



REGION 6

RECORD OF DECISION SUMMARY

RUSTON FOUNDRY SUPERFUND SITE

RAPIDES PARISH, ALEXANDRIA, LOUISIANA

LAD985185107

JUNE 2002

913827



Record of Decision

Table of Contents

	Page (s)
Table of Contents	2
List of Acronyms	5
PART 1: THE DECLARATION	7
1. SITE NAME AND LOCATION	7
2. STATEMENT OF BASIS AND PURPOSE	7
3. ASSESSMENT OF SITE	7
4. DESCRIPTION OF SELECTED REMEDY	7
5. STATUTORY DETERMINATIONS	8
6. DATA CERTIFICATION CHECKLIST	9
7. AUTHORIZING SIGNATURES	9
PART 2: THE DECISION SUMMARY	10
8. SITE NAME, LOCATION AND BRIEF DESCRIPTION	10
9. SITE HISTORY AND ENFORCEMENT ACTIVITIES	10
1. History of Site Activities	10
2. History of Federal and State Investigations and Removal/Remedial Actions ...	11
3. History of CERCLA Enforcement Activities	11
10. COMMUNITY PARTICIPATION	12
11. SCOPE AND ROLE OF RESPONSE ACTION	12
12. SITE CHARACTERISTICS	13
1. Physical Site Characteristics	13
2. Site Contamination	13
13. CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES	14
1. Current and Future Land Uses	15
2. Current and Future Groundwater Uses	15

14.	SUMMARY OF SITE RISKS	15
1.	Human Health Risks	16
a.	Identification of Chemicals of Concern	16
i.	lead	16
b.	Exposure Assessment.....	16
i.	Integrated Exposure Uptake Biokinetic Model	17
c.	Toxicity Assessment	18
d.	Risk Characterization	18
i.	IEUBK	19
e.	Uncertainty	19
2.	Ecological Risks	20
3.	Basis for Response Action	20
15.	REMEDIAL ACTION OBJECTIVES	21
1.	Cleanup level	21
16.	DEVELOPMENT AND SCREENING OF ALTERNATIVES	21
17.	DESCRIPTION OF ALTERNATIVES	22
1.	Common Elements of Alternatives	22
2.	Summary of Alternatives	23
	Alternative 1 - No Action	23
	Alternative 2 - Containment.....	23
	Alternative 3 - Stabilization and Capping	24
	Alternative 4 - Stabilization and Offsite Disposal	25
	Alternative 5 - Excavation and Offsite Disposal	25
18.	SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES	26
19.	PRINCIPAL THREAT WASTES	29
20.	THE SELECTED REMEDY	29
1.	Summary of Rationale for Selected Remedy	29
2.	Description of Remedial Components	30

3.	Summary of Estimated Remedial Costs	30
4.	Expected Outcomes of the Selected Remedy	31
21.	STATUTORY DETERMINATIONS	31
22.	DOCUMENTATION OF SIGNIFICANT CHANGES	33
23.	STATE ROLE	33
PART 3: THE RESPONSIVENESS SUMMARY		33
REFERENCES		38

TABLES

Table 1- Summary of Chemicals of Concern and Medium-Specific Exposure Point Concentrations	39
Table 2- Summary of Exposure Parameters based on Reasonable Maximum Exposure.	40
Table 3- Equation and Input Values Used to Calculate TWA Soil Concentrations (PbS _w) ...	41
Table 4- Non-Cancer Toxicity Data Summary	42
Table 5 - TWA Soil concentrations based on Exposure Frequency and Fraction of Time Spent at the Site.	43
Table 6- Predicted Percent Above Criteria For Various Exposure Frequencies - IEUBK Model Default Ingestion Rates	44
Table 7- Predicted Percent Above Criteria For Various Exposure Frequencies - Additional Low Ingestion Rates	45
Table 8- Predicted Percent Above Criteria For Various Exposure Frequencies - Additional Medium Ingestion Rates	46
Table 9- Predicted Percent Above Criteria For Various Exposure Frequencies - Additional High Ingestion Rates	47
Table 10 - Risk Characterization Summary - Non-Carcinogens: Youth Trespasser	48
Table 11 - Risk Characterization Summary - Non-Carcinogens: Adult Recreator	48
Table 12 - Risk Characterization Summary - Non-Carcinogens: Child Recreator	49
Table 13 - Detailed cost estimate for Alternative 4 - Stabilization and Offsite Disposal.	50
Table 14 - Cleanup Levels for Chemicals of Concern	52
Table 15 - Location-Specific ARARs.	53
Table 16 - Chemical-Specific ARARs.	55
Table 17 - Action-Specific ARARs.	56

FIGURES

Figure 1- City Map	61
Figure 2- Site Map	62
Figure 3- Stratigraphic Section	63
Figure 4- Conceptual Site Model	64

APPENDICES

Appendix A: Record of Communication from Louisiana Department of Environmental Quality
Appendix B: Administrative Record Index

LIST OF ACRONYMS

ACM	Asbestos-containing material
ARARs	Applicable or Relevant and Appropriate Requirements
bgs	below ground surface
GDI	Chronic Daily Intake
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CL	Cleanup Level
COC	Chemicals of Concern
CPT	Cone Penetrometer Testing
cy ³	cubic yard
E & E	Ecology and Environment
ELCR	Excess lifetime cancer risk
EPA	Environmental Protection Agency
EPC	Exposure Point Concentration
ESD	Explanation of Significant Difference
ESI	Expanded Site Inspection
ft	Feet or Foot
HI	Hazard Index
HQ	Hazard Quotient
IEUBK	Integrated Exposure Uptake Biokinetic
LA SPLP	Louisiana Synthetic Precipitation Leachate Procedure
LDEQ	Louisiana Department of Environmental Quality
LDOTD	Louisiana Department of Transportation and Development
LDR	Land Disposal Restrictions
LPP	Louisiana Pine Products
MCL	Maximum contaminant level
µg/dl	micrograms per deciliter
mg/L	milligrams per liter
mg/m ³	milligrams per meter cube
mg/kg	milligrams per kilogram
NAAQS	National Ambient Air Quality Standards
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
OPA	Oil Pollution Act
O&M	Operations and Maintenance
PAH	Polynuclear Aromatic Hydrocarbons
Pb	Lead
PCB	Polychlorinated Biphenyls
PPE	Personal Protective Equipment
PRP	Potentially Responsible Parties
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RECAP	Risk Evaluation/Corrective Action Program
RfD	Reference Dose
RI/FS	Remedial Investigation/feasibility Study
RME	Reasonable Maximum Exposure
ROD	Record of Decision
RPM	Remedial Project Manager
SA	Site Assessment
SARA	Superfund Amendments and Reauthorization Act
SF	Slope Factor
SPLP	Synthetic Precipitation Leachate Procedure
TAT	Technical Assistance Team

TDS	Total Dissolved Solids
TCLP	Toxicity Characteristic Leaching Procedure
TWA	Time-weighted Average
USC	United States Code
UST	Underground Storage Tank
UCL	Upper Confidence Level
XRF	X-Ray Fluorescence

**Record of Decision
Part 1: The Declaration**

DECLARATION FOR THE RECORD OF DECISION

1. SITE NAME AND LOCATION

Ruston Foundry Superfund Site
Alexandria, Rapides Parish, Louisiana
LAD985185107

2. STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Ruston Foundry Superfund Site (Site), in Alexandria, Rapides Parish, Louisiana. The selected remedial action was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300 as amended. The Director of the Superfund Division has been delegated the authority to approve this Record of Decision.

