtained from Ft. McCoy Environmental Protection Specialist, Ms. Susan Herzog-Blumer, at (608) 388-4791, or WWES Project Manager, Ms. Amy Dean, at (616) 940-4439.

Sincerely,

WW ENGINEERING & SCIENCE  
Air Quality Services



Amy L. Dean  
Project Air Quality Scientist

# USAR FACILITY

ECAS REPORT

for the

SFC EARL L. COPPLE USARC  
CENTRALIA, IL

Prepared by the  
416<sup>TH</sup> FET  
PEORIA FET

Performed on  
18 APRIL 1997

Prepared on  
18 APRIL 1997

*Completed: 18 April 97*  
*Received: 29 July 97*

INSTALLATION SCREEN

\*FFID: IL-2104IL009

\*Installation Name: SFC E L COPPLE USARC

Installation Category: R

MACOM: USARC

MUSARC:

BASOPS ARCOM: 88 TH RSC

Support Installation: FORT LEONARD WOOD

Facility / Activity Type: 1) RM 2) OM 3) 4) 5)

EPA Region: 5

Congressional District:

Address: 904 E.MARTIN LUTHER KING DR.

City: CENTRALIA

State: IL

Country: USA

Zip Code: 62801-3058

ASSESSMENT SCREEN

\*Fiscal Year: 1997                      \*Assessment Date (MM/DD/YYYY): 04/18/1997  
\*Assessment Type: E  
\*Manual Used: T

Manual Supplement Used:

Local Manual (OCONUS: MACOM Specific Manual)  
Date (MM/YYYY): /  
Author:  
Title:

State Manual (OCONUS: Country Specific Manual)  
Date (MM/YYYY): /  
Author:  
State Postal Code or Country Code:

\*Assessor Name: PEORIA FET, ESG-N, 416TH ENGINEERS  
Point of Contact: MAJ KEN GOERING

Address: 6985 80TH AVE

City: AGENCY  
State: IA  
Zip Code: 52530-8066  
Phone: (515)937-5451

For Contract ECAS

Contract Number:  
Delivery Order Number:

Contracting Office:



ENGINEER SUPPORT GROUP NORTH

HM.1.2 #1 I FEDERAL FINDING

Hazardous Materials

FINDING ID: IL009-9701

MANUAL QUESTION NUMBER: HM-001-002

FINDING CATEGORY: CLASS I

FINDING TYPE: Negative

EXISTING NOV: NO

LOCATION: ADMINISTRATIVE

IFS FACILITY NUMBER:

FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: Material Safety Data Sheets were not available or items found in facility such as Spray adhesive (NSN 8040-00-938-6860), alcohol glass cleaner (NSN 7930-00-664-6909), ether starting fluid, Breakfree, trichlorethane, etc.

CRITERIA: Installations/CW facilities are required to have on file a MSDS for each hazardous chemical stored and used at the installation/CW facility (29 CFR 910.1200(b)(3)(ii), 1910.1200(b)(4)(ii), 1910.1200(b)(6), 1910.1200(g)(1), and 1910.1200(g)(8)).

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): Establish a separate MSDS binder with ready access to unit personnel. Suggested location would be the facility manager/coordinator's office. Provide cross references by name sort and numerical NSN sort to aid quick location of needed MSDS.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

1) CORRECTIVE ACTION (CA)

SELECTED: \_\_\_\_\_

2) CURRENT STATUS OF THE CA: \_\_\_\_\_

3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_

EXPLAIN: \_\_\_\_\_

4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_

5) REVIEWER'S

REMARKS: \_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_

DATE: \_\_\_\_\_

CENTRALIA, IL  
IL009

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18 APR 97

HM.1.3 #1 | FEDERAL FINDING

Hazardous Materials

FINDING ID: IL009-9702

MANUAL QUESTION NUMBER: HM-001-003

FINDING CATEGORY: CLASS I

FINDING TYPE: Negative                      EXISTING NOV: NO

LOCATION: OLD KITCHEN, SUPPLY ROOM, CUSTODIAL CLOSET

IFS FACILITY NUMBER:

FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: Containers must be labeled for materials. Container with yellow-orange material found under the sink in the storage/kitchen area which may have been liquid soap. A unlabeled sprayer bottles with blue liquid (glass cleaner ?) and one with yellow material. Custodian closet had 2 clear bottles with blue liquid. If not labeled then material is assumed to be hazardous.

CRITERIA: Containers of hazardous chemicals in the workplace are required to be labeled, tagged, or marked with specific information (29 CFR 1910.1200(b)(3)(i), 1910.1200(b)(4)(i), 1910.1200(b)(5), and 1910.1200(f)(5) through 1910.1200(f)(7)).

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): Label material removed from labeled source container with the name as a minimum. Mark with NSN if NSN item. Assure that MSDS is on file for item.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

1) CORRECTIVE ACTION (CA)

SELECTED: \_\_\_\_\_  
\_\_\_\_\_

2) CURRENT STATUS OF THE CA: \_\_\_\_\_

3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_  
EXPLAIN: \_\_\_\_\_  
\_\_\_\_\_

4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_

5) REVIEWER'S  
REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_ DATE: \_\_\_\_\_

HM.1.3.R #1 HS GMP FINDING

Hazardous Materials

FINDING ID: IL009-9703

MANUAL QUESTION NUMBER: HM-001-003-R

FINDING CATEGORY: HEALTH/SAFETY

FINDING TYPE: Negative

EXISTING NOV: NO

LOCATION: ADMINISTRATION

IFS FACILITY NUMBER:

FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: No record of current coordination with local fire department as to what and where potential hazardous materials are stored.

CRITERIA: The facility should coordinate with the responding fire department concerning the types of hazardous chemicals used at the facility, the areas where they are used, what they are used for, and the quantities used in a given operation (MP).

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): Send letter to local fire department with site and building floor plans that have designated areas marked where potential hazardous materials are stored. Provide list with usual quantities and type of materials stored at designated locations. Update list annually and forward to fire department with emergency Point of Contacts.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

1) CORRECTIVE ACTION (CA)

SELECTED: \_\_\_\_\_

2) CURRENT STATUS OF THE CA: \_\_\_\_\_

3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_

EXPLAIN: \_\_\_\_\_

4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_

5) REVIEWER'S

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_ DATE: \_\_\_\_\_

ENGINEER SUPPORT GROUP NORTH

HM.10.2 #1 HS FEDERAL FINDING

Hazardous Materials

FINDING ID: IL009-9706

MANUAL QUESTION NUMBER: HM-010-002

FINDING CATEGORY: HEALTH/SAFETY

FINDING TYPE: Negative EXISTING NOV: NO

LOCATION: FACILITY STORAGE ROOM

IFS FACILITY NUMBER:

FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: Two cans of 1-1-1 Trichloroethane solvent (Controlled substance Group 5) were found in facility storage room but no training records found on precautions needed for use. Please note that rag wipe cleaning operations with 1-1-1 TriChlor are not included in the restrictions under degreasing operations covered in the Clean Air Act and thus can be used for minor degreasing of small parts.

CRITERIA: Personnel working with hazardous materials are required to be trained in their use and the potential hazards of such materials (29 CFR 1910.1200(b)(3)(iii), 1910.1200(b)(4)(iii), 1910.1200(b)(6), and 1910.1200(h)).

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): If aerosol 1-1-1 Trichloroethane is needed then provide a one page training guide listing where it can be used safely and train user(s) and document. If material is not needed then excess material.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

1) CORRECTIVE ACTION (CA)

SELECTED: \_\_\_\_\_

2) CURRENT STATUS OF THE CA: \_\_\_\_\_

3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_

EXPLAIN: \_\_\_\_\_

4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_

5) REVIEWER'S

REMARKS: \_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_

DATE: \_\_\_\_\_

CENTRALIA, IL  
IL009

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ENGINEER SUPPORT GROUP NORTH

HM.35.4 #1 HS FEDERAL FINDING

Hazardous Materials

FINDING ID: IL009-9704

MANUAL QUESTION NUMBER: HM-035-004

FINDING CATEGORY: HEALTH/SAFETY

FINDING TYPE: Negative EXISTING NOV: NO

LOCATION: OLD KITCHEN, CHAIR STORAGE ROOM, ADMIN AREA, OMS

IFS FACILITY NUMBER:

FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: Flammable materials need to be stored in proper storage containers. Four cans of aerosol spray paint containers were found in desk in Operations, aerosol paint was also found in 435th office, facility records file cabinet, and in the OMS tool box. Ether starting fluid was found in the chair storage room. About one pint of charcoal lighter fluid "GulfLite" and combustible alcohol based glass cleaner were in the old kitchen. Spray adhesive (NSN 8040-00-938-6860) was in the OMS wall locker.

CRITERIA: Storage cabinets used for the storage of flammable/combustible liquids must meet specific requirements (29 CFR 1910.106(d)(3)) [April 1995].

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): Obtain flammable storage cabinets for OMS and for USAR Center. Keep touch-up paint aerosols and other flammable materials required to support mission segregated within these cabinets. Turn in any materials no longer required to DRMO.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

1) CORRECTIVE ACTION (CA)

SELECTED: \_\_\_\_\_

2) CURRENT STATUS OF THE CA: \_\_\_\_\_

3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_

EXPLAIN: \_\_\_\_\_

4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_

5) REVIEWER'S

REMARKS: \_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_

DATE: \_\_\_\_\_

CENTRALIA, IL  
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ENGINEER SUPPORT GROUP NORTH

HM.50.11 #1 HS FEDERAL FINDING      Hazardous Materials

FINDING ID: IL009-9705  
MANUAL QUESTION NUMBER: HM-050-011  
FINDING CATEGORY: HEALTH/SAFETY  
FINDING TYPE: Negative      EXISTING NOV: NO  
LOCATION: ADMINISTRATION  
IFS FACILITY NUMBER:  
FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: Training records had no record of any hazardous material training within the last 2 years.

CRITERIA: Installation/CW facilities must meet specific requirements regarding training schedules (49 CFR 172.704 (c)(1) through 172.704 (c)(3)).

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): Assure that a Point of Contact at the reserve center is trained in hazardous materials and hazardous waste and maintain refresher training at a minimum of once every 2 years. Maintain training records. Recommend that the facility manager or facility coordinator be the HAZ-MAT POC.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

- 1) CORRECTIVE ACTION (CA) SELECTED: \_\_\_\_\_
- 2) CURRENT STATUS OF THE CA: \_\_\_\_\_
- 3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_  
EXPLAIN: \_\_\_\_\_
- 4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_
- 5) REVIEWER'S REMARKS: \_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_ DATE: \_\_\_\_\_

ENGINEER SUPPORT GROUP NORTH

NR.20.1 #1 POSITIVE FEDERAL FINDING      Natural Resource

FINDING ID: IL009-9708

MANUAL QUESTION NUMBER: NR-020-001

FINDING CATEGORY: POSITIVE

FINDING TYPE: Positive                      EXISTING NOV: NO

LOCATION: ADMINISTRATIVE

IFS FACILITY NUMBER:

FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: Unit has sent request to state of Illinois requesting information on any possible endangered species for this area.

CRITERIA: Installations/CW facilities with Federally designated endangered and threatened species must carry out programs for their conservation (50 CFR 402.01 (a), 402.10, and 402.12).

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): Positive finding. Continue to maintain environmental files to document what has been done.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

1) CORRECTIVE ACTION (CA)

SELECTED: \_\_\_\_\_

2) CURRENT STATUS OF THE CA: \_\_\_\_\_

3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_

EXPLAIN: \_\_\_\_\_

4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_

5) REVIEWER'S

REMARKS: \_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_ DATE: \_\_\_\_\_

ENGINEER SUPPORT GROUP NORTH

PO.5.4.R #1 III ARMY/DOD FINDING POL

FINDING ID: IL009-9707

MANUAL QUESTION NUMBER: PO-005-004-R

FINDING CATEGORY: CLASS III

FINDING TYPE: Negative EXISTING NOV: NO

LOCATION: ADMINISTRATION

IFS FACILITY NUMBER:

FACILITY TYPE: USARC(MB) - U.S. ARMY RESERVE CENTER - MAIN BLDG

FINDING DESCRIPTION: The Spill Contingency Plan (ISCP) POC's were not current.

CRITERIA: The ISCP is required to be updated every 3 yr and approved by a professional engineer (AR 200-1, para 8-5d(1)).

FINDING COMMENTS:

SUGGESTED/ALTERNATIVE CORRECTIVE ACTION(S): Review ISCP update whenever there is changes. Assure that ISCP has been reviewed within three years. Recommend annual review when reviewing hazardous waste and hazardous materials. Provide date and who has reviewed document. Pen & ink changes with review date on current ISCP should be sufficient.

STATUS OF CORRECTION:

\*\*\*\*\* INSTALLATION'S RESPONSE: \*\*\*\*\*

1) CORRECTIVE ACTION (CA)

SELECTED: \_\_\_\_\_

2) CURRENT STATUS OF THE CA: \_\_\_\_\_

3) ARE ADDED DETAILS OR COST DATA NEEDED TO DESCRIBE THIS CA?: Y\_\_ N\_\_

EXPLAIN: \_\_\_\_\_

4) ESTIMATED COMPLETION DATE FOR CA: \_\_\_\_\_

5) REVIEWER'S

REMARKS: \_\_\_\_\_

NAME/OFFICE/PHONE: \_\_\_\_\_ DATE: \_\_\_\_\_

DEPARTMENT OF THE ARMY  
88<sup>TH</sup> REGIONAL SUPPORT COMMAND  
CUSTOMER SUPPORT TEAM (CST), SOUTHERN ILLINOIS  
100 ANDERSON AVENUE  
WOOD RIVER, ILLINOIS 62095-1296

AFRC-CMN-EN-IL (200-1a)

1 Nov. 1998  
S: 12 Dec. 1998

MEMORANDUM FOR Commander, 88<sup>th</sup> RSC, ATTN: AFRC-CMN-EN (Mr. Mark Buck), 506  
Roeder Circle, Fort Snelling, MN 55111-4009

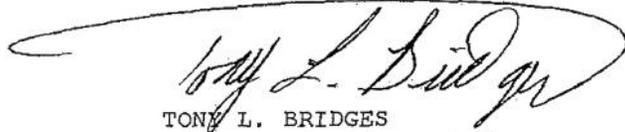
SUBJECT: Internal Compliance Assessment (ICAS), for Copple USARC (IL009),  
904 E. Martin Luther King Drive, Centralia, IL. 62801

1. The undersigned visited the subject facility 29 October 1998, to accomplish an ICAS. The building is government owned and government operated. The 476<sup>th</sup> Replacement Company and the 735<sup>th</sup> Replacement Company reside at this facility. The following issues were based upon a walk through of the facility and discussions with the SGT. Brad Smith. The Facility Manager, Mr. Wayne Smith was not present and canceled out the meeting for this scheduled date. Nonetheless, the ICAS was just as effective due to SGT. Brad Smith accompanying efforts.
2. The number one concern associated with the Units and the facility is the expired paints found on site. A waste inventory was not immediately available for the paints, but the undersigned produced a paint inventory for the non-operational OMS. Other hazardous waste inventories need to be ascertained for the two small storage cage areas in the facility and shall be forwarded to the undersigned NLT 12 Dec. 1998. NOTE: These are exactly the same findings as last year. Once the undersigned receives a complete hazardous waste inventory for the storage areas, it will be forwarded to the 88<sup>th</sup> RSC Environmental Section to implement the funding process. NBC items are suspect of being a hazardous waste. Other items that have exceeded their shelf life may also be suspect, but not much is expected to be produced from this center. Negative reports are still required to be forwarded. Also the facility is a CESQG.  
All paints found within the OMS should be moved to the facility because the OMS is not heated on a continual basis. If the paint freezes or gets too cold, it will be rendered useless and add additional cost for disposal that is unnecessary.
3. A current hazardous materials inventory was not immediately available for viewing. Inventories are the basis of any environmental program. Inventories justify your generator status, as well provides a baseline for training requirements, hazardous waste turn-ins, pollution prevention measures, etc. Hazardous materials (HM) inventories shall be completed as materials are received at the facility. Per AR200-5 "DRAFT" Hazardous Waste Management Plan, HM inventories are required to be completed 1/4ly.
4. A master copy of all Material Safety Data Sheets (MSDS) for each hazardous material on site shall be available for viewing. MSDS shall be made readily available for immediate access by anyone where hazardous materials are stored. No MSDS were observed within the OMS or facility.

5. Hazardous materials were observed in the cage areas. This material should be stored appropriately in approved hazardous materials storage cabinets. Recommend returning the hazardous material to the appropriate storage area at the end of the day. This is a good management practice as well will assist in keeping a clean and orderly site. Please requisition at least two full size hazardous materials storage cabinets through the DCSLOG POC, Mr. Richard Robinson.

6. No other significant concerns were noted with this assessment.

7. The undersigned is available for assistance on any environmental concern or if there are questions please contact the undersigned @ (618) 254-1075 ext. 14, fax -0192, e-mail <BridgesTO@USARC-EMH2.Army.Mil>.



TONY L. BRIDGES  
Illinois Environmental  
Manager (REMSA, Inc.)  
Supporting the 88<sup>th</sup> RSC

Cf:

Facility Manager, Mr. Smith  
Unit Commander's 476<sup>th</sup> & 735<sup>th</sup> Replacement Companies  
88<sup>th</sup> RSC Environmental Div. Chief, Mr. Mark Buck  
88<sup>th</sup> RSC ICAS Coordinator, Mr. Charles Skerjance

Internal Compliance Assessment			
Facility Name: <i>Coppie USARC (E1009)</i>	Date:		
FINDING <i>Marion, FL</i>	YES, NO, N/A	On site correction	Send to facility
<b>Air Quality</b>			
Does the facility have a copy of the air emissions survey?	<i>N/A</i>		<i>X</i>
Air permit?	<i>N/A</i>		
Complaint record for Air Pollution? Complaints?	<i>N/A</i>		
Is the Facility in a non-attainment region?	<i>NO</i>		
Solvent lids closed?	<i>N/A</i>		
Firing range cleaning?	<i>N/A</i>		
Vehicle painting? Aerosal paint cans?	<i>N/A</i>		
<b>Cultural Resource Management</b>			
Does facility have a cultural resource management plan?	<i>NO</i>		
Any historic property, grave sites, etc?	<i>NO</i>		
<b>Hazardous Materials Management</b>			
Quarterly inventory of hazardous materials?	<i>NO</i>		
MSDS's on file and readily accessible?	<i>Yes</i>		
Spill kits where material is stored/used?	<i>Yes</i>		
Are containers in good shape and labeled?	<i>Yes</i>		
Stored properly (Compatibility)?	<i>Yes</i>		
Flammable material stored properly?	<del>NO</del>		
Copy of Hazardous Material/Waste Management Plan?	<i>Yes</i>		
Copy of Hazardous Communications Plan?	<i>NO</i>		
Copy of AR 200-1 and 200-2?	<i>NO</i>		
<b>Hazardous Waste Management</b>			
Hazardous Waste Inventory	<i>N/A</i>		
EPA Generator ID number?	<i>Yes</i>		
Copies of hazardous waste manifests?	<i>Yes</i>		
Documentation of medical waste?	<i>N/A</i>		
Training records?	<i>Yes</i>		
Hazardous waste containers labeled properly? <del>NO</del>	<i>N/A</i>		
Spill kits available? # of kits? For transportation?	<i>Yes/No</i>		
Does facility need spill kit replenishments? Disposal?	<i>NO</i>		
Batteries properly stored?	<i>Yes</i>		
Antifreeze recycler?	<i>N/A</i>		
Have/need oil filter crusher?	<i>N/A</i>		
Contract for rag disposal?	<i>N/A</i>		
Waste minimization & Recycling Plan?	<i>NO</i>		
<b>Natural Resources Management</b>			
Natural Resource Management Plan?	<del>NO</del> <i>Yes</i>		
Endangered species/wetlands survey?	<del>NO</del> <i>Yes</i>		

Waste and Storm Water Management				
Does facility have a copy of SWPPP?		NO		
Does facility have monitoring results?		NO		
Does facility have copy of NPDES permit?		NO		
Does facility have water complaint log?		NO		
Does facility have OWS and copies of recent cleaning?		YES		
How many OWS are on the property?		1		
How many washracks on facility grounds?		1		
Does facility have records of spills and closure reports?		N/A		
Is the facilities battery room in compliance?		N/A		
Water Quality				
Does facility have record of water utility company?		NO		
Is facility connected to a well?		NO		
Drinking water samples?		NO		
NEPA				
Copies of all REC's, EA's, and EIS's?		NO		
Any current actions require NEPA documentation?		NO		
Any future actions require NEPA documentation?		NO		
Environmental Noise				
Does the facility have a noise complaint log?		YES		
Does facility have/need ICUZ?		NO		
Pollution Prevention				
Does facility have a copy of Pollution Prevention Plan?		NO		
Training?		NO		
Does facility recycle?	Aluminum cans	<del>NO</del> YES		
EPCRA reporting requirements?		N/A		
Solid Waste				
Recycling program? With whom?	Family Support	<del>NO</del> YES		
Does facility have solid waste complaint log?		NO		
Quarterly inspections of trash?		NO		
Pesticide Management				
Does facility have documentation of usages?		N/A - Never been sprayed		
Copies of certification for contractors used?		N/A		
Copy of Pest Management Plan?		NO		
Storage Tank Management				
Does facility have closure report for removal of UST?		<del>NO</del> YES		
Does facility have documentation for AST's?		<del>NO</del> YES @ #2		
PCB's				
Have all transformers been checked for PCB content?		YES		
Asbestos				
Does facility have copy of Asbestos Survey?		YES		
Does facility have copy of Asbestos Mang. Plan?		YES		

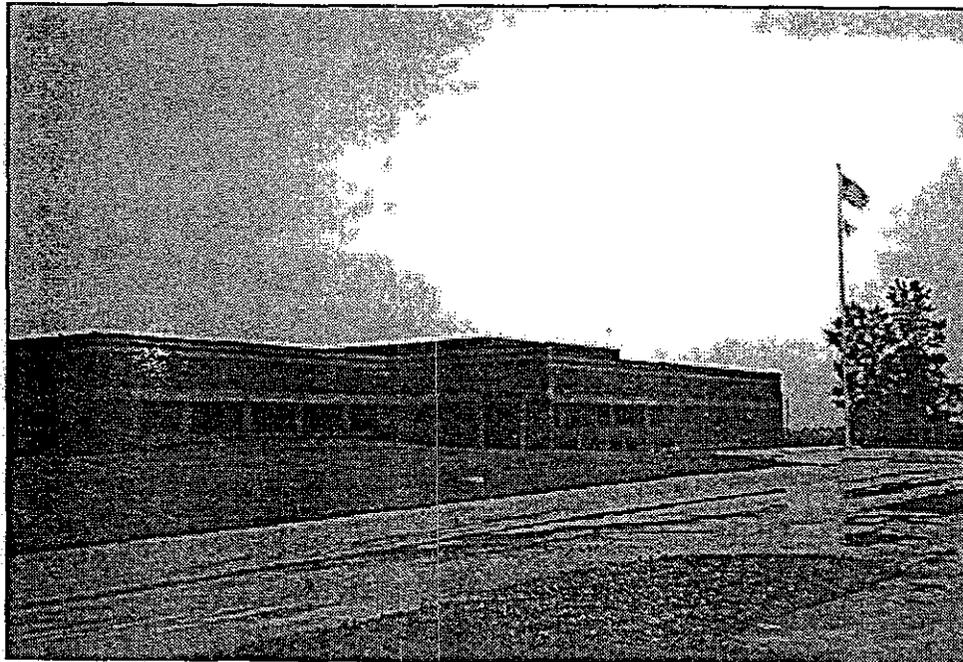


Regulation	RCRA CESQG INSPECTION CHECKLIST [SECTION 721.105(g)]	Violation
721.105	<p><b>Section 721.105: Special Requirements for Hazardous Waste Generated by Conditionally-Exempt Small-Quantity Generators (&lt;100 Kg/mo.)</b></p> <p>Are any of the following applicable:</p> <p>a) The generator has generated 1 or more Kg of hazardous waste in a calendar month?  Yes ___ No <input checked="" type="checkbox"/> N/A ___</p> <p>b) The generator has generated greater than 100 Kg of any residue or contaminated soil, waste or other debris resulting from the clean-up of a spill of hazardous waste?  Yes ___ No <input checked="" type="checkbox"/> N/A ___</p> <p>c) The generator has generated greater than 100 Kg of hazardous waste in a calendar month?  Yes ___ No <input checked="" type="checkbox"/> N/A ___</p> <p>d) The generator has accumulated greater than 1000 Kg of hazardous waste on site at any one time?  Yes ___ No <input checked="" type="checkbox"/> N/A ___</p> <p>Note: If the answer to any of the above questions is "Yes", the firm is a generator of hazardous fully subject to regulation under the applicable parts of 35 IAC Parts 700 through 728 and the notification requirements of Section 3010 of RCRA. Complete the appropriate checklists.</p>	
722.111	<p>Has the generator made a proper hazardous waste determination pursuant to Section 722.111?  Yes ___ No ___ N/A <input checked="" type="checkbox"/></p>	722.111
721.105(g)(3)	<p>Has the owner/operator treated or disposed of the hazardous waste on-site?  Yes ___ No ___ N/A <input checked="" type="checkbox"/></p>	
721.105(g)(3)	<p>Has the owner/operator ensured delivery to a permitted off-site treatment, storage or disposal facility pursuant to Section 721.105(f)(3) or 721.105(g)(3)?  Yes <input checked="" type="checkbox"/> No ___ N/A <u>ORMD</u></p>	
721.105(j)	<p>Note: A conditionally-exempt small-quantity generator who mixes its hazardous waste with used oil which is destined to be burned for energy recovery must comply with the requirements in Part 739.</p>	
	<p>Comments: <i>No HW on hand</i> <i>24 <del>March</del> March 00</i></p>	
(CESQG-1)		

**FORT McCOY  
CULTURAL RESOURCES  
MANAGEMENT SERIES**

**Reports of Investigation No. 13**

**Illinois Section 110 Inventory  
Volume I  
March 2000**



**Fort McCoy Archaeology Laboratory  
Directorate of Training and Mobilization  
Fort McCoy, WI 54656-5162**

**Illinois Section 110 Inventory**  
**Volume I**

Archaeological Resource Management Series  
Reports of Investigation Number 13

*Prepared for:*

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March 2000

THIS DOCUMENT CONTAINS ARCHAEOLOGICAL SITE INFORMATION AND  
IS INTENDED FOR MANAGEMENT AND PRESERVATION PURPOSES, AND  
SHOULD NOT BE DISTRIBUTED TO THE PUBLIC WITHOUT PERMISSION  
FROM THE ILLINOIS STATE HISTORIC PRESERVATION OFFICER AND THE  
DEPARTMENT OF THE ARMY.

*Cover: Stefanich AFRC, Kankakee, Illinois*

## National Historic Preservation Act of 1966, as Amended Section 110

"In accordance with subsection 101(F) of the National Historic Preservation Act, the Secretary of the Interior in consultation with the Advisory Council on Historic Preservation, has developed the following guidelines for carrying out Federal agency responsibilities under Section 110 of the Act. Federal Agencies should follow these guidelines in establishing, monitoring, reviewing, and evaluating their programs for compliance with Section 110 of the Act. State Historic Preservation Officers should refer to these guidelines when providing assistance to Federal agencies under Sections 101(b)(3)(E) and (F) of the Act. The advisory Council on Historic Preservation [Council] will use these guidelines, as applicable, and recommend their use to Federal agencies, State Historic Preservation Officers, and others in agreements executed pursuant to Section 106 of the Act and 36 CFR Part 800. The Council will also use these guidelines in its review of Federal agency programs under Section 202(a)(6) of the Act. *Section 110(a)(1)*: "The heads of all Federal agencies shall assume responsibility for the preservation of historic properties which are owned or controlled by such agency. Prior to acquiring, constructing, or leasing buildings for purposes of carrying out agency responsibilities, each Federal agency shall use, to the maximum of the extent feasible, historic properties available to the agency. Each agency shall undertake, consistent with the preservation of such properties and the mission of the agency and the professional standards pursuant to Section 101(f) any preservation, as may be necessary to carry out this section." *Section 110(a)(2)*: "With the advice of the Secretary and in cooperation with the State Historic Preservation Officer for the State involved, each Federal agency shall establish a program to locate, inventory, and nominate to the Secretary all properties under the agency's ownership or controlled by the agency, that appear to qualify for inclusion on the National Register in accordance with the regulations promulgated under Section 110(a)(2)(A). Each Federal agency shall exercise caution to assure that any such property that might qualify for inclusion is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly. *Section 110(b)*: "Each Federal agency shall initiate measures to assure that where, as a result of Federal action or assistance carried out by such agency, a historic property is to be substantially altered or demolished, timely steps are taken to make or have made appropriate records, and that such records then be deposited, in accordance with Section 101(a), in the Library of Congress or with such other appropriate agency as may be designated by the Secretary, for future use and reference." *Section 100(c)*: "The head of each Federal Agency shall, unless exempted under Section 214, designate a qualified official to be known as the agency's "preservation officer" who shall be responsible for coordinating that agency's activities under the Act. Each Preservation Officer may, in order to be considered qualified, satisfactorily complete and appropriate training program established by the Secretary under Section 110(g)." *Section 100(d)*: "Consistent with the agency's mission and mandates, all Federal agencies shall carry out agency programs and projects (including those under which any Federal assistance is provided for any federal license, permit, or other approval is required) in accordance with the purposes of this Act and, give consideration to programs and projects which will further the purposes of this Act." *Section 110(e)*: "The Secretary shall review and approve the plans for transferees of surplus federally owned historic properties not later than ninety days after his receipt of such plans to ensure that the prehistorical, historical, architectural, or culturally significant values will be preserved or enhanced. *Section 110(f)*: "Prior to the approval of any Federal undertaking which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal agency shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark, and shall afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking." *Section 110(g)*: "Each Federal agency may include the costs of preservation activities of such agency under this Act as eligible project costs in all undertakings such agency or assisted by such agency. The eligible project costs may also include amounts paid by a federal agency to any state to be used in carrying out, such preservation responsibilities of the federal agency under this Act, and reasonable costs may be charged to Federal licensees and permits as a condition to the issuance of such license or permit." *Section 110(h)*: "The Secretary shall establish an annual preservation awards program under which he may make monetary awards in amounts not to exceed \$1,000 and provide citations for special achievements to officers and employees of Federal, State, and certified local governments in recognition of their outstanding contributions to the preservation of historic resources. Such programs may include the issuance of annual awards by the President of the United States to any citizen of the United States recommended for such award by the Secretary." *Section 110(i)*: "Nothing in this Act shall be construed to require the preparation of an environmental impact statement where such a statement would not otherwise be required under the National Environmental Policy Act 1969, and nothing in this Act shall be construed to provide exemption from any requirement respecting the preparation of such a statement under such Act." *Section 110(j)*: "The secretary shall promulgate regulations under which the requirements of this section may be waived in whole or in part in the event of a major natural disaster or an imminent threat to national security."

## **Abstract**

In 1994, the Fort McCoy Archaeology Laboratory, at Fort McCoy, Wisconsin, was contracted by the 88th Regional Support Command (RSC) to conduct a Historic Properties Inventory of all U.S. Army Reserve Centers (USARC) located within the state of Illinois, under the provisions of Section 110 of the National Historic Preservation Act (NHPA). A total of 41 USARC facilities were inventoried during this study. All buildings at the USARC facilities were assessed for eligibility to the National Register of Historic Places (NRHP). Three facilities (Schulstad USARC, Arlington Heights, Illinois, the Charles Melvin Price Support Center, Granite City, Illinois, and the Philip H. Sheridan Reserve Center, Fort Sheridan, Illinois) contained buildings recommended a potentially eligible for nomination to the NRHP.

## Introduction

In 1994, the Fort McCoy Archaeology Laboratory was contracted to conduct a *Historic Properties Inventory* under the provisions of Section 110 of the NHPA of all USARC facilities owned or leased by the 88th Regional Support Command in the state of Illinois. A total of 149 buildings on 41 USARC facilities were surveyed throughout Illinois. This report describes the recordation and evaluation methods and findings of the Fort McCoy Archaeology Laboratory inventory of the USARC facilities. Additionally, this report provides information documenting the sources and informants used in evaluating the actions to determine eligibility for the nomination of the surveyed properties to the NRHP.

Preliminary research included meetings with officials of the Illinois State Historic Preservation Office (SHPO) and historical research conducted at the Illinois Historical Society, regional county courthouses, and local libraries. The Illinois Archaeological Sites Index, maintained by the Illinois SHPO, was consulted to determine the location of any known archaeological sites on or near each USARC facility. Oral interviews were conducted with USARC personnel at each facility. Fieldwork for the project was conducted during March-July 1995, June 1997, October 1997, and February 1998.

All Illinois listings in the NRHP were reviewed prior to commencement of fieldwork for the inventory. Those properties on all USARC facilities that met the criteria for NRHP eligibility were examined and recorded to assess their potential for possible nomination to the NRHP. Three USARC facilities (Schulstad USARC, Arlington Heights, Illinois, the Charles Melvin Price Support Center, Granite City, Illinois, and the Philip H. Sheridan Reserve Center, Fort Sheridan, Illinois) have historic structures determined potentially eligible for nomination to the NRHP.

## Statement of Purpose

The Fort McCoy Archaeology Laboratory Section 110 inventory of the USARC facilities within the state of Illinois, was conducted consistent with the *Secretary of the Interior's Standards and Guidelines for Identification and Evaluation (Standards)*. The primary goal of the NHPA, according to the *Standards*, is to "preserve prehistoric and historic resources throughout the nation for the inspiration and benefit of present and future generations." In fulfillment of this goal, governmental agencies, within the framework of their missions, are charged with administering federally owned, administered, or controlled prehistoric and historic resources in a spirit of stewardship, and caring for significant prehistoric and historic properties in ways that ensure long-term protection and integrity of those properties.

The *Standards* require agencies to identify, evaluate, and document their historic properties, and nominate them to the NRHP. According to the *Standards*, "identification, evaluation, and documentation of historic properties are critical in the long-term management of historic properties, as well as in program and project specific planning by a federal agency." The *Standards* also require that "the agency manages and maintains its historical properties in ways that preserve the properties historic, archaeological, architectural, or cultural values," and that "the agency considers historic properties in addition to its own when planning activities that may affect them." Agencies are also required under the *Standards* to develop "a process that identifies and evaluates historic properties in a timely fashion," and "a process that develops and implements agreements regarding the means by which adverse affects on historic properties will be considered." Documentation is also required of historic properties, before they are substantially altered or demolished, and the placement of all documentation in an appropriate repository for future use and research.

In meeting the compliance requirements of Section 110(a)(2) of the NHPA and the *Standards*, researchers from the Fort McCoy Archaeology Laboratory conferred with the Illinois SHPO regarding previous archaeological or historical architectural investigations conducted on or near the Illinois USARC facilities. Previous archaeological and architectural surveys were found for three USARC facilities (Scott Air Force Base, Illinois, the Charles Melvin Price Support Center, Granite City, Illinois, and the Philip H. Sheridan Reserve Center, Fort Sheridan, Illinois). These surveys were conducted by private consulting firms and governmental agencies that methodically analyzed the archaeological and architectural components of each facility and provided recommendations for future management of the identified historic resources. Members of the Fort McCoy Archaeology Laboratory carefully analyzed these reports and compared their results with the actual on-site recordation of the facilities conducted during this inventory. Discrepancies found between existing reports on the facilities and the on-site recordation conducted by members of the Fort McCoy Archaeology Laboratory are described in detail within the individual facility sections of this report. All prior archaeological surveys conducted within one-mile of the USARC facilities were also documented. Historic themes established by the Illinois SHPO were followed in preparation of the historic context and in identifying historic properties.

All fieldwork was conducted by Fort McCoy Archaeology Laboratory personnel who meet the *Secretary of the Interior's Professional Qualification Standards at 36 CFR 61* (Appendix A). The field recordation methods employed in the inventory follow accepted practices within the field of historic research and included, but were not limited to, on-site evaluation and documentation of historic buildings and properties, review of all pertinent historical documentation, and interviews with facilities managers regarding the properties. Assessments of potential eligibility for the NRHP were made based upon the field research, on-site documentation, and post inventory evaluation.

## **Factors That May Precipitate a Change in Status**

The recommendations contained within this report are based upon the current legal ownership status and physical conditions. Changes in the status of these properties may require a reevaluation of the property, or require additional surveys in compliance with Section 106 of the NHPA. Examples of changes that could necessitate a reevaluation of properties include, but are not limited to, demolition, demolition by neglect, construction, rehabilitation, or transfer of ownership.

## **Methodology**

A formal literature and record search was conducted for each facility by members of the Fort McCoy Archaeology Laboratory. The objective of this search was to establish the historical and archaeological context associated with each USARC. Searches conducted at local historical societies and municipal governments provided additional documentary and cartographic information relevant to the historic context of individual USARC facilities. Research was also conducted at the Illinois SHPO offices to obtain information relative to the location of all recorded archaeological sites within a one mile radius of each USARC facility. All existing archaeological sites were documented and evaluated in terms of their significance to USARC locations. An archaeological reconnaissance survey was conducted on the land associated with each USARC facility.

## **Architectural Study Methods**

The architectural survey undertaken by members of the Fort McCoy Archaeology Laboratory was conducted using guidelines published by the Historic American Building Survey (HABS) and the Illinois SHPO. Data represented in this report was collected with methods that includes:

- 1) a literature review of the historic documents relating to the construction and maintenance of each building on the USARC facilities;
- 2) an architectural evaluation of the potential NRHP eligibility of each building on the USARC facilities;
- 3) a surface reconnaissance of land associated with each USARC facility.

The historic themes used to evaluate the historic contexts associated with the properties analyzed in this inventory were taken directly from the guidelines identified by

the Illinois SHPO in the *Illinois Comprehensive Statewide Historic Preservation Plan*.<sup>1</sup> The results of the historical, architectural, and archaeological surveys conducted by members of the Fort McCoy Archaeological Laboratory are described in the following sections of this report.

### **Historical Literature Review**

The Illinois Section 110 Inventory was designed to establish a historic context for each USARC facilities to assess the eligibility for their buildings for nomination to the NRHP. In preparation for the documentation of each USARC facility, historic documentary research was conducted by members of the Fort McCoy Archaeology Laboratory and included:

- 1) examination of real property records maintained by the 88th RSC;
- 2) examination of real property records located at each USARC facility (when available);
- 3) an in-person interview with the facility manager at each USARC facility;
- 4) NRHP eligibility nominations filed with the Illinois SHPO (when applicable);
- 5) examination of the Archaeological Sites Index maintained by the Illinois SHPO;
- 6) examination of the historic documents housed at the Illinois Historical Society, regional county courthouses, and local libraries;
- 7) examination of previous cultural resource, archaeological, architectural, and environmental surveys available about each USARC facility (when available).

### **Architectural Fieldwork**

Historic research conducted at the 88th RSC Real Property Office, on the buildings at each USARC facility, was utilized to establish an initial database of the architectural styles that would be encountered during on-site documentation. On-site fieldwork consisted of producing in-depth textual descriptions included:

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<sup>1</sup>*Illinois Comprehensive Statewide Historic Preservation Plan*, (Springfield, Illinois. Illinois Historic Preservation Agency, Division of Preservation Services), 1995, pp. 8-10.

Architect/Builder  
Type of building  
Date of construction  
Date of acquisition  
Architectural style  
Foundation material  
Number of bays  
Plan shape  
Wall construction  
Roof type  
Roof materials  
Chimney construction  
Chimney placement  
Type and location of entrances  
Type and location of fenestration  
Relationship of all buildings on the facility  
Integrity of each building  
Potential threat to the buildings  
Future research potential at the facility  
Assessment of the potential eligibility of each building to the NRHP under  
Criteria A, B, C, and D

Photo documentation captured the exterior of each building at the Illinois USARC facilities, including unique architectural elements. Views photos were recorded in 35 mm black and white and Kodak DC 50 digital format. Data collected during on-site documentation and assessments was compiled into the Illinois Section 110 report and entered into USARC databases maintained by the Fort McCoy Archaeology Laboratory.

### **The Illinois Section 110 Inventory Report**

A site-specific assessment of the historic, architectural, and archaeological significance was accomplished to determine if buildings and/or districts on each USARC facility were potentially eligible for nomination under Criteria A, B, C, and D to the NRHP. The *Illinois Section 110 Inventory* is intended to provide the Commander, 88th RSC, with a comprehensive overview of all USARC properties in Illinois. Specifically, this report provides architectural, historic, archaeological, and security information to aid in the management of the physical resources located on USARC facilities controlled by the 88th RSC. Data contained in the individual sections of this report were recorded and

presented in accordance with standards established by HABS and the Secretary of the Interior's Professional Qualification Standards at 36 CFR 61.<sup>2</sup>

This report is also designed to permit individual facility managers to remove the sections discussing their facilities. Information included in discussions of individual USARC facilities may be repeated in the introduction and discussion sections. Information contained in the individual USARC facility sections include:

- Facility Identification Number
- Facility Name
- Facility Address
- USGS 7.5 Minute Series Quadrangle Map
- UTM
- Present Ownership/Occupant/Use of the facility
- Setting/Landscape
- Archaeological Resources
- Historical Information
- Historical Context
- Architectural Information
- Security
- Building Descriptions
- Eligibility
- Sources

### **National Register Criteria of Evaluation**

Each building on the USARC facilities was assessed for its eligibility to the NRHP as defined in 36 CFR Part 60. The criteria used to evaluate the eligibility of properties for nomination to the NRHP assesses the significance of each facility in terms of its contribution to American history, historic persons, architecture, engineering, and archaeological research. The NRHP criteria and criteria considerations include:

#### Criteria

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

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<sup>2</sup>Historic American Building Survey, *Historian's Procedures Manual*, (Washington, D.C.: Department of the Interior, National Park Service), 1984, p. 2-50. "Transmitting Documentation to HABS/HAER: WASO," technical manual updated provided by the Historic American Building Survey/Historic American Engineering Record (Washington, D.C.: National Park Service), 1989, p. 27-32.

B. That are associated with the lives of persons significant in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important in prehistory or history.<sup>3</sup>

#### Criteria Considerations

A. A religious property deriving primary significance from architectural or artistic distinction or historical importance; or

B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with the historic person or event; or

C. A birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or buildings directly associated with his productive life; or

D. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or

G. A property achieving significance within the past 50 years if it is of exceptional importance.<sup>4</sup>

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<sup>3</sup>*The Section 110 Guidelines: Annotated Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act, Section III, February 1988.*

<sup>4</sup>*Ibid.*

## Centralia, Illinois

### Identification Information

SFC E.L. Copple United State Army Reserve Center

Facility Identification Number: IL009/17835

904 E. Martin Luther King Jr. Drive, Centralia, Marion County, Illinois, 62801-3058

Map reference: Centralia East, Ill. Quadrangle, USGS 7.5 Minute Series,

UTM: Z16, 314800E, 4266500N

T1N R1E, Section 17

Present Owner/Occupant: The facility is owned by the United States Government and controlled by the 88<sup>th</sup> RSC.