This decision was based on the Administrative Record, which has been developed in accordance with Section 113 (k) of CERCLA, 42 U.S.C. § 9613 (k), and which is available for review at the Rapides Parish Public Library in Alexandria, Louisiana, and at the United States Environmental Protection Agency (EPA) Region 6 Records Center in Dallas, Texas. The Administrative Record Index (Appendix C to the Record of Decision (ROD)) identifies each of the items comprising the Administrative Record upon which the selection of the remedial action is based.

The State of Louisiana concurs with the Selected Remedy (Appendix A).

3. ASSESSMENT OF THE SITE

The response action selected in this ROD is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment.

4. DESCRIPTION OF THE SELECTED REMEDY

This ROD sets forth the selected remedy at the Ruston Foundry Site. The principal threat waste at the Site will be addressed through the excavation and offsite disposal of contaminated soil and sediment, removal and offsite disposal of asbestos containing material and the underground storage tank, and the excavation, treatment, and offsite disposal of hazardous wastes. The selected remedy is one of EPA's presumptive remedies for the treatment of contamination at sites with metals contamination.

The selected remedy is a comprehensive approach and will address the Site as one operable unit. Due to the previous removal of drums, the remedy addresses all current and potential future risks caused by soil, sediment, and hazardous waste contamination and, to the extent possible, leaching of Site contaminants into the ground water. The remedial measures will prevent exposure to hazardous waste and soil and sediment contaminated with hazardous substances.

The selected remedy will allow for restoration of the Site to beneficial uses. Through the Reuse Grant awarded by the Government in September 2000, the city of Alexandria has developed a future reuse plan. It is anticipated that the selected remedy will provide community revitalization impacts because it will be compatible with Alexandria's Site reuse plan.

The major components of the remedy are:

1. Stabilization - Approximately 1300 cubic yards (yd³) of hazardous waste will be excavated and stabilized. The material will be stabilized until sampling verifies that it no longer exceeds the Toxicity Characteristic Leaching Procedure (TCLP) for lead. After verification, the waste will be disposed offsite at a Resource Conservation and Recovery Act (RCRA) regulated Subtitle D facility.
2. Asbestos Containing Material (ACM) - Materials will be consolidated onsite, contained, and transported offsite to a disposal facility licensed to accept ACM. Methods to control airborne dispersion of asbestos will be implemented during remediation. The estimated total volume of material is 22 yd³.
3. Underground Storage Tank (UST) - The UST, its contents, and the surrounding petroleum wastes will be characterized during the remedial design to determine whether the contents will be cleaned up under CERCLA or Oil Pollution Act (OPA) authority. The surrounding polychlorinated byphenol (PCB) contaminated soils will be removed and disposed offsite in accordance with all federal, state, and local regulations. Total volume of tank contents is estimated at 5,000 gallons. The volume of associated contaminated soil is included in the soil/sediment estimated volume of 15,000 yd³.
4. Building debris and water supply well - The onsite well will be plugged and abandoned in accordance with all federal, state, and local regulations. Portions of the Site will be cleared, where necessary, and the existing buildings and foundations will be demolished, removed and disposed offsite.
5. Soil/sediment - Approximately 15,000 yd³ of lead and antimony contaminated soils and sediment will be excavated and disposed offsite in a RCRA Subtitle D facility.
6. Air Monitoring - During remedial action, efforts will be made to control dust and run-off to limit the amount of materials that may migrate to a potential receptor. Air monitoring will be conducted during times of remediation to ensure that control measures are working to regulate Site emissions.
7. Short-term monitoring - Monitoring of the surface water and ground water during remedial action may be necessary to ensure that runoff control measures are working.

5. STATUTORY DETERMINATIONS

The Selected Remedy is protective of human health and the environment, complies with Federal and State requirements that are applicable or relevant and appropriate to the remedial action, is cost-effective, and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

This remedy also satisfies the statutory preference for treatment as a principal element of the remedy (i.e., reduces the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants as a principal element through treatment). The hazardous wastes will be excavated, stabilized, and disposed offsite.

This remedy will not result in hazardous substances, pollutants, or contaminants remaining onsite above levels that allow for unlimited use and unrestricted exposure. Therefore, a five-year review will not be required for this remedial action.

6. DATA CERTIFICATION CHECKLIST

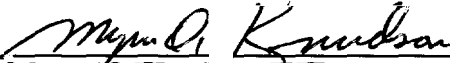
The following information is included in the Decision Summary section of this Record of Decision. Additional information can be found in the Administrative Record file for this Site.

	Section
1. How source materials constituting principal threats are addressed	11
2. Chemicals of concern (COC) and their respective concentrations	12
3. Current and reasonably anticipated future land use assumptions and current and potential future beneficial uses of ground water used in the baseline risk assessment and ROD	13
4. Baseline risk represented by the COC	14
5. Cleanup levels established for COC and the basis for these levels	15
6. Potential land and ground-water use that will be available at the Site as a result of the Selected Remedy	20
7. Estimated capital, annual operation and maintenance (O&M), and total present worth costs, discount rate, and the number of years over which the remedy cost estimates are projected	20
8. Key factor(s) that led to selecting the remedy (i.e., describe how the Selected Remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria, highlighting criteria key to the decision)	20

7. AUTHORIZING SIGNATURES

This ROD documents the selected remedy for soil, sediment, and hazardous wastes at the Ruston Foundry Site. This remedy was selected by EPA with concurrence of the Louisiana Department of Environmental Quality.

U.S. Environmental Protection Agency

By: 
Myron G. Knudson, P.E.
Director
Superfund Division

Date: 6/24/02

CONCURRENCE PAGE FOR THE RUSTON FOUNDRY SUPERFUND SITE



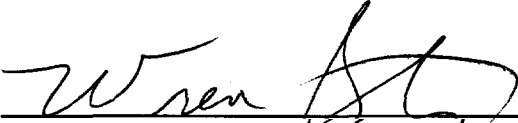
Katrina Coltrain
Remedial Project Manager




Amy McGee
Assistant Regional Counsel



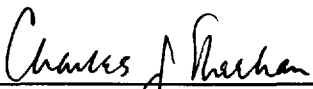
Sing Chia, Chief
LA/OK Section



Wren Stenger, Chief
LA/OK/NM Branch



Mark A. Peycke, Chief
Regional Counsel Superfund Branch



Charles J. Sheehan
Regional Counsel

ad

Pamela Phillips
Deputy Division Director



June Buzzell
Writer/Editor

Record of Decision
Part 2: The Decision Summary

8. SITE NAME, LOCATION AND BRIEF DESCRIPTION

The Ruston Foundry Site is an abandoned metal foundry that operated from 1908 until 1985 and is located on the southeast side of Alexandria, Rapides Parish, Louisiana (Figure 1) with geographical coordinates of 31°17'56" north latitude and 92°26'18" west longitude (E&E, 1998). The Site is located in an urban area with mixed development within the city limits of Alexandria. The Site is not currently operational, and there are no onsite workers. The nearest resident is located approximately 80 feet northwest of the Site (ATSDR, 2001), and approximately 6,000 residents are located within a one-mile radius of the Site. There is a recreational park located approximately 1/4-mile southeast of the Site, and schools identified within one mile of the Site include Peabody Elementary, Peabody Magnet, Jones Street Junior High, Bolton High, South Alexandria Sixth Grade School, and Alma Redwine Primary School.

The Ruston Foundry property is 4.98 acres and the Louisiana Pine Products (LPP) property is 1.62 acres for a total Site acreage of 6.6 acres (Figure 2). The LPP property is part of the Site due to Ruston conducting historical operations on that property. The Ruston Foundry property consists primarily of dilapidated structures and building foundations overgrown with thick brush, and the LPP property is a flat grassy area. The Site is bordered by a series of abandoned railroad tracks to the west. Chatlin Lake Canal borders the Ruston property to the northeast and east, and Mill Street Ditch borders the Ruston property to the south-southeast and LPP to the north. Residential property is located to the north and east of the Ruston Foundry property across the canal and to the east and south of LPP. Historical and active industrialized areas lie further west and north of the Site.

The Site remedial action is expected to be fund-lead with the Environmental Protection Agency (EPA) as the lead agency and the Louisiana Department of Environmental Quality (LDEQ) as the support agency. The National Superfund Electronic Database Identification Number for the Site is LAD985185107.

A more complete description of the Site can be found in Sections 1 and 3 of the Remedial Investigation Report (CH2M Hill, February 2002a).

9. SITE HISTORY AND ENFORCEMENT ACTIVITIES

1. History and Site Activities

Ruston Foundry operated from 1908 until 1985. From the beginning of operation until October 1983, it was operated under the name Ruston Foundry and Machine Shops, Ltd. In 1983, the facility was reincorporated and began operating under the name Ruston Foundry and Machine Shops, Inc. In November 1990, the Ruston Foundry and Machine Shops, Inc. corporation charter was revoked by the Louisiana Secretary of State for failure to file its corporate annual report (EPA, 1998).

Foundry operations resulted in metals contaminated waste which was dispersed throughout the property as fill material. As a result of this disposal activity, foundry-derived process wastes (slag, foundry sand piles, metal scrap, and castings) cover most of the Site and have contaminated the soil. Contaminants are found in the canal sediments and surface water due to runoff of Site materials. Source materials in the form of drums of sludge were removed from the

Site in 1999, during the time-critical removal action.

A more complete description of the Site can be found in the RI Report (CH2M Hill, February 2002a).

2. History of Federal and State Investigations and Removal and Remedial Actions

LDEQ - The LDEQ Inactive and Abandoned Site Division conducted a Site investigation in June 1990, which included drum and surface soil sampling. Based on these sample results, LDEQ referred the Site to EPA as a candidate for an emergency response action.

Site Assessments - 1990 Site Assessment (E&E, 1991) and 1994 Site Assessment (E&E, 1994) -
In 1990, a Site Assessment (SA) was completed to determine sampling strategies for the Site. Sampling activities included onsite surface soil, drum contents samples, and air samples.

In February 1994, a second SA was completed to determine the type and volume of materials to be addressed by a removal action and evaluate disposal options for the Site.

Expanded Site Inspection - (E&E, 1998)- Based on the results of the SA activities, EPA initiated an evaluation of the Site for potential inclusion on the National Priorities List (NPL). In March 1998, an Expanded Site Inspection (ESI) was conducted to further characterize the Site and assess whether offsite target receptors had been impacted by Site contaminants (E&E, 1998).

Removal Assessment - Offsite (E&E, 1999a) - In 1999, the EPA conducted a removal assessment of the residential neighborhood bordering the Site. This assessment also included removing drums, repairing the fence, air sampling, and placing signs along the fence (E&E, 1999a).

National Priorities List - The Site was proposed to the NPL on January 19, 1999 and was finalized on May 10, 1999.

Time-Critical Removal Action - A removal assessment was performed from June 28 to July 3, 1999, to prepare onsite drums for removal. Staged drums were transported and disposed offsite on August 11, 1999 (E&E, 1999b).

Remedial Investigation/Feasibility Study - The EPA issued a work assignment to CH2M Hill in June 1999 to perform a RI/FS. The RI/FS information is described in more detail in the RI report (CH2M Hill, February 2002a) and the FS report (CH2M Hill, February 2002b).

A more complete description of previous Site investigations can be found in Section 1 the RI Report (CH2M Hill, February 2002a).

3. History of CERCLA Enforcement Activities

Based on the investigation of Site historical information, three potentially responsible parties were identified: Ruston Foundry and Machine Shops, Inc., Louisiana Pine Products, and Kansas City Southern Railroad. Information request letters and general notice letters were issued requesting specific Site information and notifying the parties of potential liability for Site response activity. Based on the responses to these letters, the EPA issued special notice waivers because the Agency determined that negotiations would not move the project forward in a timely manner. Based on this decision, the Site RI/FS was completed as an EPA fund-lead project.

10. COMMUNITY PARTICIPATION

Throughout the Site's history, the community has been interested and involved with Site activity. The EPA has kept the community and other interested parties updated on Site activities through informational meetings, fact sheets, and public meetings. Below is a brief summary of public outreach efforts.

- **NPL Listing:** On January 19, 1999, EPA released a Site Update notifying the community that EPA and LDEQ were planning to propose the Site on the NPL in order to address Site contamination. This update also requested public comments on the NPL proposed package. The Site was placed on the NPL in May 1999, and a Site Update notifying the public was issued.
- **Community Relations Plan:** The EPA released a community relations plan in November 1998 that outlined a program to address community concerns and keep citizens informed about and involved in the remedial activities.
- **EPA Open Houses and Status Fact Sheets:** The EPA and LDEQ have held several open houses and mailed out fact sheets to discuss Site activities related to the removal assessment and RI/FS: 3/22/99, 3/28/00, 9/25/00, 10/24/00, 4/9/01, 10/09/01, 03/28/02.
- **Reuse Meetings:** The EPA has participated in two meetings with the City of Alexandria regarding Site reuse: 2/12-13/01, 02/26-27/01.
- **Proposed Plan Fact Sheet and Public Meeting:** The Proposed Plan was signed on March 18, 2002 and presented to the community on March 28, 2002. The formal proposed plan Public Meeting was held on April 18, 2002, and the comment period lasted from April 1, 2002 through April 30, 2002.

11. SCOPE AND ROLE OF RESPONSE ACTION

Drum waste from the Site was previously addressed during a removal action; therefore, the selected remedial action presents the final response action that will address Site contaminants that pose a current or future health risk and address the Site as one operable unit. Development of the response action was based on the use of the presumptive remedy approach for metals in soil. It was determined appropriate to apply the presumptive remedy for metals in soil based on the soil and contaminant characteristics found at the Site and guidance provided in the directive, Presumptive Remedies for Metals-in-Soil Sites (EPA, 1999). Risk reduction based on a future redevelopment recreational/commercial scenario will be achieved through the following:

- The ACM and the UST, its contents, and surrounding petroleum and PCB contaminated soils will be removed and disposed offsite, thereby removing this principal threat waste.
- The former onsite water supply well will be plugged and abandoned while the building debris, concrete slabs, sump, and trash will be removed and disposed offsite.
- The lead and antimony contaminated soil will be excavated and disposed offsite at a RCRA regulated Subtitle D facility. This will remove these principal threat wastes.
- Hazardous waste exceeding TCLP lead will be stabilized prior to offsite disposal. Once the material has been stabilized, it will be sampled to verify that it no longer exceeds TCLP for lead, and will be disposed offsite at a RCRA regulated Subtitle D facility. This will remove the principal threat waste and satisfy the statutory preference for treatment.
- The excavated areas will be backfilled with clean fill and compacted. Topsoil will be placed over the disturbed area and a natural vegetative cover will be established.

12. SITE CHARACTERISTICS

1. Physical Site Characteristics

The 6.6 acre Site is situated at the confluence of the Chatlin Lake Canal and the Mill Street Ditch, which both receive surface runoff from the Site. Above its confluence with Mill Street Ditch, the Chatlin Lake Canal receives overflow through a control structure from Bayou Rapids and stormwater drainage from downtown Alexandria. The drainage area upstream of the canal is estimated to be 20 acres, in addition to the overflow from Bayou Rapids. The Mill Street Ditch provides drainage from an area west of the Site, including south Alexandria. Both Chatlin Lake Canal and the Mill Street Ditch demonstrate flow regimes characteristic of urban streams designed for flood control. Drainage from the canal flows to the southeast to Bayou du Lac, approximately 25 miles downstream, then to Lake Pearl, Bayou des Glaises, and ultimately, the Atchafalaya River. The Site elevation is approximately 75 feet above mean sea level, and is located within the 100-year flood plain (E&E, 1999a).