### Setting/Landscape

SFC E.L. Copple USARC consists of two buildings on 4.3 acres of land (00285) in Centralia, Illinois (Figure 57). The landscaping at the facility consists of grass and trees.

### Historical Information

Centralia was founded in 1852, when the Illinois Central Railroad received a grant to plat the town as a stop along one of their routes. The economic focus of the town remained with the Illinois Central, as locomotive maintenance and engineering shops were the primary employers. However, a growing interest in the production of agricultural products for shipment outside the region steadily grew throughout the nineteenth century.<sup>1</sup> By the late twentieth century, Centralia's economy supported a wide range of industries including steel and plastics manufacturing, and food processing.<sup>2</sup>

SFC E.L. Copple USARC was built in Centralia in 1958 as a military training center.

### Archaeological Resources

A record search at the Illinois State Historic Preservation Office revealed no recorded archaeological sites on the facility property. SFC E.L. Copple USARC is located on land that has been extensively disturbed by the construction of the facility. An on-site assessment determined that there is a low probability of extant archaeological remains on the property.

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<sup>1</sup> J.H. G Brinkerhoff, *History of Marion County, Illinois*, Indianapolis, Indiana. B.F Bowen & Company Publishers, 1909, p. 141

<sup>2</sup> *Illinois: A Descriptive and Historical Guide*, ed. Harry Hansen, (New York, New York: Hastings House Publishers), 1974, pp. 503-504.

### Security

Security at SFC E.L. Copple USARC consists of a chain-link fencing topped with barbed wire surrounding the Organizational Maintenance Shop, military equipment parking area, and east, west, and south sides of the Reserve Center.

### Architectural Information

SFC E.L. Copple USARC buildings were constructed of concrete block walls with a brick facade. There appear to have been no significant additions or alterations to the building since its original construction. The buildings are in good condition but possess little architectural character or merit.

### Reserve Center (00277)

The Reserve Center functions as an administration office and drill facility for SFC E.L. Copple USARC. Constructed in 1958, it is a rectangular building consisting of a one-story administration section and a 1½-story drill hall (Figure 58). The structure rests on a concrete foundation and has concrete block walls and a brick facade. The main pedestrian is on the west side of the building, and consists of a set of paired metal doors. Windows on the structure include a series of single-light fixed windows, two-light double hung windows, and twelve-light glass block windows located around the perimeter of the building. The structure is covered by a low-pitched gable roof.

### Organizational Maintenance Shop (00278)

The Organizational Maintenance Shop functions as a maintenance facility for SFC E.L. Copple USARC. Constructed in 1958, it is a one-story rectangular building, which rests on a concrete foundation and has with concrete block walls and a brick facade (Figure 59). There are brick pilasters around the perimeter of the building. Two bay entrances, located on the south side of the building, have metal overhead retractable doors. A low pitch shed roof covers the building.

### Eligibility

SFC E.L. Copple USARC does not meet the qualifications for nomination to the National Register of Historic Places, under Criteria A, B, C, or D, and thus is recommended not eligible to the National Register of Historic Places. A records search combined with an on-site investigation of the facility determined that there is no direct relationship between the facility and prehistoric or historic events (Criterion A), there is no association with significant persons involved in prehistoric or historic events (Criterion B), buildings on the facility are not architecturally or technologically significant (Criterion C), and the facility is unlikely to hold future research potential (Criterion D).

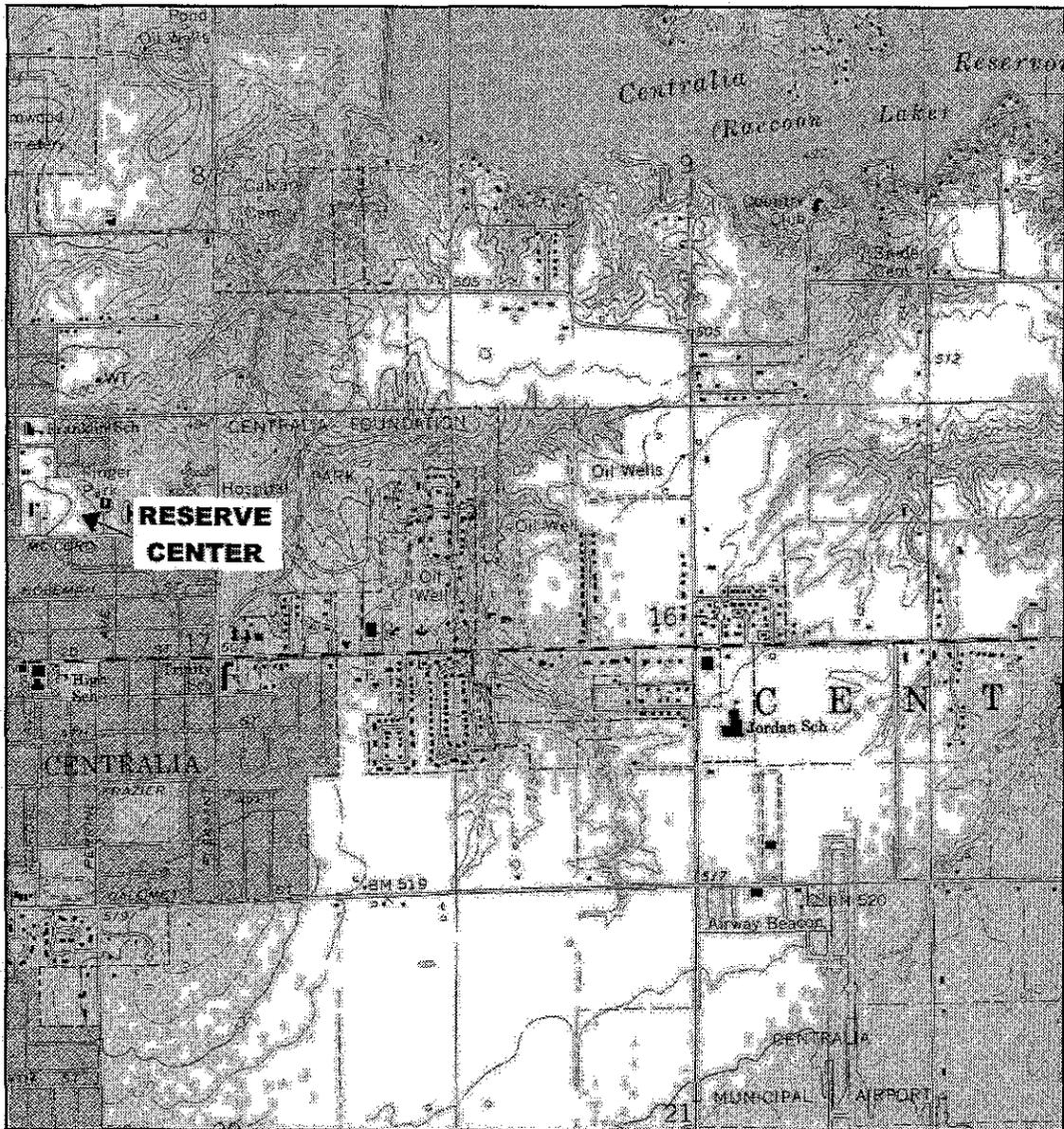
### Recommendations

No additional review under Section 110 of the National Historic Preservation Act (NHPA) is recommended. However, additional review will be necessary if specific undertakings require compliance with section 106 of the NHPA (36 CFR 800).

### Sources

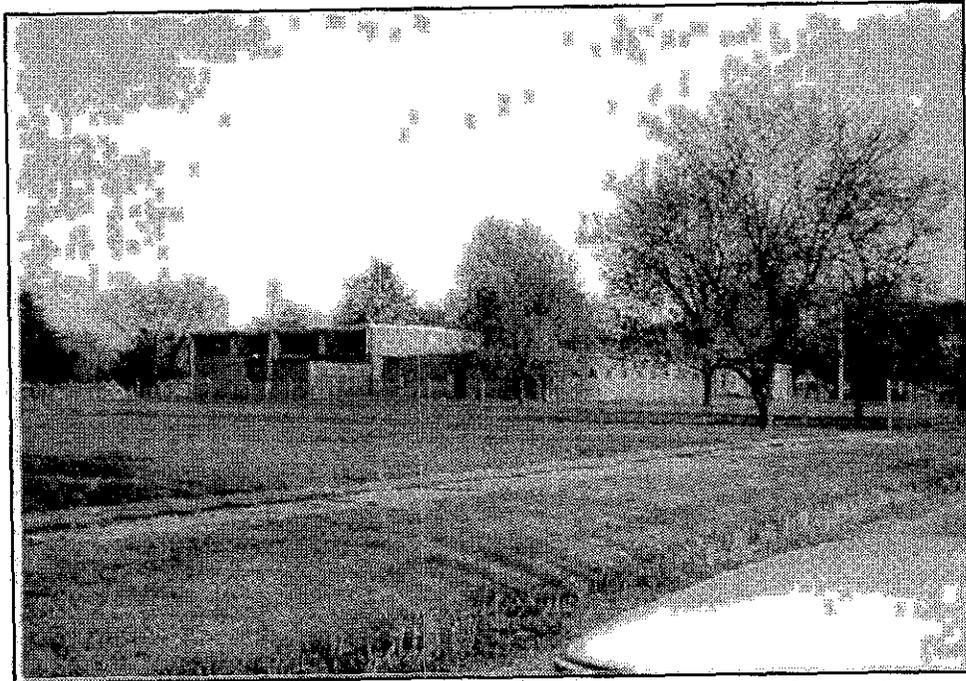
Brinkerhoff, J.H. G. *History of Marion County, Illinois*. Indianapolis, Indiana: B.F. Bowen & Company Publishers, 1909.

*Illinois: A Descriptive and Historical Guide*. Ed. Harry Hansen. New York, New York: Hastings House Publishers. 1974.

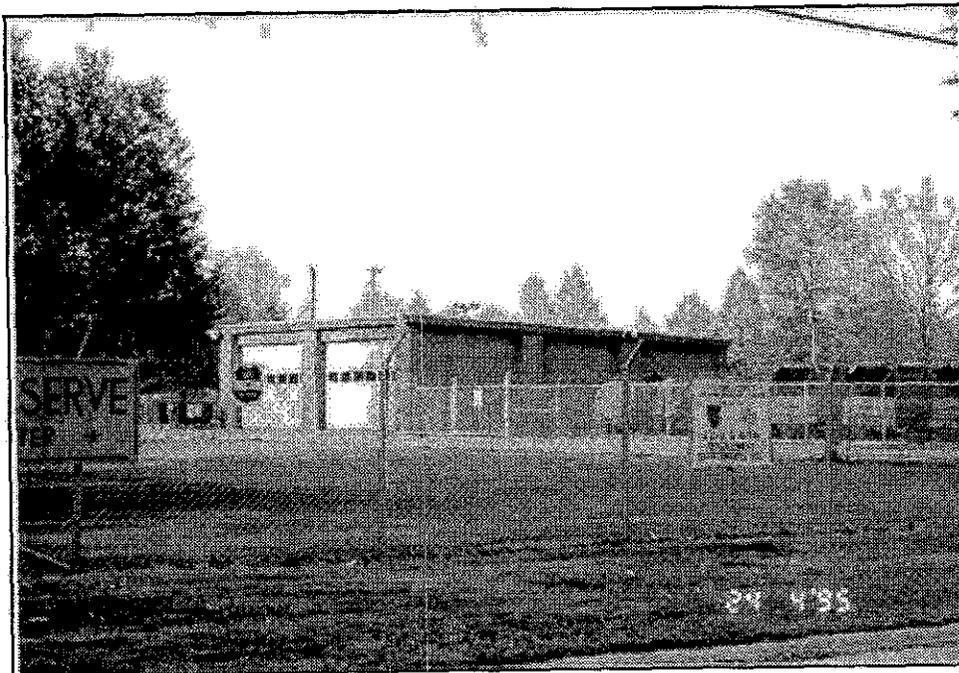


Centralia East, Ill. Quadrangle, USGS 7.5 Minute Series

**Figure 57.** Location of SFC E.L. Cople USARC, Centralia, IL.



**Figure 58.** SFC E.L. Copple USARC: Reserve Center, facing SE.



**Figure 59.** SFC E.L. Copple USARC OMS, facing NE.

ENVIRONMENTAL SURVEY REPORT  
ASBESTOS, PCB, LEAD BASED PAINT AND RADON SURVEY  
88<sup>TH</sup> Regional Support Command  
CENTRALIA, ILLINOIS (IL009)  
ADMINISTRATION BUILDING & OMS BUILDING

**PREPARED FOR:**

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Adecco Technical Task Order DAY A000003029



*Gil Bakshi*

Gil Bakshi, MA  
President  
13 April 2005

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Signature of Asbestos Inspector .

  
David Tyler, 13 April 2005

## **1.0 INTRODUCTION**

International Training Institute of South Florida, Inc. (ITI) has performed a site survey for the 88<sup>th</sup> Regional Support Command (RSC) property located at the USARC and OMS Buildings, Centralia, IL (IL 009). ITI's work was based on a scope of work prepared by the 88<sup>th</sup> RSC and administered under Adecco Technical Task Order DAY A000003029.

## **2.0 PURPOSE**

This report provides information concerning the potential types, quantities, locations, and condition of asbestos containing materials, polychlorinated biphenyls (PCBs), lead based paint (LBP) and radon.

The purpose of this document is to assist the 88<sup>th</sup> RSC in complying with federal and state regulations concerning Asbestos, PCBs, LBPs and Radon. ITI's evaluation is based on a site inspection, information obtained from available documentation located at the site and the 88<sup>th</sup> RSC, and interviews with persons knowledgeable about the current and past history of the site.

## **3.0 SITE DESCRIPTION**

### **ADMINISTRATION BUILDING**

This one story building has exterior brick walls, interior block walls with plaster, and a built up roof.

### **OMS BUILDING**

This one story building has exterior brick walls, interior block walls, and a built up roof.

## **3.1 SCOPE OF WORK**

ITI has conducted one or more of the following tasks at this site: collect radon samples, conduct a lead based paint inspection, identify PCBs and asbestos inspection.

- Conduct radon testing at all identified 88<sup>th</sup> RSC sites for radon gas concentration levels and review all previous radon test results provided by the government.
- Determine levels of radon gas by installing passive detection equipment (alpha track) in specific buildings of the selected facilities.
- Utilize the laboratory that supplied the alpha track radon detectors for analysis.

- Evaluate each facility by age to determine the potential for existence of lead based paint (LBP) and review any previous LBP surveys conducted by the government
- Where the potential for LBP is determined, ITI will conduct a visual inspection of all (but not limited to) of the following surfaces; doors, door casings and frames, walls, upper and lower, windows sashes, stair stringers, treads, and handrails, ceilings, vents, structural steel, HVAC ducts and window guards at each facility. Samples of suspect surfaces will be conducted by using a portable, on-site measuring instrument that uses X-Ray Fluorescence to determine the existence of LBP.
- Include all information observed as part of the final report to include all existing LBP and its condition, along with all sample locations (CAD drawings and/or field notes).
- Evaluate each facility by age to determine the potential for the existence of PCBs and review any previous PCB surveys conducted by the government.
- Where the potential for PCBs is determined, ITI will conduct a visual inspection of each facility to determine the existence of PCBs and identify all potential equipment. This will require ITI to randomly open one or more like types of equipment to visually confirm the existence of PCB containing material within the equipment.
- Include all information as part of the final report to include all equipment and its condition, potentially containing PCBs.
- Review all previous asbestos surveys conducted by the government.
- ITI will visually inspect each facility and visually verify all information found in previous surveys and note any variances and/or missing data.
- ITI will identify all asbestos containing materials (ACM) and any potential asbestos containing material (PACM), estimate the amount in the entire building and determine and record the condition of the ACM and PACM in the survey. Samples will be collected on friable PACM only. PACM identified in the significantly damaged and damaged conditions will be analyzed. Friable PACM in good condition will only be analyzed with the approval for the COR or his representative. ITI will maintain and store all samples collected until sent for analysis or authorized disposal by the COR or his representative. All samples not analyzed will be disposed of in accordance with all Federal, State and Local regulations. Any friable ACM or PACM in significantly damaged or damaged condition will be brought to the attention of the COR or his representative as soon as possible.
- ITI will include all information as part of the final report to include all existing ACM, any PACM and the condition of both existing asbestos and PACM.
- Installation and retrieval of government owned alpha track radon detectors.
- ITI must document all new data and integrate the 88<sup>th</sup> RSC information into the final report.

## 3.2 EXECUTIVE SUMMARY

### ASBESTOS

Based on ITI's survey of the building, ITI has concluded the following materials contain asbestos:

#### ADMINISTRATION BUILDING

##### CONFIRMED ASBESTOS

- Black mastic under Cream floor tile VFT-1 (less than 1% asbestos)
  - Good condition, non friable (NF1)
  - Approximately 5,000 sq. ft. in Hallways and Admin. Spaces
- White thermal system insulation on joints of black foam rubber on pipes (TSI-2)
  - Good condition, friable
  - Located above ceilings
- Exterior grey window caulk
  - Good condition, non friable (NF1)
  - Located around window frames

*Special note: The black mastic under VFT-1 Cream floor tile contains less than 1% asbestos, according to PLM analysis. At the request of the 88<sup>th</sup> RSC, we are reporting materials as asbestos containing if any amount of asbestos was found in them.*

##### PRESUMED ASBESTOS

- Roofing Materials
  - Good Condition, Non Friable, NF1
- Fire Doors
  - Good Condition
- Electrical Wiring

#### OMS BUILDING

##### PRESUMED ASBESTOS

- Roofing Materials
  - Good Condition, Non Friable
- Fire Doors
  - Good Condition
- Electrical Wiring

## PCB'S

Based on ITI's survey of the building, ITI has concluded that the following types of transformers are located in the building:

### ADMINISTRATION BUILDING

- Light Ballasts – Universal 446 (No label, Assumed to contain PCB's)
- Light Ballasts – Advance R-2540-1-TP (No label, Assumed to contain PCB's)
- Light Ballasts – SOLA 624427 (No label, Assumed to contain PCB's)
- Light Ballasts – Valmont 8G1024WTP (No label, Assumed to contain PCB's)
- Light Ballasts – Advance RM-2540-TP (“No PCB's” on label)
- Light Ballasts – Magnetek 446-SLH-TC-P-TP (“No PCB's” on label)
- Light Ballasts – Advance RM-2540-TP (“No PCB's” on label)
- Light Ballasts – Universal 446-L-LH-TC-P (“No PCB's” on label)

**SPECIAL NOTES:** The Orderly room and Operations room (103 & 104 – See Appendix B) are leaking a brown fluid from the transformers. These are assumed to contain PCB's.

### OMS BUILDING

- Light Ballasts – No access to lights

### TRANSFORMERS:

- There are three pole mounted transformers on one pole (Pole #075) located at this site. (Assumed to contain PCB's, as there is no label).
- There is one pole mounted transformer on the right edge of the property, outside the fence. There is no number on the pole, and the transformer has the number “25” on it. (Assumed to contain PCB's, as there is no label)

## **LEAD BASED PAINTS**

Based on ITI's survey for LBP, ITI has concluded that the following building products contain LBP:

### **ADMINISTRATION BUILDING**

- Exterior Garage Door Metal Plates
  - Tan, Metal (Fair Condition)
  - Samples collected from the metal plates on the side of the garage door
- Exterior Columns
  - Yellow, Metal (Fair Condition)
- Window Well
  - Tan, Wood (Fair Condition)
  - Rooms 101, 102, 103, 104, 105, 106, 108, 109 & 110
- Window Apron
  - Tan, Wood (Fair Condition)
  - Rooms 101, 102, 103, 103A (Unit Admin), 104, 105, 106, 108, 109 & 110
- Door Jamb
  - Green & Tan, Metal (Fair Condition)
  - Rooms 104, 108, 109 & 117
- Door Casing
  - Green & Tan, Metal (Fair Condition)
  - Rooms 104, 106, 109 & 118

### **OMS**

- Garage Area – Door Casing – Sample taken from metal plates on the side of the garage door
  - White, Metal (Fair Condition)
- Garage Area – All Columns
  - Silver, Metal (Fair Condition)

### **RADON**

Based on sampling results, ITI has concluded all radon results are below 4 pCi/l.

## **4.0 PREVIOUS INSPECTIONS**

Below are the records for previous inspections conducted at this site.

### **4.1 ASBESTOS**

- NO PREVIOUS INSPECTIONS

#### **4.2 PCB'S**

- NO PREVIOUS INSPECTIONS

#### **4.3 LEAD BASED PAINT**

- NO PREVIOUS INSPECTIONS.

#### **4.4 RADON**

- NO PREVIOUS INSPECTIONS

### **5.0 ASBESTOS CONTAINING MATERIALS**

During this survey conducted on 31 March 2005, ITI accredited building inspector Mr. David Tyler (License Number 100-10757), performed a walk-through of the subject building. This was performed in order to identify and delineate locations of homogeneous materials suspected of containing asbestos. A homogeneous material is defined as material that presents similar distinguishing features such as contents. Once homogeneous materials were identified, Mr. Tyler collected bulk samples from these materials in order to confirm the presence or absence of asbestos. Samples were collected in accordance with U.S. Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA).

#### **BULK SAMPLES**

During the Inspection, sampling locations were recorded on floor plans and are identified in Appendix A of this report.

A.E.S.L., Inc. located in Phoenix, AZ is the laboratory ITI used for analysis of bulk samples. This independent laboratory successfully participates in the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos sample analysis. The samples are analyzed using Polarized Light Microscopy (PLM) analysis methodology coupled with dispersion staining solutions to distinguish the unique optical properties of mineral forms. Employing this method of analysis allows asbestos fiber characteristics to be identified, which enables the microscopist to verify the presence or absence, quantity and type of asbestos in the samples. Any product that contains more than one percent asbestos is considered to be ACM by EPA & OSHA. ITI performed QA/QC sampling for the total collected bulk samples (minimum of 10%). PLM results will be located in Appendix A to this report.

#### **5.1 ASSESSMENT METHODOLOGY**

All Asbestos Containing Building Materials (ACBM) were classified into the following three types of suspect materials:

1. Surfacing Materials
2. Thermal System Insulation (TSI)
3. Miscellaneous Materials

ACM identified during the building survey was assessed according to the protocol described in 40 CR 763. The protocol evaluates the risk of exposure to airborne asbestos fibers by assessing the condition of each ACM and potential for that ACM to be disturbed and generate fibers. ACM was assessed according to each of the following factors:

- (1) Damaged or significantly damaged thermal system insulation ACM.
- (2) Damaged friable surfacing ACM.
- (3) Significantly damaged friable surfacing ACM.
- (4) Damaged or significantly damaged friable miscellaneous ACM.
- (5) ACBM with potential for damage.
- (6) ACBM with potential for significant damage.
- (7) Any remaining friable ACBM or friable suspected ACBM.

#### ASSESSING CONDITION AND FRIABILITY

NATIONAL EMISSIONS FOR HAZARD AIR POLLUTANTS, 40 CFR Part 61, Subpart M, definitions for asbestos:

- Friable (F): ACM that can be crumbled, crushed, or reduced to powder by hand pressure.
- Nonfriable Category 1(NF1): Asbestos containing packing, gaskets, resilient floor coverings, asphalt roofing products, caulks, and mastics. These bituminous materials are assumed to remain nonfriable if demolition is performed using “normal” methods, but will become friable if severely weathered, sanded, or abraded.
- Nonfriable Category 2 (NF2): ACM excluding Category 1 nonfriable ACM, that, when dry and in its present form, cannot be crumbled, pulverized or reduced to powder by hand pressure; however, these materials may become friable during demolition activities. These products include Transite board and asbestos cement products.

The condition of ACM including severity and extent of damage is classified into one of the following categories:

- Significantly Damaged: ACM that is crumbled, blistered, gouged, marred, delaminated, or otherwise damaged either uniformly or locally over a substantial portion of its surface area.
- Damaged: ACM that is crumbled, blistered, gouged, marred, delaminated, or otherwise damaged either uniformly or locally over a small portion of its surface area.
- Good: ACM with very little or no damage.
- Potential for Disturbance: The potential for disturbance of each ACM was evaluated with respect to the types and frequency of occupancy, whether the ACM was accessible to area occupants, including vibration and air erosion.

## 5.2 ASBESTOS CONTAINING MATERIALS

### ADMINISTRATION BUILDING

#### CONFIRMED ASBESTOS

- Black mastic under Cream floor tile VFT-1 (less than 1% asbestos)
  - Good condition, non friable (NF1)
  - Approximately 5,000 sq. ft. in Hallways and Admin. Spaces
- White thermal system insulation on joints of black foam rubber on pipes (TSI-2)
  - Good condition, friable
  - Located above ceilings
- Exterior grey window caulk
  - Good condition, non friable (NF1)
  - Located around window frames

*Special note: The black mastic under VFT-1 Cream floor tile contains less than 1% asbestos, according to PLM analysis. At the request of the 88<sup>th</sup> RSC, we are reporting materials as asbestos containing if any amount of asbestos was found in them.*

#### PRESUMED ASBESTOS

- Roofing Materials
  - Good Condition, Non Friable, NF1
- Fire Doors
  - Good Condition
- Electrical Wiring

### OMS BUILDING

#### PRESUMED ASBESTOS

- Roofing Materials
  - Good Condition, Non Friable
- Fire Doors
  - Good Condition
- Electrical Wiring

### **5.3 NON ASBESTOS CONTAINING MATERIAL**

#### **ADMINISTRATION BUILDING**

- 12" x 12" Cream vinyl floor tile (VFT-1) Note: black mastic is positive
  - Approximately 5,000 sq. ft. in Hallways and Admin. Spaces
- 9" x 9" Black vinyl floor tile and yellow mastic (VFT-2)
  - Approximately 600 sq. ft. in Computer Office
- 2' x 4' White and Tan Ceiling Tiles (CT-1)
- 1' x 1' White and Tan Ceiling Tiles (CT-2)
- Plaster walls (PW-1)
- Plaster ceilings (CM-1)
- Black vinyl baseboards, with yellow mastic and brown residual mastic
- Black semi-rigid thermal system insulation (TSI-1)
  - Located on some of the pipes in Boiler Room
- Black foam rubber insulation on pipes in Boiler Room and above ceiling
- Fiberglass insulation on pipes in Boiler Room and above ceiling
- Green folding curtain room divider
  - Located in Classroom 104
- Exterior grey door caulk (DC-1)
  - Located around door frames

#### **OMS BUILDING**

- Exterior grey door caulk (DC-1)
  - Located around door frames

Note: No Thermal System Insulation was observed in the OMS Building

### **6.0 POLYCHLORINATED BIPHENYL**

PCBs are mixtures of chlorinated biphenyls that are relatively nonflammable and have useful heat exchange and dielectric properties. PCBs were used in the electric industry as dielectric fluid in capacitors and transformers until 1976, when PCBs were banned from use because of their carcinogenic properties. PCBs were also used in the formulation of lubricating oils, pesticides, adhesives, plastics, inks, paints, and sealants. ITI inventoried electrical transformers and light ballasts as part of its scope.

The primary uses of potential PCB materials are associated with transformers (i.e., pad-, pole-, or wall-mounted) or light ballast. ITI recorded available information, such as the manufacturer, serial and model number, condition, date of manufacture, and location of potential PCB-containing equipment.

The principal requirements for PCB management are detailed in the Toxic Substances Control Act (TSCA) federal regulatory program, Title 40; Subchapter R, Part 761, Code

of Federal Regulations (CFR). CFR Title 40 Part 761 establishes regulations for the use, storage, removal, disposal, and testing of PCB-containing equipment.

ITI used these management requirements regarding onsite PCB management as guidelines during the Site investigation.

## **6.1 PCB INVENTORY**

ITI personnel observed the following: - Refer to drawing in Appendix B for inspection locations.

### **ADMINISTRATION BUILDING**

- Light Ballasts – Universal 446 (No label, Assumed to contain PCB's)
- Light Ballasts – Advance R-2540-1-TP (No label, Assumed to contain PCB's)
- Light Ballasts – SOLA 624427 (No label, Assumed to contain PCB's)
- Light Ballasts – Valmont 8G1024WTP (No label, Assumed to contain PCB's)
- Light Ballasts – Advance RM-2540-TP (“No PCB's” on label)
- Light Ballasts – Magnetek 446-SLH-TC-P-TP (“No PCB's” on label)
- Light Ballasts – Advance RM-2540-TP (“No PCB's” on label)
- Light Ballasts – Universal 446-L-LH-TC-P (“No PCB's” on label)

**SPECIAL NOTES:** The Orderly room and Operations room (103 & 104 – See Appendix B) are leaking a brown fluid from the transformers. These are assumed to contain PCB's.

### **OMS BUILDING**

- Light Ballasts – No access to lights

### **TRANSFORMERS:**

- There are three pole mounted transformers on one pole (Pole #075) located at this site. (Assumed to contain PCB's, as there is no label).
- There is on pole mounted transformer on the right edge of the property, outside the fence. There is no number on the pole, and the transformer has the number “25” on it. (Assumed to contain PCB's, as there is no label)

## **7.0 LEAD BASED PAINT**

During this survey, ITI inspector, Mr. Narciso Martinez performed a walk-through of the subject building on 16 July 2002 for LBP. This was performed in order to identify and delineate locations that would be sampled for lead based paint.

During the Inspection, sampling locations were recorded on working drawings and are identified in Appendix C of this report.

Samples were taken using an X-ray Fluorescence (XRF) Analyzer RMD Model LPA-1 (Serial Number 01908) manufactured by RMD, Inc. of Watertown, MA. An XRF analyzer works by exposing a paint surface to radiation emitted from a sealed source inside the instrument. The source of this radiation is cobalt-57 isotope. This radioactive material spontaneously emits energy in the form of X rays and gamma rays. When these rays are released from an XRF analyzer and hit a painted surface, the elements in the paint matrix - which can include lead - are excited and respond by emitting energy in the form of X rays characteristic of each of the elements. This response is known as Fluorescence.

In 1990 the Department of Housing and Urban Development issued the first comprehensive document addressing lead based paint in housing. This document, Lead based paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing established criteria for conducting lead based paint inspections in public and Indian housing.

This Interim Guidelines described how to conduct a lead based paint inspection. State and Federal regulations use the XRF analyzer or laboratory analysis and specify a reading of 1.0 milligrams per square centimeter (XRF) and 0.5 percent by weight (Paint Chips) as the levels that require abatement.

See Appendix C for XRF report.

## **7.1 LEAD BASED PAINT**

Based on ITI's survey for LBP, ITI has concluded that the following building products contain LBP.

### **ADMINISTRATION BUILDING**

- Exterior Garage Door Metal Plates
  - Tan, Metal (Fair Condition)
  - Samples collected from the metal plates on the side of the garage door
- Exterior Columns
  - Yellow, Metal (Fair Condition)

- Window Well
  - Tan, Wood (Fair Condition)
  - Rooms 101, 102, 103, 104, 105, 106, 108, 109 & 110
- Window Apron
  - Tan, Wood (Fair Condition)
  - Rooms 101, 102, 103, 103A (Unit Admin), 104, 105, 106, 108, 109 & 110
- Door Jamb
  - Green & Tan, Metal (Fair Condition)
  - Rooms 104, 108, 109 & 117
- Door Casing
  - Green & Tan, Metal (Fair Condition)
  - Rooms 104, 106, 109 & 118

## OMS

- Garage Area – Door Casing – Sample taken from metal plates on the side of the garage door
  - White, Metal (Fair Condition)
- Garage Area – All Columns
  - Silver, Metal (Fair Condition)

## 7.2 RESPONSIBLE AGENCIES

Various groups and governmental bodies have responsibilities for conducting, evaluating the quality of, or developing a hazard control strategy based upon lead based paint testing. These groups include, but not limited to the following:

- State, Indian tribe, and local governments;
- The US Department of Housing and Urban Development (HUD);
- The US Environmental Protection Agency (EPA);
- Housing authorities;
- Homeowners and landlords; and
- Lead based paint inspectors, risk assessors, and hazard control contractors.

## 8.0 RADON

Radon is formed from the radioactive decay of radium, a breakdown product of uranium found in minute quantities in most soils. Because radon is an inert gas, it does not react with soil; soil merely serves as a channel through which the gas moves. Soil composition alone is not a good indicator of potential indoor radon problems because radon levels can vary considerably, by as much as a factor of 20 to 100, in the same geographic area.

The EPA regulates the maximum allowable exposure levels for radon and recommends that action be taken to reduce the levels if radon concentrations in a structure that exceeds 4 picocuries per liter (pCi/l) in air.

The objective of the Army Radon Reduction Program (ARRP) is to identify and modify all building structures owned or leased by the Army that have indoor radon concentrations greater than 4 pCi/l. According to the ARRP, if the radon concentration is 4 pCi/l or less and the measured building is geologically and structurally representative of the installation, no further action is required. ITI has conducted radon surveys at this site on 14 February, 2002, which included placement, retrieval, and analysis of alpha track canisters, which detect alpha particles emitted from radon.

Laboratory results indicate that all radon canisters contain concentrations of less than 4.0 pCi/l.

*See Appendix D for Radon Results*

- There were no results over 4 pCi/l.

## **9.0 ACTION SUMMARY**

### **ASBESTOS**

Based on ITI's survey of the building, ITI has concluded the following material contain asbestos:

#### **ADMINISTRATION BUILDING**

##### **CONFIRMED ASBESTOS**

- Black mastic under Cream floor tile VFT-1 (less than 1% asbestos)
  - Good condition, non friable (NF1)
  - Approximately 5,000 sq. ft. in Hallways and Admin. Spaces
- White thermal system insulation on joints of black foam rubber on pipes (TSI-2)
  - Good condition, friable
  - Located above ceilings
- Exterior grey window caulk
  - Good condition, non friable (NF1)
  - Located around window frames

*Special note: The black mastic under VFT-1 Cream floor tile contains less than 1% asbestos, according to PLM analysis. At the request of the 88<sup>th</sup> RSC, we are reporting materials as asbestos containing if any amount of asbestos was found in them.*

### **PRESUMED ASBESTOS**

- Roofing Materials
  - Good Condition, Non Friable, NF1
- Fire Doors
  - Good Condition
- Electrical Wiring

### **OMS BUILDING**

#### **PRESUMED ASBESTOS**

- Roofing Materials
  - Good Condition, Non Friable
- Fire Doors
  - Good Condition
- Electrical Wiring

#### **Based on the findings above, ITI recommends the following:**

- Observations for detected asbestos was based on visible and accessible materials; therefore, asbestos containing materials may be present in inaccessible areas such as ceiling plenums, crawl spaces, attics, etc.
- An imminent asbestos hazard was not present at the facility during the site visit.
- Develop and Implement and O & M Plan.

#### **Based on the asbestos present in the building, ITI recommends the following:**

- Develop and implement an O & M Plan for all known and suspect ACM
- There are three primary objectives of the O & M program: (1) clean up existing contamination (2) minimize further fiber release by controlling access to ACM, and (3) maintain ACM until it is eventually removed. Properly prepared and implemented, this plan will document the building owner's prudence in dealing with asbestos in the building.

### **PCB'S**

Based on ITI's survey of the building, ITI has concluded that the following types of transformers are located in the building:

### **ADMINISTRATION BUILDING**

- Light Ballasts – Universal 446 (No label, Assumed to contain PCB's)
- Light Ballasts – Advance R-2540-1-TP (No label, Assumed to contain PCB's)
- Light Ballasts – SOLA 624427 (No label, Assumed to contain PCB's)

- Light Ballasts – Valmont 8G1024WTP (No label, Assumed to contain PCB's)
- Light Ballasts – Advance RM-2540-TP (“No PCB's” on label)
- Light Ballasts – Magnetek 446-SLH-TC-P-TP (“No PCB's” on label)
- Light Ballasts – Advance RM-2540-TP (“No PCB's” on label)
- Light Ballasts – Universal 446-L-LH-TC-P (“No PCB's” on label)

**SPECIAL NOTES:** The Orderly room and Operations room (103 & 104 – See Appendix B) are leaking a brown fluid from the transformers. These are assumed to contain PCB's.

#### **OMS BUILDING**

- Light Ballasts – No access to lights

#### **TRANSFORMERS:**

- There are three pole mounted transformers on one pole (Pole #075) located at this site. (Assumed to contain PCB's, as there is no label).
- There is on pole mounted transformer on the right edge of the property, outside the fence. There is no number on the pole, and the transformer has the number “25” on it. (Assumed to contain PCB's, as there is no label)

#### **Based on the findings above, ITI recommends the following:**

- Observations for PCB's was based on visible and accessible materials, therefore, PCB's may be present in other ballasts not observed.
- **An imminent PCB hazard may exist at this facility. Light ballasts in the Operations 235<sup>th</sup> Room 104 and Orderly Room 103 are leaking a brown fluid.**
- Any ballast not labeled “Non PCB's” must be handled according to Federal and State regulations for proper disposal.

#### **Based on the labels found on the transformers, ITI recommends the following:**

Several light ballasts do not have a label stating the absence of PCBs. Without this statement the ballast is presumed to contain PCBs and must be handled accordingly. Additional testing may be required before this ballast is disturbed or disposed. At a minimum, requirements of 40 CFR 761 must be followed should sampling be required.

## **LEAD BASED PAINTS**

Based on ITI's survey for LBP, ITI has concluded that the following building products contain LBP:

### **ADMINISTRATION BUILDING**

- Exterior Garage Door Metal Plates
  - Tan, Metal (Fair Condition)
  - Samples collected from the metal plates on the side of the garage door
- Exterior Columns
  - Yellow, Metal (Fair Condition)
- Window Well
  - Tan, Wood (Fair Condition)
  - Rooms 101, 102, 103, 104, 105, 106, 108, 109 & 110
- Window Apron
  - Tan, Wood (Fair Condition)
  - Rooms 101, 102, 103, 103A (Unit Admin), 104, 105, 106, 108, 109 & 110
- Door Jamb
  - Green & Tan, Metal (Fair Condition)
  - Rooms 104, 108, 109 & 117
- Door Casing
  - Green & Tan, Metal (Fair Condition)
  - Rooms 104, 106, 109 & 118

### **OMS**

- Garage Area – Door Casing – Sample taken from metal plates on the side of the garage door
  - White, Metal (Fair Condition)
- Garage Area – All Columns
  - Silver, Metal (Fair Condition)

### **Based on the findings above, ITI recommends the following:**

- Observations for LBP's was based on visible and accessible materials, therefore, LBP's may be present in inaccessible areas.
- An imminent LBP hazard was not present at the facility during the site visit.
- Workers need to take appropriate safe guards when working, i.e., cutting, grinding, sanding, welding, etc., on areas identified with LBP.
- Conduct a TCLP for all areas identified with LBP prior to disposal.

## **RADON**

Based on ITI's survey, ITI has concluded all radon results are below 4 piCu/l.

### **Based on the findings above, ITI recommends the following:**

- An imminent Radon hazard was not present at the facility during the site visit.
- According to the survey data as provided in Appendix D, there were no results over 4 piCu/l for this location.

## **10.0 WARRANTY**

The field and laboratory results reported herein (only if samples are collected and/or analyzed) are considered sufficient in detail and scope to determine the presence of accessible and/or exposed suspect asbestos, PCB's, LBPs or radon gas in the facility. ITI warrants that the findings contained herein have been prepared in general accordance with accepted professional practices at the time of its preparation as applied by similar professionals in the community. Changes in the state of the art or in applicable regulations cannot be anticipated and have not been addressed into this report.

The survey and analytical methods have been used to provide the client with information regarding the presence of accessible and/or exposed suspect asbestos, lead, PCB's or radon in the facility at the time of the inspection. Test results are valid only for material tested. There is a distinct possibility that conditions may exist which could not be identified within the scope of the study or which were not apparent during the site visit. This inspection covered only suspect accessible materials with no destructive survey techniques. The study is also limited to the information available from the client at the time it was conducted.

This report is not intended to be an asbestos, lead based paint, PCB or Radon risk assessment, management plan or project design document and should not be used for the purpose of obtaining quotes.