Surface material (0-1 foot (ft)) at the Ruston Foundry Site consists of foundry waste material, fat clay, and silt (Figure 3). The foundry sand is black in color and is a poorly-graded, fine to medium grained sand that may include glass shards and chunks of porous (pumice-type) material. Oxidized pieces of coal are present near the onsite railroad spurs and the foundry building. Slag piles are blocky in appearance, generally have a lustrous surface, and are very large in size at some Site locations. Along Mill Street Ditch and under the concrete slab, large quantities of oxidized metal filings are present. At several areas on the Site, fire brick has been identified that generally contains metallized surfaces (shiny metallic luster coating the fire bricks).

Beneath the foundry waste material generally lies a fat clay with a few lenses of lean clay and silty clay. Three silty clay layers were identified. The first silty clay layer is approximately 5 to 10 ft below ground surface (bgs) and dry. The second silty clay layer at approximately 15 to 20 ft bgs is moist but did not produce sufficient water for sample collection. The third silty clay layer (25 to 30 ft bgs) has a higher sand content, appears to be very discontinuous, grades laterally into sand in places, and produces adequate supplies of water for sampling purposes. It also appears that some hydraulic connection between layers two and three is possible in the area of the confluence for the Chatlin Lake Canal and Mill Street Ditch. The clays in these zones are considered to be part of the upper confining system of the Red River Alluvial Aquifer.

Additional information on Site geology and hydrology can be found in Section 3 of the RI Report (CH2M Hill, February 2002a).

2. Site Contamination

Sampling for the remedial investigation (RI) was conducted from September to November 2001 and included surface soil grid sampling, sampling of soil/sediment on transects across the canals, sampling of waste piles, air monitoring, sampling of surface soil hot spots, sampling of surface water and sediment in the canals, stratigraphic profiling with cone penetrometer testing (CPT), subsurface soil grid sampling with direct-push and conventional drilling, monitor well installation, ground water sampling, and aquifer testing.

Based on Site sampling, a conceptual Site model was developed (Figure 4). The apparent contaminant sources include foundry slag piles, building foundation areas, buried foundry materials, a concrete sump, ACM, and a UST. A layer of foundry-derived waste material, including slag, foundry sand, and/or metal shavings, covers most of the ground surface. When

present, this material ranges in thickness from about 1 inch to about 5 ft in the southwest corner of the main Site area. The majority of surface soil samples contained visible foundry waste materials and, as a result, surface soil samples tended to demonstrate the highest concentrations of Site-related chemicals of concern (COC).

By evaluating the fate and transport of source materials, environmental media that are impacted or may be impacted by Site-related chemicals were identified. Several media were identified as being potentially impacted by the source materials: ground water, surface water, sediment, air, and soil. The identified contaminated media are surface soil and sediment that contain the COC lead and antimony, and the exposure routes of concern are direct contact and ingestion. Children are most sensitive and vulnerable to the effects of lead. Exposure to large quantities of lead can result in blood anemia, kidney damage, colic, muscle weakness, brain damage, slowed mental and physical growth, prematurely born babies, and slow mental development. Antimony is currently identified as a noncarcinogen. Long time exposure to antimony in the air can irritate your eyes, skin, and lungs. Long time inhalation of antimony can cause lung problems, heart problems, stomach pain, diarrhea, vomiting, and stomach ulcers. Ingestion also can cause diarrhea, joint and/or muscle pain, vomiting, anemia, and heart problems.

Lead and antimony are hazardous substances as defined in Section 101(14) of CERCLA 42 U.S.C. § 9601(14), and further listed at 40 C.F.R. § 302.4. The concentrations for lead ranged from 12.8 mg/kg to 38,200 mg/kg and antimony ranged from 0.107 mg/kg to 18,000 mg/kg. The estimated volume of lead and antimony contaminated soil and sediment is 10,000 yd³ of the total 15,000 yd³. In addition to the soil/sediment waste, there is an estimated 1,300 yd³ of waste identified as hazardous waste because it exceeded TCLP for lead.

Louisiana state regulations specify that soil concentrations of contaminants be protective of ground water. The Synthetic Precipitation Leachate Procedure (SPLP) was conducted on surface and subsurface soil samples. These results were compared to Risk Evaluation/Corrective Action Program (RECAP) screening criteria for soil concentrations protective of ground water. Only surface soils (0-1 ft) exceeded LA SPLP for beryllium, lead, and antimony. Beryllium is not a concern, however, because it was not detected above background. The estimated volume of soil that exceeded SPLP is 5,000 yd³ of the total 15,000 yd³. Therefore, the potential release sources are the onsite contaminated soil, slag piles, and bank soil piles.

The Site is situated in a mixed zoning (industrial and residential) area of Alexandria. The Year 2000 census data for the Alexandria area indicates 46,342 people live in the City of Alexandria and an additional 13,829 people live in Pineville City (less than two miles north of the Site). Various populations of interest were identified near the Site (within a 0.5-mile radius): residents to the east and south of the Site, adjacent to, but across, the Mill Street Ditch and Chatlin Lake Canal; two schools (Peabody Magnet High School and Peabody Sixth Grade Center) located approximately 0.4 miles from the Site; and, nine churches.

The contaminated soil and sediment as well as the ACM, UST liquid, and wastes exceeding lead TCLP are identified as principal threat wastes. The UST contents will be characterized during the remedial design to determine whether the contents will be cleaned up under CERCLA or OPA authority. These principal threat wastes are either highly toxic, liquid, or hazardous source materials that would pose a significant risk to young children. Redevelopment of the Site as a recreational/commercial environment would result in an unacceptable risk to children through direct exposure with Site soils unless remediated.

13. CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES

1. Current and Future Land Use

The Ruston Foundry Site is located in an urban area with mixed development within the city limits of Alexandria. The Site is not currently operational, and there are no onsite workers. Residential neighborhoods are located to the north, east, and south of the Site. The nearest resident is located approximately 80 feet northwest of the Site and approximately 6,000 people live within a one-mile radius of the Site. There is a recreational park located approximately 1/4-mile southeast of the Site and several schools identified within one mile. The current Site use is abandoned industrial, and youth trespassers have been seen.

According to the zoning board, the Site is zoned for industrial usage. The Site is currently located in an area with projected low growth, and future residential use of the Site is unlikely. The city of Alexandria was awarded a Reuse Grant in September 2000, from the Government for the purpose of developing a future reuse plan for the Ruston Foundry Site. Although the Site is currently industrial, Site reuse plans indicate that there will be a combination of recreational/commercial activity across the Site. Therefore, the reasonably anticipated future land use for the Site is recreational, which in this case, is more conservative due to the exposure of young children during playtime.

2. Current and Future Ground Water and Surface Water Use

The Site monitor wells are screened within the silty clays of the upper confining system of the Red River Alluvial Aquifer. Concentrations present in samples taken from the permanent ground water monitoring wells exceeded the MCL or RECAP screening criteria for one constituent, bis(2-ethylhexyl)phthalate, which is a common plasticiser used in well construction material, and is most likely associated with Site monitoring well installation. Currently, public water supply is provided to the Site vicinity and is expected to be provided onsite in the future. According to the water well inventory from the Louisiana Department of Transportation and Development (January 2001), there are no registered drinking water wells obtaining water from the Red River alluvial aquifer (<120 feet) within two miles of the Site, and the city of Alexandria is not planning to use the ground water in the area for its future redevelopment project. Although the ground water does not exceed MCLs or RECAP (except for one constituent), future use of this aquifer is not anticipated. The LDEQ RECAP ground water classification for this aquifer is determined to be 2B - an aquifer that could potentially supply drinking water to a domestic water supply well.

Chatlin Lake Canal and Mill Street Ditch are urban streams designed for area flood control. These streams collect storm water drainage from the city and surrounding areas, and Chatlin Lake Canal also receives overflow from Bayou Rapides. Engineering plans developed by the city for future use of these canals will redesign and reconstruct these canals to better accommodate drainage waters by placing a concrete lining along the bottom and sides of the canals.

14. SUMMARY OF SITE RISKS

A baseline risk assessment was completed in March 2002, for human health and in October 2001 for ecological. The assessments estimate the probability and magnitude of potential adverse human health and environmental effects from exposure to contaminants associated with the Site assuming no remedial action was taken. They provide the basis for taking action and identified the contaminants and exposure pathways that need to be addressed by the remedial action.

This section focuses on the information that is driving the need for the specific response action

described in the ROD. It does not summarize the entire baseline risk assessment, however it does summarize the primary COC, or "risk drivers", identified in the risk assessment. In addition, the summary of the exposure assessment also focuses on those exposure pathways and scenarios driving action at the Site, rather than all of the exposure pathways and scenarios evaluated for the entire Site. Refer to the Conceptual Site Model throughout this section (Figure 4).

1. Human Health Risk Assessment

a. Identification of Chemicals of Concern

The identified COC for current trespasser and future recreator risk scenarios are antimony and lead. Table 1 presents exposure point concentrations (EPC: *i.e.*, the concentration that will be used to estimate the exposure and risk from each COC in the soil), the range of concentrations detected for each COC, the frequency of detection (*i.e.*, the number of times the chemical was detected in the samples collected at the Site), and how the EPC was derived. The tables indicate that antimony and lead were detected in all samples that were collected for risk evaluation. The EPCs for soil and slag were derived using the 95% upper confidence level (UCL) on the arithmetic mean and the EPCs for the hot spot were the maximum concentration detected.

i. Lead

Because lead (Pb) does not have a nationally approved reference dose (RfD), slope factor (SF), or other accepted toxicological factor which can be used to assess risk, standard risk assessment methods cannot be used to evaluate the health risks associated with Pb contamination. Therefore, the Integrated Exposure Uptake Biokinetic (IEUBK) model for Pb in children was used to evaluate the risks posed to young children as a result of the Pb contamination at this Site. The IEUBK model was run using Site-specific data to predict a Pb soil level that will be protective of children and other adults. Site-specific soil Pb concentrations, as detailed in the summary table for the COC in this ROD, were used in place of model default values.

The input menus of the IEUBK model do not provide enough flexibility for scenarios in which children have multiple lead exposures to different soil sources. For the Ruston Foundry Site, it is expected that children may be exposed to lead in soil around their houses and to lead in soil at the Ruston Foundry Site. To overcome the lack of flexibility in the IEUBK model and to accept input values for different soil lead sources, separate calculations were made to derive the appropriate time-weighted average (TWA) soil concentrations for the model. These calculations were made prior to entering values in the model and are based on the assumptions presented in Section 2: Exposure Assessment.

b. Exposure Assessment

The current Site use is abandoned industrial, and youth trespassers were identified as potential receptors. The reasonable future onsite land use is recreational. Future residential use of the Site is unlikely, and the City of Alexandria plans to develop the Site into a park and recreational area. Based on the future recreational scenario, adult and child recreators were identified as potential receptors.

Exposure pathways for fish and ground water were not quantitatively addressed because they were considered incomplete. Occasionally in spring and fall, overflow water is released from upstream, and fish are released to the canal. It is unlikely that these fish are impacted by Site-related chemicals due to the short duration of their contact with potentially impacted surface

water or sediment. Therefore, exposure through ingestion of fish is considered an incomplete pathway (CH2M Hill, 2002c). The Site monitor wells are screened within the silty clays of the upper confining system of the Red River Alluvial Aquifer, and concentrations indicate that the MCLs or RECAP criteria have not been exceeded. No registered drinking water wells obtaining water from the Red River alluvial aquifer (<120 ft) have been identified within two miles of the Site, and the city of Alexandria is not planning to use the ground water in the area for its future redevelopment project. Therefore, the ground water exposure pathway is considered incomplete, because no ground water exposure points were identified and public water supply is provided to the Site vicinity and will be used onsite in the future.

Of the complete exposure pathways quantified in the risk assessment, those listed below are driving remedial activities. Exposure parameters are presented in Table 2.

- Trespasser (Current) - ingestion/dermal contact of Site-related chemicals in hot spots.
- Adult Recreator (Future) - ingestion/dermal of Site-related chemicals in hot spots.
- Child Recreator (Future) - ingestion/dermal of Site-related chemicals in soil/canal transects, hot spots, and slag piles.

i. IEUBK

Below is a summary of assumptions used to calculate TWA soil lead concentrations (Table 3).

- Exposure Frequency: Because the frequency of days per week a child from the neighborhood could visit the Site is unknown, a range of values of one day/week, 3 days/week and 5 days/week was assumed.
- Time Spent onsite: The IEUBK model limits the time a child spends playing outdoors to four hours. Since the time spent at the Site will vary between children, a range of values was selected to reflect different types of activities: it was assumed that 10, 25, and 50 percent of the time spent outdoors would be spent at the Site.
- Ingestion rate: The default ingestion rates used in the IEUBK model may not reflect ingestion rates associated with active contact with dirt. A child playing in a park is expected to be in direct intensive contact with soil. As such, incremental increases over the IEUBK model default ingestion rates were assumed. Incremental increases in ingestion rates over the model default totals for each age group were divided into low, medium, and high. Low was defined as an incremental increase of 25% over the model default totals for each age group, medium was defined as an incremental increase of 45% over the model default totals for each age group, and high was defined as an incremental increase of .2 g/day which is used in Superfund assessments as a high average daily soil ingestion rate.

The TWA soil lead concentration was further evaluated using Monte Carlo analysis. This probabilistic analysis of the TWA soil lead concentration was utilized to evaluate the uncertainty in exposure frequency and time spent outdoors and the variability in the soil data collected from the Site and from the residential yards. The distribution of the exposure frequency and time spent onsite were assumed to be uniform covering the full range of one day per week to seven days per week for the exposure frequency and from .4 hours to 4 hours for time spent outdoors onsite. The distribution of the soil lead data of the seventeen residences was determined and used in the evaluation.

c. Toxicity Assessment

Toxicity assessment is accomplished in two steps: hazard identification and dose-response assessment. Hazard identification is the process of determining whether exposure to a chemical is associated with a particular adverse health effect. Hazard identification involves characterizing the nature and strength of the evidence of causation.

The dose-response assessment is the process of predicting a relationship between the dose received and the incidence of adverse health effects in the exposed population. From this quantitative dose-response relationship, toxicity values are derived that can be used to estimate the potential for adverse effects as a function of potential human exposure to the chemical.

Two general groups categorize chemicals depending on the types of effects on human health: carcinogens and non-carcinogens. Neither antimony nor lead were identified as carcinogens, therefore cancer toxicity data are not presented. Table 4 summarizes the non-cancer toxicity data which is relevant to lead and antimony.

d. Risk Characterization

For carcinogens, risks are generally expressed as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the carcinogen. Excess lifetime cancer risk (ELCR) is calculated from the following equation:

$$\text{Risk} = \text{GDI} \times \text{SF}$$

where: risk = a unitless probability (e.g., 2×10^{-5}) of an individual developing cancer
GDI = chronic daily intake averaged over 70 years (mg/kg-day)
SF = slope factor, expressed as (mg/kg-day)⁻¹.