## 11.0 SITE PHOTOS



Exterior of USARC



Exterior of OMS



Cream vinyl floor tile VFT-1 (USARC)  
Black mastic contains asbestos



Insulation at pipe joints TSI-2 (USARC)  
Contains asbestos



Window caulk WC-1 (USARC)  
Contains asbestos

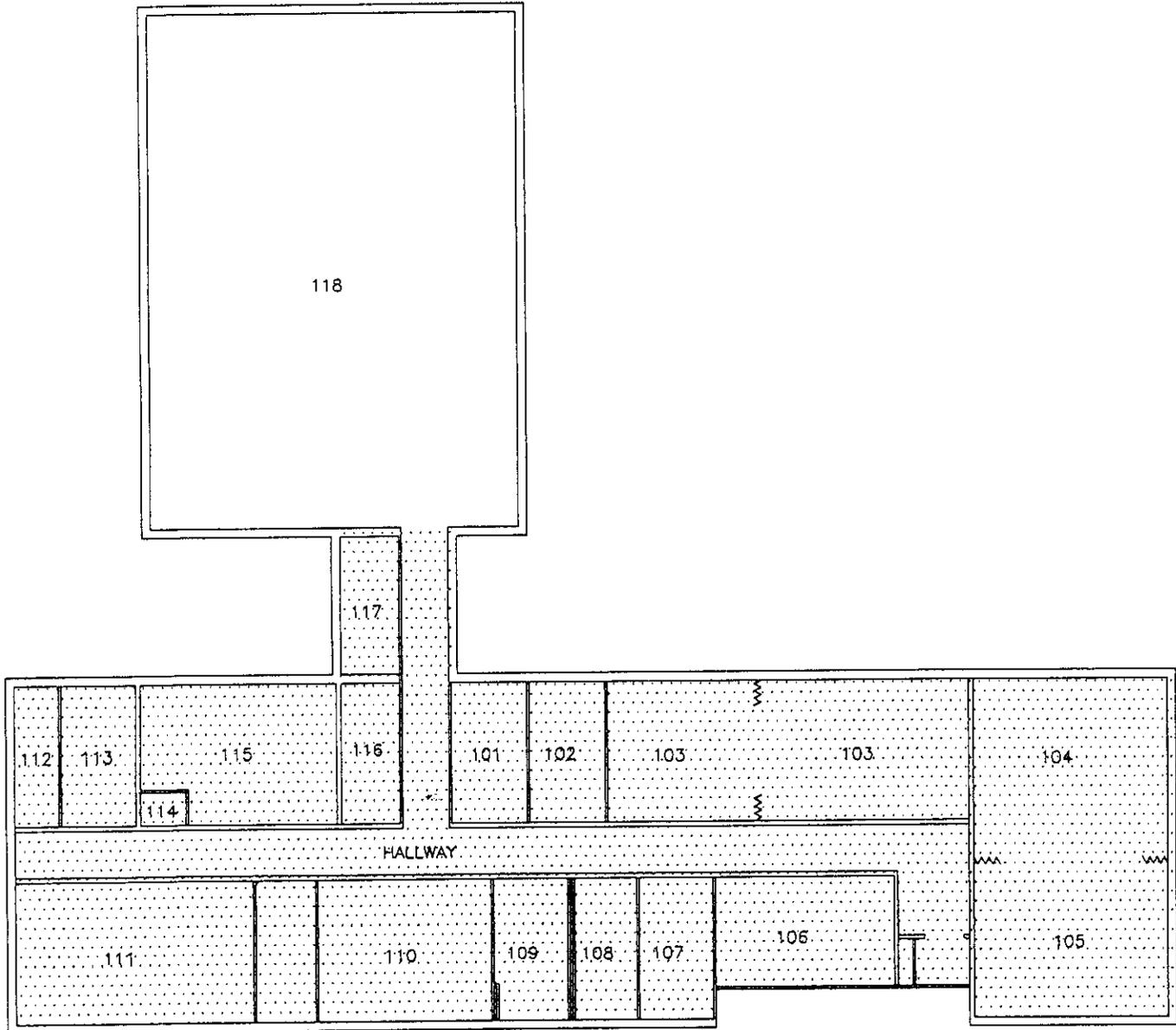


Black floor tiles VFT-2 (USARC)  
Non asbestos

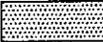
# APPENDIX A

Illinois Facility - Asbestos Summary

FAC ID	Building	Confirmed ACM	Location	Condition
IL-009	USARC	Black mastic under Cream floor tile VFT-1 (less than 1% asbestos)	Approximately 5,000 sq. ft. in Hallways and Admin. Spaces	Good
		White thermal system insulation on joints of black foam rubber on pipes (TSI-2)	Located above ceilings	Good
		Exterior grey window caulk	Located around window frames	Good
FAC ID	Building	Presumed ACM	Location	Condition
IL-009	USARC	Roofing materials	Entire roof	Good
		Fire doors	Located throughout	Good
		Electrical coatings on wires	Located throughout	Good
	OMS	Roofing materials	Entire roof	Good
		Fire doors	Located throughout	Good
		Electrical coatings on wires	Located throughout	Good



**Confirmed Asbestos Containing Material**

 Black Mastic floor adhesive found under VFT-1

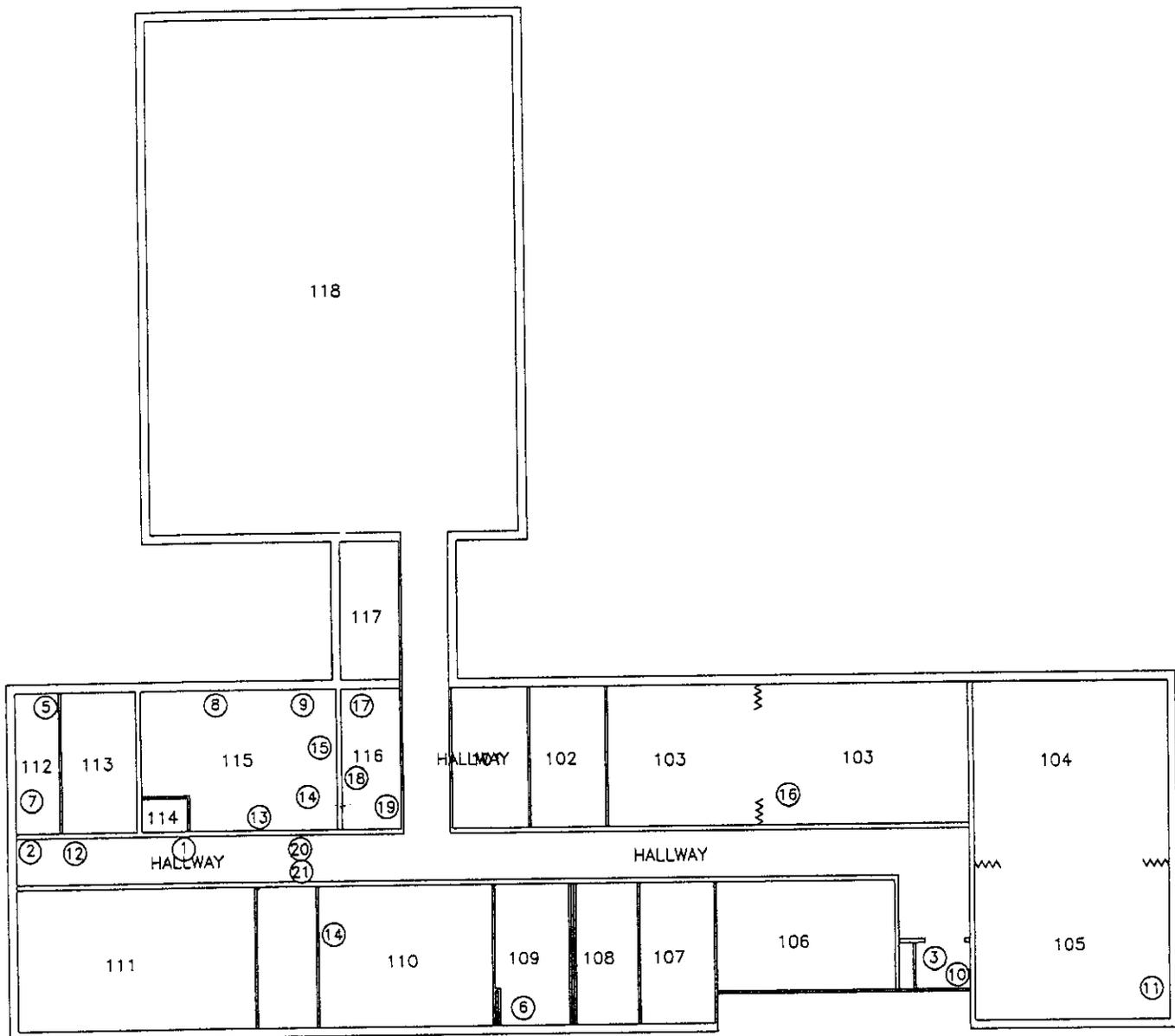
TSI-2 = White thermal system insulation on pipe fittings

Window caulking, gray on ext. window frames

2710 Central Ave  
 St Petersburg, Florida  
 33704

**COPPLE USARC IL-009  
 ADMINISTRATION  
 BUILDING**

**Confirmed & Sampled  
 Asbestos locations**  
 SCALE: NTS



Ⓝ = Sampled Asbestos locations  
taken on : 3-31-05

1  
2710 Central Ave  
St Petersburg, Florida  
33704

**COPPLE USARC IL-009  
ADMINISTRATION  
BUILDING**

**Sampled Asbestos  
locations**  
SCALE: NTS

**BULK ASBESTOS ANALYSIS SUMMARY REPORT**

**CLIENT NAME:** ITI of South Florida, Inc.  
 2710 Central Avenue  
 St. Petersburg, Florida 33712

**DATE OF RECEIPT:** April 6, 2005  
**SAMPLE CONDITION:** Good  
**DATE ANALYZED:** April 7, 2005

**A.E.S.L. LABORATORY #:** 05-A281

**PROJECT:** ADECCO IL-009 USARC

A.E.S.L. LAB SAMPLE ID #	CLIENT SAMPLE ID #	SAMPLE DESCRIPTION & COLOR	TEST RESULTS		OTHER MATERIALS
			Pos. / Neg.	% & Type	
A281-1 a	IL-009-1 a	VFT-1-1 – Off-White Tile	Negative	-----	100% Non-Fibrous
A281-1 b	IL-009-1 b	Black Mastic	Trace	<1% Chrysotile	99% Non-Fibrous
A281-2 a	IL-009-2 a	VFT-1-2 – Off-White Tile	Negative	-----	100% Non-Fibrous
A281-2 b	IL-009-2 b	Black Mastic	Trace	<1% Chrysotile	99% Non-Fibrous
A281-3 a	IL-009-3 a	VFT-1-3 – Off-White Tile	Negative	-----	100% Non-Fibrous
A281-3 b	IL-009-3 b	Black Mastic	Trace	<1% Chrysotile	99% Non-Fibrous
A281-4	IL-009-4	PW-1-1 – White Material	Negative	-----	100% Non-Fibrous
A281-5	IL-009-5	PW-1-2 – White Material	Negative	-----	100% Non-Fibrous
A281-6	IL-009-6	PW-1-3 – White Material	Negative	-----	100% Non-Fibrous
A281-7	IL-009-7	CM-1-1 – White Material	Negative	-----	1% Cellulose 99% Non-Fibrous
A281-8	IL-009-8	CM-1-2 – White Material	Negative	-----	1% Cellulose 99% Non-Fibrous
A281-9	IL-009-9	CM-1-3 – White Material	Negative	-----	1% Cellulose 99% Non-Fibrous
A281-10 a	IL-009-10 a	BB-1-1 – Black Cove	Negative	-----	100% Non-Fibrous
A281-10 b	IL-009-10 b	Brown Mastic	Negative	-----	100% Non-Fibrous
A281-11 a	IL-009-11 a	BB-1-2 – Black Cove	Negative	-----	100% Non-Fibrous
A281-11 b	IL-009-11 b	Brown Mastic	Negative	-----	100% Non-Fibrous
A281-12 a	IL-009-12 a	BB-1-3 – Black Cove	Negative	-----	100% Non-Fibrous
A281-12 b	IL-009-12 b	Brown Mastic	Negative	-----	100% Non-Fibrous
A281-13	IL-009-13	TSI-1-1 – Black Material	Negative	-----	10% Mineral Wool 90% Non-Fibrous
A281-14	IL-009-14	TSI-1-2 – Black Material	Negative	-----	10% Mineral Wool 90% Non-Fibrous
A281-15	IL-009-15	TSI-1-3 – Black Material	Negative	-----	10% Mineral Wool 90% Non-Fibrous
A281-16	IL-009-16	FC-1 – Green Material	Negative	-----	20% Synthetic Fibers 80% Non-Fibrous
A281-17 a	IL-009-17 a	VFT-2-1 – Black Tile	Negative	-----	100% Non-Fibrous
A281-17 b	IL-009-17 b	Yellow Mastic	Negative	-----	100% Non-Fibrous
A281-18 a	IL-009-18 a	VFT-2-2 – Black Tile	Negative	-----	100% Non-Fibrous
A281-18 b	IL-009-18 b	Yellow Mastic	Negative	-----	100% Non-Fibrous
A281-19 a	IL-009-19 a	VFT-2-3 – Black Tile	Negative	-----	100% Non-Fibrous

A.E.S.L. LAB SAMPLE ID #	CLIENT SAMPLE ID #	SAMPLE DESCRIPTION & COLOR	TEST RESULTS		OTHER MATERIALS
			Pos. / Neg.	% & Type	
A281-19 b	IL-009-19 b	Yellow Mastic	Negative	-----	100% Non-Fibrous
A281-20 a	IL-009-20 a	TSI-2-1 - Tan Material	Positive	2% Chrysotile	98% Non-Fibrous
A281-20 b	IL-009-20 b	Black Material	Negative	-----	5% Mineral Wool 95% Non-Fibrous
A281-21 a	IL-009-21 a	TSI-2-2 - NAAPCR	-----	-----	-----
A281-21 b	IL-009-21 b	Black Material	Negative	-----	5% Mineral Wool 95% Non-Fibrous
A281-22 a	IL-009-22 a	TSI-2-3 - NAAPCR	-----	-----	-----
A281-22 b	IL-009-22 b	Black Material	Negative	-----	5% Mineral Wool 95% Non-Fibrous
A281-23 a	IL-009-23 a	DC-1 - White Material	Negative	-----	100% Non-Fibrous
A281-23 b	IL-009-23 b	Gray Material	Negative	-----	100% Non-Fibrous
A281-24	IL-009-24	WC-1 - Gray Material	Trace	<1% Chrysotile	1% Cellulose 98% Non-Fibrous

Method: Polarized Light Microscopy, EPA Method 600/R-93/116

The result quantitations reported are an estimation based on the methods of visual microscopic estimation, which is considered only a semi-quantitative technique. Also, this report is indicative only of the sample material A.E.S.L. Laboratory received. Results do not necessarily reflect the makeup of the entire span of the material from which the samples were derived. Sampling techniques and/or sample handling may affect the integrity of the sample/s before submission to A.E.S.L. Laboratory and hence the outcome of the laboratory results. Samples not destroyed by testing are retained a minimum of thirty days.

A.E.S.L. Laboratory, recommends re-analysis by point count or Transmission Electron Microscopy (TEM) for materials that are found to contain less than ten percent (<10%) asbestos by PLM.

This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of A.E.S.L.

Analyzed by:

  
 Shawn Kearney

C:\DATA\AESL\BULK\05-A000\05-A281.DOC

Turnaround Time:  RUSH  Same Day  24 Hour  48 Hour

Stop @ First Positive  
 Read All Samples

**BULK ASBESTOS SAMPLE**

CHAIN OF CUSTODY

A.E.S.L. LABORATORY # : 05-A281

Page 1 of 2

Client Name: Ill of South Florida, Inc. Contact: Dave Tyler Phone: (727) 586-7500 Fax: (727) 581-0764  
 Address: 2710 Central Avenue City: St. Petersburg State: Florida Zip: 33712

PROJECT: ADECCO PROJECT ID: 11-009 USARC DATE SAMPLES TAKEN: \_\_\_\_\_  
 SAMPLES REC'D (#): 24 DATE REC'D: 4-6-05 CONDITION: Good SAMPLES ACCEPTED (Y N ): \_\_\_\_\_ IF NO, WHY \_\_\_\_\_

\*\*\* SAMPLES TO BE RETURNED TO CLIENT AFTER 30 DAYS OR DISPOSED OF BY A.E.S.L. ( D R ) : \_\_\_\_\_  
 (IF NOT SPECIFIED WILL AUTOMATICALLY BE DISPOSED OF AFTER 30 DAYS)

A.E.S.L. Sample #	Client ID #	Sample Location	Sample Description	A.E.S.L. Sample #	Client ID #	Sample Location	Sample Description
	11-009-1		VFT-1-1		11-009-10		RB-1-1
	-2		VFT-1-2		-11		RB-1-2
	-3		VFT-1-3		-12		RB-1-3
	-4		PW-1-1		-13		TSI-1-1
	-5		PW-1-2		-14		TSI-1-2
	-6		PW-1-3		-15		TSI-1-3
	-7		CM-1-1		-16		FC-1
	-8		CM-1-2		-17		VFT-2-1
	-9		CM-1-3		-18		VFT-2-2

A.E.S.L. Environmental Laboratory  
 800 North Mary Street  
 Tempe, Arizona 85281

RELINQUISHED BY: Dave Tyler Time: 9 PM DATE: 4-4-05  
 RECEIVED BY: CM Time: \_\_\_\_\_ DATE: 4-6-05

Turnaround Time:  RUSH  Same Day  24 Hour  48 Hour

Stop @ First Positive  
 Read All Samples

# BULK ASBESTOS SAMPLE

## CHAIN OF CUSTODY

A.E.S.L. LABORATORY # : \_\_\_\_\_

Page 2 of 2

Client Name: ILL of South Florida, Inc. Contact: Dave Tyler Phone: (227) 586-7500 Fax: (227) 581-0764  
 Address: 2710 Central Avenue City: St. Petersburg State: Florida Zip: 33712

PROJECT: ADECCO

PROJECT ID: K-009 USARC DATE SAMPLES TAKEN: \_\_\_\_\_

SAMPLES REC'D (#): \_\_\_\_\_ DATE REC'D: \_\_\_\_\_ CONDITION: \_\_\_\_\_ SAMPLES ACCEPTED ( Y , N ) : \_\_\_\_\_ IF NO, WHY? \_\_\_\_\_

\*\*\* SAMPLES TO BE RETURNED TO CLIENT AFTER 30 DAYS OR DISPOSED OF BY A.E.S.L. ( D O R ) : \_\_\_\_\_  
 (IF NOT SPECIFIED WILL AUTOMATICALLY BE DISPOSED OF AFTER 30 DAYS)

A.E.S.L. Sample #	Client ID #	Sample Location	Sample Description	A.E.S.L. Sample #	Client ID #	Sample Location	Sample Description
	<u>K-009-19</u>		<u>VFT-2-3</u>				
	<u>-20</u>		<u>TSI-2-1</u>				
	<u>-21</u>		<u>TSI-2-2</u>				
	<u>-22</u>		<u>TSI-2-3</u>				
	<u>-23</u>		<u>DC-1</u>				
	<u>-24</u>		<u>WC-1</u>				

A.E.S.L. Environmental Laboratory  
 800 North Mary Street  
 Tempe, Arizona 85281

RELINQUISHED BY: Dave Tyler

Time: 9PM DATE: 4-4-05

RECEIVED BY: CA

Time: \_\_\_\_\_ DATE: 4-6-05

**BULK ASBESTOS ANALYSIS SUMMARY REPORT**

**CLIENT NAME:** I.T.I.  
 514 First Avenue SW  
 Largo, Florida 33770

**DATE OF RECEIPT:** July 11, 2002  
**SAMPLE CONDITION:** Good  
**DATE ANALYZED:** July 11, 2002

**A.E.S.L. LABORATORY #:** 02-A764

**PROJECT:** Copple ARC  
 Centralia, IL

A.E.S.L. LAB SAMPLE ID #	CLIENT SAMPLE ID #	SAMPLE DESCRIPTION & COLOR	TEST RESULTS		OTHER MATERIALS
			Pos. / Neg.	% & Type	
A764-1	C 01	2 x 4 White and Tan Ceiling Tile	Negative	-----	20% Cellulose 20% Mineral Wool 60% Non-Fibrous
A764-2	C 02	2 x 4 White and Tan Ceiling Tile	Negative	-----	20% Cellulose 20% Mineral Wool 60% Non-Fibrous
A764-3	C 03	12 x 12 White and Tan Ceiling Tile	Negative	-----	30% Cellulose 70% Non-Fibrous
A764-4	C 04	12 x 12 White and Tan Ceiling Tile	Negative	-----	30% Cellulose 70% Non-Fibrous

Legend: NAAPCR - Not analyzed as per customer request

Comment:

Method: Polarized Light Microscopy, EPA Method 600/R-93/116

The result quantitations reported are an estimation based on the methods of visual microscopic estimation which is considered only a semi-quantitative technique. Also, this report is indicative only of the sample material A.E.S.L. Laboratory received. Results do not necessarily reflect the makeup of the entire span of the material from which the samples were derived. Sampling techniques and/or sample handling may affect the integrity of the sample/s before submission to A.E.S.L. Laboratory and hence the outcome of the laboratory results. Samples not destroyed by testing are retained a minimum of thirty days.

A.E.S.L. Laboratory, recommends re-analysis by point count or Transmission Electron Microscopy (TEM) for materials that are found to contain less than ten percent (<10%) asbestos by PLM.

This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

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Analyst:                     *R. Keneson*                      
 Ronnie Keneson

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Turnaround Time:  RUSH  Same Day  24 Hour  48 Hour

Stop @ First Positive  
 Read All Samples

**BULK ASBESTOS SAMPLE  
 CHAIN OF CUSTODY**

A.E.S.L. LABORATORY # : 00A704 Page      of     

Client Name: ITISK Contact: G. Sakswi Phone: 227-5029223 Fax: 727-5810764

Address: 574 1st Ave SW City: LACRU State: FL Zip: 33770

PROJECT NAME: COPPLE ARC PROJECT ID: CENTRALIA, FL

Samples Collected By: Angel Mesoniere SAMPLES TAKEN: 27 Jan 02

SAMPLES REC'D (#):      DATE REC'D:      CONDITION:      SAMPLES ACCEPTED ( Y, N ):      IF NO. WHY?     

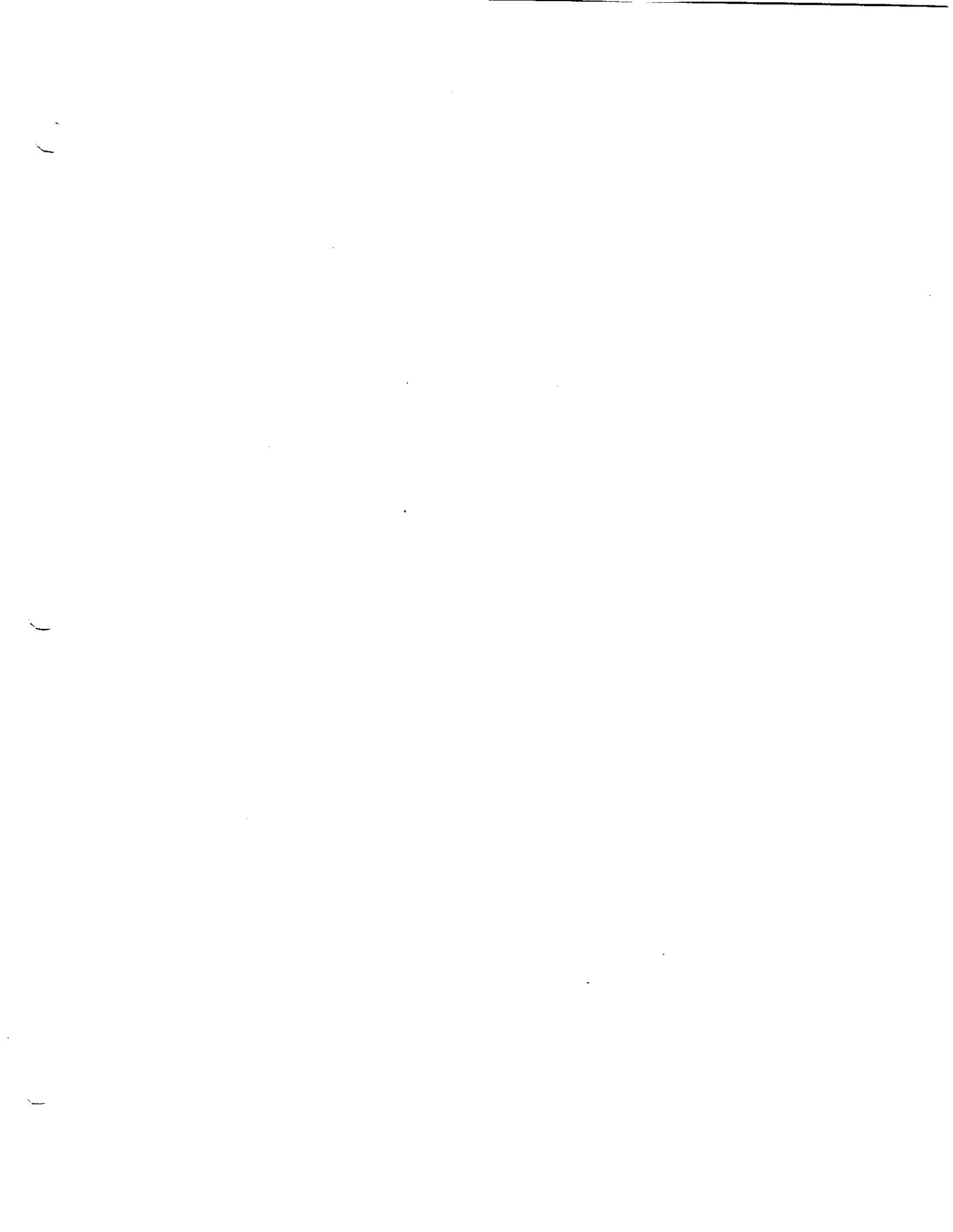
\*\*\* SAMPLES TO BE RETURNED TO CLIENT AFTER 30 DAYS OR DISPOSED OF BY A.E.S.L. ( D R ):      \*\*\*  
 (IF NOT SPECIFIED WILL AUTOMATICALLY BE DISPOSED OF AFTER 30 DAYS)

A.E.S.L. Sample #	Client ID #	Sample Location	Sample Description	A.E.S.L. Sample #	Client ID #	Sample Location	Sample Description
C01		HALLWAY	C. Tile 2x4				
C02		"	2x2 w/ fr GOOD				
C03		OPERATION	C. Tile 12x12				
C04		OFFICE	2, w/ fr GOOD				

A.E.S.L. ENVIRONMENTAL LABORATORY  
 1707 East Weber Drive, Suite 6  
 TEMPE, ARIZONA 85281  
 PHONE (480) 966-3714 FAX (480) 394-0188

RELINQUISHED BY: [Signature] TIME: 1000 DATE: 3/1/02

RECEIVED AT A.E.S.L. BY: [Signature] DATE: 7/1/02



2 Bay  
Garage

OMS

①

① = Sampled Asbestos locations  
taken on : 3-31-05

2710 Central Ave  
St Petersburg, Florida  
33704

**COPPLE USARC OH-009-002  
OMS BUILDING**

**Sampled Asbestos  
Locations**

SCALE: NTS

**BULK ASBESTOS ANALYSIS SUMMARY REPORT**

**CLIENT NAME:** ITI of South Florida, Inc.  
 2710 Central Avenue  
 St. Petersburg, Florida 33712

**DATE OF RECEIPT:** April 6, 2005  
**SAMPLE CONDITION:** Good  
**DATE ANALYZED:** April 7, 2005

**A.E.S.L. LABORATORY #:** 05-A275

**PROJECT:** ADECCO IL-009 OMS

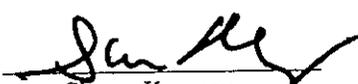
A.E.S.L. LAB SAMPLE ID #	CLIENT SAMPLE ID #	SAMPLE DESCRIPTION & COLOR	TEST RESULTS		OTHER MATERIALS
			Pos. / Neg.	% & Type	
A275-1	IL-009 OMS-1	DC-1 - White/Gray Material	Negative	-----	100% Non-Fibrous

Method: Polarized Light Microscopy, EPA Method 600/R-93/116

The result quantitations reported are an estimation based on the methods of visual microscopic estimation, which is considered only a semi-quantitative technique. Also, this report is indicative only of the sample material A.E.S.L. Laboratory received. Results do not necessarily reflect the makeup of the entire span of the material from which the samples were derived. Sampling techniques and/or sample handling may affect the integrity of the sample/s before submission to A.E.S.L. Laboratory and hence the outcome of the laboratory results. Samples not destroyed by testing are retained a minimum of thirty days.

A.E.S.L. Laboratory, recommends re-analysis by point count or Transmission Electron Microscopy (TEM) for materials that are found to contain less than ten percent (<10%) asbestos by PLM.

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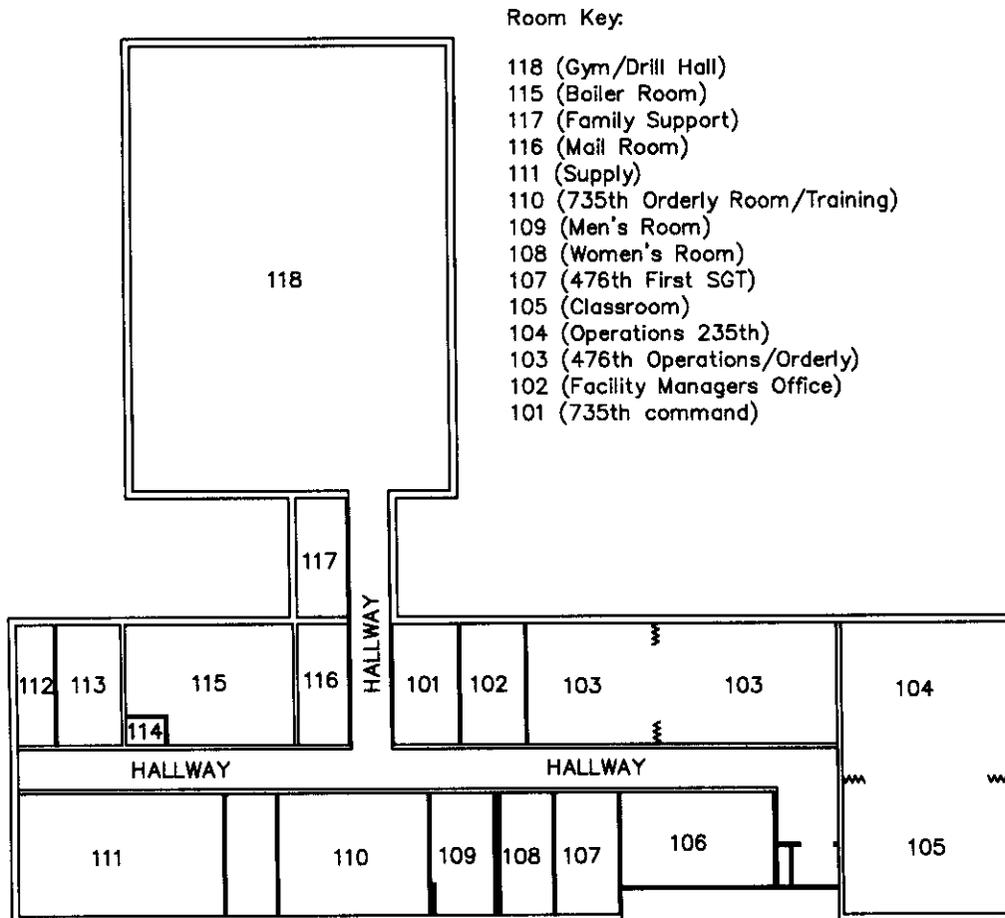
Analyzed by:   
 Shawn Kearney

C:\DATA\AESLABULK\05-A000\05-A275.DOC



# **APPENDIX B**

Room number/name	Ballast #/Manufacturer	Label Stating No PCB's
<b>IL - 009 - USARC</b>		
Classroom #105	Universal 446	NO
Operations 235th - Room #104	Advance R-2540-1-TP	NO
Orderly Room #103	SOLA 624427	NO
Unit Admin. Room #103A	SOLA 624427	NO
Women's Room #108	Advance RM-2540-TP	YES
Hallway	Magnetek 446-SLH-TC-P	YES
Men's Room #109	Advance RM-2540-TP	YES
Mailroom #116	Magnetek 446-SLH-TC-P	YES
Bathroom #112	Advance RM-2540-TP	YES
Family Support Group #117	Magnetek 446-SLH-TC-P	YES
Training Room #110	Universal 446-L-LH-TC-P	YES
Commander #101	Universal 446-L-LH-TC-P	YES
Room #102	Valmont Electric 8G1024W	NO
<b>Rooms 103 &amp; 104 above are leaking a brown fluid from the transformers</b>		

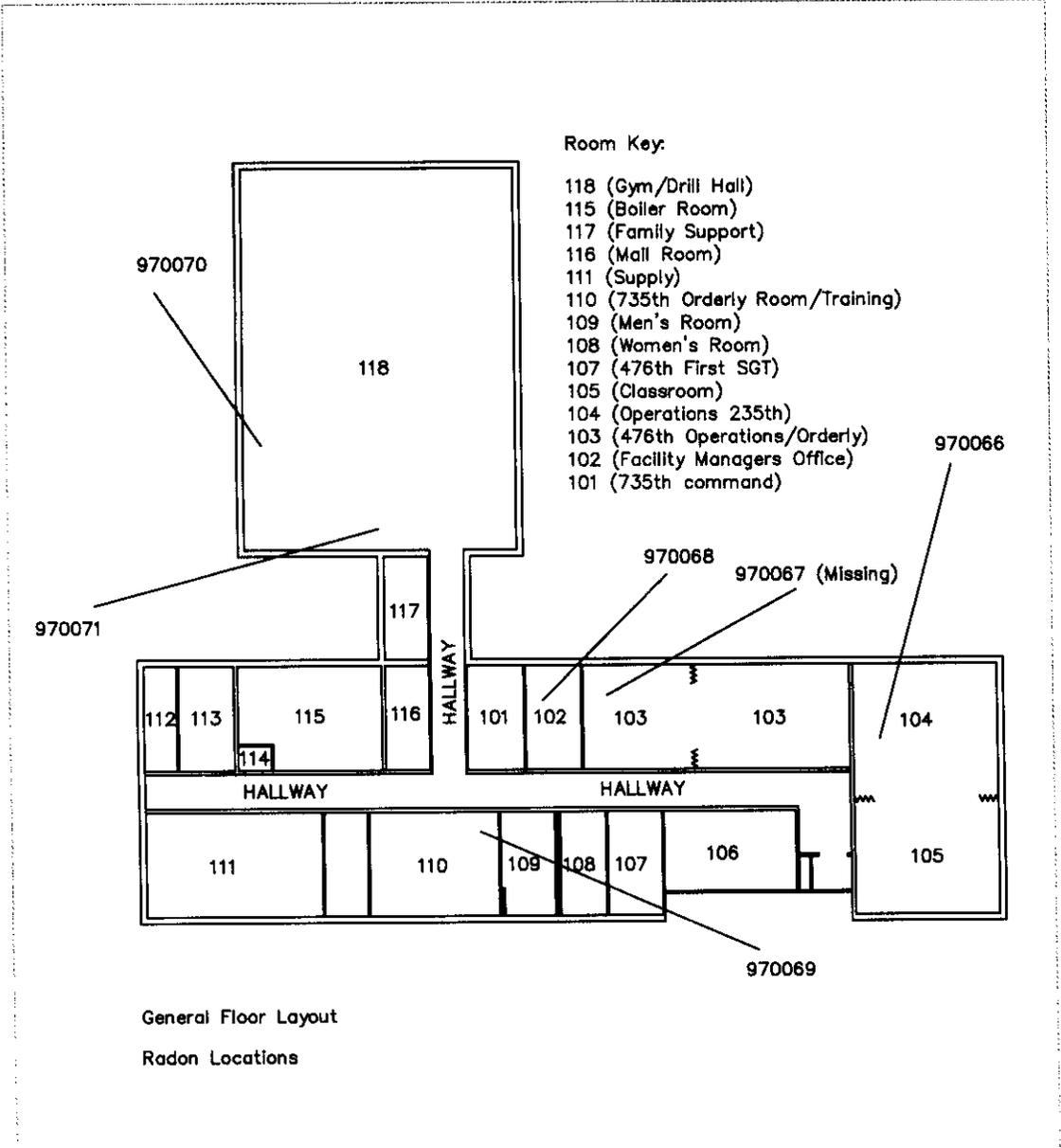


General Floor Layout

**ITI of South Florida  
Environmental Services  
Drawn: M. MASAAL**

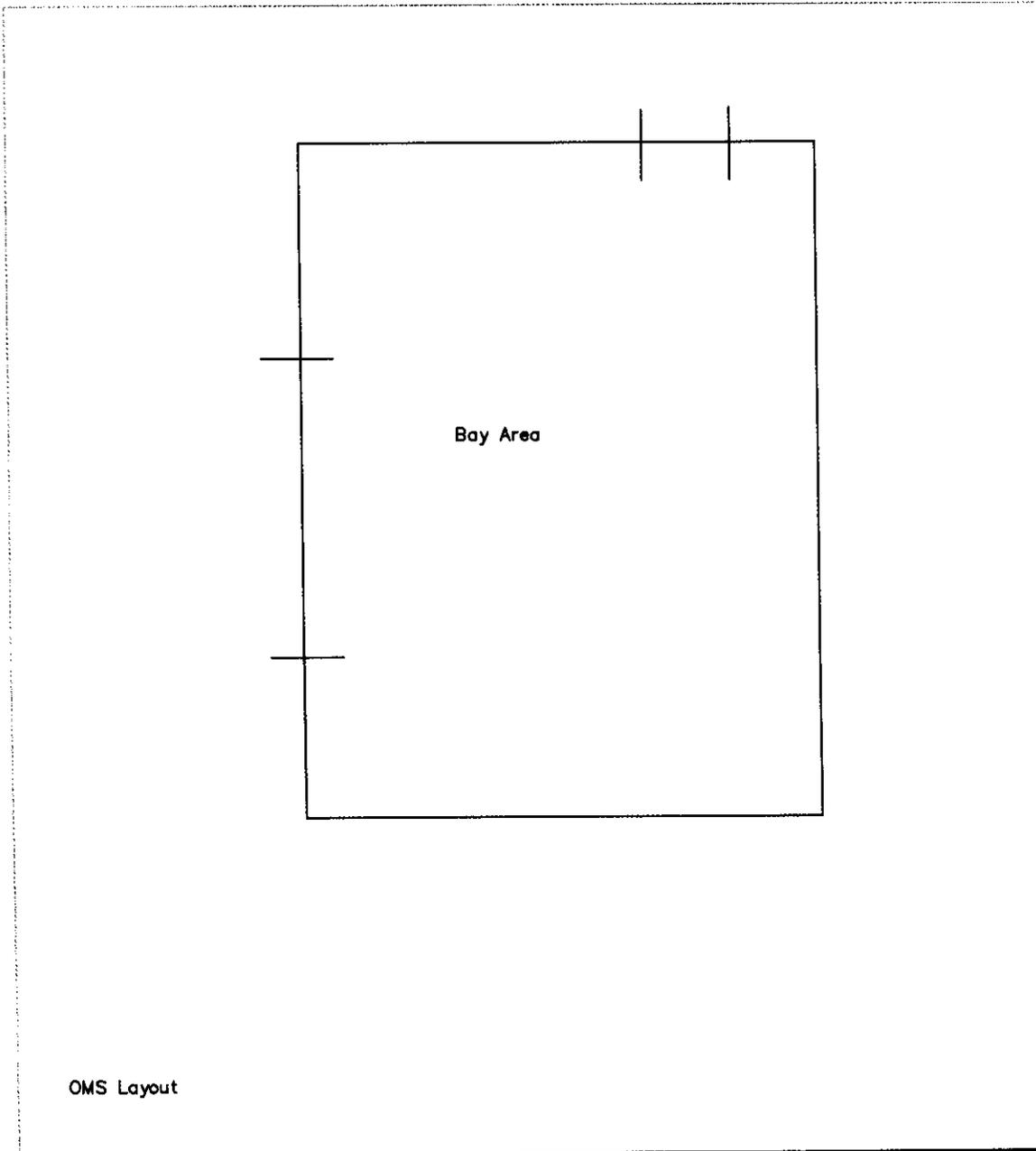
**USAR CENTER  
CENTRALIA, IL  
IL 009**

**FIGURE  
06-APR-2002**



General Floor Layout  
Radon Locations

<p><b>ITI of South Florida Environmental Services Drawn: M. MASAAL</b></p>	<p>USAR CENTER CENTRALIA, IL IL 009</p>	<p><b>FIGURE 06-APR-2002</b></p>
--	---	--------------------------------------

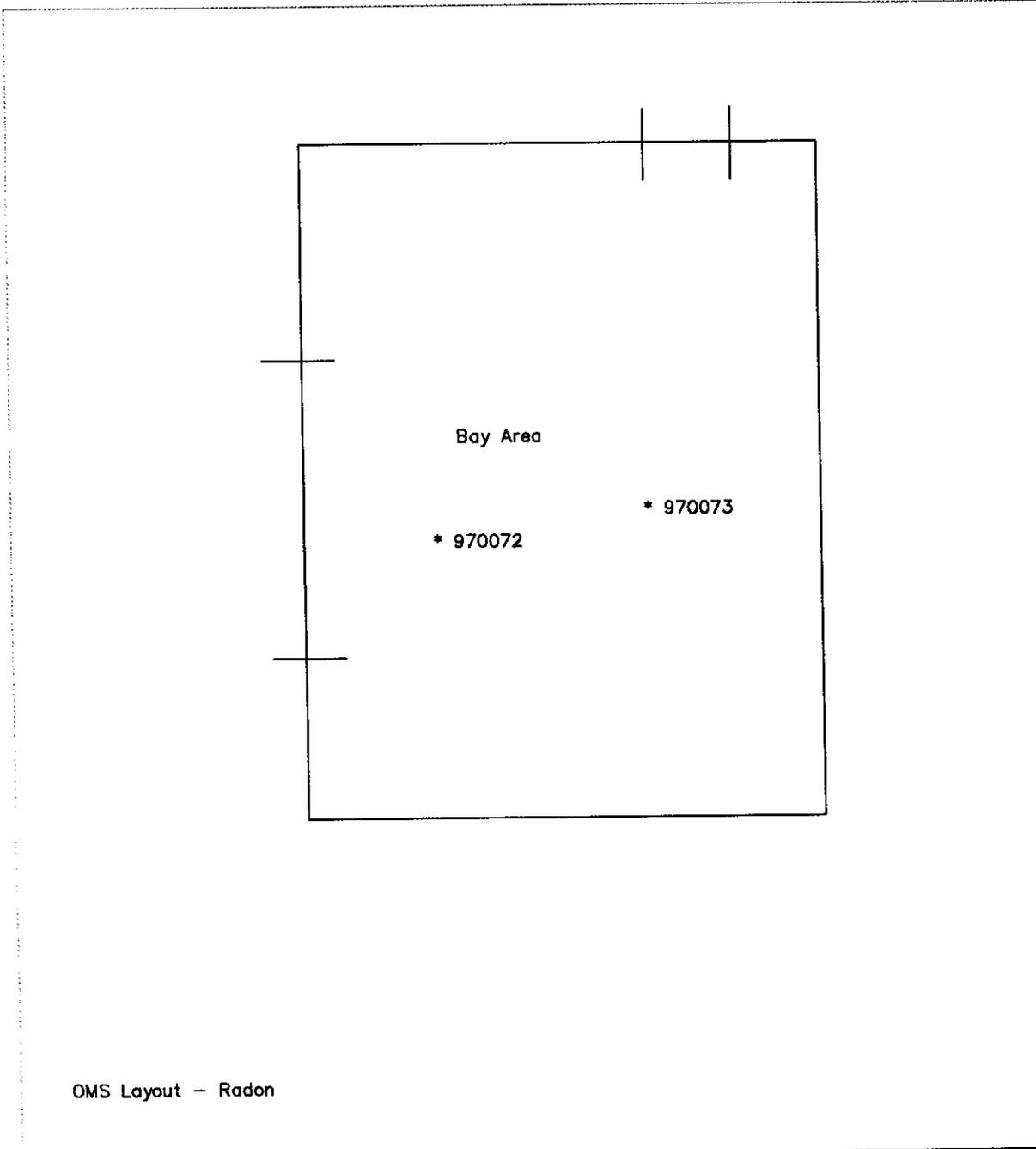


OMS Layout

**ITI of South Florida  
Environmental Services  
Drawn: M. MASAAL**

OMS  
CENTRALIA, IL  
IL 009

**FIGURE  
06-APR-2002**



OMS Layout - Radon

<p><b>ITI of South Florida Environmental Services Drawn: M. MASAAL</b></p>	<p>OMS CENTRALIA, IL IL 009</p>	<p><b>FIGURE 06-APR-2002</b></p>
--	---	--------------------------------------

# APPENDIX C

**USARC**

**SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: IL-009-001; Centralia, IL**

Inspection Date: 07/16/02 SFC Earl Copple USARC  
 Report Date: 8/26/2003  
 Statement Level: 1.0  
 Report No. S#01908 - 07/16/02 08:59  
 Total Readings: 143 Actionable: 32  
 Job Started: 07/16/02 08:59  
 Job Finished: 07/16/02 11:55

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
<b>Exterior Room 001 Garage</b>									
140	A	Door	Ctr	Rgt casing	F	Metal	Tan	>9.9	QM
139	A	Door	Ctr	Lft casing	F	Metal	Tan	>9.9	QM
142	A	Column	Lft	L column	I	Metal	Yellow	2.1	QM
143	A	Column	Rgt	L column	I	Metal	Yellow	1.6	QM
Comment: Readings 139 and 140 were taken from metal plates on side of the garage door. These are not exactly door casings, but this is the closest description in the program.									
<b>Interior Room 101 Number Only</b>									
062	C	Window	Ctr	Well	I	Wood	Tan	1.0	QM
063	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
<b>Interior Room 102 Number Only</b>									
052	C	Window	Ctr	Well	I	Wood	Tan	1.0	QM
053	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
<b>Interior Room 103 Number Only</b>									
030	C	Window	Ctr	Well	I	Wood	Tan	1.3	QM
031	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
<b>Interior Room 104 Number Only</b>									
014	A	Door	Ctr	Rgt casing	I	Metal	Grn &Tan	1.0	QM
012	A	Door	Ctr	Lft jamb	I	Metal	Grn &Tan	1.0	QM
020	C	Window	Ctr	Well	I	Wood	Tan	1.5	QM
021	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
<b>Interior Room 105 Classroom</b>									
010	C	Window	Ctr	Well	I	Wood	Tan	1.3	QM
011	C	Window	Ctr	Apron	I	Wood	Tan	1.7	QM
<b>Interior Room 106 Number Only</b>									
110	A	Door	Ctr	Rgt casing	I	Metal	Grn &Tan	1.0	QM
106	C	Window	Ctr	Well	I	Wood	Tan	1.5	QM
107	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
<b>Interior Room 108 Number Only</b>									
098	A	Door	Ctr	Lft jamb	I	Metal	Grn &Tan	1.0	QM
096	C	Window	Ctr	Well	I	Wood	Tan	1.6	QM
097	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
<b>Interior Room 109 Number Only</b>									
087	A	Door	Ctr	Rgt casing	I	Metal	Grn &Tan	1.0	QM
085	A	Door	Ctr	Lft jamb	I	Metal	Grn &Tan	1.0	QM
083	C	Window	Ctr	Well	I	Wood	Tan	1.5	QM
084	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
<b>Interior Room 110 Number Only</b>									
074	A	Door	Ctr	Lft jamb	I	Metal	Grn &Tan	1.0	QM
072	C	Window	Ctr	Well	I	Wood	Tan	1.0	QM

**SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: IL-009-001; Centralia, IL**

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
073	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
Interior Room 117 Number Only									
121	A	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	1.0	QM
Interior Room 118 Number Only									
131	A	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	1.0	QM
Interior Room 903 103A									
041	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
Calibration Readings									
Calibration Readings									
----- End of Readings -----									

**DETAILED REPORT OF LEAD PAINT INSPECTION FOR: IL-009-001; Centralia, IL**

Inspection Date: 07/16/02 SFC Earl Copple USARC  
 Report Date: 8/26/2003  
 Statement Level: 1.0  
 Report No. S#01908 - 07/16/02 08:59  
 Total Readings: 143  
 Job Started: 07/16/02 08:59  
 Job Finished: 07/16/02 11:55

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
<b>Exterior Room 001 Garage</b>									
140	A	Door	Ctr	Rgt casing	F	Metal	Tan	>9.9	QM
139	A	Door	Ctr	Lft casing	F	Metal	Tan	>9.9	QM
141	A	Door	Ctr	U Ctr	I	Metal	White	0.1	QM
142	A	Column	Lft	L column	I	Metal	Yellow	2.1	QM
143	A	Column	Rgt	L column	I	Metal	Yellow	1.6	QM

Comment: Readings 139 and 140 were taken from metal plates on side of the garage door. These are not exactly door casings, but this is the closest description in the program.

**Interior Room 101 Number Only**

057	A	Wall	L Ctr		I	N/A	N/A	-0.5	QM
066	A	Door	Ctr	Rgt casing	I	N/A	N/A	0.5	QM
064	A	Door	Ctr	Lft jamb	I	N/A	N/A	0.3	QM
065	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.2	QM
058	B	Wall	L Ctr		I	N/A	N/A	-0.3	QM
059	C	Wall	L Ctr		I	N/A	N/A	-0.4	QM
061	C	Window	Ctr	Rgt casing	I	N/A	N/A	-0.1	QM
062	C	Window	Ctr	Well	I	Wood	Tan	1.0	QM
063	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
060	D	Wall	L Ctr		I	N/A	N/A	-0.4	QM

**Interior Room 102 Number Only**

047	A	Wall	L Ctr		I	N/A	N/A	-0.2	QM
056	A	Door	Ctr	Rgt casing	I	N/A	N/A	0.4	QM
054	A	Door	Ctr	Lft jamb	I	N/A	N/A	0.5	QM
055	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.2	QM
048	B	Wall	L Ctr		I	N/A	N/A	-0.3	QM
049	C	Wall	L Ctr		I	N/A	N/A	-0.4	QM
051	C	Window	Ctr	Rgt casing	I	N/A	N/A	0.0	QM
052	C	Window	Ctr	Well	I	Wood	Tan	1.0	QM
053	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
050	D	Wall	L Ctr		I	N/A	N/A	-0.5	QM

**Interior Room 103 Number Only**

025	A	Wall	L Ctr		I	N/A	N/A	0.0	QM
034	A	Door	Ctr	Rgt casing	I	N/A	N/A	0.5	QM
032	A	Door	Ctr	Lft jamb	I	N/A	N/A	-0.1	QM
033	A	Door	Ctr	U Ctr	I	N/A	N/A	0.0	QM
026	B	Wall	L Ctr		I	N/A	N/A	-0.4	QM
027	C	Wall	L Ctr		I	N/A	N/A	-0.4	QM
029	C	Window	Ctr	Rgt casing	I	N/A	N/A	-0.3	QM
030	C	Window	Ctr	Well	I	Wood	Tan	1.3	QM
031	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
028	D	Wall	L Ctr		I	N/A	N/A	-0.3	QM

**Interior Room 104 Number Only**

015	A	Wall	L Ctr		I	N/A	N/A	-0.2	QM
014	A	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	1.0	QM
012	A	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	1.0	QM

**DETAILED REPORT OF LEAD PAINT INSPECTION FOR: IL-009-001; Centralia, IL**

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
013	A	Door	Ctr	U Ctr	I	Metal	Green	-0.1	QM
016	B	Wall	L Ctr		I	N/A	N/A	-0.2	QM
017	C	Wall	L Ctr		I	N/A	N/A	-0.2	QM
020	C	Window	Ctr	Well	I	Wood	Tan	1.5	QM
021	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
019	C	Window	Ctr	Lft casing	I	N/A	N/A	-0.1	QM
024	C	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	0.4	QM
022	C	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	0.2	QM
023	C	Door	Ctr	U Ctr	I	Metal	Grn & Tan	-0.1	QM
018	D	Wall	L Ctr		I	N/A	N/A	-0.2	QM
<b>Interior Room 105 Classroom</b>									
005	A	Wall	L Ctr		I	N/A	N/A	-0.1	QM
006	B	Wall	L Ctr		I	N/A	N/A	0.0	QM
007	C	Wall	L Ctr		I	N/A	N/A	-0.3	QM
009	C	Window	Ctr	Rgt casing	I	Metal	Brown	-0.5	QM
010	C	Window	Ctr	Well	I	Wood	Tan	1.3	QM
011	C	Window	Ctr	Apron	I	Wood	Tan	1.7	QM
008	D	Wall	L Ctr		I	N/A	N/A	-0.3	QM
<b>Interior Room 106 Number Only</b>									
101	A	Wall	L Ctr		I	N/A	N/A	-0.3	QM
110	A	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	1.0	QM
108	A	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	0.5	QM
109	A	Door	Ctr	U Ctr	I	Wood	Natural	0.0	QM
102	B	Wall	L Ctr		I	N/A	N/A	-0.4	QM
103	C	Wall	L Ctr		I	N/A	N/A	-0.1	QM
105	C	Window	Ctr	Rgt casing	I	N/A	N/A	0.0	QM
106	C	Window	Ctr	Well	I	Wood	Tan	1.5	QM
107	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
104	D	Wall	L Ctr		I	N/A	N/A	-0.1	QM
<b>Interior Room 108 Number Only</b>									
089	A	Wall	L Ctr		I	N/A	N/A	-0.1	QM
094	A	Wall	L Ctr		I	N/A	N/A	-0.6	QM
088	A	Chair rail	Ctr		I	N/A	N/A	-0.4	QM
100	A	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	0.4	QM
098	A	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	1.0	QM
099	A	Door	Ctr	U Ctr	I	Wood	Natural	-0.1	QM
090	B	Wall	L Ctr		I	N/A	N/A	-0.2	QM
091	C	Wall	L Ctr		I	N/A	N/A	-0.1	QM
093	C	Ceiling			I	N/A	N/A	-0.2	QM
095	C	Window	Ctr	Rgt casing	I	N/A	N/A	-0.5	QM
096	C	Window	Ctr	Well	I	Wood	Tan	1.6	QM
097	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
092	D	Wall	L Ctr		I	N/A	N/A	-0.2	QM
<b>Interior Room 109 Number Only</b>									
077	A	Wall	L Ctr		I	N/A	N/A	-0.3	QM
087	A	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	1.0	QM
085	A	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	1.0	QM
086	A	Door	Ctr	U Ctr	I	Wood	Natural	0.0	QM
078	B	Wall	L Ctr		I	N/A	N/A	-0.2	QM
079	C	Wall	L Ctr		I	N/A	N/A	-0.1	QM
081	C	Ceiling			I	N/A	N/A	-0.1	QM
082	C	Window	Ctr	Rgt casing	I	N/A	N/A	-0.5	QM
083	C	Window	Ctr	Well	I	Wood	Tan	1.5	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: IL-009-001; Centralia, IL

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
084	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
080	D	Wall	L Ctr		I	N/A	N/A	0.0	QM
Interior Room 110 Number Only									
067	A	Wall	L Ctr		I	N/A	N/A	-0.3	QM
076	A	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	0.4	QM
074	A	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	1.0	QM
075	A	Door	Ctr	U Ctr	I	Wood	Natural	0.0	QM
068	B	Wall	L Ctr		I	N/A	N/A	0.0	QM
069	C	Wall	L Ctr		I	N/A	N/A	-0.3	QM
071	C	Window	Ctr	Rgt casing	I	N/A	N/A	-0.7	QM
072	C	Window	Ctr	Well	I	Wood	Tan	1.0	QM
073	C	Window	Ctr	Apron	I	Wood	Tan	1.0	QM
070	D	Wall	L Ctr		I	N/A	N/A	-0.4	QM
Interior Room 116 Number Only									
111	A	Wall	L Ctr		I	N/A	N/A	-0.4	QM
117	A	Door	Ctr	Rgt casing	I	N/A	N/A	0.0	QM
115	A	Door	Ctr	Lft jamb	I	N/A	N/A	0.0	QM
116	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.2	QM
112	B	Wall	L Ctr		I	N/A	N/A	-0.4	QM
113	C	Wall	L Ctr		I	N/A	N/A	-0.2	QM
114	D	Wall	L Ctr		I	N/A	N/A	-0.4	QM
Interior Room 117 Number Only									
118	A	Wall	L Ctr		I	N/A	N/A	-0.1	QM
124	A	Door	Ctr	Rgt casing	I	N/A	N/A	0.5	QM
121	A	Door	Ctr	Lft jamb	I	Metal	Grn & Tan	1.0	QM
123	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.1	QM
119	B	Wall	L Ctr		I	N/A	N/A	-0.1	QM
120	C	Wall	L Ctr		I	N/A	N/A	-0.4	QM
122	D	Wall	L Ctr		I	N/A	N/A	-0.1	QM
Interior Room 118 Number Only									
125	A	Wall	L Ctr		I	N/A	N/A	0.1	QM
131	A	Door	Ctr	Rgt casing	I	Metal	Grn & Tan	1.0	QM
129	A	Door	Ctr	Lft jamb	I	N/A	N/A	0.5	QM
130	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.1	QM
126	B	Wall	L Ctr		I	N/A	N/A	0.6	QM
127	C	Wall	L Ctr		I	N/A	N/A	0.2	QM
128	D	Wall	L Ctr		I	N/A	N/A	0.1	QM
Interior Room 901 Hallway									
132	A	Wall	L Ctr		I	N/A	N/A	-0.2	QM
138	A	Door	Ctr	Rgt casing	I	N/A	N/A	-0.1	QM
136	A	Door	Ctr	Lft jamb	I	N/A	N/A	-0.3	QM
137	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.1	QM
133	B	Wall	L Ctr		I	N/A	N/A	-0.2	QM
134	C	Wall	L Ctr		I	N/A	N/A	-0.4	QM
135	D	Wall	L Ctr		I	N/A	N/A	-0.2	QM
Interior Room 903 103A									
035	A	Wall	L Ctr		I	N/A	N/A	-0.2	QM
036	B	Wall	L Ctr		I	N/A	N/A	-0.2	QM
037	C	Wall	L Ctr		I	N/A	N/A	-0.3	QM
039	C	Window	Ctr	Rgt casing	I	N/A	N/A	0.0	QM
040	C	Window	Ctr	Well	I	N/A	N/A	0.7	QM

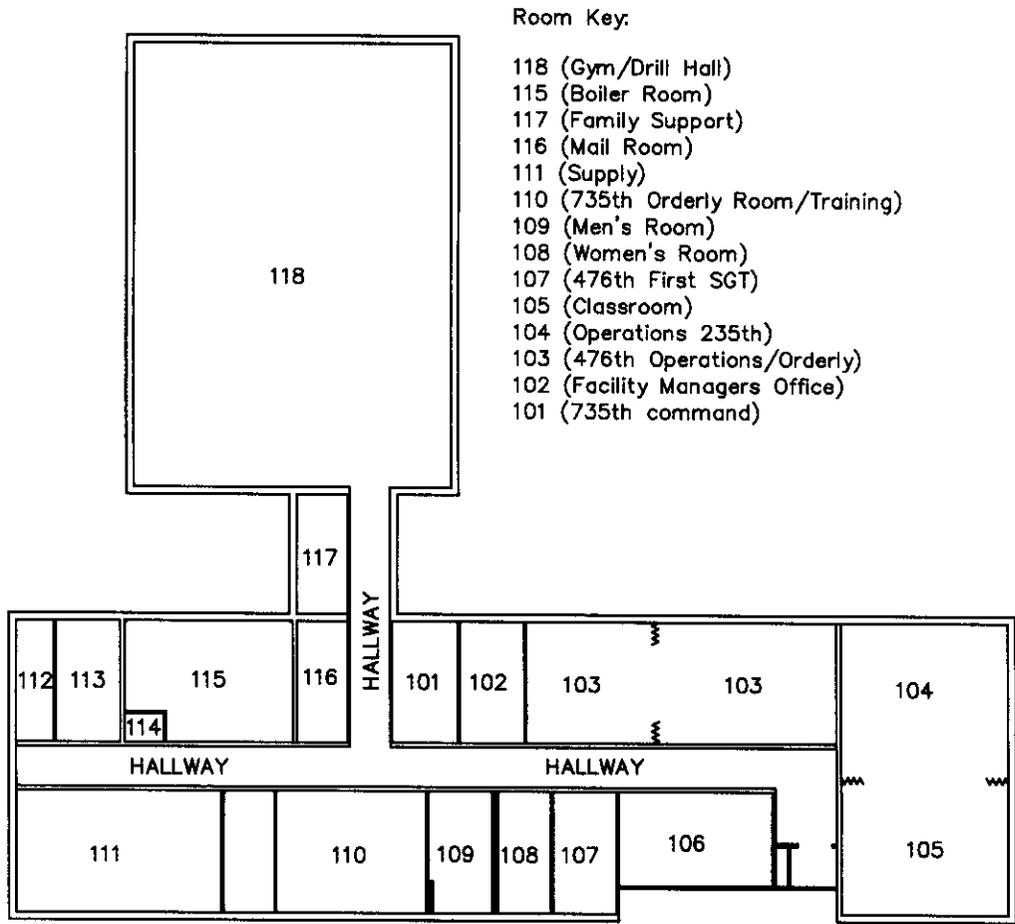
**DETAILED REPORT OF LEAD PAINT INSPECTION FOR: IL-009-001; Centralia, IL**

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
041	C	Window	Ctr	Apron	I	Wood	Tan	1.5	QM
044	C	Door	Ctr	Rgt casing	I	N/A	N/A	0.1	QM
042	C	Door	Ctr	Lft jamb	I	N/A	N/A	0.0	QM
043	C	Door	Ctr	U Ctr	I	N/A	N/A	-0.3	QM
038	D	Wall	L Ctr		I	N/A	N/A	0.2	QM
045	D	Wall	U Ctr		I	Curtn Colm	N/A	-0.2	QM
046	D	Baseboard	Ctr		I	Stm Radatr	N/A	0.1	QM

**Calibration Readings**

001								1.0	Std
002								1.0	Std
003								1.0	Std
004								0.9	Std

----- End of Readings -----



General Floor Layout

<p><b>ITI of South Florida</b>  <b>Environmental Services</b>  <b>Drawn: M. MASAAL</b></p>	<p><b>USAR CENTER</b>  <b>CENTRALIA, IL</b>  <b>IL 009</b></p>	<p><b>FIGURE</b>  <b>06-APR-2002</b></p>
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**OMS**

**SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: IL-009-002; Centralia, IL**

Inspection Date: 07/16/02 SFC Earl Copple OMS  
 Report Date: 8/26/2003  
 Abatement Level: 1.0  
 Report No. S#01908 - 07/16/02 11:58  
 Total Readings: 15 Actionable: 6  
 Job Started: 07/16/02 11:58  
 Job Finished: 07/16/02 12:12

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
Interior Room 002 Garage									
011	A	Door	Ctr	Rgt casing	I	Metal	White	>9.9	QM
010	A	Door	Ctr	Lft casing	I	Metal	White	>9.9	QM
013	A	Column	Lft	U column	I	Metal	Silver	>9.9	QM
012	A	Column	Lft	L column	I	Metal	Silver	>9.9	QM
014	A	Column	Rgt	U column	I	Metal	Silver	>9.9	QM
015	A	Column	Rgt	L column	I	Metal	Silver	>9.9	QM

Comment: Readings 10 and 11 were taken from metal plates on side of the garage door. These are not exactly door casings, but this is the closest description in the program.

Calibration Readings

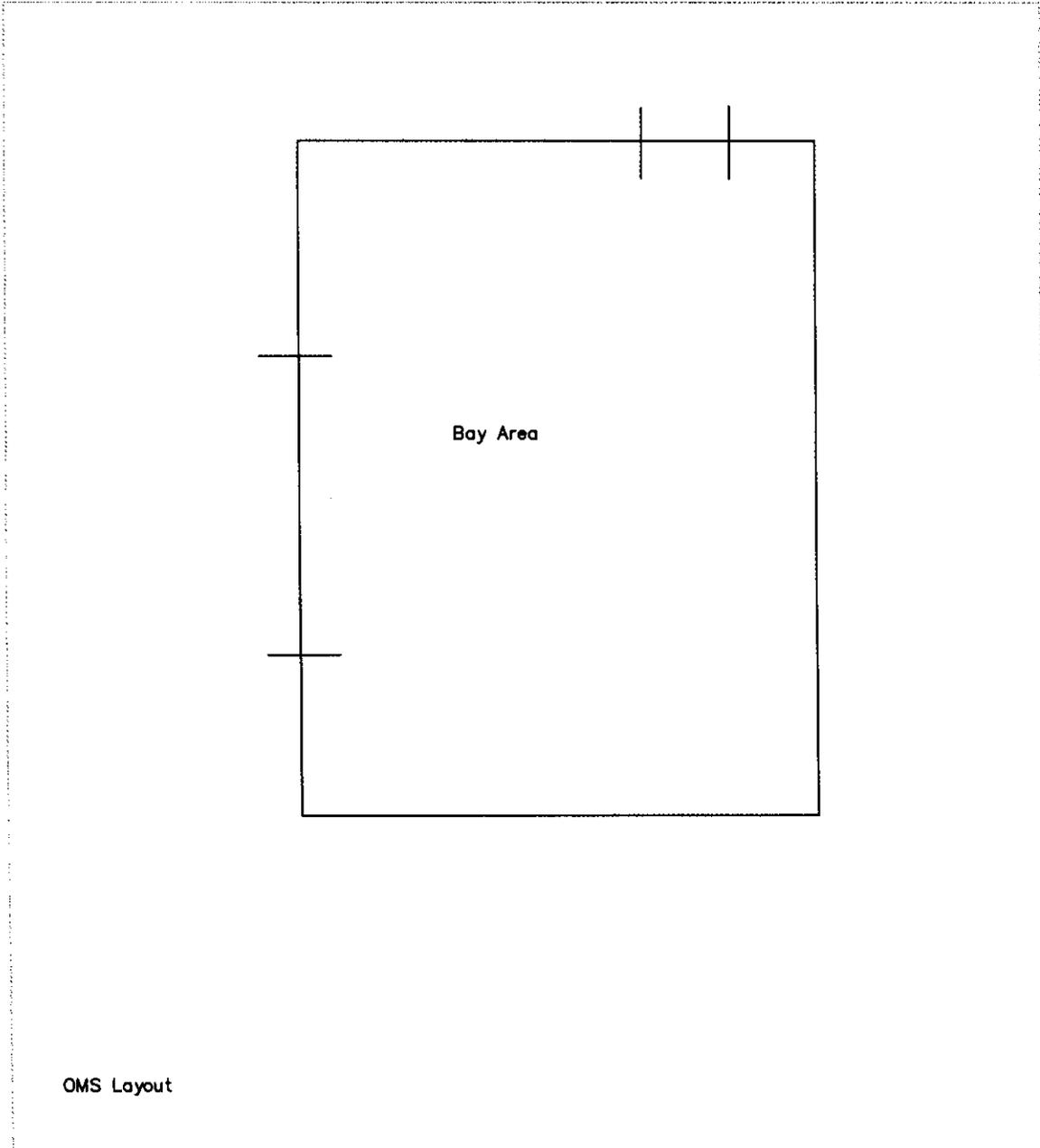
---- End of Readings ----

**DETAILED REPORT OF LEAD PAINT INSPECTION FOR: IL-009-002; Centralia, IL**

Inspection Date: 07/16/02 SFC Earl Copple OMS  
 Report Date: 8/26/2003  
 Abatement Level: 1.0  
 Report No. S#01908 - 07/16/02 11:58  
 Total Readings: 15  
 Job Started: 07/16/02 11:58  
 Job Finished: 07/16/02 12:12

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm <sup>2</sup> )	Mode
<b>Interior Room 001 Exit Door</b>									
007	A	Door	Ctr	Rgt casing	I	N/A	N/A	-0.1	QM
005	A	Door	Ctr	Lft jamb	I	N/A	N/A	-0.2	QM
006	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.1	QM
<b>Interior Room 002 Garage</b>									
011	A	Door	Ctr	Rgt casing	I	Metal	White	>9.9	QM
010	A	Door	Ctr	Lft casing	I	Metal	White	>9.9	QM
009	A	Door	Ctr	L Ctr	I	N/A	N/A	-0.3	QM
008	A	Door	Ctr	U Ctr	I	N/A	N/A	-0.1	QM
013	A	Column	Lft	U column	I	Metal	Silver	>9.9	QM
012	A	Column	Lft	L column	I	Metal	Silver	>9.9	QM
014	A	Column	Rgt	U column	I	Metal	Silver	>9.9	QM
015	A	Column	Rgt	L column	I	Metal	Silver	>9.9	QM
<p>Comment: Readings 10 and 11 were taken from metal plates on side of the garage door. These are not exactly door casings, but this is the closest description in the program.</p>									
<b>Calibration Readings</b>									
001								0.6	Std
002								1.0	Std
003								0.8	Std
004								0.7	Std

---- End of Readings ----



OMS Layout

<b>ITI of South Florida Environmental Services Drawn: M. MASAAL</b>	<b>OMS CENTRALIA, IL IL 009</b>	<b>FIGURE 06-APR-2002</b>
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# **APPENDIX D**

AccuStar Radon Labs (REM)  
3334 Commercial Avenue  
Northbrook, IL 60062 USA  
(847) 205-0110

Page: 1 of 1

Environmental Resource Association  
Gil Bakshi  
514 1st Ave. SW  
Largo, FL 33770

Report Date Oct 28, 2002

Monitor	pCi/l	Installed	Removed	Days Used	pCi/l-days	Tracks	Sq. mm Counted	Notes
970066	1.7	2-14-02	9-30-02	228	395	362	43	Copple USARC - 735th operations rm north wall
970067	1.7	2-14-02	9-30-02	228	377	347	43	467th operations room north wall
970068	1.6	2-14-02	9-30-02	228	370	341	43	Facility manager office north wall
970070	1.1	2-14-02	9-30-02	228	243	234	43	Gymnasium Arms room north wall
970071	1.1	2-14-02	9-30-02	228	244	235	43	Gymnasium west wall

*1 detector missing*

The uncertainty (standard deviation) of an alpha track radon measurement is  $\pm 15\%$ .

**AccuStar Radon Labs (REM)**  
**3334 Commercial Avenue**  
**Northbrook, IL 60062 USA**  
**(847) 205-0110**

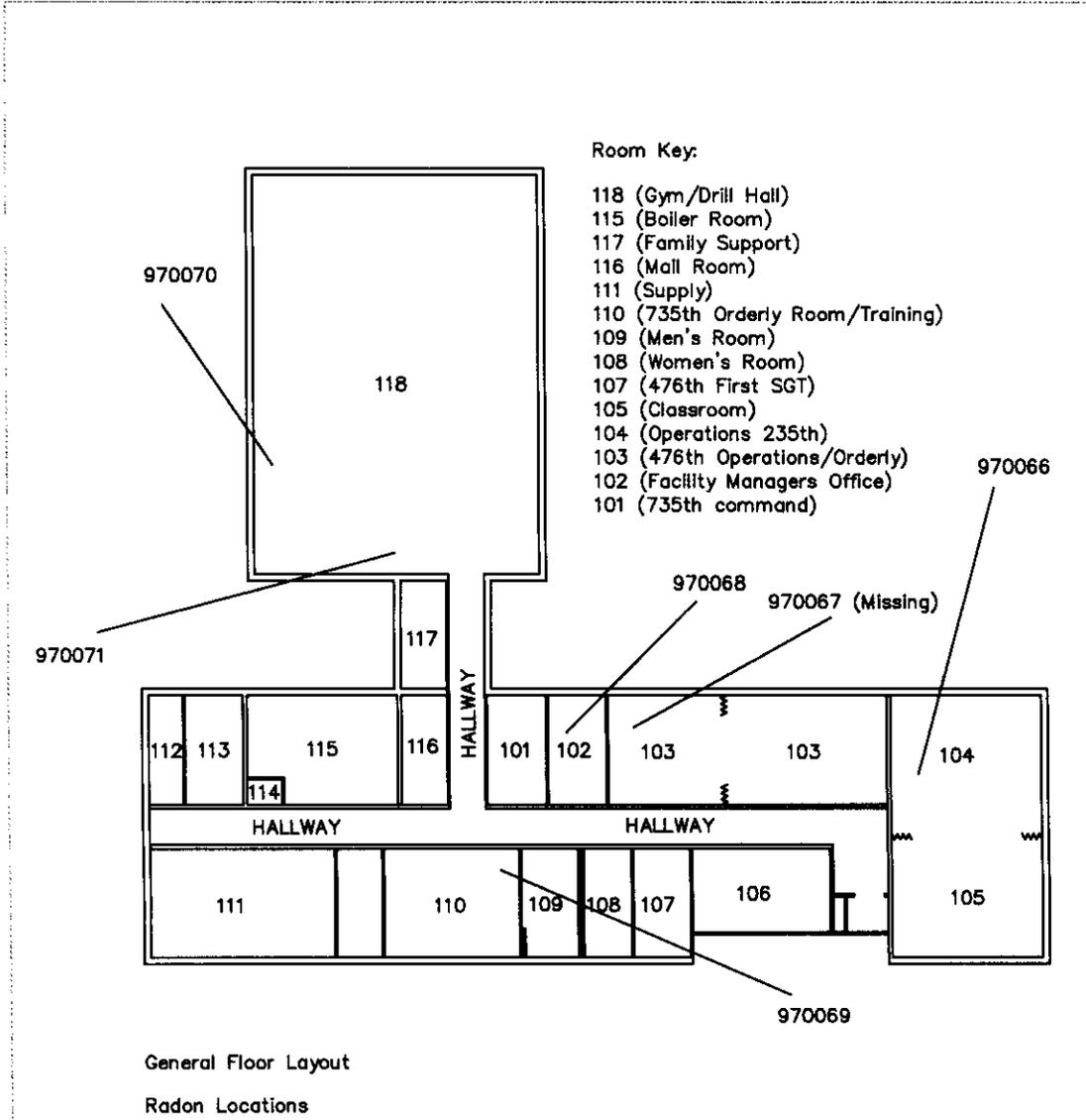
Page: 1 of 1

Environmental Resource Association  
Gil Bakshi  
514 1st Ave. SW  
Largo, FL 33770

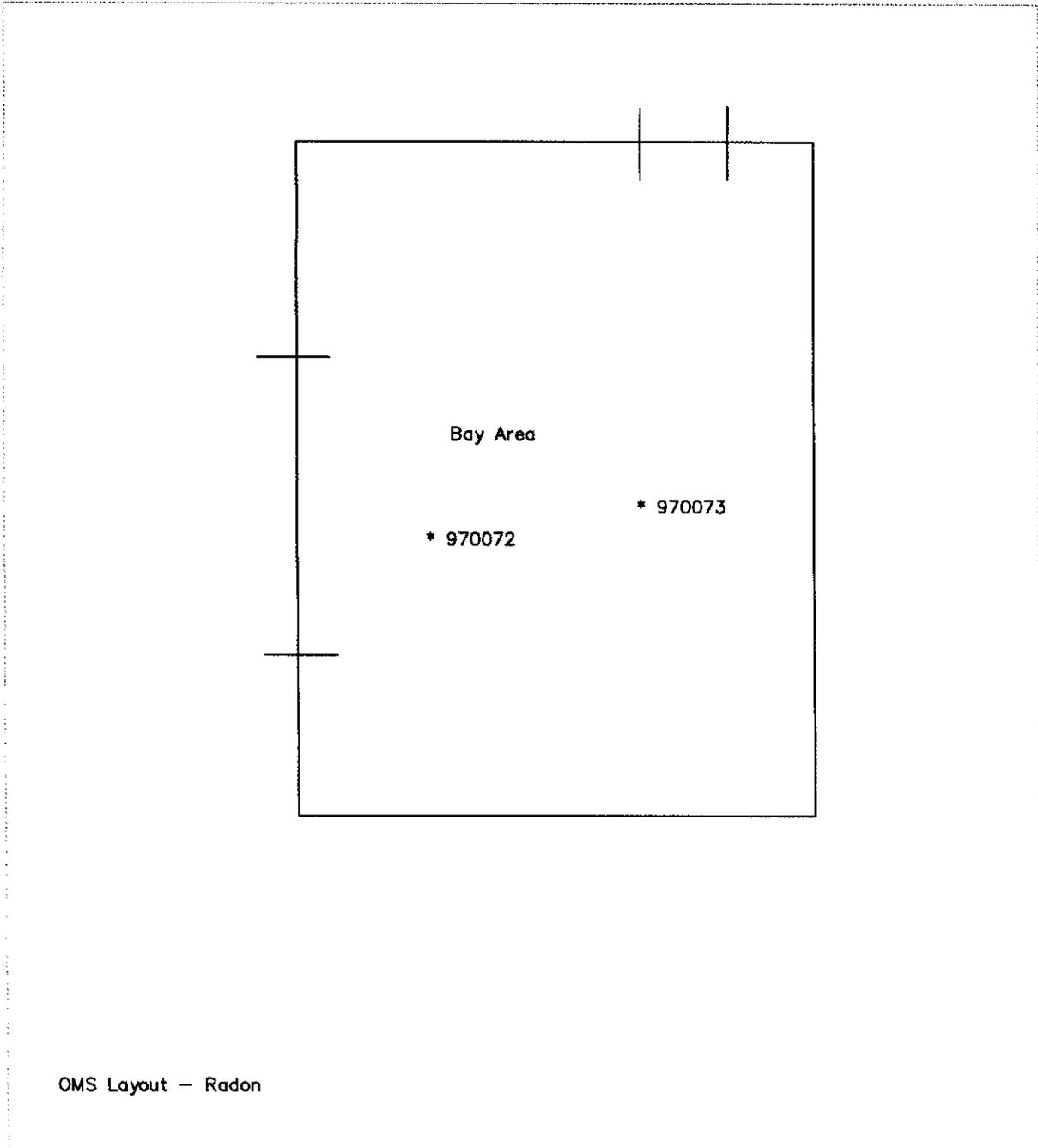
Report Date Oct 28, 2002

Monitor	pCi/l	Installed	Removed	Days Used	pCi/l-days	Tracks	Sq. mm Counted	Notes
970072	1.3	2-14-02	9-30-02	228	287	271	43	Copple USARC - Bay area mid bay
970073	1.2	2-14-02	9-30-02	228	267	254	43	Bay aea mid bay

The uncertainty (standard deviation) of an alpha track radon measurement is  $\pm 15\%$ .



<p><b>ITI of South Florida</b>  <b>Environmental Services</b>  <b>Drawn: M. MASAAL</b></p>	<p>USAR CENTER  CENTRALIA, IL  IL 009</p>	<p><b>FIGURE</b>  <b>06-APR-2002</b></p>
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OMS Layout - Radon

**ITI of South Florida  
Environmental Services  
Drawn: M. MASAAL**

**OMS  
CENTRALIA, IL  
IL 009**

**FIGURE  
06-APR-2002**

# **APPENDIX E**

United States Department of Commerce  
National Institute of Standards and Technology

<sup>®</sup>  
**NVLAP**

**Certificate of Accreditation**

ISO/IEC 17025:1999  
ISO 9002:1994



**A.E.S.I. ENVIRONMENTAL LABORATORY**  
TEMPE, AZ

is recognized by the National Voluntary Laboratory Accreditation Program  
for satisfactory compliance with criteria set forth in NIST Handbook 150:2001,  
all requirements of ISO/IEC 17025:1999, and relevant requirements of ISO 9002:1994.  
Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

**BULK ASBESTOS FIBER ANALYSIS**

March 31, 2004

Effective through

*Richard J. Farnon*

For the National Institute of Standards and Technology  
NVLAP Lab Code: 200303-0

# APPENDIX F



State of Illinois

A 156766

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

The person, firm or corporation whose name appears on this certificate has complied with the provisions of the Illinois Statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

ERIC E. WHITAKER, M.D. M.P.H.
DIRECTOR

Issued under the authority of
The State of Illinois
Department of Public Health

Table with 3 columns: EXPIRATION DATE (05/15/2006), CATEGORY (5319), and I.D. NUMBER (100-10757). Below the table, the name DAVID TYLER and the title INSPECTOR are listed.

BUSINESS ADDRESS

ASBESTOS PROFESSIONAL LICENSE

ALTERING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION

DAVID TYLER

456 THANINGTON CLOSE

PALM HARBOR

FL 34683

THIS LICENSE IS NOT VALID IF YOUR IDPH

COURSE CERTIFICATE IS NOT CURRENT.

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State of Illinois A 156766

Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

ASBESTOS PROFESSIONAL LICENSE

Table with 3 columns: EXPIRATION DATE (05/15/2006), CATEGORY (5319), and I.D. NUMBER (100-10757).

DAVID



INSPECTOR



State of Illinois A 1P7976  
Department of Public Health

LICENSE, PERMIT, CERTIFICATION, REGISTRATION

This license, permit, certification, registration or other certificate has been issued by the Department of Public Health, State of Illinois, and is hereby authorized to be used by the holder in accordance with the provisions of the Illinois Public Health Act.

JOHN R. JIMKIN, M.D.  
DIRECTOR

In order for this to be valid, it must be countersigned by the holder of the license, permit, certification, registration or other certificate.

Expiration Date	77467266	License Number
05/15/2003	5319	100 9988
ANGEL, HENRIQUEZ	INSPECTOR	

BUSINESS ADDRESS

ASBESTOS PROFESSIONAL LICENSE  
ATTENDING THIS CERTIFICATE MAY RESULT IN LEGAL ACTION  
ANGEL, HENRIQUEZ

76 AUBURN AVE  
FORTSON GA 31808  
THIS LICENSE IS NOT VALID IF YOUR 10E11  
COURSE CERTIFICATE IS NOT CURRENT  
Issued by authority of the State of Illinois, § 2101

INSERT THIS CARD IN A  
CONSPICUOUS PLACE

APPROVE THIS CARD TO CARRY ON ALL  
CERTIFICATION

03/23/02  
ANGEL, HENRIQUEZ  
76 AUBURN AVE  
FORTSON GA 31808

# STATE OF ILLINOIS DEPARTMENT OF NUCLEAR SAFETY

1015 OUTER PARK DRIVE • SPRINGFIELD, ILLINOIS 62704  
(217-785-9900 • 217-782-6131 (TDD))

George H. Ryan  
Governor

Thomas W. Ortziger  
Director

Nov 25, 2002

Mr. Timothy J. DeLathouwer  
HBIS Engineering  
133 S. Washington Street  
Naperville, IL 60540

Dear Mr. DeLathouwer:

Enclosed is Illinois Radon Measurement Professional License Number  
RNHC002211.

Please receive the enclosed document carefully and be sure that you understand its  
contents. You must conduct your program of testing radon measurements in  
accordance with the provisions of your Illinois license, statements and representations  
made in your license application, and Illinois regulations.

You must request and obtain an appropriate amendment if you plan to make any  
change in your measurement program. All amendment requests should contain the  
following information:

1. A description of the proposed amendment. This should include the  
relevant provisions of DNR's regulations, rules and the amendments to  
the license application. 2. An explanation of why

3. The date of your operation of the meter. When testing using a device  
that does not meet the Illinois Radon Measurement Professional License Number  
requirements, you must have a current radon detector that requires calibration.  
You should have a technician provide contact information. DNR 217-782-6131

Sincerely,

Thomas W. Ortziger  
Director  
Manager, Radon Program

cc: enclosed file



STATE OF ILLINOIS  
**DEPARTMENT OF NUCLEAR SAFETY**

1035 OUTER PARK DRIVE - SPRINGFIELD, ILLINOIS 62704  
(217) 785-9000 (217) 782-6133 (TDD)

George H. Ryan  
Governor

Thomas W. Critiger  
Director



October 23, 2002

Jessica Compton, Office Manager  
International Training Institute of S. Florida, Inc.  
100 2<sup>nd</sup> Avenue South  
St. Petersburg, FL 33701

Dear Ms. Compton:

Please accept this letter as documentation of our conversation this morning. As we discussed, due to the use locations (federal facilities) of your company's lead paint analyzer use, no reciprocity agreements are necessary with this Department. We do, however, appreciate your prior notices of work in Illinois, and encourage you to continue to do so. Prior notification of your work here will help us to better facilitate any questions received from the general public, or allow for more immediate assistance in the event of an accident.

We appreciate your cooperation with this Department. Should you have any questions, please don't hesitate to contact me at 217-735-4932.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas J. Seif".

Thomas J. Seif, Head  
Inspection and Enforcement  
Division of Radioactive Materials

STATE OF ILLINOIS  
DEPARTMENT OF NUCLEAR SAFETY

**RADON MEASUREMENT TECHNICIAN LICENSE**

OFFICE OF ENVIRONMENTAL SAFETY  
RADON PROGRAM  
1035 OUTER PARK DRIVE  
SPRINGFIELD, IL 62704

Pursuant to the *Radon Industry Licensing Act 420 ILCS 44 et seq. (1998 State Bar Edition) (RILIA)* and the rules and regulations in *22 Illinois Administrative Code, Part 422 Licensing of Radon Detection and Mitigation Services Adopted Rule*, promulgated thereunder, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to perform indoor radon and radon progeny measurements. This license is subject to all applicable rules, regulations, and orders of the Illinois Department of Nuclear Safety now or hereafter in effect and to any conditions specified in this license.

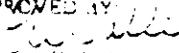
<u>Licensee</u>	<u>License Number</u>	<u>Expiration Date</u>
Mr. Marcos J. Martinez	RNIT0002200	January 31, 2004
International Training Institute of South Florida, Inc.	<u>Amendment Number</u>	
1405 NW 46th Terrace		
Jacksonville, FL 32206		

Attention:

In accordance with the application dated December 21, 2001, License Number RNIT0002200 is issued as follows:

**LICENSE CONDITIONS**

- 1. Radon and radon progeny measurements performed by the Radon Measurement Technician shall be under the general supervision of Jeremy D. Ball, license number RNIT0001000 and in accordance with all applicable sections of the *Adopted Rule*.
- 2. The Radon Measurement Technician shall not perform measurement services at the same address where the licensee or any member of the licensee's business performed consultations.
- 3. The Radon Measurement Technician shall notify the Department within 5 working days of any changes relevant to the license application. Examples: Changes in address, phone number, employment status.
- 4. The Radon Measurement Technician must notify the Department within 5 working days of any change in employer.
- 5. The Radon Measurement Technician shall provide direct on-site supervision of any unlicensed individual assigned to assist him/her with radon measurement related activities.
- 6. The Radon Measurement Technician shall successfully complete a minimum of eight (8) Category I Continuing Education Credits prior to expiration of this license.
- 7. This license is for the performance of the following activities: commercial building, residential real estate and home environment radon measurements.