These risks are probabilities that usually are expressed in scientific notation (e.g., 1×10^{-6}). An ELCR of 1×10^{-6} indicates that an individual experiencing the reasonable maximum exposure estimate has a 1 in 1,000,000 chance of developing cancer as a result of site-related exposure. This is referred to as an "excess lifetime cancer risk" because it would be in addition to the risks of cancer individuals face from other causes such as smoking or exposure to too much sun. The chance of an individual developing cancer from all other causes has been estimated to be as high as one in three. EPA's generally acceptable risk range for site-related exposures is 10^{-4} to 10^{-6} . The risk assessment did not identify an ELCR that exceeded the acceptable risk range.

The potential for noncarcinogenic effects is evaluated by comparing an exposure level over a specified time period with a reference dose (RfD) derived for a similar exposure period. An RfD represents a level that an individual may be exposed to that is not expected to cause any deleterious effect. The ratio of exposure to toxicity is called a hazard quotient (HQ). A $\text{HQ} < 1$ indicates that a receptor's dose of a single contaminant is less than the RfD, and that toxic noncarcinogenic effects from that chemical are unlikely. The Hazard Index (HI) is generated by adding the HQs for all chemical(s) of concern that affect the same target organ (e.g., liver) or that act through the same mechanism of action within a medium or across all media to which a given individual may reasonably be exposed. A $\text{HI} < 1$ indicates that, based on the sum of all HQ from different contaminants and exposure routes, toxic noncarcinogenic effects from all contaminants are unlikely. A $\text{HI} > 1$ indicates that site-related exposures may present a risk to human health.

The HQ is calculated as follows:

$$\text{Non-cancer HQ} = \text{CDI/RfD}$$

where:

GDI = Chronic daily intake
RfD = reference dose.

GDI and RfD are expressed in the same units and represent the same exposure period (i.e., chronic, subchronic, or short-term). The risk assessment identified a HI>1 due to the effects of antimony on the circulatory system.

i. IEUBK

Results of the IEUBK model are presented in Tables 5-9. Separate calculations were made for each of the 17 residences situated adjacent to the Site in order to identify the TWA soil lead concentration for each residence (Table 5). As expected, the TWA soil lead concentration increases with an increase in the type of activity except when the yard soil lead concentration is higher than the Site average soil lead concentration (as occurred with RES09). In that case, the TWA soil lead concentration for RES09 decreases with increase of type of activity from low to high.

The default ingestion rates were used to calculate the predicted probability of a 5% chance of exceeding a blood lead level of 10 micrograms per deciliter ($\mu\text{g}/\text{dl}$) for each of the 17 residences bordering the Site (Table 6). The ingestion rates were then increased incrementally from low to high activity, and the impacts on exceeding the criteria are reported in Tables 7, 8, and 9. The following results were observed:

- **Default Ingestion Rate (Table 6)**
Low Activity - 5 residences exceed criteria
Medium Activity - 5 residences exceed criteria
High Activity - All residences exceed criteria
- **Additional Low Ingestion Rate (Table 7)**
Low Activity - 5 residences exceed criteria
Medium Activity - 8 residences exceed criteria
High Activity - All residences exceed criteria
- **Additional Medium Ingestion Rate (Table 8)**
Low Activity - 5 residences exceed criteria
Medium Activity - 15 residences exceed criteria
High Activity - All residences exceed criteria
- **Additional High Ingestion Rate (Table 9)**
Low Activity - 14 residences exceed criteria
Medium Activity — All residences exceed criteria
High Activity - All residences exceed criteria

e. Uncertainty

Some level of uncertainty is introduced into the risk characterization process every time an assumption is made. In regulatory risk assessment, the methodology dictates that assumptions err on the side of overestimating potential exposure and risk. The effect of using numerous assumptions that each overestimate potential exposure and risk is to exaggerate estimates of

potential risk.

The large number of assumptions made in the risk characterization could potentially introduce a great deal of uncertainty. Any one individual's potential exposure and subsequent potential risk are influenced by their individual exposure and toxicity parameters and will vary on a case-by-case basis. While it is theoretically possible that this may lead to underestimates of potential risk, the use of numerous upper-bound, toxicity, and health protective assumptions will most likely lead to an overestimate of potential risks associated with the site.

2. Ecological Risk Assessment

The habitats located on Ruston Foundry currently exist due to the lack of activity onsite since the foundry was abandoned. The Site will be made "ready for reuse", thereby altering the habitat in the future such that it will no longer support the complete exposure pathways to ecological receptors. The City of Alexandria wants to convert the abandoned Site to a recreational/commercial reuse complex. After readying the Site for reuse, the current habitat will no longer exist.

The purpose of the surrounding canals is flood control management for the city of Alexandria and Bayou Rapides by accommodating drainage waters from the city and surrounding areas as well as overflow from the Bayou. The canals will be redesigned and reconstructed in the future to better accommodate these drainage waters. Engineering plans developed by the city will result in concrete lining to be placed along the bottom and sides of the canals. The placement of the concrete lining will interrupt the exposure pathway to the aquatic ecosystem.

Based on plans for future reuse and redevelopment of the entire Site, habitat located onsite and along the canals will no longer exist to sustain the ecological wildlife currently present. Therefore, remedial clean up levels will not be required for ecological receptors.

3. Basis of Action

The response action selected in this Record of Decision is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment. The risk assessment identified exposures that exceeded the criteria of HK1 and the 5% chance of exceeding 10 µg/dl blood lead level; therefore, unrestricted use of the Site will present an unacceptable risk to children and adults unless remediated. Lead risks are summarized in Tables 6 through 9 and non-carcinogenic risks are summarized in Tables 10 through 12.

15. REMEDIAL ACTION OBJECTIVES

Media of Interest	Remedial Action Objective
Surface Soil and Sediment	<p>RAO No. 1 - Prevent direct human contact (trespassers, adult recreators, and child recreators) with surface soils and waste piles containing lead at concentrations that would result in a greater than 5% chance that a child's blood lead value would exceed 10 µg/dl.</p> <p>RAO No. 2 - Prevent direct human contact (trespassers, adult recreators, and child recreators) with surface soils and waste piles containing antimony at concentrations which have a HI>1.</p> <p>RAO No. 3 - Prevent leaching and migration of lead from surface soils and waste piles into the ground water at concentrations exceeding 0.015 mg/l.</p> <p>RAO No. 4 - Prevent leaching and migration of antimony from surface soils and waste piles into the ground water at concentrations exceeding 0.006 mg/l.</p>
Other Media	<p>RAO No. 5 - Prevent direct human contact with ACM at concentrations greater than 1% by weight.</p> <p>RAO No. 6 - Prevent direct contact with the UST, its contents, and surrounding contaminated soils.</p> <p>RAO No. 7 - Prevent direct human contact (trespassers, adult recreators, and child recreators) with slag pile material with TCLP lead concentrations greater than 5 mg/l and handle as hazardous waste in accordance with all applicable federal, state, and local regulations.</p> <p>RAO No. 8 - Prevent migration of contaminants to deeper soils and ground water through the former onsite water supply well and from the existing buildings, slabs, sump, and trash.</p>

ACM= asbestos containing material
UST = underground storage tank

HI = hazard index
mg/l = milligrams per liter

µg/dl = micrograms per deciliter
RAO = remedial action objective

1. Cleanup Level (CL)

In order to be protective for Site reuse under a recreational/commercial scenario, RAOs were established. Because there are no Federal or State cleanup standards for soil contamination, the EPA established the RAO CLs based on the baseline risk assessment. The CLs selected for this proposed action will reduce the excess noncancer risk associated with exposure to contaminated wastes, the excess risk of exceeding 10 ng/dl blood lead level, and the potential for migration of contaminants into the ground water. This will be achieved by:

- reducing the concentrations of the soil contaminated with antimony to 150 mg/kg and/or less than the LA SPLP;
- reducing the concentrations of the soil contaminated with lead to 500 mg/kg and/or less than the LA SPLP;
- removing ACM and disposing of waste offsite;
- removing the UST, its contents and surrounding PCB soils and disposing of waste offsite;
- abandoning the onsite well and disposing of building debris offsite; and,
- stabilization of hazardous waste and disposing of the waste offsite.