APPROVED BY:  
  
Marlene White, Manager, Radon Program

DATE:

January 8, 2002

DATE OF PRINT:

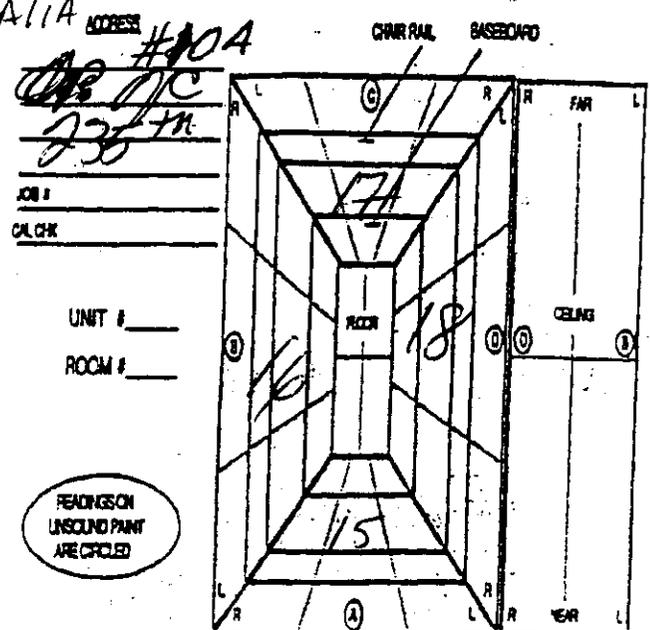
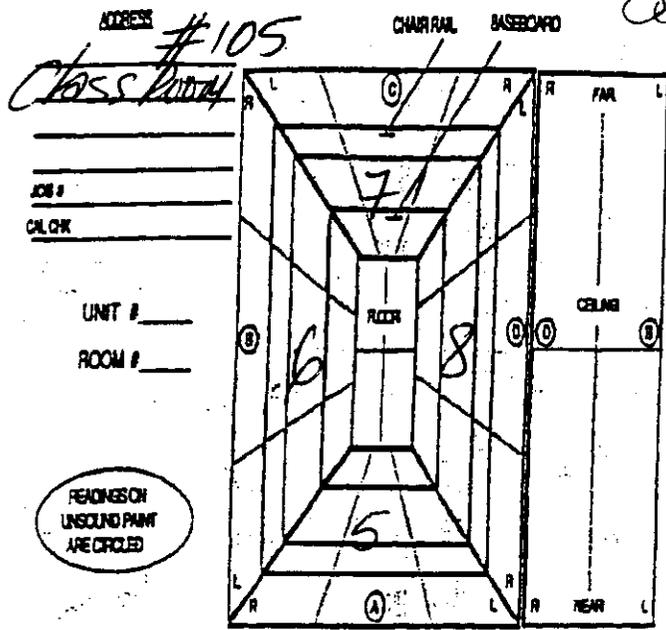
10

# APPENDIX G

# **FIELD NOTES**

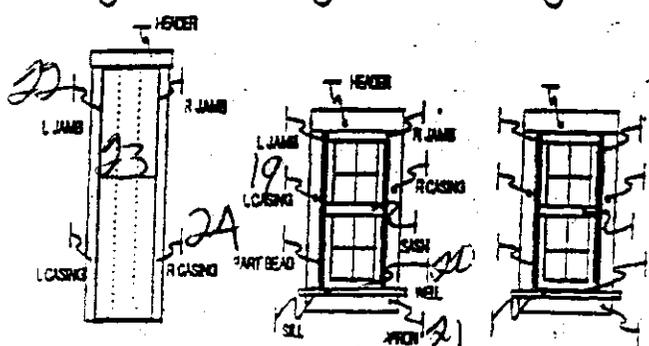
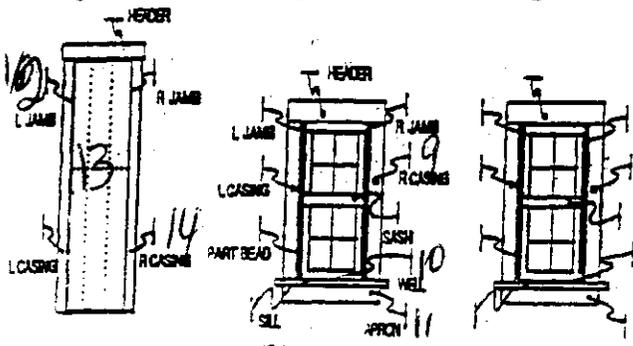
**USARC**

SFC EARL COPPLE USAEC IL-009-001  
 904 E MLK BLDG. LBPR# 07160859  
 CENTRALIA



- |                                 |                                 |                                 |
|---------------------------------|---------------------------------|---------------------------------|
| WALL A B C D                    | WALL A B C D                    | WALL A B C D                    |
| LEFT <input type="checkbox"/>   | LEFT <input type="checkbox"/>   | LEFT <input type="checkbox"/>   |
| RIGHT <input type="checkbox"/>  | RIGHT <input type="checkbox"/>  | RIGHT <input type="checkbox"/>  |
| CENTER <input type="checkbox"/> | CENTER <input type="checkbox"/> | CENTER <input type="checkbox"/> |

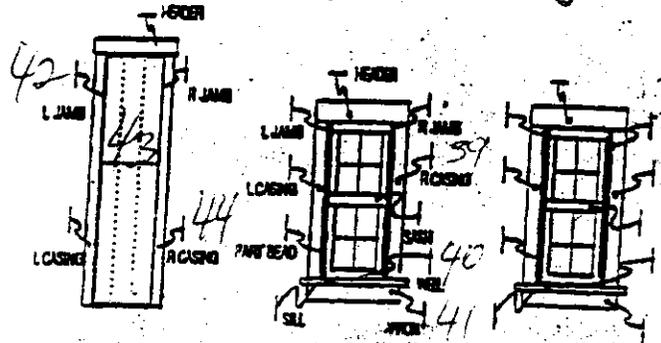
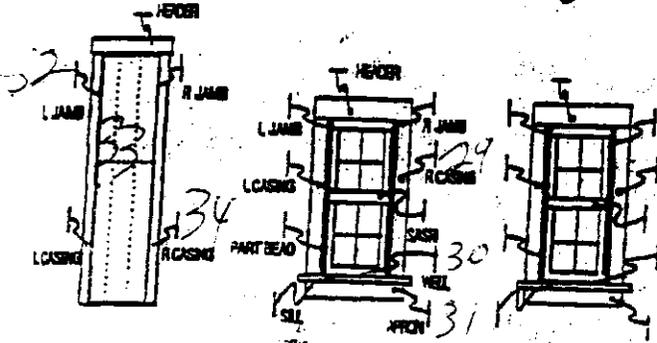
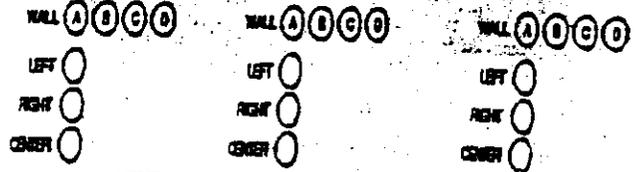
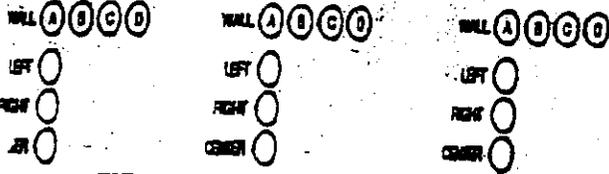
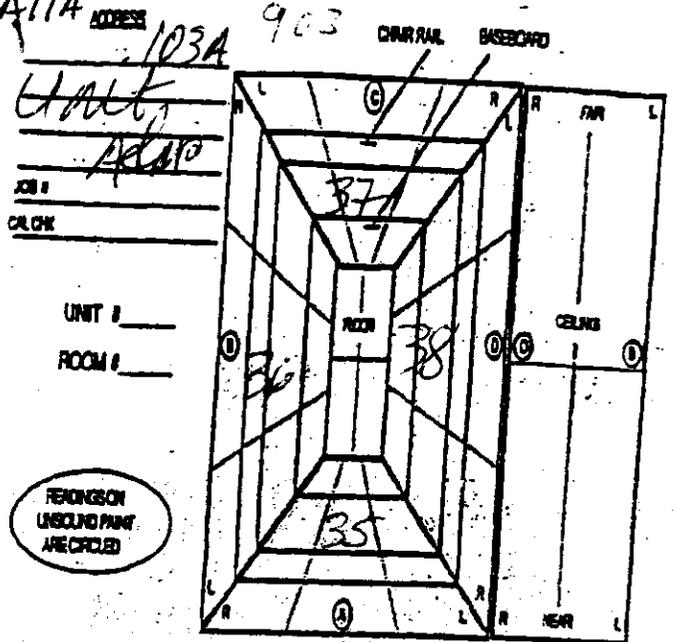
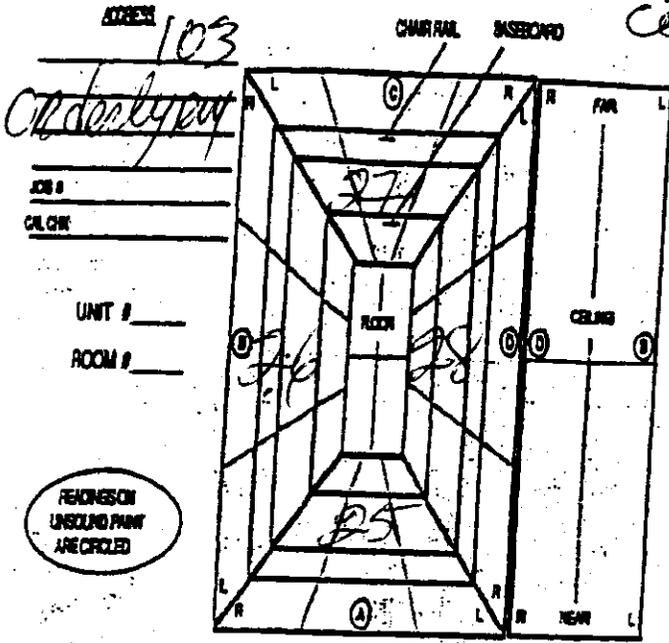
- |                                 |                                 |                                 |
|---------------------------------|---------------------------------|---------------------------------|
| WALL A B C D                    | WALL A B C D                    | WALL A B C D                    |
| LEFT <input type="checkbox"/>   | LEFT <input type="checkbox"/>   | LEFT <input type="checkbox"/>   |
| RIGHT <input type="checkbox"/>  | RIGHT <input type="checkbox"/>  | RIGHT <input type="checkbox"/>  |
| CENTER <input type="checkbox"/> | CENTER <input type="checkbox"/> | CENTER <input type="checkbox"/> |



COMMENTS: All walls are of Tan finish concrete blocks substrate. THE DOOR IS OF Green Painted metal substrate. THE DOOR'S JAMB IS OF Green TAN metal substrate. THE WINDOW IS OF Dk. Brown Metal substrate casing. Sample # 1, 2, 3, & 4 are calibration samples. THE WINDOW WEL AND APRON IS TAN finish over wooden substrate. These well & APRON ARE in good conditions

COMMENTS: All walls are of Tan finish concrete blocks substrate. THE DOOR IS OF Green Painted metal substrate. THE DOOR'S JAMB AND CASING IS OF Green Painted metal substrate. THE WINDOW CASING IS OF Dk. Brown substrate. THE WINDOW WEL & APRON IS OF Tan finish over wooden substrate and in good conditions

SFC EARL COPPLE USAEC IL-009  
 904 E MLK Bldg. LBPR 07160859  
 CENTRALIA ADDRESS 103A 903

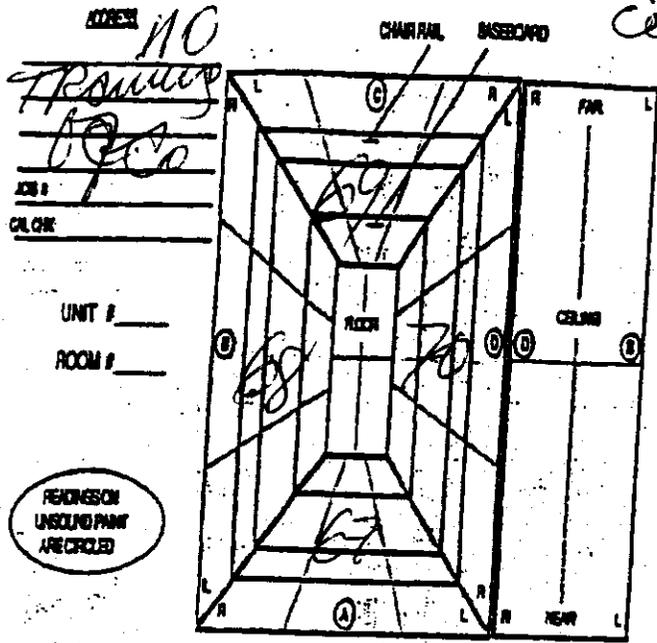


COMMENTS: All walls are of Tan finish concrete blocks substrate. The door is of S4-A-140 wooden substrate. The door's jamb is of green TAN metal substrate. The windows is of Dk. Brown metal substrate casing. The windows wood and Annona is of Tan finish over wooden substrate and in good conditions.

COMMENTS: All walls are of Tan finish concrete blocks substrate. The door is of S4-A-140 wooden substrate. The door jamb and casing is of Tan finish metal substrate. The windows casing is of Dk. Brown substrate. The windows wood and Annona is of Tan finish over wooden substrate and in good conditions. Sample 45 was taken from the curtain column East end of the room and 46 was taken from the steady R2 distors.

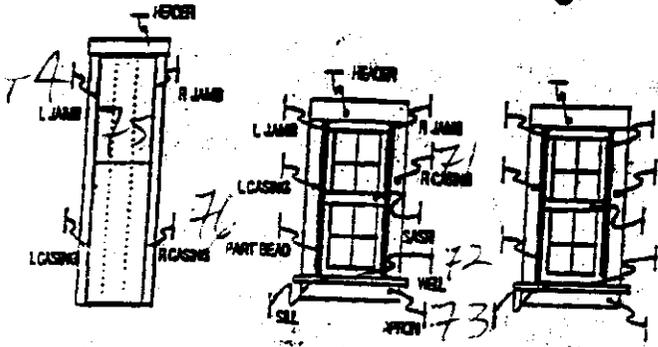
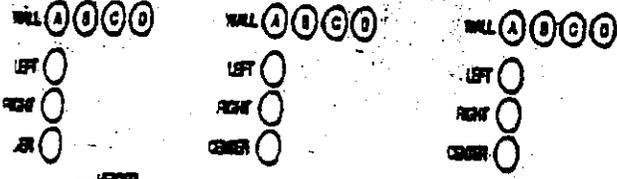


SFC EARL COPPLE USAEC IL-009  
 904 E MLK Bldg. LBPRC: 07160859  
 CENTRALIA

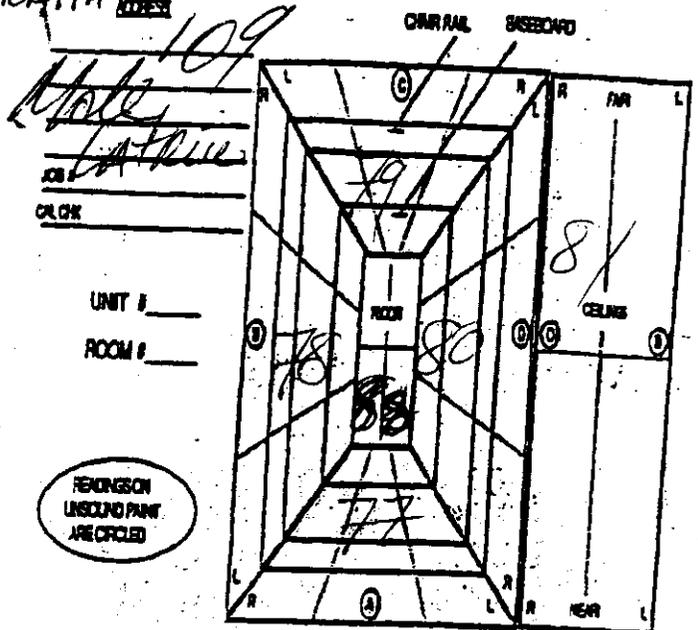


REVISIONS  
 UNSOUND PAINT  
 ARE CIRCLED

UNIT # \_\_\_\_\_  
 ROOM # \_\_\_\_\_

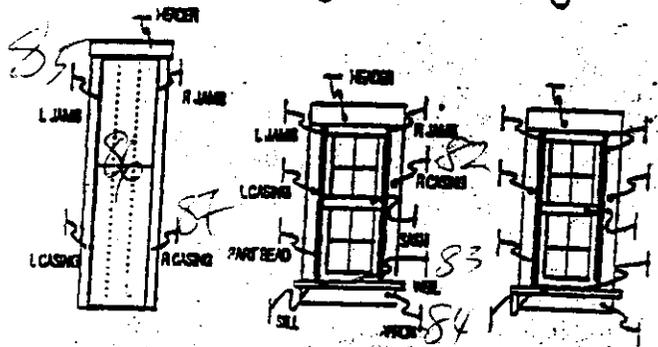
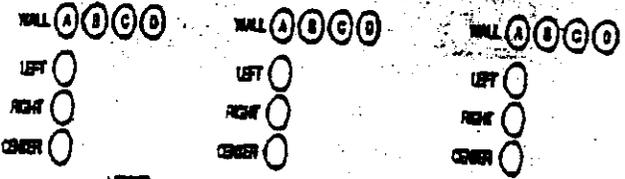


COMMENTS: All walls are of Tan finish  
 concrete blocks substrate. THE  
 DOOR IS OF SUE-A-LOC WOODEN  
 SUBSTRATE. THE DOOR JAMB  
 IS OF GRU-TAN METAL SUBSTRATE.  
 THE WINDOWS IS OF DEK-BROWN  
 METAL SUBSTRATE CASING.  
 THE WINDOWS WOOD AND ANON  
 OF TAN FINISH OVER WOODEN  
 SUBSTRATE IN GOOD CONDITIONS



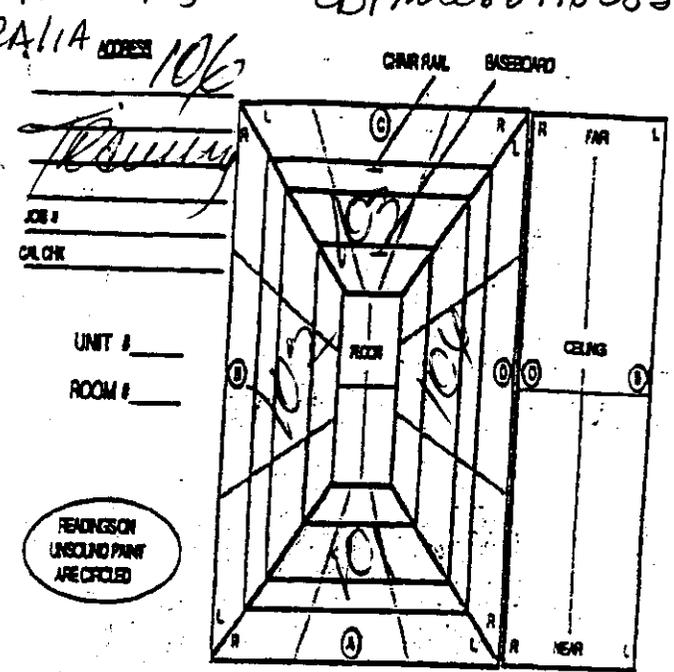
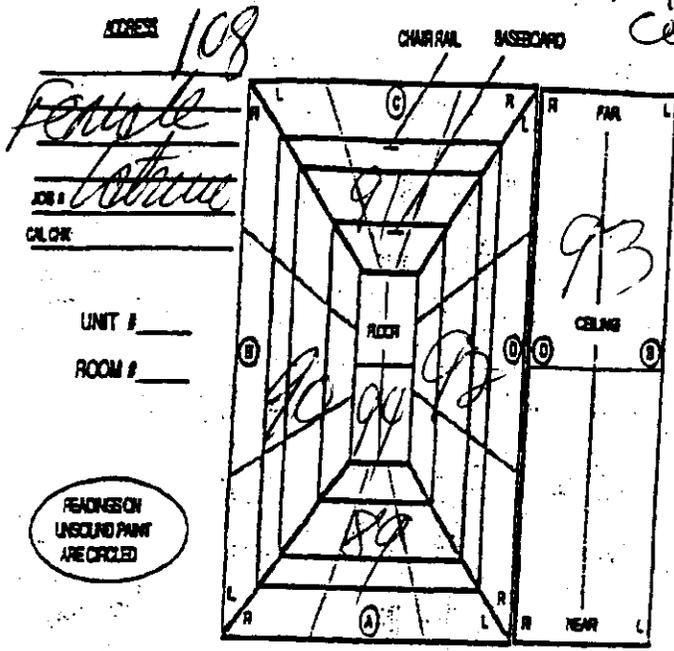
REVISIONS  
 UNSOUND PAINT  
 ARE CIRCLED

UNIT # \_\_\_\_\_  
 ROOM # \_\_\_\_\_



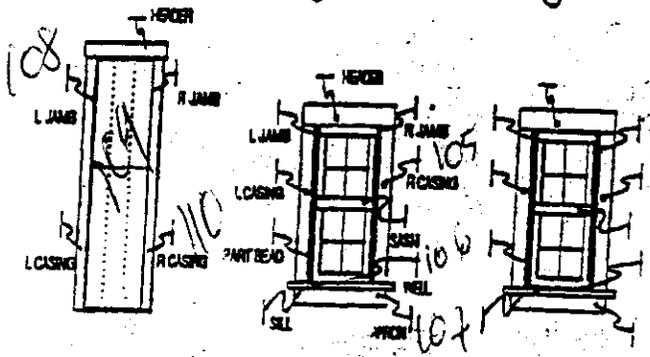
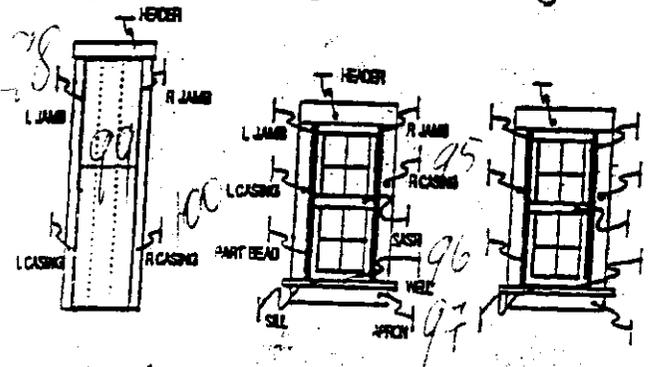
COMMENTS: All walls are of Tan finish  
 concrete blocks substrate. THE  
 DOOR IS OF SUE-A-LOC WOODEN  
 SUBSTRATE. THE DOOR JAMB  
 AND CASING IS OF TAN FINISH  
 METAL SUBSTRATE. THE WINDOWS  
 CASING IS OF DEK-BROWN SUBSTRATE  
 THE WINDOWS WOOD AND ANON  
 IS OF TAN FINISH OVER WOODEN  
 SUBSTRATE IN GOOD CONDITIONS  
 1/2 OF THE WALL IS OF PINK CERAMIC  
 TILES AND THE FLOOR IS OF BROWN  
 TAMP BEIGE CERAMIC TILES. THE  
 CEILING IS OF TAN PLASTER SUBSTRATE  
 SAMPLE 77 & 78 ARE FROM CERAMIC  
 TILES.

SFC EARL COPPLE USAEC IL-009  
 904 E MLK BLDG. LBPR# 07160859  
 CENTRALIA ADDRESS 106



- |        |   |   |   |        |   |   |   |        |   |   |   |
|--------|---|---|---|--------|---|---|---|--------|---|---|---|
| WALL A | B | C | D | WALL A | B | C | D | WALL A | B | C | D |
| LEFT   |   |   |   | LEFT   |   |   |   | LEFT   |   |   |   |
| RIGHT  |   |   |   | RIGHT  |   |   |   | RIGHT  |   |   |   |
| CR     |   |   |   | CENTER |   |   |   | CENTER |   |   |   |

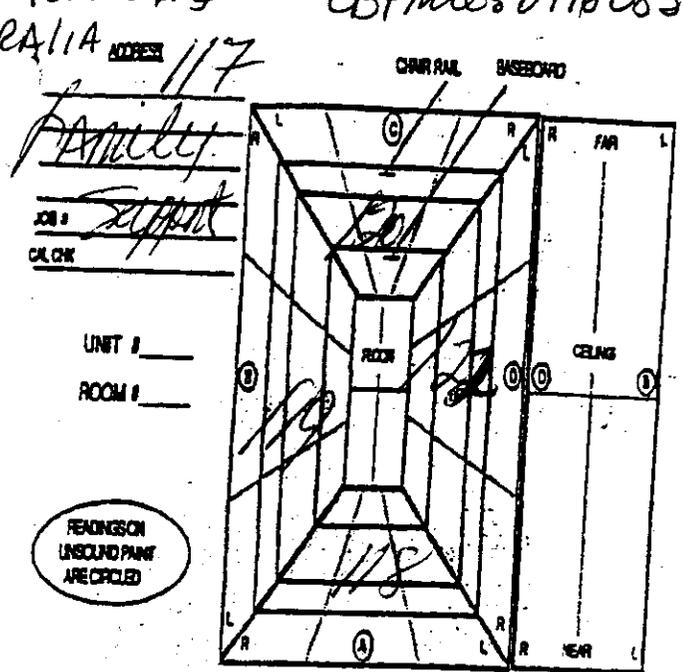
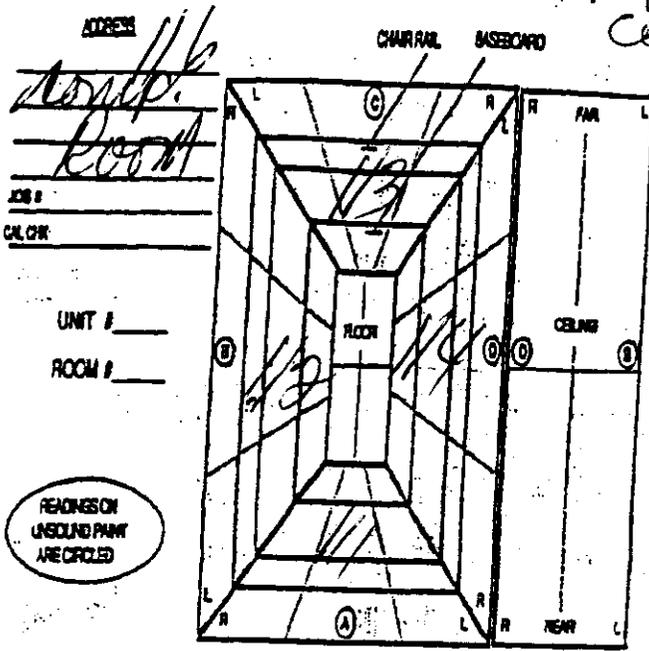
- |        |   |   |   |        |   |   |   |        |   |   |   |
|--------|---|---|---|--------|---|---|---|--------|---|---|---|
| WALL A | B | C | D | WALL A | B | C | D | WALL A | B | C | D |
| LEFT   |   |   |   | LEFT   |   |   |   | LEFT   |   |   |   |
| RIGHT  |   |   |   | RIGHT  |   |   |   | RIGHT  |   |   |   |
| CENTER |   |   |   | CENTER |   |   |   | CENTER |   |   |   |



COMMENTS: All walls are of Tan finish  
 concrete blocks substrate. THE  
DOOR IS OF SUE-A-100 WOOD  
SUBSTRATE. THE DOOR JAMB  
IS OF GREEN TAN METAL SUBSTRATE.  
THE WINDOWS IS OF DEX. BROWN  
Metal Substrate Casing.  
 THE WINDOWS WELL AND AREA IS  
 OF TAN FINISH OVER WOODEN  
 SUBSTRATE AND IN GOOD CONDITIONS  
 THE CEILING IS A TAN PLASTER, THE  
 FLOOR IS A BROWN BRG & TAN CERAMIC  
 TILES. THE OTHER 1/2 OF THE FLOOR  
 IS A PINK CERAMIC TILES SAMPLES  
 89 & 90 ARE FROM THE CERAMIC TILES

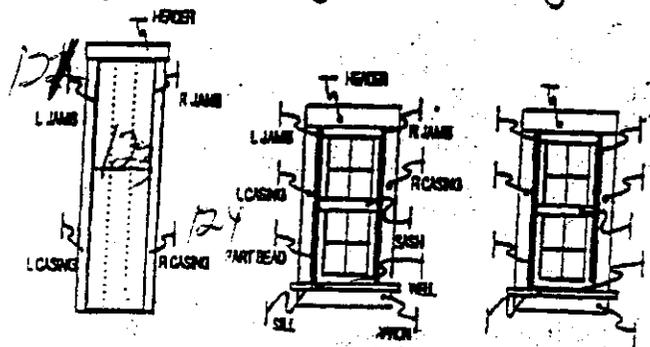
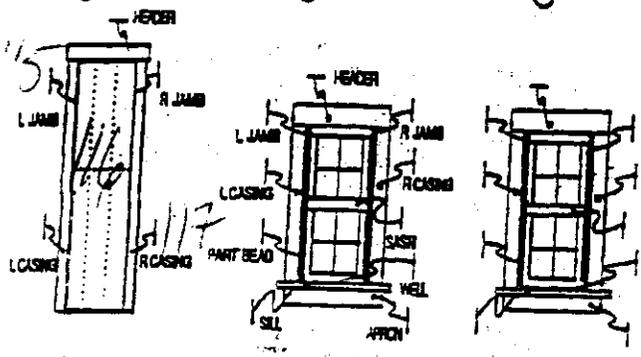
COMMENTS: All walls are of Tan finish  
 concrete blocks substrate. THE  
DOOR IS OF  
SUBSTRATE. THE DOOR JAMB  
AND CASING IS OF TAN FINISH  
Metal substrate. THE WINDOWS  
CASING IS OF DEX. BROWN SUBSTRATE.  
 THE WINDOWS WELL AND AREA  
 IS OF TAN FINISH OVER WOODEN  
 SUBSTRATE AND IN GOOD CONDITIONS

SFCEARL Copplo USAEC IL-009  
 904 E MLK Blvd. LBPRNs 07160859  
 CENTRALIA ADDRESS 117



- WALL A B C D
- LEFT
  - RIGHT
  - CENTER
- WALL A B C D
- LEFT
  - RIGHT
  - CENTER
- WALL A B C D
- LEFT
  - RIGHT
  - CENTER

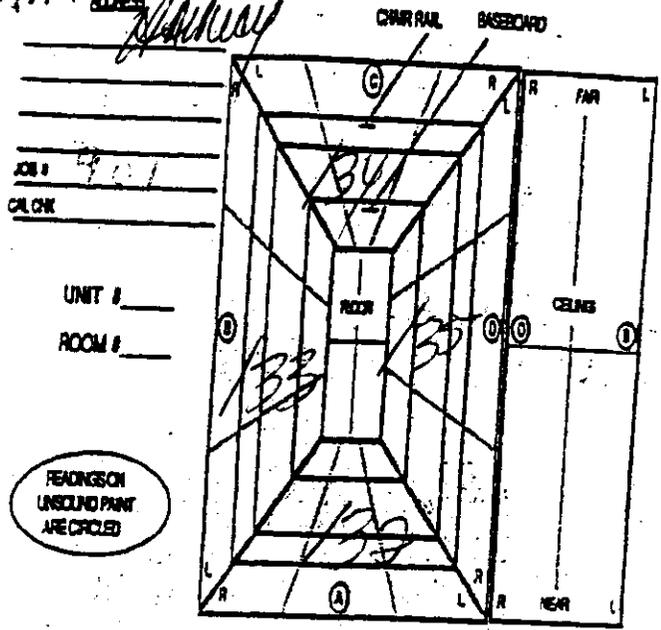
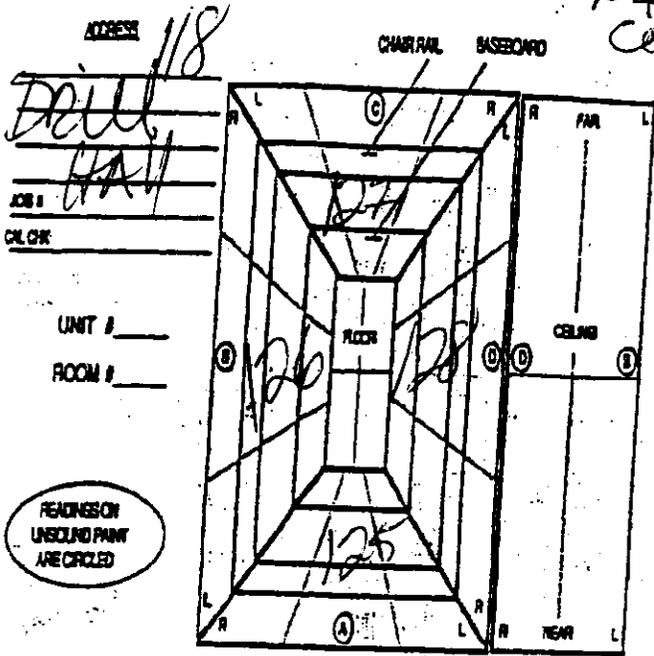
- WALL A B C D
- LEFT
  - RIGHT
  - CENTER
- WALL A B C D
- LEFT
  - RIGHT
  - CENTER
- WALL A B C D
- LEFT
  - RIGHT
  - CENTER



COMMENTS: All walls are of green painted concrete blocks substrate. THE DOOR IS OF SHE A - 1/2" WOODEN SUBSTRATE. THE DOOR'S JAMB IS OF GREEN metal substrate. THE WINDOW IS OF GREEN metal substrate.

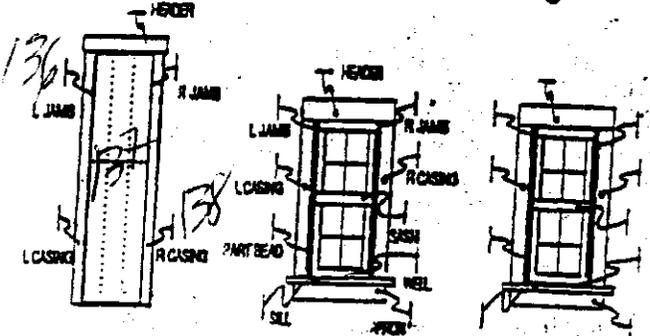
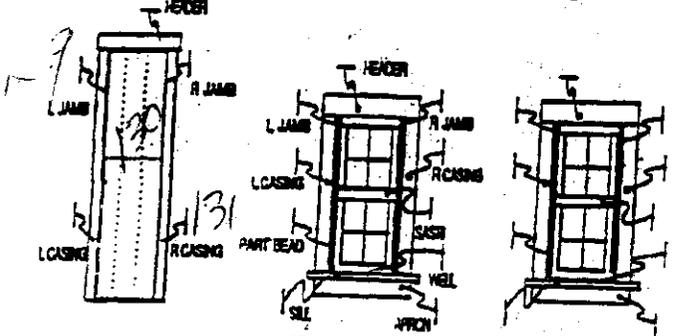
COMMENTS: All walls are of TOP CONCRETE BLOCKS SUBSTRATE. THE DOOR IS OF WOODEN SHEA-1/2" SUBSTRATE. THE DOOR'S JAMB AND CASING IS OF GREEN metal substrate. THE WINDOW CASING IS OF Dk. Brown Substrate (NO RECESS).

SFCEARL Coppie USAEC IL-009  
 904 E MLK Blvd. LBPR 07160859  
 CENTRALIA ADDRESS                     



- WALL A B C D      WALL A B C D      WALL A B C D
- LEFT       LEFT       LEFT
- RIGHT       RIGHT       RIGHT
- JAM       CENTER       CENTER

- WALL A B C D      WALL A B C D      WALL A B C D
- LEFT       LEFT       LEFT
- RIGHT       RIGHT       RIGHT
- CENTER       CENTER       CENTER



COMMENTS: All walls are of 1/2 inch brick over concrete blocks substrate. THE DOOR IS OF 1 1/2 inch thick wood substrate. THE DOOR JAMB IS A GREEN TAN metal substrate. THE WINDOWS IS OF DRK. BROWN Metal substrate casing. See exterior sheet for garage Door.

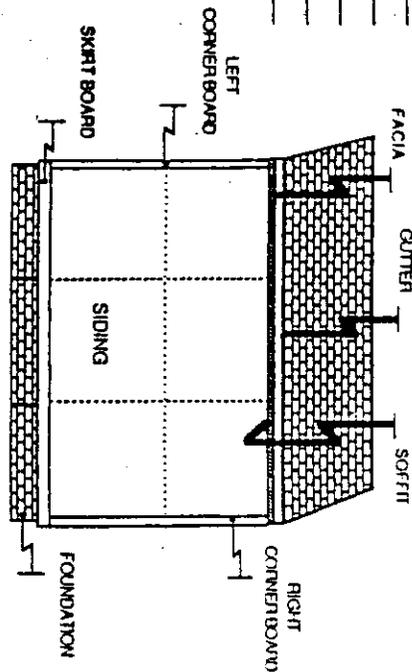
COMMENTS: All walls are of 1/2 inch brick over concrete blocks substrate. THE DOOR IS OF DRK BROWN metal substrate. THE DOOR JAMB and casing is OF DRK. BROWN metal substrate. THE Windows casing is of DRK. BROWN substrate

ADDRESS \_\_\_\_\_

JOB # \_\_\_\_\_

CAL CHK \_\_\_\_\_

UNIT # \_\_\_\_\_



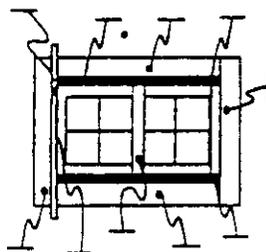
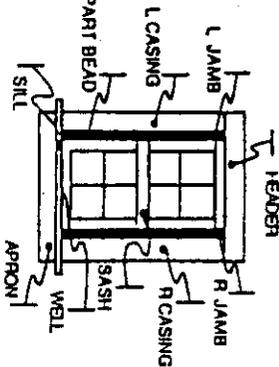
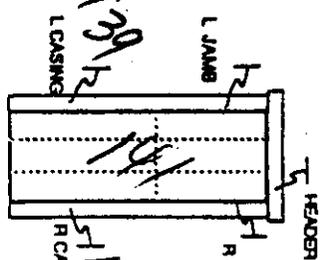
READINGS ON UNSOUND PAINT ARE CIRCLED

WALL (A) (B) (C) (D)

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER



ADDRESS \_\_\_\_\_

JOB # \_\_\_\_\_

CAL CHK \_\_\_\_\_

UNIT # \_\_\_\_\_  
ROOM # \_\_\_\_\_

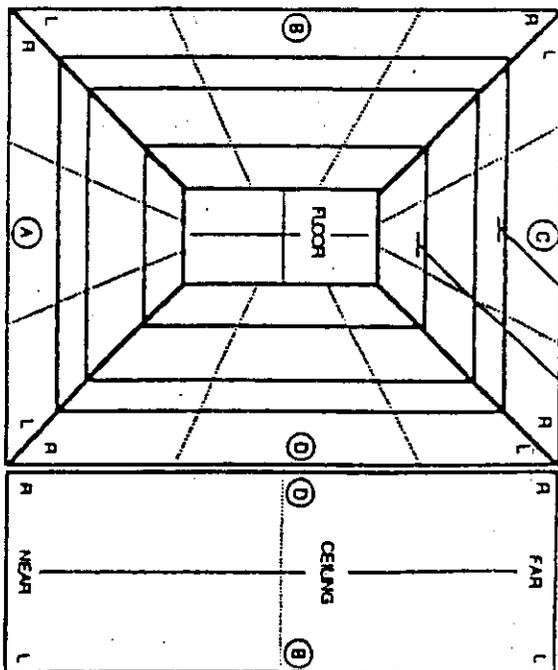
READINGS ON UNSOUND PAINT ARE CIRCLED

WALL (A) (B) (C) (D)

LEFT   
 RIGHT   
 CENTER

-WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER



COMMENTS:

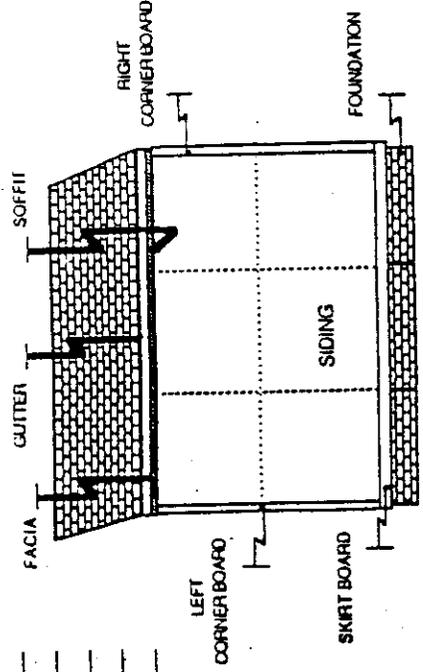
All walls are of lapped 2x4s  
 THE GROUND JOB IS A WHITE MURRAY FOR SIBS  
 THE METAL PLATE ON THE CHAIR RAIL IS A  
 FOR PAINT ON THE FAIR CHAIR RAIL

11-139 + 140 are taken from metal  
 plates on the sides of the  
 door. There are not door  
 markings, but no other way  
 to identify them.

**OMS**

Sgt. 1st Class Coppie USAF Retired  
 Certificate IL-009 Copfile: 07, 6/1/58  
 IL-009-002

ADDRESS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 JOB # \_\_\_\_\_  
 CAL CHK \_\_\_\_\_



UNIT # \_\_\_\_\_

READINGS ON UNSOUND PAINT ARE CIRCLED

WALL (A) (B) (C) (D)

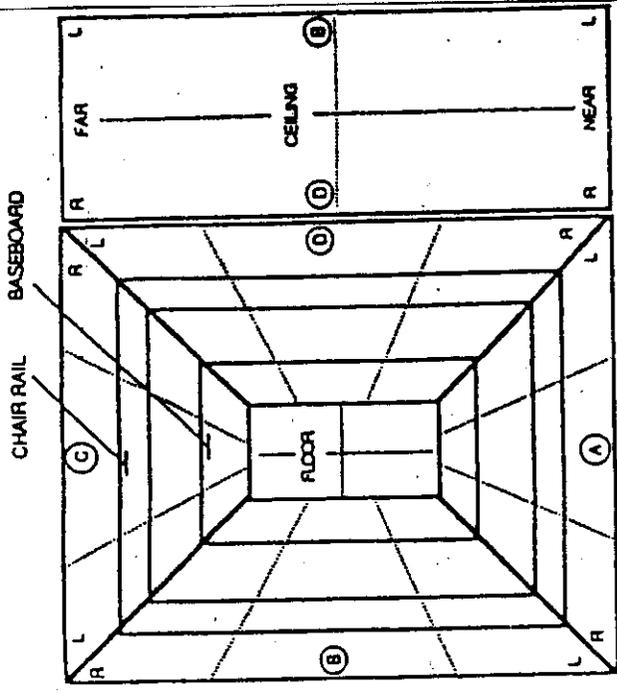
WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

ADDRESS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 JOB # \_\_\_\_\_  
 CAL CHK \_\_\_\_\_  
 UNIT # \_\_\_\_\_  
 ROOM # \_\_\_\_\_

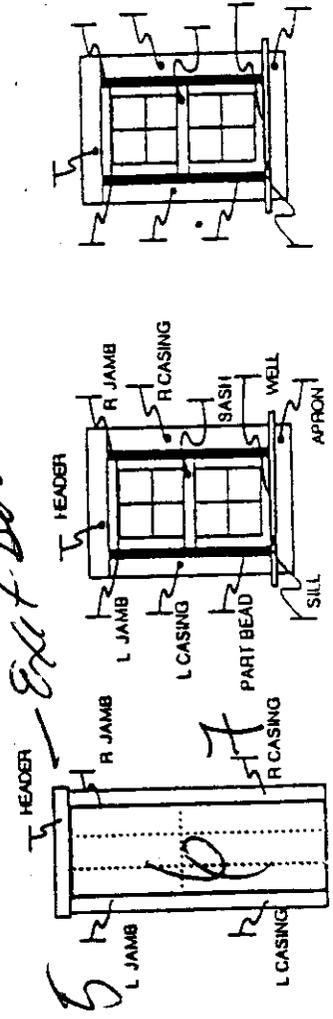
READINGS ON UNSOUND PAINT ARE CIRCLED



-WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER

WALL (A) (B) (C) (D)  
 LEFT   
 RIGHT   
 CENTER



Exit Door

COMMENTS: No paint is found in the interior of the door or in the jamb area. The door is painted on the outside as usual and white finish. See other side of the gauge door.

Sample 1, 2, 3 & 4 are Calibration Samples.

## U.S. ARMY RESERVE 88<sup>TH</sup> REGIONAL READINESS COMMAND NATURAL RESOURCES FACT SHEET

### Facility Location Information

<b>FACID:</b> IL009	<b>INSNO:</b> 17835	<b>State:</b> Illinois	<b>USGS Quad:</b> Centralia East
<b>Facility Name:</b> SFC E.L. Copple	<b>County:</b> Marion		<b>Land Survey:</b> S17 T1N R1E
<b>Type of Facility:</b> USARC/OMS	<b>Address:</b> 904 E. Martin Luther King Dr.		<b>Acreage Calc.:</b> 4.40 <b>Real:</b> 4.32
<b>Facility POC:</b> Bradley Smith	<b>City/State/Zip:</b> Centralia, IL 62801		<b>Phone:</b> 618-532-5666
<b>Ownership:</b> The 88 <sup>th</sup> RRC owns the land and 2 buildings that compose IL009.			<b>Survey Date:</b> None

### Land Use

<b>On-site Land Use:</b>	100% improved grounds. Site used for staging and maintenance of military vehicles and equipment.
<b>Surrounding Land Use:</b>	North and south – residential. East – open area/park and residential. West – residential.

### Geologic Resources

<b>Physiographic Province:</b>	Central Lowland
<b>State Region:</b>	South Central
<b>Geologic Formation:</b>	Missourian Series
<b>Soil Association:</b>	Cisne – Hoyle – Darmstadt
<b>Topography:</b>	Elevation range: 500 – 505 ft AMSL. Flat site.

### Water Resources

<b>Watershed:</b>	Upper Mississippi – Kaskaskia – Meramec
<b>Floodplains:</b>	100-yr. floodplain located 3,300 ft northeast of site.
<b>On-Site Surface Water:</b>	None
<b>Off-site Surface Water:</b>	Centralia Reservoir located 5,500 ft northeast of the site.

### Biological Resources

<b>Vegetation Communities/Land Cover:</b>	No natural vegetation communities/land cover on site. Site contains landscaped areas with trees and maintained grass.
<b>On-site Wetlands:</b>	None
<b>Off-site Wetlands:</b>	Isolated wetlands and open water bodies located 3,000 ft east of site.
<b>On-site Rare Species:</b>	None reported by ILDNR
<b>On-site Potential Rare Species Habitat:</b>	No potential for on-site rare species due to development and no federal or state listed species in vicinity of site.
<b>Off-site Rare Species:</b>	No state listed species within a 2-mile radius of site (Appendix A).
<b>Federally Listed Species in County:</b>	None

### Other Sensitive Resources

<b>On-site Resources:</b>	None
<b>Off-site Resources:</b>	No natural communities tracked by ILDNR, INAI, or INP sites located within a 2-mile radius of site.

Notes: FACID-Facility ID, INSNO-Installation Number

Acreage Calc.-GIS calculated acreage, Real-Real Property Report acreage.

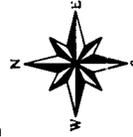
**IL009 Facility Map**  
**SFC E. L. Copple**  
**USARC**

88th Regional Readiness Command  
Centralia, Illinois  
Marion County

**Legend**

- Facility Boundary
- Buildings

Data Sources:  
Facility--88th RRC Facility Boundary Drawings  
Buildings--USGS Orthophoto, DOQQ 1998  
Streets--GDT Data 2002  
Streams and Lakes--USGS, NHD  
Wetlands--USFWS, NWI  
Flood Zones--FEMA Q3



Scale: 1:4,800  
Created By: Parsons  
File: IL009\_Facility.mxd  
Date: 12/2004



**PARSONS**





Illinois Power Company  
P.O. Box 511  
Decatur, IL 62525-0511

February 1, 1999  
HEC9901

Tony L. Bridges  
Southern Illinois Environmental Manager  
88<sup>th</sup> Regional Support Command  
100 Anderson Avenue  
Wood River, Illinois 62095-1296

**Ascertaining Compliance w/ 40 CFR 761**

The following information and inventory is being provided in response to your inquiry concerning PCB issues involving transformers located on or near U.S. Army property (only sites served by Illinois Power Company are contained in the attached list):

**In regard to PCB classification of equipment:**

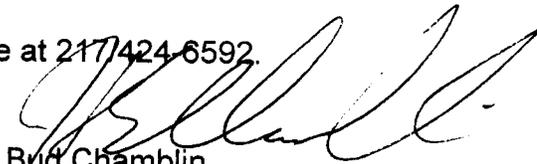
1) Any equipment that is clearly labeled "Non-PCB" is, in fact, non-PCB (i.e., containing less than 50 ppm PCB),

2) Pieces of equipment that are unlabeled must be assumed to be PCB-Contaminated (i.e., containing 50 - 499 ppm PCB) as provided in 40 CFR 761.3. If an exact PCB concentration is required, IP is willing to assist you by testing transformers for actual PCB concentration. Sample collection requires a scheduled power outage and an analytical charge per transformer sample. Arrangements for sample collection and analysis can be made by calling the Environmental Resources Department of Illinois Power Company at telephone number 217/424-7375.

**In regard to spill history:**

Illinois Power Company has or will remediate any spillage of oil from Illinois Power Company owned equipment to the extent required by State of Illinois and/or Federal law or regulations.

Please direct any questions or comments to me at 217/424-6592.



Bud Chamblin  
Environmental Professional  
Chemical Management Section

# Army Reserve Center Survey

Address	City	Manufacturer	Serial Number	KVA Rating	PCB Status
500 South Belt East, O.K.	Belleville, IL	Wagner	73341274	25	assume 50 - 499 ppm
		Wagner	73361076	25	assume 50 - 499 ppm
		Wagner	73381814	25	assume 50 - 499 ppm
1117 E. Lafayette,	Bloomington, IL	Dowzer	M905292Y4RA	25	Non-PCB
		General Electric	G458273-66Y	25	Non-PCB
		General Electric	H720480Y-68Y	25	Non-PCB
904 E. M.L. King Jr. Dr., O.K.	Centralia, IL	General Electric	5540928	50	assume 50 - 499 ppm
		Westinghouse	4949275	25	assume 50 - 499 ppm
		Westinghouse	6008455	25	assume 50 - 499 ppm
2408 E. Main St., O.K.	Danville, IL	Howard Industries	1842021694	25	Non-PCB
		Howard Industries	1842041694	25	Non-PCB
		Howard Industries	1842061694	25	Non-PCB
2300 N. 22nd St., O.K.	Decatur, IL	General Electric	H272240 - 70P	300	assume 50 - 499 ppm
		Westinghouse	57B28776	25	assume 50 - 499 ppm
1881 E. Fremont St., O.K.	Galesburg, IL	Allis - Chalmers	74416431241	25	assume 50 - 499 ppm
		ERMCO	17M1350616	25	Non-PCB
		Westinghouse	77A192312	25	assume 50 - 499 ppm
2700 Plank Rd., O.K.	Peru, IL	Property of City of Peru			
2001 E. Main St., O.K.	Urbana, IL	Westinghouse	61AM6239	100	assume 50 - 499 ppm
		Westinghouse	61AM6240	100	assume 50 - 499 ppm
		Westinghouse	61AM6242	100	assume 50 - 499 ppm
100 Anderson Ave.,	Wood River, IL	General Electric	N961648 - YHY	50	Non-PCB
		General Electric	N961649 - YHY	50	Non-PCB
		General Electric	N974033 - YJY	50	Non-PCB

Appendix E  
**Regulatory Database  
Search Reports**

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**EDR**® Environmental  
Data Resources Inc

**The EDR-City Directory**  
*Abstract*

**SFC E.L. Copple USARAC, IL**  
904 E. McCord Street  
Centralia, IL 62801

**Inquiry Number: 1749681.1**

**Friday, September 08, 2006**

**The Standard in  
Environmental Risk  
Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06461

**Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)

## EDR City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening report designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

***Thank you for your business.***

Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## **SUMMARY**

- ***City Directories:***

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1959 through 1966. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

Date EDR Searched Historical Sources: September 8, 2006

**Target Property:**

904 E. McCord Street  
Centralia, IL 62801

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1959	US Army Reserve Center	Johnson's City Directory
1966	US Army Reserve Center	Johnson's City Directory

**Adjoining Properties**

**SURROUNDING**

Multiple Addresses  
Centralia, IL 62801

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1959	<b><u>**E MCCORD ST**</u></b>	Johnson's City Directory
	Residence (871)	Johnson's City Directory
	Residence (873)	Johnson's City Directory
	Residence (875)	Johnson's City Directory
	Residence (931)	Johnson's City Directory
	Residence (933)	Johnson's City Directory
	Residence (935)	Johnson's City Directory
	<b><u>**N PERRINE AVE**</u></b>	Johnson's City Directory
	Residence (217)	Johnson's City Directory
	Residence (319)	Johnson's City Directory
1966	<b><u>**E MCCORD ST**</u></b>	Johnson's City Directory
	Residence (871)	Johnson's City Directory
	Residence (873)	Johnson's City Directory
	Residence (875)	Johnson's City Directory
	Residence (931)	Johnson's City Directory
	Residence (933)	Johnson's City Directory

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1966	Residence (935)	Johnson's City Directory
	<b><u>**N PERRINE AVE**</u></b>	Johnson's City Directory
	Residence (217)	Johnson's City Directory
	Residence (319)	Johnson's City Directory



**EDR**® Environmental  
Data Resources Inc

## **The EDR Radius Map with GeoCheck®**

**SFC E.L. Copple USARC, IL  
904 E. Martin Luther King Jr. Drive  
Centralia, IL 62801**

**Inquiry Number: 01749715.1r**

**September 06, 2006**

## **The Standard in Environmental Risk Management Information**

440 Wheelers Farms Road  
Milford, Connecticut 06461

### **Nationwide Customer Service**

Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
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*Thank you for your business.*  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

904 E. MARTIN LUTHER KING JR. DRIVE  
CENTRALIA, IL 62801

#### COORDINATES

Latitude (North): 38.529000 - 38° 31' 44.4"  
Longitude (West): 89.123600 - 89° 7' 25.0"  
Universal Transverse Mercator: Zone 16  
UTM X (Meters): 314886.6  
UTM Y (Meters): 4266442.0  
Elevation: 500 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 38089-E2 CENTRALIA WEST, IL  
Most Recent Revision: 1981  
  
East Map: 38089-E1 CENTRALIA EAST, IL  
Most Recent Revision: 1981

### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

<u>Site</u>	<u>Database(s)</u>	<u>EPA ID</u>
86TH ARMY RESERVE COMMAND 904 EAST MARTIN LUTHER KING DR. CENTRALIA, IL 62801	LUST NFA/NFR Letter: 1995-07-27	N/A
US ARMY RESERVE CTR 904 E MARTIN LUTHER KING JR DR CENTRALIA, IL 62801	UST	N/A

## EXECUTIVE SUMMARY

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

### FEDERAL RECORDS

<b>NPL</b>	National Priority List
<b>Proposed NPL</b>	Proposed National Priority List Sites
<b>Delisted NPL</b>	National Priority List Deletions
<b>NPL RECOVERY</b>	Federal Superfund Liens
<b>CERCLIS</b>	Comprehensive Environmental Response, Compensation, and Liability Information System
<b>CERC-NFRAP</b>	CERCLIS No Further Remedial Action Planned
<b>CORRACTS</b>	Corrective Action Report
<b>RCRA-TSDF</b>	Resource Conservation and Recovery Act Information
<b>ERNS</b>	Emergency Response Notification System
<b>HMIRS</b>	Hazardous Materials Information Reporting System
<b>US ENG CONTROLS</b>	Engineering Controls Sites List
<b>US INST CONTROL</b>	Sites with Institutional Controls
<b>DOD</b>	Department of Defense Sites
<b>FUDS</b>	Formerly Used Defense Sites
<b>US BROWNFIELDS</b>	A Listing of Brownfields Sites
<b>CONSENT</b>	Superfund (CERCLA) Consent Decrees
<b>ROD</b>	Records Of Decision
<b>UMTRA</b>	Uranium Mill Tailings Sites
<b>ODI</b>	Open Dump Inventory
<b>TRIS</b>	Toxic Chemical Release Inventory System
<b>TSCA</b>	Toxic Substances Control Act
<b>FTTS</b>	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
<b>SSTS</b>	Section 7 Tracking Systems
<b>ICIS</b>	Integrated Compliance Information System
<b>PADS</b>	PCB Activity Database System
<b>MLTS</b>	Material Licensing Tracking System
<b>MINES</b>	Mines Master Index File
<b>FINDS</b>	Facility Index System/Facility Registry System
<b>RAATS</b>	RCRA Administrative Action Tracking System

### STATE AND LOCAL RECORDS

<b>SWF/LF</b>	Available Disposal for Solid Waste in Illinois - Solid Waste Landfills Subject to State Surcharge
<b>IL NIPC</b>	Solid Waste Landfill Inventory
<b>ENG CONTROLS</b>	Sites with Engineering Controls
<b>DRYCLEANERS</b>	Illinois Licensed Drycleaners
<b>IMPDMNT</b>	Surface Impoundment Inventory
<b>BROWNFIELDS</b>	Municipal Brownfields Redevelopment Grant Program Project Descriptions
<b>AIRS</b>	AIRS

### TRIBAL RECORDS

<b>INDIAN RESERV</b>	Indian Reservations
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## EXECUTIVE SUMMARY

**INDIAN LUST**..... Leaking Underground Storage Tanks on Indian Land  
**INDIAN UST**..... Underground Storage Tanks on Indian Land

### EDR PROPRIETARY RECORDS

**Manufactured Gas Plants**... EDR Proprietary Manufactured Gas Plants

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### FEDERAL RECORDS

**RCRAInfo:** RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act ( RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/13/2006 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b><i>FAIRVIEW SUPER K</i></b>	<b><i>700 W BROADWAY</i></b>	<b><i>1/8 - 1/4 SSW</i></b>	<b><i>G20</i></b>	<b><i>23</i></b>

**RCRAInfo:** RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act ( RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are

## EXECUTIVE SUMMARY

individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/13/2006 has revealed that there are 3 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>CENTRALIA FORD LINC MERC INC</b>	<b>848 E NOLEMAN</b>	<b>1/8 - 1/4 S</b>	<b>4</b>	<b>7</b>
<b>CASEYS GENERAL STORE</b>	<b>908 E NOLEMAN ST</b>	<b>1/8 - 1/4 SSE</b>	<b>B5</b>	<b>8</b>
<b>CENTRALIA TERMINAL COMPANY</b>	<b>650 WEST NOLEMAN STREET</b>	<b>1/8 - 1/4 SW</b>	<b>C8</b>	<b>10</b>

### STATE AND LOCAL RECORDS

**SHWS:** The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Illinois Environmental Protection Agency's Category List.

A review of the SHWS list, as provided by EDR, and dated 06/30/2006 has revealed that there are 3 SHWS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CENTRALIA ENVIRONMENTAL SERVIC	S. PERRINE STREET	0 - 1/8 E	3	7
PRIOR BLACKWELL LANDFILL	PERRINE ROAD	1/2 - 1 SSE	J33	30
PRIOR 1,2,3,4	RR5 (PERRINE STREET)	1/2 - 1 SSE	J34	30

### **CAT:** Illinois Category List.

A review of the CAT list, as provided by EDR, and dated 06/01/1997 has revealed that there is 1 CAT site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>BURLINGTON NORTHERN RAILROAD C</b> Facility Type: SITE REMEDIATION PROGRAM	<b>COR OF CHESTNUT &amp; JOHNS</b>	<b>1/2 - 1 NW</b>	<b>32</b>	<b>30</b>

**LUST:** The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Illinois Environmental Protection Agency's LUST Incident Report.

A review of the LUST list, as provided by EDR, and dated 05/22/2006 has revealed that there are 15 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CENTRALIA TERMINAL & STORAGE	640 WEST NOLEMAN ST.	1/8 - 1/4 SW	C9	11
BUCK-A-ROO CAR WASH	1001 WEST BROADWAY	1/8 - 1/4 SSE	D12	14
JIM'S AUTO SERVICE NFA/NFR Letter: 2000-08-02	100 NORTH LINCOLN	1/8 - 1/4 SSW	F15	16
WILSON SERVICE CTR. NFA/NFR Letter: 1995-03-30	420 EAST NOLEMAN ST.	1/8 - 1/4 WSW	E17	18

## EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
KELLER OIL CO. <b>EMRO MARKETING NO 7344</b>	700 WEST BROADWAY <b>638 W BROADWAY</b>	1/8 - 1/4 SSW <b>1/4 - 1/2 SW</b>	G21 <b>G22</b>	23 <b>24</b>
SPEEDWAY SUPERAMERICA LLC	638 WEST BROADWAY	1/4 - 1/2 SW	G23	24
AR-DON REALTY INC.	802 EAST 2ND	1/4 - 1/2 S	H24	25
MARTIN & BAYLEY NFA/NFR Letter: 2001-12-06	803 EAST 2ND ST.	1/4 - 1/2 S	H25	25
<b>CLARK OIL 848</b>	<b>625 N ELM ST</b>	<b>1/4 - 1/2 NW</b>	<b>26</b>	<b>26</b>
SMITH STANDARD STATION #5309 NFA/NFR Letter: 1993-11-10	135 SOUTH ELM	1/4 - 1/2 WSW	27	27
J.D. STRETT & CO. INC.	304 NORTH POPLAR	1/4 - 1/2 W	I28	28
J.D. STRETT	304 NORTH POPLAR ST.	1/4 - 1/2 W	I29	28
CVS CENTRALIA #6921 NFA/NFR Letter: 2005-02-15	203 POPLAR ST.	1/4 - 1/2 W	30	29
1ST CHRISTIAN CHURCH	205 SOUTH ELM ST.	1/4 - 1/2 WSW	31	29

**UST:** The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Illinois State Fire Marshal's STC Facility List.

A review of the UST list, as provided by EDR, and dated 07/17/2006 has revealed that there are 8 UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
CASEYS GENERAL STORES INC	908 E NOLEMAN	1/8 - 1/4 SSE	B6	9
KAVANAUGHVEVA J	517 E MCCORD	1/8 - 1/4 W	7	10
BECK BUS TRANSPORTATION	640 W NOLEMAN ST	1/8 - 1/4 SW	C10	11
WILSON SER CTR	430 E NOLEMAN	1/8 - 1/4 WSW	E13	14
WILSON SERVICE CENTER	430 E NOLEMAN	1/8 - 1/4 WSW	E14	15
BRENTON JAMES	100 N LINCOLN	1/8 - 1/4 SSW	F16	16
WILSONS SERVICE CTR	420 E NOLEMAN	1/8 - 1/4 WSW	E18	19
FAIRVIEW SUPER K	700 W BROADWAY	1/8 - 1/4 SSW	G19	21

**INST CONTROL:** Legal or administrative restrictions on land use and/or other activities (e.g., groundwater use restrictions) which effectively limit exposure to contamination may be employed as alternatives to removal or treatment of contamination.

A review of the Inst Control list, as provided by EDR, and dated 05/11/2006 has revealed that there is 1 Inst Control site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>BUCK-A-ROO CAR WASH</b>	<b>1001 BROADWAY</b>	<b>1/8 - 1/4 SSE</b>	<b>D11</b>	<b>13</b>

**SRP:** Illinois Environmental Protection Agency, Site Remediation Program Database

A review of the SRP list, as provided by EDR, and dated 05/11/2006 has revealed that there is 1 SRP site within approximately 0.5 miles of the target property.

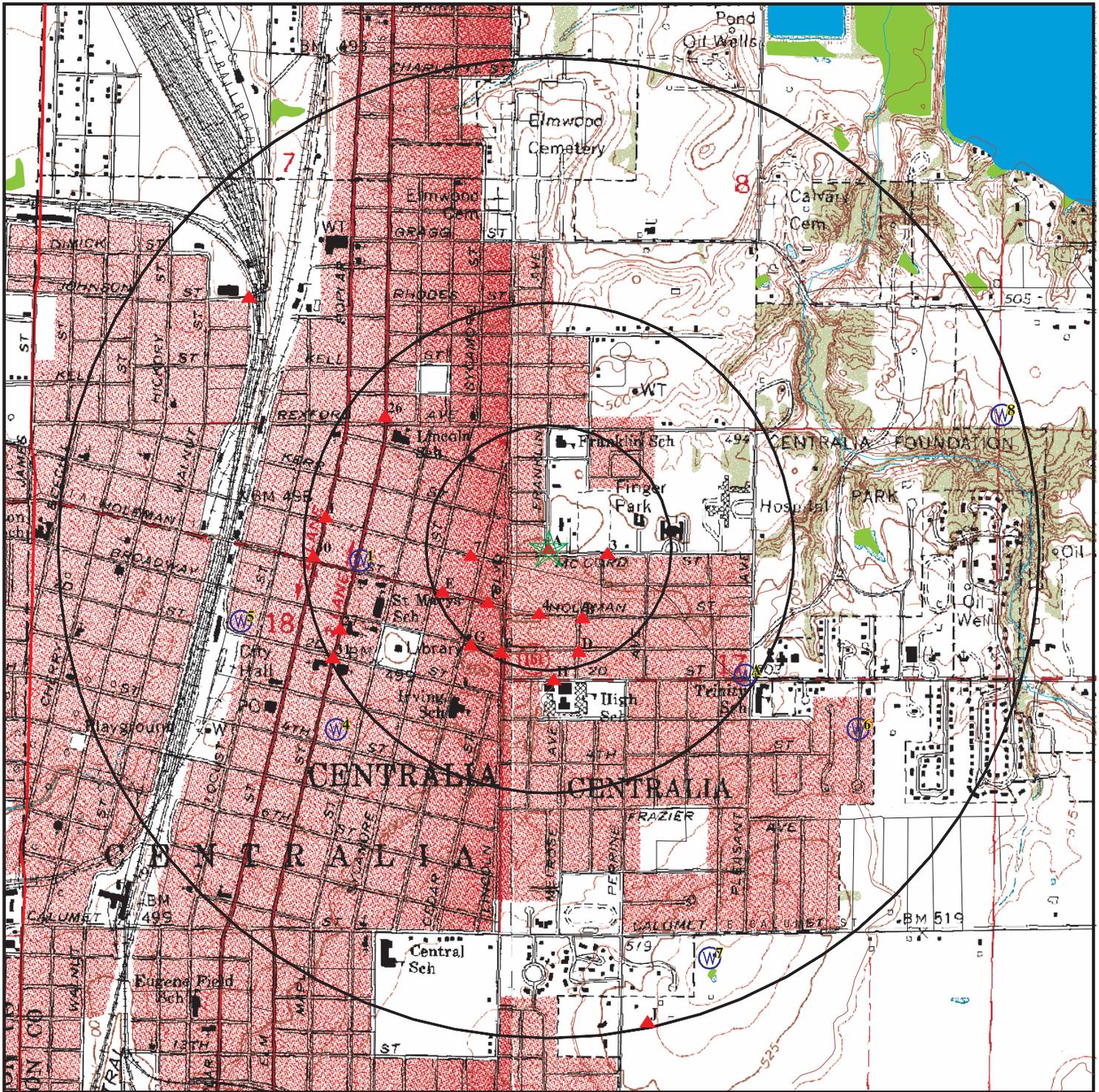
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<b>BUCK-A-ROO CAR WASH</b>	<b>1001 BROADWAY</b>	<b>1/8 - 1/4 SSE</b>	<b>D11</b>	<b>13</b>

## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
KASKASKIA COLLEGE	LUST
DICKERSON PETROLEUM	LUST
UNITED PARCEL SERVICE	LUST
MONKEN CHRYSLER NISSAN, INC.	LUST
HCTK CORP.	LUST
IL CMS	LUST
GRABOWSKI TRACTOR CO INC	UST
SUNSHINE CENTRALIA	UST
SUNSHINE	UST
CENTRALIA CONTAINER INC	UST
IL CENTRAL GULF RAILROAD	UST
PENSKE AUTO CENTER	RCRA-SQG, FINDS
NATURAL GAS PIPELINE CO OF AMERICA	RCRA-SQG, FINDS
CENTRALIA WATER TREATMENT	RCRA-SQG, FINDS
RACCOON SUPERK LKELLER OIL PROPERTIES	FINDS, RCRA-LQG
CENTRALIA IL 250 K WATER TOWER	FINDS, RCRA-LQG
L KELLER OIL PROPERTIES INC	FINDS
COPPLE	FINDS
COPPLE USARC	FINDS
S&L SANITATION	FINDS
IL DOC-CENTRALIA CORRECTIONAL	FINDS
IL CMS/DOV	FINDS

# OVERVIEW MAP - 01749715.1r



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

- Indian Reservations BIA
- County Boundary
- Oil & Gas pipelines
- National Wetland Inventory

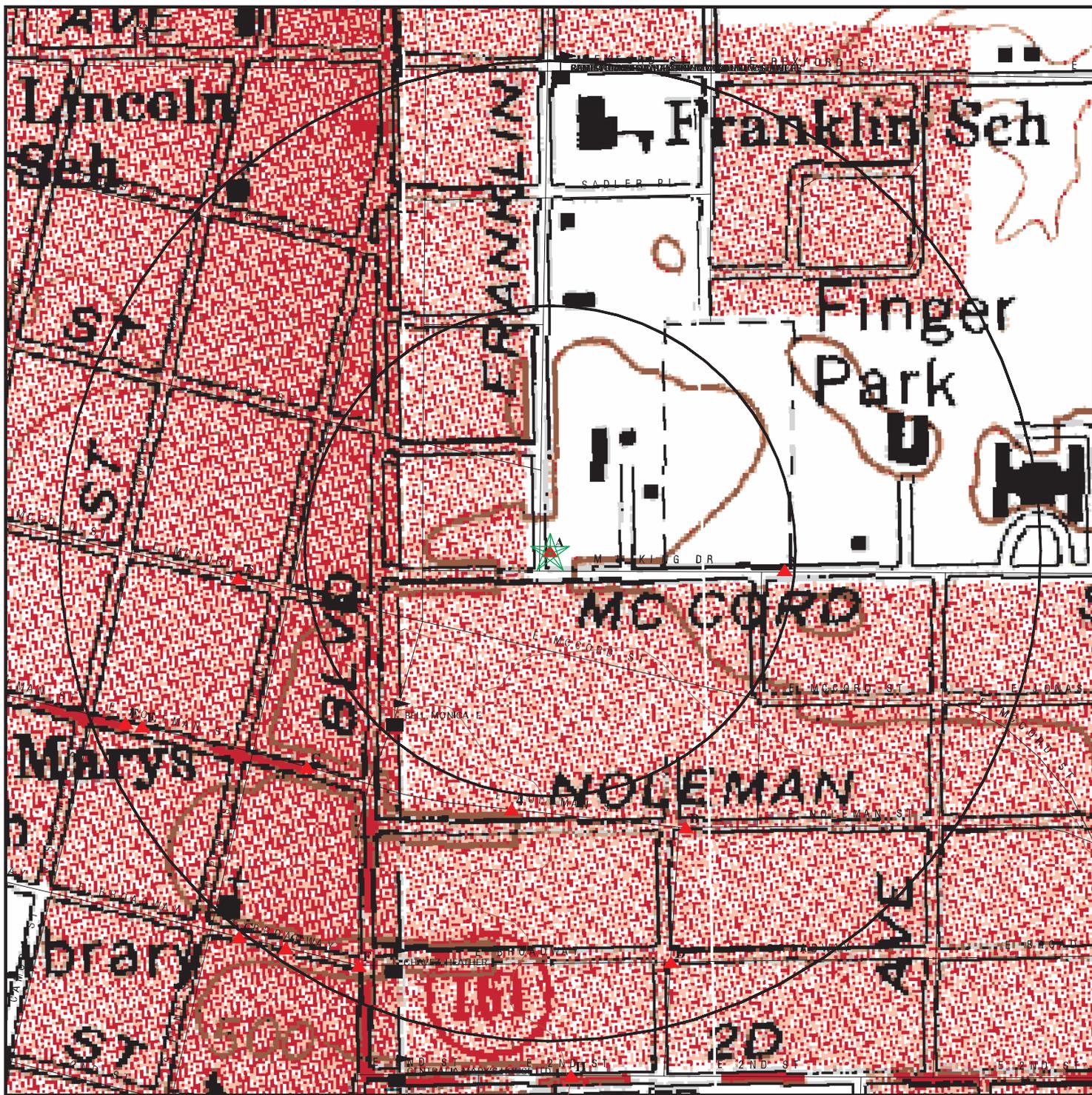


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: SFC E.L. Copple USARC, IL  
 ADDRESS: 904 E. Martin Luther King Jr. Drive  
 Centralia IL 62801  
 LAT/LONG: 38.5290 / 89.1236

CLIENT: CH2M Hill  
 CONTACT: Mary Beth Jacques  
 INQUIRY #: 01749715.1r  
 DATE: September 06, 2006 3:48 pm

DETAIL MAP - 01749715.1r



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- Sensitive Receptors
- ▨ National Priority List Sites
- ▨ Landfill Sites
- ▨ Dept. Defense Sites

- ▨ Indian Reservations BIA
- ▨ Oil & Gas pipelines

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: SFC E.L. Copple USARC, IL  
 ADDRESS: 904 E. Martin Luther King Jr. Drive  
 Centralia IL 62801  
 LAT/LONG: 38.5290 / 89.1236

CLIENT: CH2M Hill  
 CONTACT: Mary Beth Jacques  
 INQUIRY #: 01749715.1r  
 DATE: September 06, 2006 3:48 pm

## MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><u>FEDERAL RECORDS</u></b>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL RECOVERY		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		0.500	0	0	0	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	1	NR	NR	NR	1
RCRA Sm. Quan. Gen.		0.250	0	3	NR	NR	NR	3
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
<b><u>STATE AND LOCAL RECORDS</u></b>								
State Haz. Waste		1.000	1	0	0	2	NR	3
CAT		1.000	0	0	0	1	NR	1
State Landfill		0.500	0	0	0	NR	NR	0
IL NIPC		0.500	0	0	0	NR	NR	0
LUST	X	0.500	0	5	10	NR	NR	15
UST	X	0.250	0	8	NR	NR	NR	8
ENG CONTROLS		0.500	0	0	0	NR	NR	0
Inst Control		0.500	0	1	0	NR	NR	1
SRP		0.500	0	1	0	NR	NR	1
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
IMPDMNT		0.500	0	0	0	NR	NR	0
BROWNFIELDS		0.500	0	0	0	NR	NR	0
AIRS		TP	NR	NR	NR	NR	NR	0
<b><u>TRIBAL RECORDS</u></b>								
INDIAN RESERV		1.000	0	0	0	0	NR	0

## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
<b><u>EDR PROPRIETARY RECORDS</u></b>								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0

**NOTES:**

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**A1**            **86TH ARMY RESERVE COMMAND**  
**Target**        **904 EAST MARTIN LUTHER KING DR.**  
**Property**      **CENTRALIA, IL 62801**

**LUST**    **S103693579**  
              **N/A**

**Site 1 of 2 in cluster A**

**Actual:**  
**500 ft.**

LUST:  
 Incident Num:            941953  
 IL EPA Id:                1214225084  
 IEMA Date:              1994-08-26 00:00:00  
 PRP Name:                U.S. Army  
 PRP Contact:             Scott Murrell  
 PRP Address:             U.S. Army Engineer School  
 PRP City,St,Zip:        Fort Leonard Wood, MO 65473-6600  
 PRP Phone:               Not reported  
 Product:                  Other Petro  
 Project Manager:         Davis  
 Site Classification:      Not reported  
 Section 57.59(g) Letter: 732  
 Project Manager Phone: (217) 785-7492  
 Email:                     Valerie.Davis@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received:    1994-09-15  
 45 Report Received:    1995-06-28  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter:        1995-07-27**  
 NFR Date Recorded:     Not reported

**A2**            **US ARMY RESERVE CTR**  
**Target**        **904 E MARTIN LUTHER KING JR DR**  
**Property**      **CENTRALIA, IL 62801**

**UST**        **U001138530**  
              **N/A**

**Site 2 of 2 in cluster A**

**Actual:**  
**500 ft.**

UST:  
 Facility ID:               6019647  
 Tank Number:            1  
 Tank Capacity:          6000  
 Tank Substance:         Heating Oil  
 Tank Age:                39  
 Tank Last Used:         1/1/1902 00:00:00  
**Tank Status:            Removed**  
 Tank Red Tag:            No  
 Facility ID 2:             Not reported  
**Status:                   Not reported**  
 1998 green decal:       Not reported  
 Contact:                  Not reported  
 Phone #:                  Not reported  
 Owner Name:              Not reported  
 Owner Address:          Not reported  
 Owner Address 2:        Not reported  
 Owner City,St,Zip:      Not reported  
 Enforcement:            Not reported  
 Fee Owed:                Not reported  
 Permit Number:          Not reported  
 Permit Expires:          Not reported

Facility ID:               6019647  
 Tank Number:            2

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**US ARMY RESERVE CTR (Continued)**

**U001138530**

Tank Capacity: 1500  
 Tank Substance: Heating Oil  
 Tank Age: 39  
 Tank Last Used: 1/1/1902 00:00:00  
**Tank Status: Removed**  
 Tank Red Tag: No  
 Facility ID 2: Not reported  
**Status: Not reported**  
 1998 green decal: Not reported  
 Contact: Not reported  
 Phone #: Not reported  
 Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

**3**  
 East  
 < 1/8  
 633 ft.

**CENTRALIA ENVIRONMENTAL SERVICES**  
**S. PERRINE STREET**  
**CENTRALIA, IL 62801**

**SHWS 1000666011**  
**N/A**

**Relative:**  
**Equal**

SHWS:  
 Facility ID: 1214220003  
 Facility Type: Landfill  
 Region: Collinsville  
 Current Program: SSU  
 SSU Status: Completed  
 US Epaid: ILD059997403  
 Year Completed: 2003  
 Year Entered: 1999  
 Site Size: 40  
 FOS Personal: Letsky  
 Compunity Relations: Fuller

**Actual:**  
**500 ft.**

**4**  
 South  
 1/8-1/4  
 703 ft.

**CENTRALIA FORD LINC MERC INC**  
**848 E NOLEMAN**  
**CENTRALIA, IL 62801**

**RCRA-SQG 1000862151**  
**FINDS ILD984920512**

**Relative:**  
**Equal**

**Actual:**  
**500 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**CENTRALIA FORD LINC MERC INC (Continued)**

EDR ID Number  
EPA ID Number

Database(s)

**1000862151**

RCRAInfo:  
Owner: FORD MOTOR LAND DEVELOPMENT CORP  
(313) 390-5178  
EPA ID: ILD984920512  
Contact: DEBRA YOUNG  
(618) 532-4733  
Classification: Small Quantity Generator  
TSD Activities: Not reported  
Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:

ACES (Illinois - Agency Compliance And Enforcement System) is the Illinois EPA Project to facilitate the permitting operations

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**B5  
SSE  
1/8-1/4  
828 ft.**

**CASEYS GENERAL STORE  
908 E NOLEMAN ST  
CENTRALIA, IL 62801**

**RCRA-SQG 1001116495  
FINDS ILR000025171**

**Relative:  
Higher**

**Site 1 of 2 in cluster B**

**Actual:  
501 ft.**

RCRAInfo:  
Owner: CASEYS GENERAL STORES INC  
(515) 965-6238  
EPA ID: ILR000025171  
Contact: GLENN NORGART  
(515) 965-6238  
Classification: Small Quantity Generator  
TSD Activities: Not reported  
Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:

ACES (Illinois - Agency Compliance And Enforcement System) is the Illinois EPA Project to facilitate the permitting operations

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**B6**  
**SSE**  
**1/8-1/4**  
**828 ft.**

**CASEYS GENERAL STORES INC**  
**908 E NOLEMAN**  
**CENTRALIA, IL 62801**

**UST** **U003042465**  
**N/A**

**Site 2 of 2 in cluster B**

**Relative:**  
**Higher**

UST:

**Actual:**  
**501 ft.**

Facility ID: 6034678  
 Tank Number: 1  
 Tank Capacity: 10000  
 Tank Substance: Gasoline  
 Tank Age: 8  
 Tank Last Used: Not reported  
**Tank Status: Currently in use**  
 Tank Red Tag: No  
 Facility ID 2: Not reported  
**Status: Not reported**  
 1998 green decal: Not reported  
 Contact: Not reported  
 Phone #: Not reported  
 Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

Facility ID: 6034678  
 Tank Number: 2  
 Tank Capacity: 10000  
 Tank Substance: Gasoline  
 Tank Age: 8  
 Tank Last Used: Not reported  
**Tank Status: Currently in use**  
 Tank Red Tag: No  
 Facility ID 2: Not reported  
**Status: Not reported**  
 1998 green decal: Not reported  
 Contact: Not reported  
 Phone #: Not reported  
 Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**7**  
**West**  
**1/8-1/4**  
**842 ft.**

**KAVANAUGHEVA J**  
**517 E MCCORD**  
**CENTRALIA, IL 62801**

**UST**    **U000861047**  
           **N/A**

**Relative:**  
**Equal**

UST:

**Actual:**  
**500 ft.**

Facility ID:        6010344  
 Tank Number:     1  
 Tank Capacity:    550  
 Tank Substance:   Gasoline  
 Tank Age:         24  
 Tank Last Used:   Not reported  
**Tank Status:      Removed**  
 Tank Red Tag:     No  
 Facility ID 2:     Not reported  
**Status:            Not reported**  
 1998 green decal: Not reported  
 Contact:           Not reported  
 Phone #:           Not reported  
 Owner Name:       Not reported  
 Owner Address:    Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement:     Not reported  
 Fee Owed:         Not reported  
 Permit Number:    Not reported  
 Permit Expires:   Not reported

**C8**  
**SW**  
**1/8-1/4**  
**868 ft.**

**CENTRALIA TERMINAL COMPANY**  
**650 WEST NOLEMAN STREET**  
**CENTRALIA, IL 62801**

**RCRA-SQG**    **1000114577**  
**FINDS**        **ILD095492930**

**Site 1 of 3 in cluster C**

**Relative:**  
**Equal**

RCRAInfo:

**Actual:**  
**500 ft.**

Owner:            NAME NOT REPORTED  
                       (312) 555-1212  
 EPA ID:            ILD095492930  
 Contact:           Not reported  
 Classification:    Small Quantity Generator  
 TSDF Activities:   Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:

PCS (Permit Compliance System) is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**C9**  
**SW**  
**1/8-1/4**  
**875 ft.**

**CENTRALIA TERMINAL & STORAGE**  
**640 WEST NOLEMAN ST.**  
**CENTRALIA, IL 62801**

**LUST** **S105537726**  
**N/A**

**Site 2 of 3 in cluster C**

**Relative:**  
**Equal**

LUST:

**Actual:**  
**500 ft.**

Incident Num: 20020780  
 IL EPA Id: 1214220004  
 IEMA Date: 2002-06-03 00:00:00  
 PRP Name: Centralia Terminal & Storage  
 PRP Contact: Bill Sprehe  
 PRP Address: 650 West Noleman St.  
 PRP City,St,Zip: Centralia, IL 62801  
 PRP Phone: 6185336643  
 Product: Gasoline, Deisel  
 Project Manager: Gaydosh  
 Site Classification: High  
 Section 57.59(g) Letter: 732  
 Project Manager Phone: (217) 785-0231  
 Email: Jay.Gaydosh@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 2002-06-21  
 45 Report Received: 2002-07-11  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

**C10**  
**SW**  
**1/8-1/4**  
**875 ft.**

**BECK BUS TRANSPORTATION**  
**640 W NOLEMAN ST**  
**CENTRALIA, IL 62801**

**UST** **U001138505**  
**N/A**

**Site 3 of 3 in cluster C**

**Relative:**  
**Equal**

UST:

**Actual:**  
**500 ft.**

Facility ID: 6015470  
 Tank Number: 1  
 Tank Capacity: 8000  
 Tank Substance: Gasoline  
 Tank Age: 42  
 Tank Last Used: 7/3/2002 00:00:00  
**Tank Status: Removed**  
 Tank Red Tag: No  
 Facility ID 2: Not reported  
**Status: Not reported**  
 1998 green decal: Not reported  
 Contact: Not reported  
 Phone #: Not reported  
 Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

Facility ID: 6015470  
 Tank Number: 2

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

BECK BUS TRANSPORTATION (Continued)

U001138505

Tank Capacity: 8000  
Tank Substance: Diesel  
Tank Age: 31  
Tank Last Used: 1/1/1987 00:00:00  
**Tank Status: Exempt from registration**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

Facility ID: 6015470  
Tank Number: 3  
Tank Capacity: 12000  
Tank Substance: Diesel  
Tank Age: 31  
Tank Last Used: 7/3/2002 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

Facility ID: 6015470  
Tank Number: 4  
Tank Capacity: 500  
Tank Substance: Used Oil  
Tank Age: 43  
Tank Last Used: 12/31/1990 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BECK BUS TRANSPORTATION (Continued)**

**U001138505**

Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

**D11**  
**SSE**  
**1/8-1/4**  
**1153 ft.**

**BUCK-A-ROO CAR WASH**  
**1001 BROADWAY**  
**CENTRALIA, IL 62801**

**SRP S104492051**  
**Inst Control N/A**

**Site 1 of 2 in cluster D**

**Relative:**  
**Higher**

**Actual:**  
**501 ft.**

SRP:  
 IL EPA Id: 1214225029  
 US EPA Id: ILR000027094  
 Longitude: -89.15147  
 Latitude: 38.52851  
 Contact Name: Burton Chadwick  
 Contact Address: 555 Anton Boulevard  
 Contact Address2: Suite 1025  
 Contact City,St,Zip: Costa Mesa, CA 926267128  
 Contact Phone: (714) 433-6180  
 Date Enrolled: 1995-05-22 00:00:00  
 Point Of Contact: Not reported  
 Consultant Company: McLaren-Hart Environmental Engineering  
 Consultant Address: Not reported  
 Consultant Address2: Not reported  
 Consultant City,St,Zip: Not reported  
 Consultant Phone: Not reported  
 Proj Mgr Assigned: Frierdich  
 Sec. 4 Letter Date: Not reported  
 NFR Recorded: 1997-09-22 00:0  
 Active: False  
 Total Acres: 37.10000  
 No Further Remediation Letter Dt: 1997-08-22 00:0  
 Remediation Applicant Co: Bank of America  
 Remediation Applicant Title: Mr.  
 Remediation Applicant Name: Vice President Patricia Boyd  
 Remediation Applicant Company: Rose Holding Incorporated  
 Remediation Applicant Address: 101 North 1st Avenue  
 Remediation Applicant Address 2: Department 5161  
 Remediation Applicant City,St,Zip: Phoenix, AZ 85003-1214225029  
 Illinois EPA: 1214225029  
 Site Name: Buck-A-Roo Car Wash  
 NFR Letter: 08/22/97  
 NFR Letter Date Recorded: 09/22/97  
 Site Type: Industrial/Commercial  
 Comprehensive/Focused: Focused  
 Institutional Controls: Groundwater use restriction  
 Barrier: Not reported  
 Worker Caution: False  
 Acres: 37.10000