16. DEVELOPMENT AND SCREENING OF ALTERNATIVES

Presumptive remedies were developed by EPA to streamline the selection of cleanup alternatives for certain categories of sites. This approach narrows the consideration of cleanup alternatives to treatment technologies or remediation approaches that have a proven track record in the

Superfund program. The EPA has determined that it is appropriate to apply the presumptive remedy for metals in soil based on the soil and contaminant characteristics found at the Site and guidance provided in the directive, Presumptive Remedies for Metals-in-Soil Sites (EPA 540-F-98-054, OSWER-9355.0-72FS, September 1999).

Following the Presumptive Remedy for Metals-In-Soils, the EPA has a goal of resource conservation, thereby making reclamation/recovery the preferred treatment technology for metals-in-soil sites. This approach was determined to be inappropriate for the Site. Slag waste is the primary contaminated media/matrix encountered throughout the Site, and reclamation/recovery is generally not effective for treatment of slag waste. The concentration of metals in the slag is too low to warrant reclamation and recovery and the physical and chemical nature of the slag material that binds the metals would make reclamation or recovery of metal from the waste physically and economically impractical. Therefore, the second preferred treatment technology alternative of immobilization (solidification/stabilization) was used.

In addition to the no action alternative, required by the NCP for inclusion as a baseline of Site conditions for comparison, EPA evaluated presumptive remedies and an excavation and offsite disposal alternative.

SUMMARY OF REMEDIAL ALTERNATIVES		
Medium	RI/FS Remedial Alternative Designation	Description
Soil	1	No action
	2	Containment
	3	Stabilization and Capping
	4	Stabilization and Offsite Disposal
	5	Excavation and Offsite Disposal

17. DESCRIPTION OF ALTERNATIVES

1. Common Elements of all alternatives except for Remedial Alternative 1 - No Action.

- The areas to be remediated are those which exceed the antimony CL of 150 mg/kg, the lead CL of 500 mg/kg, and/or the LA SPLP lead and antimony CLs. This equates to a total of approximately 15,000 yd³ of contaminated soil/sediment that will be addressed by each remedy option.
- The ACM will be consolidated onsite, contained, and transported offsite to a disposal facility licensed to accept ACM. Methods to control airborne dispersion of asbestos will be implemented during remediation. The estimated total volume of material is 22 yd³.
- The UST, its contents, and the surrounding petroleum wastes will be characterized during the remedial design to determine whether the contents will be cleaned up under CERCLA or OPA authority. The surrounding PCB contaminated soils will be removed and disposed offsite in accordance with all federal, state, and local regulations. Total volume of tank contents is estimated at 5,000 gallons. The volume of associated contaminated soil is included in the soil/sediment estimated volume of 15,000 yd³.
- The dilapidated buildings and foundations will be removed and disposed offsite. The estimated volume is 300 yd³.

- The former onsite water supply well will be plugged and abandoned in accordance with all federal, state, and local regulations.
- An estimated volume of 1300 yd³ of hazardous waste will be remediated. This waste exceeds the TCLP lead standard and is considered hazardous waste as defined by RCRA. It is, therefore, subject to the RCRA land disposal restrictions (LDRs) if the waste is excavated and treated or removed from the area of contamination. All remedies involving such activities will comply with the LDR (63 FR 28555; May 26, 1998) and will meet 90% removal efficiency or ten times the universal treatment standard for that contaminant in the material prior to land disposal in a RCRA-compliant landfill.
- During remedial action, efforts will be made to control dust and run-off to limit the amount of materials that may migrate to a potential receptor. Air monitoring and short-term monitoring of the surface water and ground water will be conducted during times of remediation to ensure that control measures are working to regulate Site emissions.

2. Summary of Alternatives

Remedial Alternative 1: NO ACTION

Estimated Capital Cost: \$0
 Estimated Annual O&M Cost: \$46,583
 Estimated Present Worth Cost: \$46,583
 Estimated Construction Timeframe: None

Regulations governing the Superfund program generally require that the "no action" alternative be evaluated to establish a baseline for comparison. Under this alternative, the EPA would take no action at the Site to prevent exposure to the soil or possible leaching of contaminants into the ground water. Hazardous substances will continue to be or threaten to be released into the environment, if no action is taken.

By leaving the waste onsite, the EPA will be required to conduct remedy reviews at least every five years.

Remedial Alternative 2: CONTAINMENT

Estimated Capital Cost: \$3,465,951
 Estimated Annual O&M Cost: \$731,577
 Estimated Present Worth Cost: \$4,197,528
 Estimated Construction Timeframe: 9 to 12 months
 Estimated Time to Achieve RAOs: 9 to 12 months

The waste material (contaminated soil, hazardous waste foundry material, and building debris) will be excavated, stockpiled, and temporarily stored onsite. Confirmation sampling will be required to ensure that all wastes have been removed and CLs have been met.

A containment cell will be designed and constructed onsite with sufficient volume to contain 15,000 yd³ of lead and antimony contaminated surface soil and soil exceeding LA SPLP, 1,300 yd³ of hazardous waste, and 300 yd³ building debris. The cell will be constructed with impermeable bottoms and sides to prevent the migration of contaminants out of the cell, and an impermeable cap will be constructed over the waste consisting of compacted clay and/or an impermeable membrane liner to prevent the infiltration of water into the cell. A leachate collection system and/or a vapor recovery system may also be necessary as part of the containment cell design. A natural vegetative cover will be established and maintained over the

cap.

Institutional controls (i.e., land use restrictions) will be required to aid in the management of the wastes left onsite and will be maintained by the future owner. In addition, long-term monitoring of the containment cell, cap and the surface water in Mill Street Ditch and Chatlin Lake Canal as well as the ground water will be required to ensure that contaminants are not leaching from the containment cell and to verify the cap retains its integrity. The EPA will also be required to conduct remedy reviews at least every five years.

This alternative will achieve all RAO and meet the CLs. This alternative may be compatible with the expected future landuse and Alexandria's Site reuse project. Because the contaminants will be contained, this remedy does not meet the Agency's preference for treatment of principal threat wastes.

Alternative 3: STABILIZATION AND CAPPING

Estimated Capital Cost: \$2,669,671
Estimated Annual O&M Cost: \$731,578
Estimated Present Worth Cost: \$3,401,249
Estimated Construction Timeframe: 9 to 12 months
Estimated Time to Achieve RAOs: 9 to 12 months

The waste material will be segregated into one stockpile for the hazardous waste, one pile for soil exceeding LA SPLP, and another stockpile for building debris. Lead and antimony contaminated soils which exceed the CLs for human health may be left in place without being excavated. Confirmation sampling will be required to adequately segregate the wastes.

The 1,300 yd³ of hazardous waste and the 4,650 yd³ of soil exceeding LA SPLP (out of the total 15,000 yd³) will be stabilized. Stabilization involves mixing the material with a reagent to physically or chemically bind the metals in the waste material to prevent leaching. During design, a treatability study will determine the proper reagent and mixing ratio. Once the material has been stabilized, it will be sampled to verify that it no longer exceeds TCLP lead or protection of ground water standards. Site wastes will be contained onsite using a containment cell and cap. The stabilized and building debris wastes will be compacted into a consolidation cell. The cell and remaining soils will be capped with clay and/or an impermeable membrane liner. Topsoil will be placed on the cap and a natural vegetative cover will be established and maintained over the cap.