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BUCK-A-ROO CAR WASH (Continued)**

**S104492051**

IL INSTUTIONAL CONTROL:  
 Illinois Epa Id: 1214225029  
 NFR Letter: 08/22/97  
 Date NFR Recorded: 09/22/97  
 Type Of Site: Industrial/Commercial  
 Comprehensive / Focused: Focused  
 Remediation Applicant Title: Vice President  
 Remediation Applicant Name: Patricia Boyd  
 RA Company: Rose Holding Incorporated  
 RA Address: 101 North 1st Avenue  
 RA Secondary Address: Department 5161  
 RA City,St,Zip: Phoenix, AZ 85003-  
 Institutional Controls: Groundwater use restriction  
 Engineered Barriers: Not reported  
 Worker Caution: False  
 Acres: 37.10000

**D12 BUCK-A-ROO CAR WASH**  
**SSE 1001 WEST BROADWAY**  
**1/8-1/4 CENTRALIA, IL 62801**  
**1153 ft.**

**LUST S104527963**  
**N/A**

**Site 2 of 2 in cluster D**

**Relative:**  
**Higher**

LUST:  
 Incident Num: 881679  
 IL EPA Id: 1214225029  
 IEMA Date: 1988-12-19 00:00:00  
 PRP Name: Bank of America  
 PRP Contact: Burton Chadwick  
 PRP Address: 4000 MacArthur Blvd., Suite 100  
 PRP City,St,Zip: Newport Beach, CA 92660  
 PRP Phone: Not reported  
 Product: Gasoline  
 Project Manager: NOT ASSIGNED  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: Not reported  
 Email: Not reported  
 Non LUST Determination Letter: Not reported  
 20 Report Received: Not reported  
 45 Report Received: Not reported  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

**Actual:**  
**501 ft.**

**E13 WILSON SER CTR**  
**WSW 430 E NOLEMAN**  
**1/8-1/4 CENTRALIA, IL 62801**  
**1194 ft.**

**UST U003910834**  
**N/A**

**Site 1 of 4 in cluster E**

**Relative:**  
**Equal**

UST:  
 Facility ID: 8000408  
 Tank Number: Not reported  
 Tank Capacity: Not reported  
 Tank Substance: Not reported

**Actual:**  
**500 ft.**

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**WILSON SER CTR (Continued)**

**U003910834**

Tank Age: Not reported  
Tank Last Used: Not reported  
**Tank Status: Not reported**  
Tank Red Tag: Not reported  
Facility ID 2: 1989012143  
**Status: Merged**  
1998 green decal: None  
Contact: 1439 Ins  
Phone #: Not reported  
Owner Name: Wilson Ser Ctr  
Owner Address: 430 E Noleman  
Owner Address 2: Not reported  
Owner City,St,Zip: Centralia, IL 62801  
Enforcement: No  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

**E14  
WSW  
1/8-1/4  
1194 ft.**

**WILSON SERVICE CENTER  
430 E NOLEMAN  
CENTRALIA, IL 62801**

**UST U003910830  
N/A**

**Relative:  
Equal**

**Site 2 of 4 in cluster E**

UST:  
Facility ID: 6036067  
Tank Number: Not reported  
Tank Capacity: Not reported  
Tank Substance: Not reported  
Tank Age: Not reported  
Tank Last Used: Not reported  
**Tank Status: Not reported**  
Tank Red Tag: Not reported  
Facility ID 2: 1782917989  
**Status: Exempt**  
1998 green decal: None  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Wilson Ser Ctr  
Owner Address: 430 E Noleman  
Owner Address 2: Not reported  
Owner City,St,Zip: Centralia, IL 62801  
Enforcement: No  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

**Actual:  
500 ft.**

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**F15**  
**SSW**  
**1/8-1/4**  
**1229 ft.**

**JIM'S AUTO SERVICE**  
**100 NORTH LINCOLN**  
**CENTRALIA, IL 62801**

**LUST** **S104524741**  
**N/A**

**Site 1 of 2 in cluster F**

**Relative:**  
**Equal**

LUST:

**Actual:**  
**500 ft.**

Incident Num: 921933  
 IL EPA Id: 1214225065  
 IEMA Date: 1992-07-17 00:00:00  
 PRP Name: Jim's Auto Service  
 PRP Contact: James Brenton  
 PRP Address: 100 North Lincoln  
 PRP City,St,Zip: Centralia, IL 62801  
 PRP Phone: Not reported  
 Product: Gasoline, Used Oil  
 Project Manager: Vieregge  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: (618) 346-5124  
 Email: Not reported  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1992-08-05  
 45 Report Received: 1992-10-08  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: 2000-08-02**  
 NFR Date Recorded: Not reported

**F16**  
**SSW**  
**1/8-1/4**  
**1229 ft.**

**BRENTON JAMES**  
**100 N LINCOLN**  
**CENTRALIA, IL 62801**

**UST** **U001138498**  
**N/A**

**Site 2 of 2 in cluster F**

**Relative:**  
**Equal**

UST:

**Actual:**  
**500 ft.**

Facility ID: 6007304  
 Tank Number: 1  
 Tank Capacity: 2000  
 Tank Substance: Gasoline  
 Tank Age: 43  
 Tank Last Used: 6/1/1991 00:00:00  
**Tank Status: Removed**  
 Tank Red Tag: No  
 Facility ID 2: Not reported  
**Status: Not reported**  
 1998 green decal: Not reported  
 Contact: Not reported  
 Phone #: Not reported  
 Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

Facility ID: 6007304  
 Tank Number: 2

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

Database(s)  
EDR ID Number  
EPA ID Number

**BRENTON JAMES (Continued)**

**U001138498**

Tank Capacity: 3000  
Tank Substance: Gasoline  
Tank Age: 43  
Tank Last Used: 6/1/1991 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

Facility ID: 6007304  
Tank Number: 3  
Tank Capacity: 3000  
Tank Substance: Gasoline  
Tank Age: 43  
Tank Last Used: 6/1/1991 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

Facility ID: 6007304  
Tank Number: 4  
Tank Capacity: 2000  
Tank Substance: Gasoline  
Tank Age: 43  
Tank Last Used: 6/1/1991 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**BRENTON JAMES (Continued)**

**U001138498**

Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

Facility ID: 6007304  
 Tank Number: 5  
 Tank Capacity: 550  
 Tank Substance: Used Oil  
 Tank Age: 43  
 Tank Last Used: 6/1/1991 00:00:00  
**Tank Status: Removed**  
 Tank Red Tag: No  
 Facility ID 2: Not reported  
**Status: Not reported**  
 1998 green decal: Not reported  
 Contact: Not reported  
 Phone #: Not reported  
 Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

**E17  
 WSW  
 1/8-1/4  
 1232 ft.**

**WILSON SERVICE CTR.  
 420 EAST NOLEMAN ST.  
 CENTRALIA, IL 62801**

**LUST S104524467  
 N/A**

**Site 3 of 4 in cluster E**

**Relative:  
 Equal**

**LUST:**  
 Incident Num: 891161  
 IL EPA Id: 1214220021  
 IEMA Date: 1989-07-06 00:00:00  
 PRP Name: Wilson Service Ctr.  
 PRP Contact: Karl Wilson  
 PRP Address: 420 East Noleman St.  
 PRP City,St,Zip: Centralia, IL 62801  
 PRP Phone: Not reported  
 Product: Gasoline  
 Project Manager: Davis  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: (217) 785-7492  
 Email: Valerie.Davis@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: Not reported  
 45 Report Received: Not reported  
 Section 57.59(g) Letter: Not reported

**Actual:  
 500 ft.**

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**WILSON SERVICE CTR. (Continued)**

**S104524467**

**NFA/NFR Letter:** Not reported  
**NFR Date Recorded:** Not reported

Incident Num: 922881  
 IL EPA Id: 1214220021  
 IEMA Date: 1992-10-14 00:00:00  
 PRP Name: Community Trust Bank  
 PRP Contact: Roger Fredricks  
 PRP Address: P.O. Box 241  
 PRP City,St,Zip: Irvington, IL 62848  
 PRP Phone: Not reported  
 Product: Gasoline, Deisel  
 Project Manager: Davis  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: (217) 785-7492  
 Email: Valerie.Davis@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1992-10-30  
 45 Report Received: 1992-12-07  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter:** **1995-03-30**  
**NFR Date Recorded:** Not reported

**E18**  
**WSW**  
**1/8-1/4**  
**1232 ft.**

**WILSONS SERVICE CTR**  
**420 E NOLEMAN**  
**CENTRALIA, IL 62801**

**UST U000786989**  
**N/A**

**Site 4 of 4 in cluster E**

**Relative:**  
**Equal**

**UST:**  
 Facility ID: 6007250  
 Tank Number: 1  
 Tank Capacity: 6000  
 Tank Substance: Gasoline  
 Tank Age: 42  
 Tank Last Used: 12/1/1991 00:00:00  
**Tank Status: Removed**  
 Tank Red Tag: No  
 Facility ID 2: Not reported  
**Status: Not reported**  
 1998 green decal: Not reported  
 Contact: Not reported  
 Phone #: Not reported  
 Owner Name: Not reported  
 Owner Address: Not reported  
 Owner Address 2: Not reported  
 Owner City,St,Zip: Not reported  
 Enforcement: Not reported  
 Fee Owed: Not reported  
 Permit Number: Not reported  
 Permit Expires: Not reported

**Actual:**  
**500 ft.**

Facility ID: 6007250  
 Tank Number: 2  
 Tank Capacity: 4000  
 Tank Substance: Diesel

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

WILSONS SERVICE CTR (Continued)

U000786989

Tank Age: 42  
Tank Last Used: 12/1/1991 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

Facility ID: 6007250  
Tank Number: 3  
Tank Capacity: 6000  
Tank Substance: Gasoline  
Tank Age: 42  
Tank Last Used: 12/1/1991 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

Facility ID: 6007250  
Tank Number: 4  
Tank Capacity: 500  
Tank Substance: Used Oil  
Tank Age: 45  
Tank Last Used: 12/1/1991 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
EPA ID Number

**WILSONS SERVICE CTR (Continued)**

**U000786989**

Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

**G19**  
**SSW**  
**1/8-1/4**  
**1284 ft.**

**FAIRVIEW SUPER K**  
**700 W BROADWAY**  
**CENTRALIA, IL 62801**

**UST U000786995**  
**N/A**

**Site 1 of 5 in cluster G**

**Relative:**  
**Equal**

UST:  
Facility ID: 6007995  
Tank Number: 1  
Tank Capacity: 8000  
Tank Substance: Gasoline  
Tank Age: 27  
Tank Last Used: 12/21/1998 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported  
Permit Expires: Not reported

**Actual:**  
**500 ft.**

Facility ID: 6007995  
Tank Number: 2  
Tank Capacity: 8000  
Tank Substance: Gasoline  
Tank Age: 27  
Tank Last Used: 12/21/1998 00:00:00  
**Tank Status: Removed**  
Tank Red Tag: No  
Facility ID 2: Not reported  
**Status: Not reported**  
1998 green decal: Not reported  
Contact: Not reported  
Phone #: Not reported  
Owner Name: Not reported  
Owner Address: Not reported  
Owner Address 2: Not reported  
Owner City,St,Zip: Not reported  
Enforcement: Not reported  
Fee Owed: Not reported  
Permit Number: Not reported

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation    Site

MAP FINDINGS

Database(s)    EDR ID Number  
EPA ID Number

**FAIRVIEW SUPER K (Continued)**

**U000786995**

Permit Expires:    Not reported

Facility ID:        6007995  
Tank Number:      3  
Tank Capacity:     8000  
Tank Substance:   Gasoline  
Tank Age:          27  
Tank Last Used:    12/21/1998 00:00:00  
**Tank Status:**    **Removed**  
Tank Red Tag:      No  
Facility ID 2:      Not reported  
**Status:**          **Not reported**  
1998 green decal: Not reported  
Contact:            Not reported  
Phone #:            Not reported  
Owner Name:        Not reported  
Owner Address:     Not reported  
Owner Address 2:   Not reported  
Owner City,St,Zip: Not reported  
Enforcement:       Not reported  
Fee Owed:          Not reported  
Permit Number:    Not reported  
Permit Expires:    Not reported

Facility ID:        6007995  
Tank Number:      4  
Tank Capacity:     1000  
Tank Substance:   Heating Oil  
Tank Age:          24  
Tank Last Used:    8/23/1988 00:00:00  
**Tank Status:**    **Exempt from registration**  
Tank Red Tag:      No  
Facility ID 2:      Not reported  
**Status:**          **Not reported**  
1998 green decal: Not reported  
Contact:            Not reported  
Phone #:            Not reported  
Owner Name:        Not reported  
Owner Address:     Not reported  
Owner Address 2:   Not reported  
Owner City,St,Zip: Not reported  
Enforcement:       Not reported  
Fee Owed:          Not reported  
Permit Number:    Not reported  
Permit Expires:    Not reported

MAP FINDINGS

Map ID			
Direction			
Distance			
Distance (ft.)			
Elevation	Site	Database(s)	EDR ID Number EPA ID Number

<b>G20</b>	<b>FAIRVIEW SUPER K</b>	<b>FINDS</b>	<b>1001960511</b>
<b>SSW</b>	<b>700 W BROADWAY</b>	<b>RCRA-LQG</b>	<b>ILR000074369</b>
<b>1/8-1/4</b>	<b>CENTRALIA, IL 62801</b>		
<b>1284 ft.</b>			

**Site 2 of 5 in cluster G**

**Relative:**  
**Equal**

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:

**Actual:**  
**500 ft.**

ACES (Illinois - Agency Compliance And Enforcement System) is the Illinois EPA Project to facilitate the permitting operations

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**RCRAInfo:**

Owner: L KELLER OIL PROPERTIES INC  
(217) 347-7777  
EPA ID: ILR000074369  
Contact: WM SINNOTT  
(217) 522-8001

Classification: Large Quantity Generator  
TSDF Activities: Not reported

Violation Status: No violations found

<b>G21</b>	<b>KELLER OIL CO.</b>	<b>LUST</b>	<b>S104530198</b>
<b>SSW</b>	<b>700 WEST BROADWAY</b>		<b>N/A</b>
<b>1/8-1/4</b>	<b>CENTRALIA, IL 62801</b>		
<b>1284 ft.</b>			

**Site 3 of 5 in cluster G**

**Relative:**  
**Equal**

**LUST:**

**Actual:**  
**500 ft.**

Incident Num: 992666  
IL EPA Id: 1214225126  
IEMA Date: 1999-12-02 00:00:00  
PRP Name: Keller Oil Co.  
PRP Contact: Joe Henry  
PRP Address: P.O. Box 70  
PRP City,St,Zip: Effingham, IL 62401  
PRP Phone: 2173477777  
Product: Gasoline  
Project Manager: Kaiser  
Site Classification: HIGH  
Section 57.59(g) Letter: 732  
Project Manager Phone: (217) 524-4650  
Email: Karl.Kaiser@epa.state.il.us  
Non LUST Determination Letter: Not reported  
20 Report Received: 1999-12-13  
45 Report Received: 2000-01-12  
Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
NFR Date Recorded: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**G22**  
**SW**  
**1/4-1/2**  
**1333 ft.**

**EMRO MARKETING NO 7344**  
**638 W BROADWAY**  
**CENTRALIA, IL 62801**

**RCRA-SQG**  
**FINDS**  
**LUST**

**1000326052**  
**ILD984784884**

**Site 4 of 5 in cluster G**

**Relative:**  
**Equal**

RCRAInfo:

Owner: EMRO MARKETING INC

EPA ID: ILD984784884

Contact: Not reported

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

**Actual:**  
**500 ft.**

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**LUST:**

Incident Num: 890694  
 IL EPA Id: 1214220015  
 IEMA Date: 1989-04-29 00:00:00  
 PRP Name: Emro Marketing  
 PRP Contact: R.G. Schumann  
 PRP Address: P.O. Box 162  
 PRP City,St,Zip: East Hazel Crest, IL 60429-0162  
 PRP Phone: Not reported  
 Product: Gasoline  
 Project Manager: Davis  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: (217) 785-7492  
 Email: Valerie.Davis@epa.state.il.us  
 Non LUST Determination Letter: 1993-10-21  
 20 Report Received: Not reported  
 45 Report Received: Not reported  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

**G23**  
**SW**  
**1/4-1/2**  
**1333 ft.**

**SPEEDWAY SUPERAMERICA LLC**  
**638 WEST BROADWAY**  
**CENTRALIA, IL 62801**

**LUST** **S104529753**  
**N/A**

**Site 5 of 5 in cluster G**

**Relative:**  
**Equal**

LUST:

Incident Num: 991258  
 IL EPA Id: 1214220015  
 IEMA Date: 1999-05-26 00:00:00  
 PRP Name: Speedway SuperAmerica  
 PRP Contact: Dan Strubel  
 PRP Address: Post Office Box 1500  
 PRP City,St,Zip: Springfield, OH 45501  
 PRP Phone: 9378643000

**Actual:**  
**500 ft.**

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**SPEEDWAY SUPERAMERICA LLC (Continued)**

**S104529753**

Product: Gasoline  
 Project Manager: Kaiser  
 Site Classification: HIGH  
 Section 57.59(g) Letter: 732  
 Project Manager Phone: (217) 524-4650  
 Email: Karl.Kaiser@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1999-06-01  
 45 Report Received: 1999-07-09  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

**H24**  
**South**  
**1/4-1/2**  
**1414 ft.**

**AR-DON REALTY INC.**  
**802 EAST 2ND**  
**CENTRALIA, IL 62801**

**LUST S104527430**  
**N/A**

**Site 1 of 2 in cluster H**

**Relative:**  
**Equal**

**LUST:**

**Actual:**  
**500 ft.**

Incident Num: 892450  
 IL EPA Id: 1214225037  
 IEMA Date: 1989-11-28 00:00:00  
 PRP Name: Ar-Don Realty, Inc.  
 PRP Contact: Bruce Geary  
 PRP Address: P.O. Drawer D, 140 South Locust St.-3rd Fl.  
 PRP City,St,Zip: Centralia, IL 62801  
 PRP Phone: 6184339460  
 Product: Gasoline  
 Project Manager: Weller  
 Site Classification: Not reported  
 Section 57.59(g) Letter: P.A.  
 Project Manager Phone: (217) 524-4647  
 Email: Melinda.Weller@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: Not reported  
 45 Report Received: Not reported  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

**H25**  
**South**  
**1/4-1/2**  
**1414 ft.**

**MARTIN & BAYLEY**  
**803 EAST 2ND ST.**  
**CENTRALIA, IL 62801**

**LUST S104522750**  
**N/A**

**Site 2 of 2 in cluster H**

**Relative:**  
**Equal**

**LUST:**

**Actual:**  
**500 ft.**

Incident Num: 950070  
 IL EPA Id: 1214225086  
 IEMA Date: 1995-01-09 00:00:00  
 PRP Name: Martin & Bayley Inc.  
 PRP Contact: Mark Bayley  
 PRP Address: P.O. Box 385  
 PRP City,St,Zip: Carmi, IL 62821  
 PRP Phone: Not reported

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**MARTIN & BAYLEY (Continued)**

**S104522750**

Product: Gasoline  
 Project Manager: Covert  
 Site Classification: HIGH  
 Section 57.59(g) Letter: 732  
 Project Manager Phone: (217) 785-3943  
 Email: Chris.Covert@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1995-05-26  
 45 Report Received: 1998-05-11  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: 2001-12-06**  
 NFR Date Recorded: 2001-12-21

**26  
 NW  
 1/4-1/2  
 2267 ft.**

**CLARK OIL 848  
 625 N ELM ST  
 CENTRALIA, IL 62801**

**RCRA-SQG 1000861355  
 FINDS IL0000086397  
 LUST**

**Relative:  
 Equal**

RCRAInfo:  
 Owner: CLARK REFINING AND MARKETING  
 (314) 524-5100  
 EPA ID: IL0000086397  
 Contact: SHELLY RUTH  
 (314) 524-5100

**Actual:  
 500 ft.**

Classification: Small Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

**FINDS:**

Other Pertinent Environmental Activity Identified at Site:  
 ACES (Illinois - Agency Compliance And Enforcement System) is the Illinois EPA Project to facilitate the permitting operations  
 RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**LUST:**

Incident Num: 890009  
 IL EPA Id: 1214220014  
 IEMA Date: 1989-01-03 00:00:00  
 PRP Name: Premcor Refining Group  
 PRP Contact: Maureen Turman  
 PRP Address: 800 Roosevelt Rd., Bldg. E. Suite 200  
 PRP City,St,Zip: Glen Ellyn, IL 60137  
 PRP Phone: Not reported  
 Product: Not reported  
 Project Manager: Rahman  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: (217) 782-9848  
 Email: Mohammed.Rahman@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1989-02-10  
 45 Report Received: 2005-05-31

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number  
 EPA ID Number

**CLARK OIL 848 (Continued)**

**1000861355**

Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

Incident Num: 920518  
 IL EPA Id: 1214220014  
 IEMA Date: 1992-02-26 00:00:00  
 PRP Name: Premcor Refining Group  
 PRP Contact: Johnna VanKeuran  
 PRP Address: 8182 Maryland Ave.  
 PRP City,St,Zip: Clayton, MO 63105-3721  
 PRP Phone: 3147520533  
 Product: Gasoline  
 Project Manager: Rahman  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: (217) 782-9848  
 Email: Mohammed.Rahman@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1992-03-20  
 45 Report Received: 1992-04-27  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

**27 SMITH STANDARD STATION #5309**  
**WSW 135 SOUTH ELM**  
**1/4-1/2 CENTRALIA, IL 62801**  
**2405 ft.**

**LUST S104526424**  
**N/A**

**Relative:** LUST:  
**Equal** Incident Num: 903510  
 IL EPA Id: 1214225043  
 IEMA Date: 1990-11-27 00:00:00  
**Actual:** PRP Name: Amoco Oil Co.  
**500 ft.** PRP Contact: Lyle Bruce  
 PRP Address: 28100 Torch Pkwy., 6-S  
 PRP City,St,Zip: Warrenville, IL 60555  
 PRP Phone: Not reported  
 Product: Gasoline  
 Project Manager: Davis  
 Site Classification: Not reported  
 Section 57.59(g) Letter: 731  
 Project Manager Phone: (217) 785-7492  
 Email: Valerie.Davis@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1992-02-29  
 45 Report Received: 1991-05-22  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: 1993-11-10**  
 NFR Date Recorded: Not reported

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Distance (ft.)  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**I28**  
**West**  
**1/4-1/2**  
**2424 ft.**

**J.D. STRETT & CO. INC.**  
**304 NORTH POPLAR**  
**CENTRALIA, IL 62801**

**LUST** **S104527028**  
**N/A**

**Site 1 of 2 in cluster I**

**Relative:**  
**Equal**

LUST:

**Actual:**  
**500 ft.**

Incident Num: 901192  
 IL EPA Id: 1214225039  
 IEMA Date: 1990-05-03 00:00:00  
 PRP Name: J.D. Strett & Co.  
 PRP Contact: Bob Ward  
 PRP Address: 144 Weldon Pkwy.  
 PRP City,St,Zip: Maryland Heights, MO 63043  
 PRP Phone: Not reported  
 Product: Gasoline  
 Project Manager: Friedel  
 Site Classification: Not reported  
 Section 57.59(g) Letter: P.A.  
 Project Manager Phone: (217) 785-5736  
 Email: Melinda.Friedel@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: Not reported  
 45 Report Received: Not reported  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

**I29**  
**West**  
**1/4-1/2**  
**2424 ft.**

**J.D. STRETT**  
**304 NORTH POPLAR ST.**  
**CENTRALIA, IL 62801**

**LUST** **S104521825**  
**N/A**

**Site 2 of 2 in cluster I**

**Relative:**  
**Equal**

LUST:

**Actual:**  
**500 ft.**

Incident Num: 961923  
 IL EPA Id: 1214225039  
 IEMA Date: 1996-10-18 00:00:00  
 PRP Name: J.D. Strett & Co.  
 PRP Contact: Jim Schuering  
 PRP Address: 144 Weldon Pkwy.  
 PRP City,St,Zip: Maryland Heights, MO 63043  
 PRP Phone: Not reported  
 Product: Gasoline  
 Project Manager: Friedel  
 Site Classification: HIGH  
 Section 57.59(g) Letter: P.A.  
 Project Manager Phone: (217) 785-5736  
 Email: Melinda.Friedel@epa.state.il.us  
 Non LUST Determination Letter: Not reported  
 20 Report Received: 1996-11-07  
 45 Report Received: 1997-01-31  
 Section 57.59(g) Letter: Not reported  
**NFA/NFR Letter: Not reported**  
 NFR Date Recorded: Not reported

MAP FINDINGS

Map ID			
Direction			
Distance			
Distance (ft.)			
Elevation	Site	Database(s)	EDR ID Number EPA ID Number

**30**  
**West**  
**1/4-1/2**  
**2535 ft.**

**CVS CENTRALIA #6921**  
**203 POPLAR ST.**  
**CENTRALIA, IL 62801**

**LUST**    **S105060025**  
**N/A**

**Relative:**    LUST:  
**Equal**

**Actual:**    Incident Num:            20011071  
**500 ft.**        IL EPA Id:                1214225136  
                  IEMA Date:              2001-06-20 00:00:00  
                  PRP Name:                Hook Super RX, Inc.  
                  PRP Contact:             Scott Ciocca  
                  PRP Address:             2800 Enterprise St.  
                  PRP City,St,Zip:        Indianapolis, IN 46219  
                  PRP Phone:               3174426988  
                  Product:                  Gasoline  
                  Project Manager:        Zuehlke  
                  Site Classification:     Not reported  
                  Section 57.59(g) Letter: 732  
                  Project Manager Phone: 1-888-299-9533  
                  Email:                     Wayne.Zuehlke@epa.state.il.us  
                  Non LUST Determination Letter: Not reported  
                  20 Report Received:    2001-07-31  
                  45 Report Received:    2001-09-21  
                  Section 57.59(g) Letter: Not reported  
                  **NFA/NFR Letter:        2005-02-15**  
                  NFR Date Recorded:    2005-07-27

**31**  
**WSW**  
**1/4-1/2**  
**2602 ft.**

**1ST CHRISTIAN CHURCH**  
**205 SOUTH ELM ST.**  
**CENTRALIA, IL 62801**

**LUST**    **S104522123**  
**N/A**

**Relative:**    LUST:  
**Equal**

**Actual:**    Incident Num:            960589  
**500 ft.**        IL EPA Id:                1214225093  
                  IEMA Date:              1996-04-11 00:00:00  
                  PRP Name:                1st Christian Church  
                  PRP Contact:             Bob Angles  
                  PRP Address:             137 South Pine St.  
                  PRP City,St,Zip:        Centralia, IL 62801  
                  PRP Phone:               Not reported  
                  Product:                  Other Petro  
                  Project Manager:        Kaiser  
                  Site Classification:     Not reported  
                  Section 57.59(g) Letter: 732  
                  Project Manager Phone: (217) 524-4650  
                  Email:                     Karl.Kaiser@epa.state.il.us  
                  Non LUST Determination Letter: Not reported  
                  20 Report Received:    Not reported  
                  45 Report Received:    Not reported  
                  Section 57.59(g) Letter: 1996-07-26  
                  **NFA/NFR Letter:        Not reported**  
                  NFR Date Recorded:    Not reported

MAP FINDINGS

Map ID			
Direction			
Distance			
Distance (ft.)			
Elevation	Site	Database(s)	EDR ID Number EPA ID Number

<b>32</b> <b>NW</b> <b>1/2-1</b> <b>4213 ft.</b>	<b>BURLINGTON NORTHERN RAILROAD CO</b> <b>COR OF CHESTNUT &amp; JOHNSON</b> <b>CENTRALIA, IL 62801</b>	<b>FINDS</b> <b>CAT</b> <b>RCRA-LQG</b>	<b>1000285765</b> <b>ILD980825764</b>
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**Relative:** FINDS:  
**Equal** Other Pertinent Environmental Activity Identified at Site:  
 RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**Actual:** 500 ft.

**CAT:**  
 Facility ID: 1214225010  
**Facility Type: SITE REMEDIATION PROGRAM**

**RCRAInfo:**  
 Owner: BURLINGTON NORTERN RAILROAD CO  
 (312) 555-1212  
 EPA ID: ILD980825764  
 Contact: ROBERT MEHRENS  
 (312) 435-4327  
 Classification: Large Quantity Generator  
 TSDF Activities: Not reported  
 Violation Status: No violations found

<b>J33</b> <b>SSE</b> <b>1/2-1</b> <b>5207 ft.</b>	<b>PRIOR BLACKWELL LANDFILL</b> <b>PERRINE ROAD</b> <b>CENTRALIA, IL 62801</b>	<b>SHWS</b>	<b>S103823843</b> <b>N/A</b>
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**Site 1 of 2 in cluster J**

**Relative:** SHWS:  
**Higher** Facility ID: 1218020002  
 Facility Type: Landfill  
 Region: Collinsville  
 Current Program: SSU  
 SSU Status: Completed  
 US EpaId: Not reported  
 Year Completed: 2003  
 Year Entered: 1999  
 Site Size: 7.75  
 FOS Personal: Letsky  
 Compunity Relations: Fuller

**Actual:** 529 ft.

<b>J34</b> <b>SSE</b> <b>1/2-1</b> <b>5207 ft.</b>	<b>PRIOR 1,2,3,4</b> <b>RR5 (PERRINE STREET)</b> <b>CENTRALIA, IL 62801</b>	<b>SHWS</b>	<b>1000340253</b> <b>N/A</b>
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**Site 2 of 2 in cluster J**

**Relative:** SHWS:  
**Higher** Facility ID: 1218020006  
 Facility Type: Landfill  
 Region: Collinsville  
 Current Program: SSU

**Actual:** 529 ft.

Map ID  
Direction  
Distance  
Distance (ft.)  
Elevation

MAP FINDINGS

**PRIOR 1,2,3,4 (Continued)**

Database(s) EDR ID Number  
EPA ID Number

**1000340253**

SSU Status: Completed  
US EpaId: ILD980989206  
Year Completed: 2003  
Year Entered: 1999  
Site Size: 29  
FOS Personal: Letsky  
Community Relations: Fuller

## ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CENTRALIA	1008122431	L KELLER OIL PROPERTIES INC	RTE 161 & I-57 EXIT 109	62801	FINDS
CENTRALIA	1001816929	RACCOON SUPERK LKELLER OIL PROPERTIES	RTE 161 AT I 57 EXIT 109	62801	FINDS, RCRA-LQG
CENTRALIA	S105537420	KASKASKIA COLLEGE	RT. 161 EAST / AIRPORT RD.	62801	LUST
CENTRALIA	S104524217	DICKERSON PETROLEUM	1515 EAST 2ND ST.	62801	LUST
CENTRALIA	U001138511	GRABOWSKI TRACTOR CO INC	RT 51 S	62801	UST
CENTRALIA	U003104861	SUNSHINE CENTRALIA	RT 6 BOX 56 I-57 & WHY 61	62801	UST
CENTRALIA	U003972716	SUNSHINE	RT 6 BOX 56	62801	UST
CENTRALIA	S104527764	UNITED PARCEL SERVICE	RT. 6, BOX 12, WALNUT HILL RD.	62801	LUST
CENTRALIA	1008112553	COPPLE	NO ADDRESS ON FILE	62801	FINDS
CENTRALIA	1008122150	COPPLE USARC	FRANKLIN AVE & MCCORD	62801	FINDS
CENTRALIA	1004695375	PENSKE AUTO CENTER	ILLINOIS HWY 161 W	62801	RCRA-SQG, FINDS
CENTRALIA	S107739362	MONKEN CHRYSLER NISSAN, INC.	1739 WEST MCCORD	62801	LUST
CENTRALIA	1000426730	NATURAL GAS PIPELINE CO OF AMERICA	S OF IL 161 ON BROADWAY	62801	RCRA-SQG, FINDS
CENTRALIA	1006807279	CENTRALIA WATER TREATMENT	2219 OLD RTE 51 RD	62801	RCRA-SQG, FINDS
CENTRALIA	U003910842	CENTRALIA CONTAINER INC	OLD RT 51 S	62801	UST
CENTRALIA	1008112563	S&L SANITATION	S PERRINE ST -1.9M S CITY	62801	FINDS
CENTRALIA	S107739342	HCTK CORP.	634 SOUTH POPLAR STREET	62801	LUST
CENTRALIA	1008122879	IL DOC-CENTRALIA CORRECTIONAL	R. R. #4, P. O. BOX 1266	62801	FINDS
CENTRALIA	S106527011	IL CMS	1266 SHATTIC ROAD	62801	LUST
CENTRALIA	1008117847	IL CMS/DOV	1266 SHATTUC RD	62801	FINDS
CENTRALIA	1001968071	CENTRALIA IL 250 K WATER TOWER	100 FT W OF INTERSECTION	62801	FINDS, RCRA-LQG
WAMAC	U001138579	IL CENTRAL GULF RAILROAD	S JEFFERSON ST	62801	UST

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## **FEDERAL RECORDS**

### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/19/2006	Source: EPA
Date Data Arrived at EDR: 05/05/2006	Telephone: N/A
Date Made Active in Reports: 05/22/2006	Last EDR Contact: 08/02/2006
Number of Days to Update: 17	Next Scheduled EDR Contact: 10/30/2006
	Data Release Frequency: Quarterly

### **NPL Site Boundaries**

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

### **Proposed NPL: Proposed National Priority List Sites**

Date of Government Version: 04/19/2006	Source: EPA
Date Data Arrived at EDR: 05/05/2006	Telephone: N/A
Date Made Active in Reports: 05/22/2006	Last EDR Contact: 08/02/2006
Number of Days to Update: 17	Next Scheduled EDR Contact: 10/30/2006
	Data Release Frequency: Quarterly

### **DELISTED NPL: National Priority List Deletions**

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/19/2006	Source: EPA
Date Data Arrived at EDR: 05/05/2006	Telephone: N/A
Date Made Active in Reports: 05/22/2006	Last EDR Contact: 08/02/2006
Number of Days to Update: 17	Next Scheduled EDR Contact: 10/30/2006
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **NPL RECOVERY:** Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/21/2006
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: No Update Planned

## **CERCLIS:** Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/19/2006	Source: EPA
Date Data Arrived at EDR: 06/22/2006	Telephone: 703-413-0223
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 06/22/2006
Number of Days to Update: 62	Next Scheduled EDR Contact: 09/18/2006
	Data Release Frequency: Quarterly

## **CERCLIS-NFRAP:** CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 02/01/2006	Source: EPA
Date Data Arrived at EDR: 03/21/2006	Telephone: 703-413-0223
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 06/23/2006
Number of Days to Update: 23	Next Scheduled EDR Contact: 09/18/2006
	Data Release Frequency: Quarterly

## **CORRACTS:** Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/15/2006	Source: EPA
Date Data Arrived at EDR: 03/17/2006	Telephone: 800-424-9346
Date Made Active in Reports: 04/13/2006	Last EDR Contact: 09/05/2006
Number of Days to Update: 27	Next Scheduled EDR Contact: 12/04/2006
	Data Release Frequency: Quarterly

## **RCRA:** Resource Conservation and Recovery Act Information

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/13/2006	Source: EPA
Date Data Arrived at EDR: 06/28/2006	Telephone: 800-424-9346
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 08/22/2006
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Quarterly

## **ERNS:** Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2005	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/12/2006	Telephone: 202-260-2342
Date Made Active in Reports: 02/21/2006	Last EDR Contact: 07/25/2006
Number of Days to Update: 40	Next Scheduled EDR Contact: 10/23/2006
	Data Release Frequency: Annually

## **HMIRS:** Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 07/03/2006	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 07/19/2006	Telephone: 202-366-4555
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 07/19/2006
Number of Days to Update: 35	Next Scheduled EDR Contact: 10/16/2006
	Data Release Frequency: Annually

## **US ENG CONTROLS:** Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/21/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2006	Telephone: 703-603-8905
Date Made Active in Reports: 05/22/2006	Last EDR Contact: 07/03/2006
Number of Days to Update: 56	Next Scheduled EDR Contact: 10/02/2006
	Data Release Frequency: Varies

## **US INST CONTROL:** Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/21/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/27/2006	Telephone: 703-603-8905
Date Made Active in Reports: 05/22/2006	Last EDR Contact: 07/03/2006
Number of Days to Update: 56	Next Scheduled EDR Contact: 10/02/2006
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **DOD:** Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2004	Source: USGS
Date Data Arrived at EDR: 02/08/2005	Telephone: 703-692-8801
Date Made Active in Reports: 08/04/2005	Last EDR Contact: 08/11/2006
Number of Days to Update: 177	Next Scheduled EDR Contact: 11/06/2006
	Data Release Frequency: Semi-Annually

## **FUDS:** Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/05/2005	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 01/19/2006	Telephone: 202-528-4285
Date Made Active in Reports: 02/21/2006	Last EDR Contact: 07/17/2006
Number of Days to Update: 33	Next Scheduled EDR Contact: 10/02/2006
	Data Release Frequency: Varies

## **US BROWNFIELDS:** A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients--States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/10/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/13/2006	Telephone: 202-566-2777
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 06/12/2006
Number of Days to Update: 55	Next Scheduled EDR Contact: 09/11/2006
	Data Release Frequency: Semi-Annually

## **CONSENT:** Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/2004	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 02/15/2005	Telephone: Varies
Date Made Active in Reports: 04/25/2005	Last EDR Contact: 07/24/2006
Number of Days to Update: 69	Next Scheduled EDR Contact: 10/23/2006
	Data Release Frequency: Varies

## **ROD:** Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/10/2006	Source: EPA
Date Data Arrived at EDR: 07/21/2006	Telephone: 703-416-0223
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 07/06/2006
Number of Days to Update: 47	Next Scheduled EDR Contact: 10/02/2006
	Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **UMTRA:** Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 11/04/2005	Source: Department of Energy
Date Data Arrived at EDR: 11/28/2005	Telephone: 505-845-0011
Date Made Active in Reports: 01/30/2006	Last EDR Contact: 09/05/2006
Number of Days to Update: 63	Next Scheduled EDR Contact: 12/18/2006
	Data Release Frequency: Varies

## **ODI:** Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## **PRP:** Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 07/20/2006	Source: EPA
Date Data Arrived at EDR: 07/21/2006	Telephone: 202-564-6064
Date Made Active in Reports: 08/22/2006	Last EDR Contact: 07/06/2006
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/02/2006
	Data Release Frequency: Quarterly

## **TRIS:** Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2004	Source: EPA
Date Data Arrived at EDR: 06/22/2006	Telephone: 202-566-0250
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 06/22/2006
Number of Days to Update: 62	Next Scheduled EDR Contact: 09/18/2006
	Data Release Frequency: Annually

## **TSCA:** Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002	Source: EPA
Date Data Arrived at EDR: 04/14/2006	Telephone: 202-260-5521
Date Made Active in Reports: 05/30/2006	Last EDR Contact: 07/17/2006
Number of Days to Update: 46	Next Scheduled EDR Contact: 10/16/2006
	Data Release Frequency: Every 4 Years

## **FTTS:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/14/2006	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 07/18/2006	Telephone: 202-566-1667
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 06/19/2006
Number of Days to Update: 50	Next Scheduled EDR Contact: 09/18/2006
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **FTTS INSP:** FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Date of Government Version: 07/14/2006	Source: EPA
Date Data Arrived at EDR: 07/18/2006	Telephone: 202-566-1667
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 06/19/2006
Number of Days to Update: 50	Next Scheduled EDR Contact: 09/18/2006
	Data Release Frequency: Quarterly

## **SSTS:** Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2004	Source: EPA
Date Data Arrived at EDR: 05/11/2006	Telephone: 202-564-4203
Date Made Active in Reports: 05/22/2006	Last EDR Contact: 07/17/2006
Number of Days to Update: 11	Next Scheduled EDR Contact: 10/16/2006
	Data Release Frequency: Annually

## **ICIS:** Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/13/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/21/2006	Telephone: 202-564-5088
Date Made Active in Reports: 05/11/2006	Last EDR Contact: 07/17/2006
Number of Days to Update: 20	Next Scheduled EDR Contact: 10/16/2006
	Data Release Frequency: Quarterly

## **PADS:** PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/07/2006	Source: EPA
Date Data Arrived at EDR: 08/09/2006	Telephone: 202-566-0500
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 08/09/2006
Number of Days to Update: 28	Next Scheduled EDR Contact: 11/06/2006
	Data Release Frequency: Annually

## **MLTS:** Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/10/2006	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 07/20/2006	Telephone: 301-415-7169
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 07/03/2006
Number of Days to Update: 48	Next Scheduled EDR Contact: 10/02/2006
	Data Release Frequency: Quarterly

## **MINES:** Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/16/2006	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 06/28/2006	Telephone: 303-231-5959
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 06/28/2006
Number of Days to Update: 56	Next Scheduled EDR Contact: 09/25/2006
	Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **FINDS:** Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/21/2006	Source: EPA
Date Data Arrived at EDR: 07/25/2006	Telephone: N/A
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 04/03/2006
Number of Days to Update: 43	Next Scheduled EDR Contact: 07/03/2006
	Data Release Frequency: Quarterly

## **RAATS:** RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 09/05/2006
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/04/2006
	Data Release Frequency: No Update Planned

## **BRS:** Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2003	Source: EPA/NTIS
Date Data Arrived at EDR: 06/17/2005	Telephone: 800-424-9346
Date Made Active in Reports: 08/04/2005	Last EDR Contact: 07/21/2006
Number of Days to Update: 48	Next Scheduled EDR Contact: 09/11/2006
	Data Release Frequency: Biennially

## **STATE AND LOCAL RECORDS**

### **SHWS:** State Oversight List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/30/2006	Source: Illinois Environmental Protection Agency
Date Data Arrived at EDR: 07/10/2006	Telephone: 217-524-4863
Date Made Active in Reports: 08/10/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 31	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Semi-Annually

### **CAT:** Category List

Sites on this list are: Notice of Response Action, NPL, Pre/proposed NPL, Completed Remedial Action, Site Remediation Program, Federal Facilities, and Cleanup Started and/or Completed Sites.

Date of Government Version: 06/01/1997	Source: Illinois EPA
Date Data Arrived at EDR: 07/07/1997	Telephone: N/A
Date Made Active in Reports: 08/14/1997	Last EDR Contact: 02/26/2001
Number of Days to Update: 38	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SWF/LF:** Available Disposal for Solid Waste in Illinois - Solid Waste Landfills Subject to State Surcharge

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/01/2005  
Date Data Arrived at EDR: 03/31/2006  
Date Made Active in Reports: 05/04/2006  
Number of Days to Update: 34

Source: Illinois Environmental Protection Agency  
Telephone: 217-785-8604  
Last EDR Contact: 08/25/2006  
Next Scheduled EDR Contact: 11/20/2006  
Data Release Frequency: Annually

## **IL NIPC:** Solid Waste Landfill Inventory

Solid Waste Landfill Inventory. NIPC is an inventory of active and inactive solid waste disposal sites, based on state, local government and historical archive data. Included are numerous sites which previously had never been identified largely because there was no obligation to register such sites prior to 1971.

Date of Government Version: 08/01/1988  
Date Data Arrived at EDR: 08/01/1994  
Date Made Active in Reports: 08/12/1994  
Number of Days to Update: 11

Source: Northeastern Illinois Planning Commission  
Telephone: 312-454-0400  
Last EDR Contact: 05/23/2006  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## **LUST:** Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/22/2006  
Date Data Arrived at EDR: 05/24/2006  
Date Made Active in Reports: 06/19/2006  
Number of Days to Update: 26

Source: Illinois Environmental Protection Agency  
Telephone: 217-782-6762  
Last EDR Contact: 08/23/2006  
Next Scheduled EDR Contact: 11/20/2006  
Data Release Frequency: Semi-Annually

## **UST:** Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/17/2006  
Date Data Arrived at EDR: 07/21/2006  
Date Made Active in Reports: 08/22/2006  
Number of Days to Update: 32

Source: Illinois State Fire Marshal  
Telephone: 217-785-0969  
Last EDR Contact: 08/21/2006  
Next Scheduled EDR Contact: 11/20/2006  
Data Release Frequency: Quarterly

## **ENG CONTROLS:** Sites with Engineering Controls

Sites using of engineered barriers (e.g., asphalt or concrete paving).

Date of Government Version: 05/11/2006  
Date Data Arrived at EDR: 05/16/2006  
Date Made Active in Reports: 06/19/2006  
Number of Days to Update: 34

Source: Illinois Environmental Protection Agency  
Telephone: 217-782-6761  
Last EDR Contact: 08/16/2006  
Next Scheduled EDR Contact: 11/13/2006  
Data Release Frequency: Quarterly

## **Inst Control:** Institutional Controls

Legal or administrative restrictions on land use and/or other activities (e.g., groundwater use restrictions) which effectively limit exposure to contamination may be employed as alternatives to removal or treatment of contamination.

Date of Government Version: 05/11/2006  
Date Data Arrived at EDR: 05/16/2006  
Date Made Active in Reports: 06/19/2006  
Number of Days to Update: 34

Source: Illinois Environmental Protection Agency  
Telephone: 217-782-6761  
Last EDR Contact: 08/16/2006  
Next Scheduled EDR Contact: 11/13/2006  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **SRP:** Site Remediation Program Database

The database identifies the status of all voluntary remediation projects administered through the pre-notice site cleanup program (1989 to 1995) and the site remediation program (1996 to the present).

Date of Government Version: 05/11/2006	Source: Illinois Environmental Protection Agency
Date Data Arrived at EDR: 05/16/2006	Telephone: 217-785-9407
Date Made Active in Reports: 06/19/2006	Last EDR Contact: 08/16/2006
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/13/2006
	Data Release Frequency: Semi-Annually

## **DRYCLEANERS:** Illinois Licensed Drycleaners

Any retail drycleaning facility in Illinois must apply for a license through the Illinois Drycleaner Environmental Response Trust Fund. Drycleaner Environmental Response Trust Fund of Illinois.

Date of Government Version: 06/01/2006	Source: Drycleaner Environmental Response Trust Fund of Illinois
Date Data Arrived at EDR: 07/05/2006	Telephone: 800-765-4041
Date Made Active in Reports: 08/10/2006	Last EDR Contact: 06/23/2006
Number of Days to Update: 36	Next Scheduled EDR Contact: 09/18/2006
	Data Release Frequency: Varies

## **IMPDMNT:** Surface Impoundment Inventory

Statewide inventory of industrial, municipal, mining, oil & gas, and large agricultural impoundment. This study was conducted by the Illinois EPA to assess potential for contamination of shallow aquifers. This was a one-time study. Although many of the impoundments may no longer be present, the sites may be contaminated.

Date of Government Version: 12/31/1980	Source: Illinois Waste Management & Research Center
Date Data Arrived at EDR: 03/08/2002	Telephone: 217-333-8940
Date Made Active in Reports: 06/03/2002	Last EDR Contact: 02/20/2002
Number of Days to Update: 87	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

## **BROWNFIELDS:** Municipal Brownfields Redevelopment Grant Program Project Descriptions

The Illinois Municipal Brownfields Redevelopment Grant Program (MBRGP) offers grants worth a maximum of \$240,000 each to municipalities to assist in site investigation activities, development of cleanup objectives, and performance of cleanup activities. Brownfields are abandoned or underused industrial and/or commercial properties that are contaminated (or thought to be contaminated) and have an active potential for redevelopment.

Date of Government Version: 07/10/2006	Source: Illinois Environmental Protection Agency
Date Data Arrived at EDR: 07/11/2006	Telephone: 217-785-3486
Date Made Active in Reports: 08/10/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 30	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Varies

## **BROWNFIELDS:** Redevelopment Assessment Database

The Office of Site Evaluations Redevelopment Assessment database identifies the status of all properties within the State in which the Illinois EPA's Office of Site Evaluation has conducted a municipal Brownfield Redevelopment Assessment.

Date of Government Version: 05/24/2006	Source: Illinois Environmental Protection Agency
Date Data Arrived at EDR: 05/24/2006	Telephone: 217-524-1658
Date Made Active in Reports: 06/19/2006	Last EDR Contact: 08/23/2006
Number of Days to Update: 26	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Varies

## **AIRS:** AIRS

A listing of air permits and emissions information.

Date of Government Version: 05/10/2006	Source: Illinois EPA
Date Data Arrived at EDR: 05/15/2006	Telephone: 217-557-0314
Date Made Active in Reports: 06/19/2006	Last EDR Contact: 05/03/2006
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/30/2006
	Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## TRIBAL RECORDS

### **INDIAN RESERV:** Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2004	Source: USGS
Date Data Arrived at EDR: 02/08/2005	Telephone: 202-208-3710
Date Made Active in Reports: 08/04/2005	Last EDR Contact: 08/11/2006
Number of Days to Update: 177	Next Scheduled EDR Contact: 11/06/2006
	Data Release Frequency: Semi-Annually

### **INDIAN LUST R1:** Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 06/08/2006	Source: EPA Region 1
Date Data Arrived at EDR: 06/09/2006	Telephone: 617-918-1313
Date Made Active in Reports: 06/28/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 19	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Varies

### **INDIAN LUST R6:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/04/2005	Source: EPA Region 6
Date Data Arrived at EDR: 01/21/2005	Telephone: 214-665-6597
Date Made Active in Reports: 02/28/2005	Last EDR Contact: 08/21/2006
Number of Days to Update: 38	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Varies

### **INDIAN LUST R8:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 06/06/2006	Source: EPA Region 8
Date Data Arrived at EDR: 06/09/2006	Telephone: 303-312-6271
Date Made Active in Reports: 07/28/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Quarterly

### **INDIAN LUST R10:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 06/08/2006	Source: EPA Region 10
Date Data Arrived at EDR: 06/09/2006	Telephone: 206-553-2857
Date Made Active in Reports: 07/28/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Quarterly

### **INDIAN LUST R9:** Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 06/01/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/23/2006	Telephone: 415-972-3372
Date Made Active in Reports: 08/02/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 40	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Quarterly

### **INDIAN UST R8:** Underground Storage Tanks on Indian Land

Date of Government Version: 06/06/2006	Source: EPA Region 8
Date Data Arrived at EDR: 06/09/2006	Telephone: 303-312-6137
Date Made Active in Reports: 07/28/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R5: Underground Storage Tanks on Indian Land

Date of Government Version: 12/02/2004	Source: EPA Region 5
Date Data Arrived at EDR: 12/29/2004	Telephone: 312-886-6136
Date Made Active in Reports: 02/04/2005	Last EDR Contact: 08/21/2006
Number of Days to Update: 37	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Varies

## INDIAN UST R10: Underground Storage Tanks on Indian Land

Date of Government Version: 06/08/2006	Source: EPA Region 10
Date Data Arrived at EDR: 06/09/2006	Telephone: 206-553-2857
Date Made Active in Reports: 07/28/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 49	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Quarterly

## INDIAN UST R1: Underground Storage Tanks on Indian Land

A listing of underground storage tank locations on Indian Land.

Date of Government Version: 06/08/2006	Source: EPA, Region 1
Date Data Arrived at EDR: 06/09/2006	Telephone: 617-918-1313
Date Made Active in Reports: 06/30/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 21	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Varies

## INDIAN UST R6: Underground Storage Tanks on Indian Land

Date of Government Version: 06/30/2006	Source: EPA Region 6
Date Data Arrived at EDR: 07/03/2006	Telephone: 214-665-7591
Date Made Active in Reports: 09/06/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 65	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Semi-Annually

## INDIAN UST R9: Underground Storage Tanks on Indian Land

Date of Government Version: 06/01/2006	Source: EPA Region 9
Date Data Arrived at EDR: 06/23/2006	Telephone: 415-972-3368
Date Made Active in Reports: 08/02/2006	Last EDR Contact: 08/21/2006
Number of Days to Update: 40	Next Scheduled EDR Contact: 11/20/2006
	Data Release Frequency: Quarterly

## EDR PROPRIETARY RECORDS

### Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### **CT MANIFEST:** Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2004	Source: Department of Environmental Protection
Date Data Arrived at EDR: 02/17/2006	Telephone: 860-424-3375
Date Made Active in Reports: 04/07/2006	Last EDR Contact: 06/14/2006
Number of Days to Update: 49	Next Scheduled EDR Contact: 09/11/2006
	Data Release Frequency: Annually

### **NJ MANIFEST:** Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/01/2006	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/06/2006	Telephone: N/A
Date Made Active in Reports: 08/01/2006	Last EDR Contact: 07/05/2006
Number of Days to Update: 26	Next Scheduled EDR Contact: 10/02/2006
	Data Release Frequency: Annually

### **NY MANIFEST:** Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/02/2006	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 05/31/2006	Telephone: 518-402-8651
Date Made Active in Reports: 06/27/2006	Last EDR Contact: 08/30/2006
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/27/2006
	Data Release Frequency: Annually

### **PA MANIFEST:** Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2005	Source: Department of Environmental Protection
Date Data Arrived at EDR: 05/04/2006	Telephone: N/A
Date Made Active in Reports: 06/06/2006	Last EDR Contact: 06/12/2006
Number of Days to Update: 33	Next Scheduled EDR Contact: 09/11/2006
	Data Release Frequency: Annually

### **RI MANIFEST:** Manifest information

Hazardous waste manifest information

Date of Government Version: 09/30/2005	Source: Department of Environmental Management
Date Data Arrived at EDR: 05/09/2006	Telephone: 401-222-2797
Date Made Active in Reports: 05/24/2006	Last EDR Contact: 06/19/2006
Number of Days to Update: 15	Next Scheduled EDR Contact: 09/18/2006
	Data Release Frequency: Annually

### **WI MANIFEST:** Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2005	Source: Department of Natural Resources
Date Data Arrived at EDR: 03/17/2006	Telephone: N/A
Date Made Active in Reports: 05/02/2006	Last EDR Contact: 07/25/2006
Number of Days to Update: 46	Next Scheduled EDR Contact: 10/09/2006
	Data Release Frequency: Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

**Oil/Gas Pipelines:** This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

## **Electric Power Transmission Line Data**

Source: PennWell Corporation

Telephone: (800) 823-6277

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**Sensitive Receptors:** There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

## **AHA Hospitals:**

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

## **Medical Centers: Provider of Services Listing**

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

## **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

## **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

## **Private Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

## **Daycare Centers: Homes & Centers Listing**

Source: Department of Children & Family Services

Telephone: 312-814-4150

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

## **Scanned Digital USGS 7.5' Topographic Map (DRG)**

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## STREET AND ADDRESS INFORMATION

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

SFC E.L. COPPLE USARC, IL  
904 E. MARTIN LUTHER KING JR. DRIVE  
CENTRALIA, IL 62801

### TARGET PROPERTY COORDINATES

Latitude (North):	38.52900 - 38° 31' 44.4"
Longitude (West):	89.1236 - 89° 7' 24.9"
Universal Tranverse Mercator:	Zone 16
UTM X (Meters):	314886.6
UTM Y (Meters):	4266442.0
Elevation:	500 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	38089-E2 CENTRALIA WEST, IL
Most Recent Revision:	1981
East Map:	38089-E1 CENTRALIA EAST, IL
Most Recent Revision:	1981

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

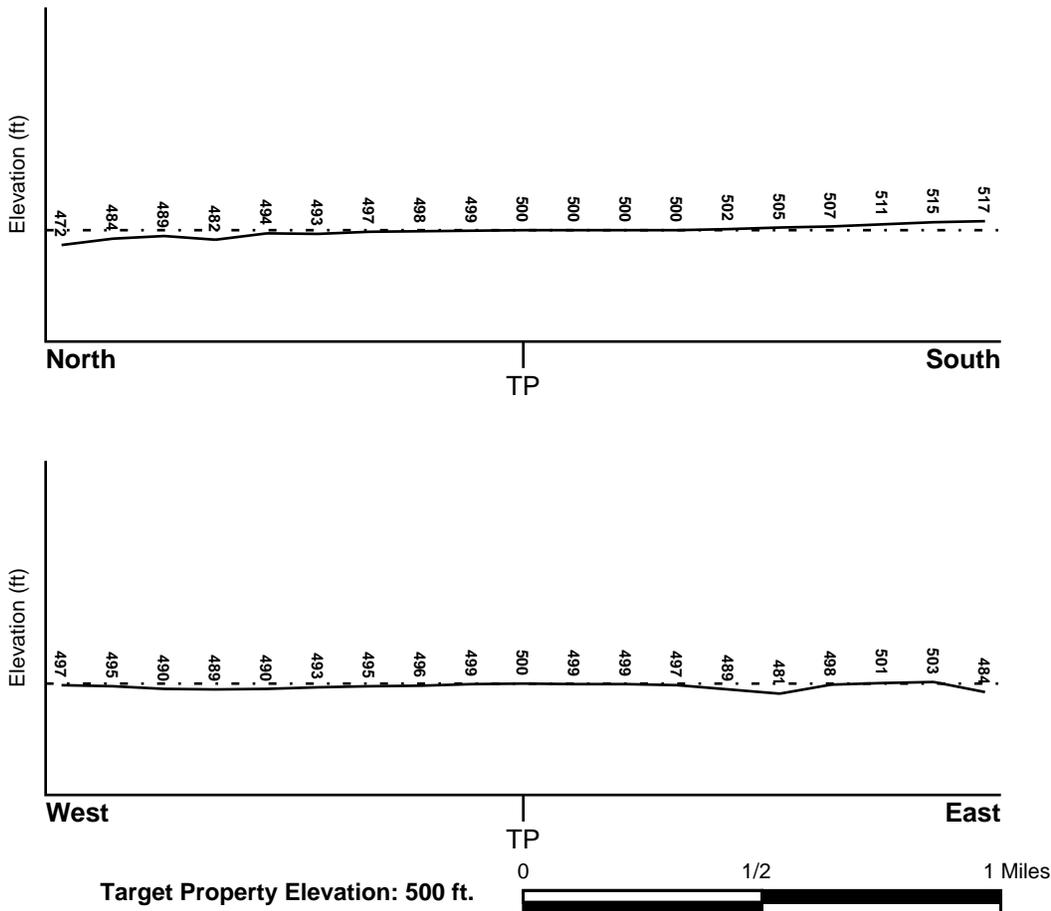
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## FEMA FLOOD ZONE

<u>Target Property County</u>	<u>FEMA Flood Electronic Data</u>
MARION, IL	Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

## NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
CENTRALIA EAST	YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### *Site-Specific Hydrogeological Data\*:*

Search Radius:	1.25 miles
Status:	Not found

## AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

## GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

### **ROCK STRATIGRAPHIC UNIT**

Era: Paleozoic  
System: Pennsylvanian  
Series: Missourian Series  
Code: PP3 (*decoded above as Era, System & Series*)

### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: CISNE

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly. Soils may have a saturated zone, a layer of low hydraulic conductivity, or seepage. Depth to water table is less than 1 foot.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	8 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 2.00 Min: 0.60	Max: 7.80 Min: 4.50
2	8 inches	17 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 0.60 Min: 0.06	Max: 6.00 Min: 4.50
3	17 inches	37 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.06 Min: 0.00	Max: 6.00 Min: 4.50
4	37 inches	60 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0.06 Min: 0.00	Max: 6.50 Min: 5.10
5	60 inches	70 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils.	Max: 0.06 Min: 0.00	Max: 7.30 Min: 5.60

### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: silty clay loam  
silt

Deeper Soil Types: silty clay loam  
loam

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## **FEDERAL USGS WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

## **FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION**

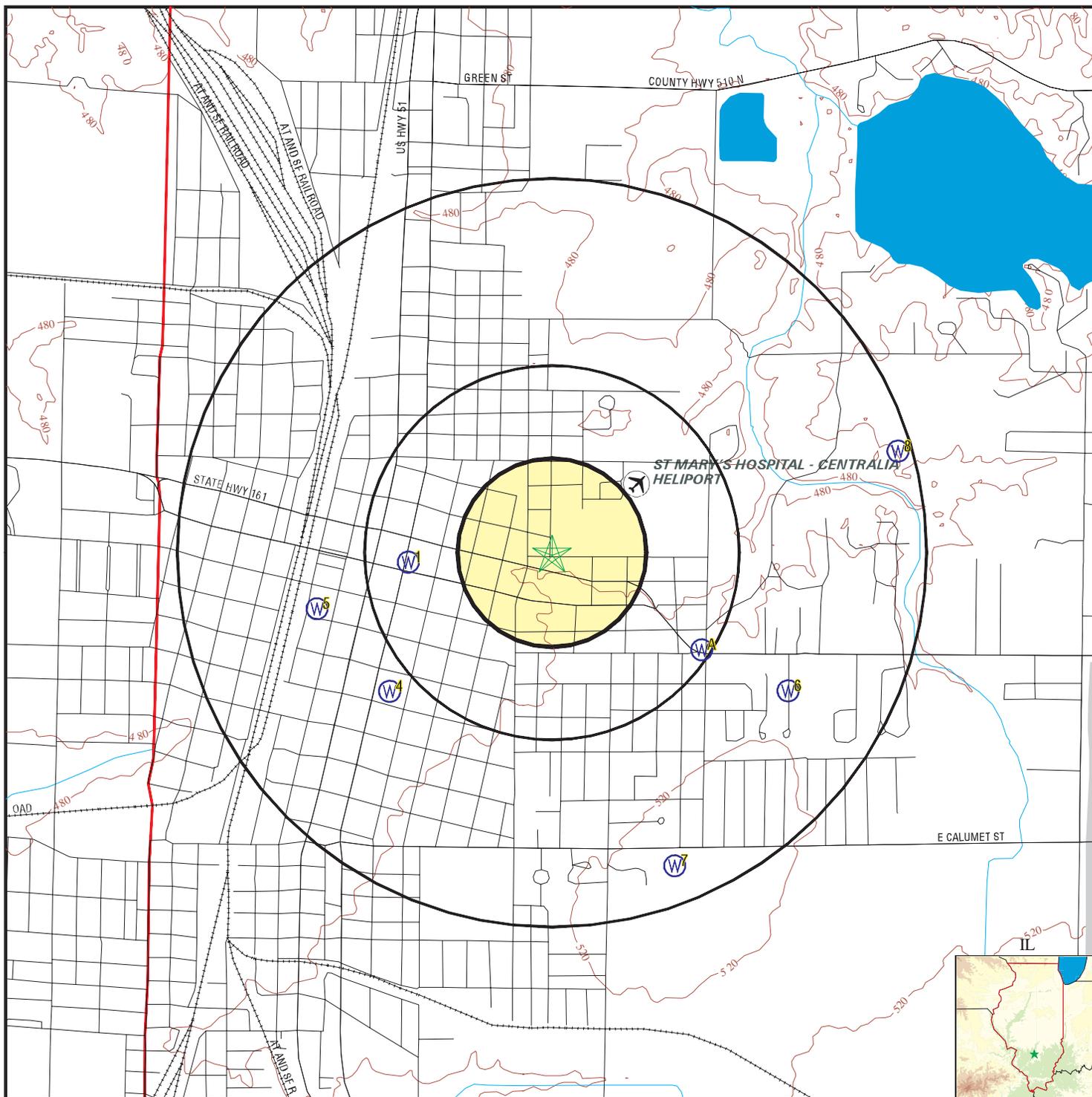
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## **STATE DATABASE WELL INFORMATION**

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	IL10021338	1/4 - 1/2 Mile West
A2	IL10021159	1/4 - 1/2 Mile ESE
A3	IL10021158	1/4 - 1/2 Mile ESE
4	IL10021074	1/2 - 1 Mile SW
5	IL10021258	1/2 - 1 Mile WSW
6	IL10021076	1/2 - 1 Mile ESE
7	IL10020783	1/2 - 1 Mile SSE
8	IL10021500	1/2 - 1 Mile ENE

# PHYSICAL SETTING SOURCE MAP - 01749715.1r



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data



SITE NAME: SFC E.L. Copple USARC, IL  
 ADDRESS: 904 E. Martin Luther King Jr. Drive  
 Centralia IL 62801  
 LAT/LONG: 38.5290 / 89.1236

CLIENT: CH2M Hill  
 CONTACT: Mary Beth Jacques  
 INQUIRY #: 01749715.1r  
 DATE: September 06, 2006 3:48 pm

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**1**  
**West**  
**1/4 - 1/2 Mile**  
**Lower**

**IL WELLS      IL10021338**

Source:	IL Water Wells Records		
Objectid:	125835		
Api:	121212623000	Status:	WATER
Longitude:	-89.130552		
Latitude:	38.528530		
Section :	18		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	Cnt Sntnl-Crln-Fdtn
Farm num:	1	Company na:	Baker, E. C. & Sons
Elevation:	0		
Elevref:	Not Reported		
Total dept:	25		
Wformation:	Not Reported		
Wfmfrom:	0		
Wfmto:	0		
Pumpgpm:	0		
Shapex:	-89.13067221		
Shapey:	38.52863312		
Site id:	IL10021338		

**A2**  
**ESE**  
**1/4 - 1/2 Mile**  
**Higher**

**IL WELLS      IL10021159**

Source:	IL Water Wells Records		
Objectid:	77957		
Api:	121210535500	Status:	ENG
Longitude:	-89.116098		
Latitude:	38.525137		
Section :	17		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	F A 2 Bridge
Farm num:	1	Company na:	IL Dept. of Transportation
Elevation:	483		
Elevref:	GL		
Total dept:	24		
Wformation:	Not Reported		
Wfmfrom:	0		
Wfmto:	0		
Pumpgpm:	0		
Shapex:	-89.11621656		
Shapey:	38.52524012		
Site id:	IL10021159		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**A3**  
**ESE**  
**1/4 - 1/2 Mile**  
**Higher**

**IL WELLS      IL10021158**

Source:	IL Water Wells Records		
Objectid:	18724		
Api:	121210535400	Status:	ENG
Longitude:	-89.116098		
Latitude:	38.525137		
Section :	17		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	F A 2 Bridge
Farm num:	1	Company na:	IL Dept. of Transportation
Elevation:	490		
Elevref:	GL		
Total dept:	23		
Wformation:	Not Reported		
Wfmfrom:	0		
Wfmto:	0		
Pumpgpm:	0		
Shapex:	-89.11621656		
Shapey:	38.52524012		
Site id:	IL10021158		

**4**  
**SW**  
**1/2 - 1 Mile**  
**Lower**

**IL WELLS      IL10021074**

Source:	IL Water Wells Records		
Objectid:	242834		
Api:	121212715700	Status:	WATER
Longitude:	-89.131193		
Latitude:	38.523524		
Section :	18		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	Stephens, Charles
Farm num:	Not Reported	Company na:	Kohnen, Clarence
Elevation:	0		
Elevref:	Not Reported		
Total dept:	28		
Wformation:	sand-gravel		
Wfmfrom:	13		
Wfmto:	15		
Pumpgpm:	0		
Shapex:	-89.13159036		
Shapey:	38.52363114		
Site id:	IL10021074		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**5**  
**WSW**  
**1/2 - 1 Mile**  
**Lower**

**IL WELLS      IL10021258**

Source:	IL Water Wells Records		
Objectid:	107995		
Api:	121212716800	Status:	WATER
Longitude:	-89.134677		
Latitude:	38.526724		
Section :	18		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	Centralia Car Wash
Farm num:	1	Company na:	Kohnen, Clarence
Elevation:	0		
Elevref:	Not Reported		
Total dept:	19		
Wformation:	sandy-clay		
Wfmfrom:	14		
Wfmto:	15		
Pumpgpm:	0		
Shapex:	-89.13516946		
Shapey:	38.52683113		
Site id:	IL10021258		

**6**  
**ESE**  
**1/2 - 1 Mile**  
**Higher**

**IL WELLS      IL10021076**

Source:	IL Water Wells Records		
Objectid:	112631		
Api:	121210557200	Status:	DRY
Longitude:	-89.111847		
Latitude:	38.523546		
Section :	17		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	Frost Dr Jack
Farm num:	Not Reported	Company na:	Kohnen, Clarence E.
Elevation:	0		
Elevref:	Not Reported		
Total dept:	16		
Wformation:	Not Reported		
Wfmfrom:	0		
Wfmto:	0		
Pumpgpm:	0		
Shapex:	-89.11196539		
Shapey:	38.52364912		
Site id:	IL10021076		

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Database      EDR ID Number

**7**  
**SSE**  
**1/2 - 1 Mile**  
**Higher**

**IL WELLS      IL10020783**

Source:	IL Water Wells Records		
Objectid:	129434		
Api:	121212654500	Status:	WATER
Longitude:	-89.117429		
Latitude:	38.516770		
Section :	20		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	Johnson, Royce O.
Farm num:	1	Company na:	Woodward, Lawrence
Elevation:	0		
Elevref:	Not Reported		
Total dept:	200		
Wformation:	Not Reported		
Wfmfrom:	0		
Wfmto:	0		
Pumpgpm:	0		
Shapex:	-89.1175478		
Shapey:	38.51687316		
Site id:	IL10020783		

**8**  
**ENE**  
**1/2 - 1 Mile**  
**Higher**

**IL WELLS      IL10021500**

Source:	IL Water Wells Records		
Objectid:	48714		
Api:	121210548700	Status:	WATER
Longitude:	-89.106409		
Latitude:	38.532846		
Section :	9		
Twp:	1		
Tdir:	N		
Rng:	1		
Rdir:	E	Farm name:	Sanders Vern
Farm num:	Not Reported	Company na:	Kohnen, Clarence E.
Elevation:	0		
Elevref:	Not Reported		
Total dept:	22		
Wformation:	Not Reported		
Wfmfrom:	0		
Wfmto:	0		
Pumpgpm:	0		
Shapex:	-89.10655392		
Shapey:	38.53293208		
Site id:	IL10021500		

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: IL Radon

### Radon Test Results

Floor	# Sites	Min pCi/L	Avg pCi/L	Max pCi/L	# Sites>4pCi/L	# Sites>20	County
Basement	19	0.6	1.9	4.6	3	0	MARION
1st Floor living area	3	0.5	0.6	0.9	0	0	MARION
1st Floor bedroom	8	0.5	0.7	1.4	0	0	MARION
Total	30	0.5	1.5	4.6	3	0	MARION

Federal EPA Radon Zone for MARION County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 62801

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.600 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	3.400 pCi/L	67%	33%	0%

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### **USGS 7.5' Digital Elevation Model (DEM)**

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### **Scanned Digital USGS 7.5' Topographic Map (DRG)**

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### **AQUIFLOW<sup>R</sup> Information System**

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### **Geologic Age and Rock Stratigraphic Unit**

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### **STATSGO: State Soil Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### **SSURGO: Soil Survey Geographic Database**

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### **PWS:** Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### **PWS ENF:** Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### **USGS Water Wells:** USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### **Water Well Records**

Source: Illinois Geological Survey

Telephone: 217-333-4747

#### **Illinois Private Well Database and PICS (Public, Industrial, Commercial Survey)**

Source: Illinois State Water Survey

Telephone: 217-333-9043

#### **Water Well Location Information**

Source: Illinois Environmental Protection Agency

Telephone: 217-782-0810

## OTHER STATE DATABASE INFORMATION

### RADON

#### **State Database: IL Radon**

Source: Department of Nuclear Safety

Telephone: 217-785-9958

County Radon Results

#### **Area Radon Information**

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### **EPA Radon Zones**

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

### OTHER

#### **Airport Landing Facilities:** Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

#### **Epicenters:** World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## STREET AND ADDRESS INFORMATION

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"Linking Technology with Tradition"®

## Sanborn® Map Report

**Ship To:** Mary Beth Jacques  
CH2M Hill  
1569 Stampmill Way  
Lawrenceville, GA 30043

**Order Date:** 7/12/2006 **Completion Date:** 7/19/2006

**Inquiry #:** 1714247.81s

**P.O. #:** NA

**Site Name:** SFC E. L. Copple USARC IL

**Address:** 904 E. McCord St

**City/State:** CENTRALIA, IL 62801

**Cross Streets:**

**Customer Project:** NA

1592163BAS 770-338-1589

Based on client-supplied information, fire insurance maps for the following years were identified

1938 - 1 Map

1950 - 1 Map

1961 - 1 Map

**Limited Permission to Photocopy**

**Total Maps: 3**

CH2M Hill (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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## USER'S GUIDE

This User's Guide provides guidelines for accessing Sanborn Map® images and for transferring them to your Word Processor.

### Reading Sanborn Maps

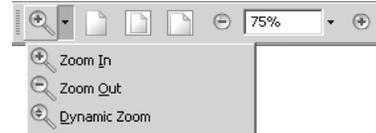
- Sanborn Maps document historical property use by displaying property information through words, abbreviations, and map symbols. The Sanborn Map Key provides information to help interpret the symbols and abbreviations used on Sanborn Maps. The Key is available from EDR's Web Site at: <http://www.edrnet.com/reports/samples/key.pdf>

### Organization of Electronic Sanborn Image File

- Sanborn Map Report, listing years of coverage
- User's Guide
- Oldest Sanborn Map Image
- Most recent Sanborn Map Image

### Navigating the Electronic Sanborn Image File

1. Open file on screen.
2. Identify TP (Target Property) on the most recent map.
3. Find TP on older printed images.
4. Using Acrobat® Reader®, zoom to 250% in order to view more clearly. (200-250% is the approximate equivalent scale of hardcopy Sanborn Maps.)
  - A. On the menu bar, click "View" and then "Zoom to..."
  - B. Or, use the magnifying tool and drag a box around the TP



### Printing a Sanborn Map From the Electronic File

- EDR recommends printing images at 300 dpi (300 dpi prints faster than 600 dpi)
- To print only the TP area, cut and paste from Acrobat to your word processor application.

#### Acrobat Versions 6 and 7

1. Go to the menu bar
2. Click the "Select Tool"
3. Draw a box around the area selected
4. "Right click" on your mouse
5. Select "Copy Image to Clipboard"
6. Go to Word Processor such as Microsoft Word, paste and print.



#### Acrobat Version 5

1. Go to the menu bar
2. Click the "Graphics Select Tool"
3. Draw a box around the area selected
4. Go to "Menu"
5. Highlight "Edit"
6. Highlight "Copy"
7. Go to Word Processor such as Microsoft Word, paste and print.



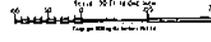
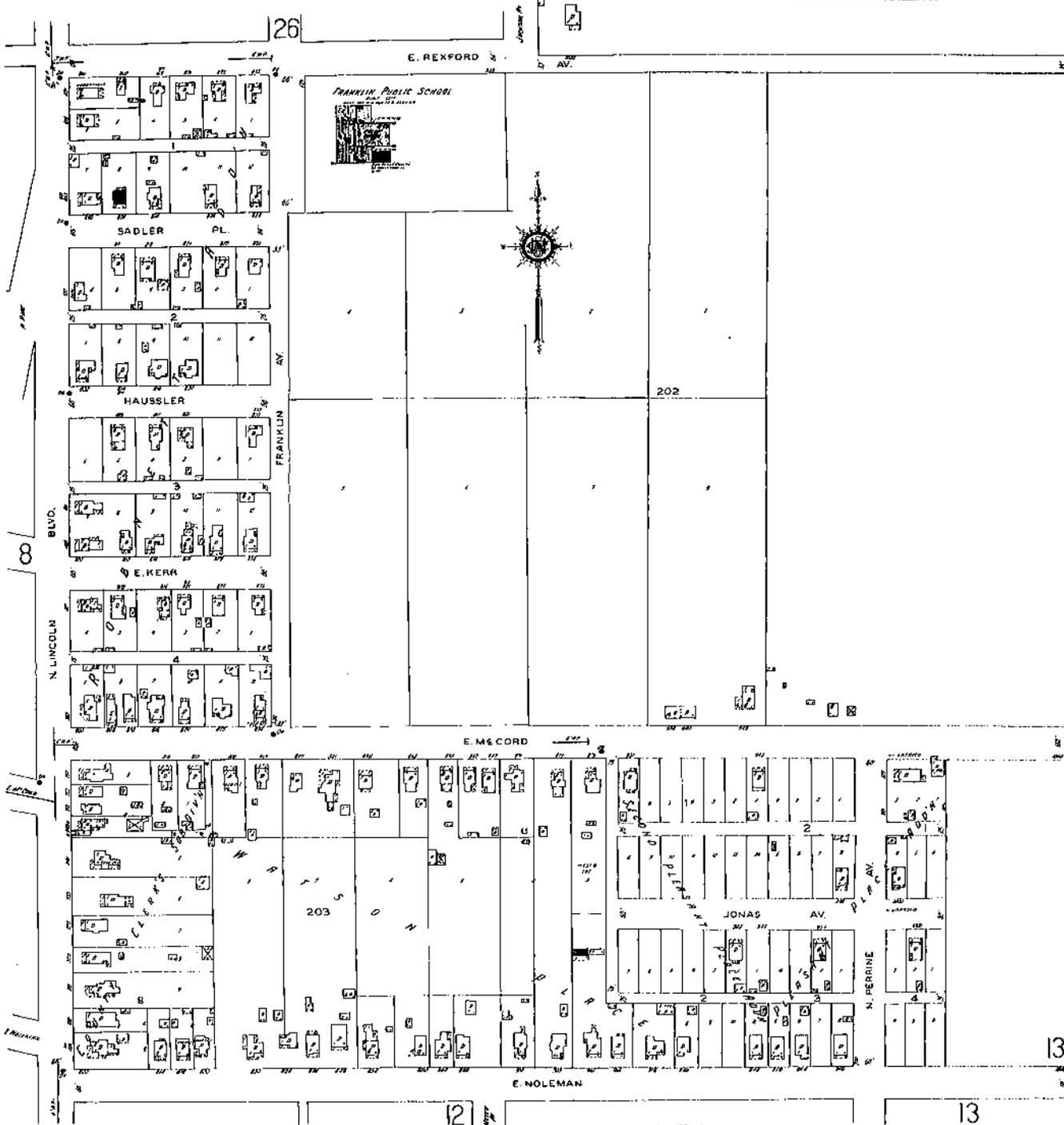
### Important Information about Email Delivery of Electronic Sanborn Map Images

- Images are grouped into one file, up to 2MB.
- In cases where in excess of 6-7 map years are available, the file size typically exceeds 2MB. In these cases, you will receive multiple files, labeled as "1 of 3", "2 of 3", etc. including all available map years.
- Due to file size limitations, certain ISPs, including AOL, may occasionally delay or decline to deliver files. Please contact your ISP to identify their specific file size limitations.

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201 SCALE 100 FT. TO AN INCH



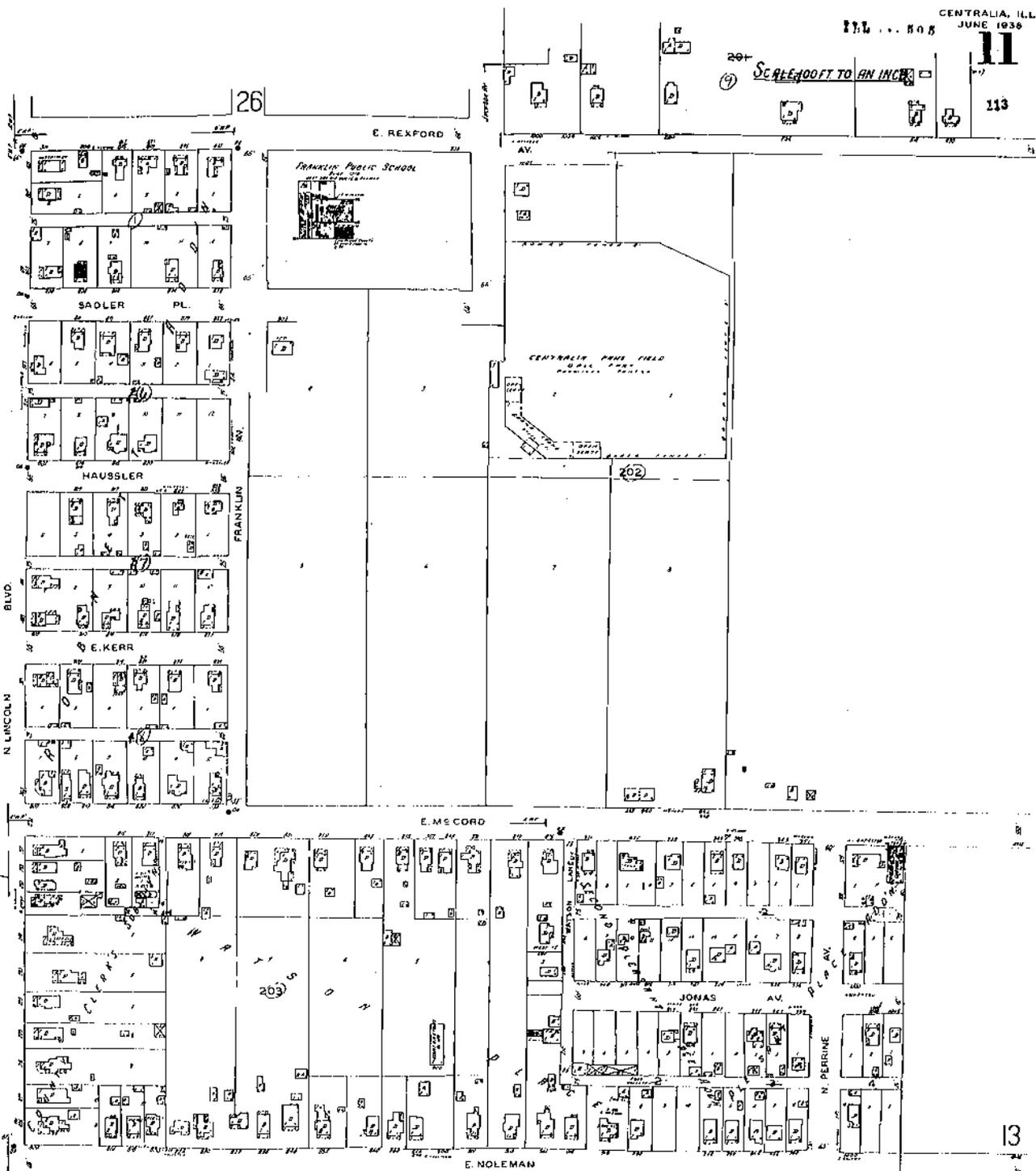
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CENTRALIA, ILL. JUN 1936

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113

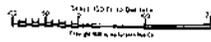
SCALE 100 FT TO AN INCH



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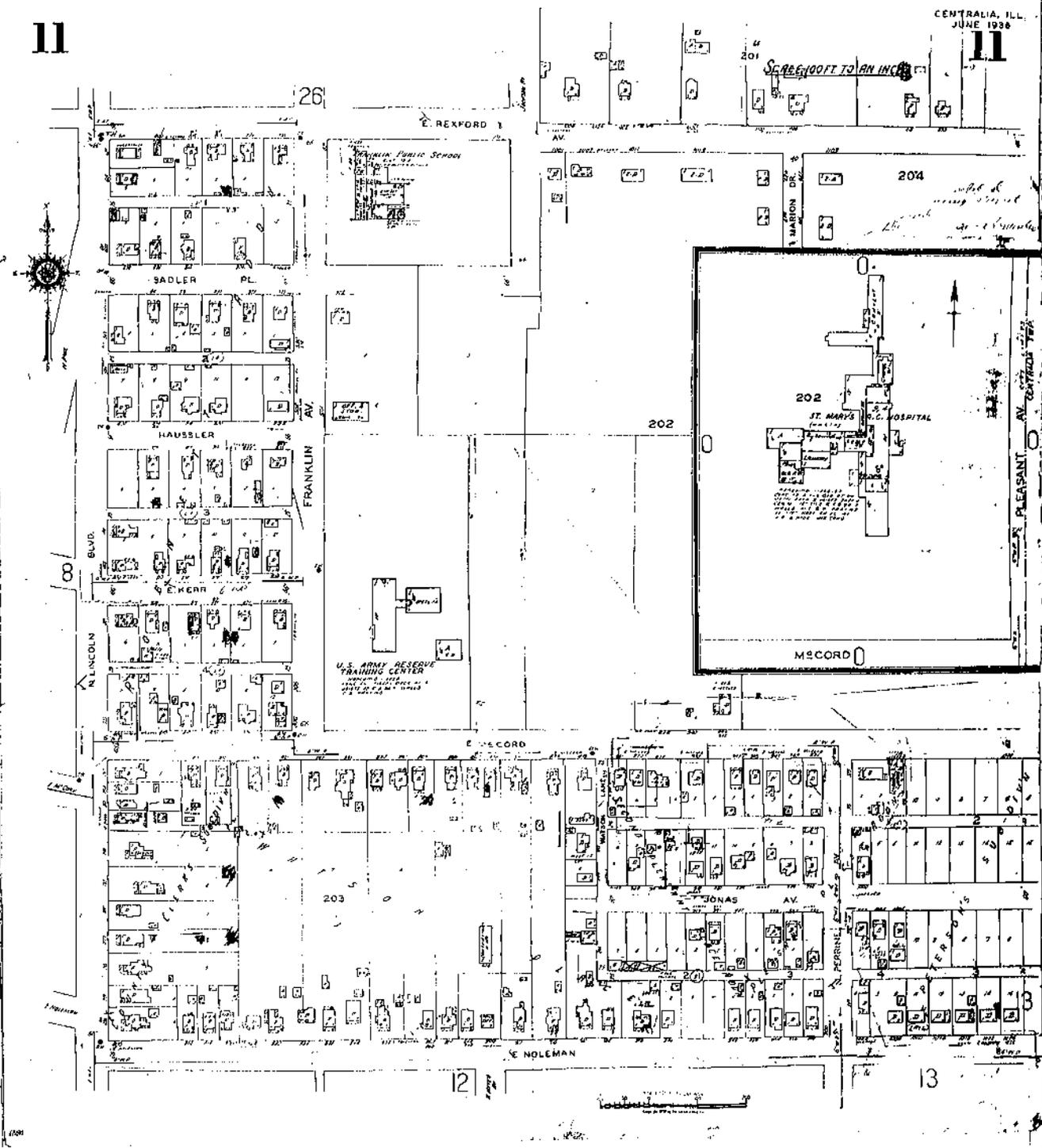
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CENTRALIA, ILL.  
JUNE 1938

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