Remedial Alternative 3 is similar to Remedial Alternative 2 except that some of the wastes will be stabilized prior to capping/containment. In addition, the containment cell for Remedial Alternative 3 may not need an impermeable bottom, leachate collection system, or vapor recover system because the wastes have been stabilized to prevent contaminant migration.

Institutional controls (i.e., land use restrictions) will be required to aid in the management of the wastes left onsite and will be maintained by the future Site owner. In addition, long-term monitoring of the containment cell, cap and the surface water in Mill Street Ditch and Chatlin Lake Canal as well as the ground water will be required to ensure that contaminants are not leaching from the containment cell and to verify the cap retains its integrity. The EPA will also be required to conduct remedy reviews at least every five years.

This alternative will achieve all RAO and meet the CLs. This alternative may be compatible with the expected future landuse and Alexandria's Site reuse project. Because the hazardous

waste will be stabilized, this portion meets the Agency's preference for treatment of principal threat wastes. However, the remaining lead and antimony contaminated soil will be contained, which does not meet the Agency's preference for treatment of principal threat wastes.

Alternative 4: STABILIZATION AND OFFSITE DISPOSAL

Estimated Capital Cost: \$5,007,412
Estimated Annual O&M Cost: \$0
Estimated Present Worth Cost: \$5,007,412
Estimated Construction Timeframe: 9 to 12 months
Estimated Time to Achieve RAOs: 9 to 12 months

Lead and antimony contaminated soils will be excavated and segregated from the hazardous waste foundry material and the building debris in separate stockpiles. Confirmation sampling will be required to adequately segregate the wastes. The 1,300 yd³ of hazardous waste will be stabilized. Once the material has been stabilized, it will be sampled to verify that it no longer exceeds TCLP lead. The stabilized material, the 300 yd³ of building debris, and the 15,000 yd³ of lead and antimony contaminated soil and soil exceeding LA SPLP will be disposed offsite at a RCRA regulated Subtitle D facility. Offsite disposal activities will be conducted in accordance with RCRA LDR standards. The excavated areas will be backfilled with clean fill and compacted. Topsoil will be placed over the disturbed area and a natural vegetative cover will be established and maintained over the Site.

Remedial Alternative 4 is similar to Remedial Alternative 3 except that soils exceeding LA SPLP do not need to be stabilized and the wastes are disposed offsite rather than being capped.

Institutional controls should not be required because none of the waste material will be left on Site. In addition, long-term monitoring of the surface water in Mill Street Ditch and Chatlin Lake Canal as well as the ground water should not be required. Because the waste material will be disposed offsite, five-year reviews of the remedy will not be required.

This alternative will achieve all RAO and meet the CLs. This alternative is compatible with the expected future landuse and Alexandria's Site reuse project. Because the hazardous waste will be stabilized, this portion meets the Agency's preference for treatment of principal threat wastes. The remaining lead and antimony contaminated soil will be disposed of offsite; therefore, it does not meet the Agency's preference for treatment of principal threat wastes.

Alternative 5: EXCAVATION AND OFFSITE DISPOSAL

Estimated Capital Cost: \$5,537,975
Estimated Annual O&M Cost: \$0
Estimated Present Worth Cost: \$5,537,975
Estimated Construction Timeframe: 9 to 12 months
Estimated Time to Achieve RAOs: 9 to 12 months

Lead and antimony contaminated soils will be excavated and segregated from the hazardous waste foundry material and the building debris in separate stockpiles. Confirmation sampling will be required to adequately segregate the wastes. The 1,300 yd³ of hazardous waste will be disposed offsite at a RCRA Subtitle C Facility. The 15,000 yd³ of lead and antimony contaminated soil and soil exceeding LA SPLP and the 300 yd³ of building debris will be disposed offsite at a RCRA regulated Subtitle D facility. All offsite disposal activities will be conducted in accordance with RCRA LDR standards. The excavated areas will be backfilled

with clean fill and compacted. Topsoil will be placed over the disturbed area and a natural vegetative cover will be established and maintained over the Site.

Remedial Alternative 5 is similar to Remedial Alternative 4 except that the hazardous waste foundry material is not stabilized prior to disposal and it is disposed of at a RCRA regulated Subtitle C rather than a RCRA regulated Subtitle D facility.

Institutional controls should not be required because none of the waste material will be left on Site. In addition, long-term monitoring of the surface water in Mill Street Ditch and Chatlin Lake Canal as well as the ground water should not be required. Because the waste material will be disposed offsite, five-year reviews of the remedy will not be required.

This alternative will achieve all RAO and meet the CLs. This alternative is compatible with the expected future landuse and Alexandria's Site reuse project. Because the contaminants will be removed and disposed of offsite, this remedy does not meet the Agency's preference for treatment of principal threat wastes.

18. SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

The EPA uses nine NCP criteria to evaluate remedial alternatives for the cleanup of a release. These nine criteria are categorized into three groups: threshold, balancing, and modifying. The threshold criteria must be met in order for an alternative to be eligible for selection. The threshold criteria are overall protection of human health and the environment and compliance with applicable or relevant and appropriate requirements (ARARs). The balancing criteria are used to weigh major tradeoffs among alternatives. The five balancing criteria are long-term effectiveness and permanence; reduction of toxicity, mobility or volume through treatment; short-term effectiveness; implementability; and cost. The modifying criteria are state acceptance and community acceptance. The following briefly describes the evaluation criteria:

In the following analysis, the remedial alternatives are evaluated in relation to each other with regard to the nine criteria noting the relative advantages and disadvantages of each alternative.

1. Overall Protection of Human Health and the Environment

All of the alternatives except the "no action" alternative would provide adequate protection of human health and the environment by eliminating, reducing, or controlling risk through treatment, containment, engineering controls, and/or institutional controls.

For alternatives 2 and 3, protectiveness will be obtained through containment; however, perpetual cap maintenance will be required to ensure total protectiveness. Any breach in the cap would potentially expose individuals to existing levels of contamination. For alternative 2, breaching of the cap or containment cell may allow leachate to contaminate the ground water, whereas alternative 3 has provided additional protectiveness by stabilizing the hazardous waste and soil exceeding LA SPLP. Alternatives 4 and 5 provide the greatest degree of protectiveness because the waste will be removed and disposed offsite.

Because the "no action" alternative is not protective of human health and the environment, it was eliminated from consideration under the remaining eight criteria.

EVALUATION CRITERIA FOR SUPERFUND REMEDIAL ALTERNATIVES
Overall Protectiveness of Human Health and the Environment determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.
Compliance with ARARs evaluates whether the alternative meets Federal and State environmental statutes, regulations, and other requirements that pertain to the site, or whether a waiver is justified.
Long-term Effectiveness and Permanence considers the ability of an alternative to maintain protection of human health and the environment over time.
Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.
Short-term Effectiveness considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.
Implementability considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.
Cost includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today's dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.
State/Support Agency Acceptance considers whether the State agrees with the EPA's analyses and recommendations, as described in the RI/FS and Proposed Plan.
Community Acceptance considers whether the local community agrees with EPA's analyses and preferred alternative. Comments received on the Proposed Plan are an important indicator of community acceptance.

2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

All soil alternatives would meet their respective ARARs from Federal and State laws. Alternatives 4 and 5 would require testing of the soils to ensure that residuals meet LDR standards prior to disposal. Alternatives 2 and 3 are not required to meet LDR standards or minimum technology requirements because contamination would be consolidated onsite (preamble to the NCP, 55 FR 8758-8760, March 8, 1990).

3. Long-term Effectiveness and Permanence

Alternative 2 and Alternative 3 would prevent the direct contact exposure and contaminant migration, however, monitoring, Site maintenance, and enforcement of institutional controls would be necessary to ensure the long-term effectiveness and permanence of these alternatives. Because alternatives 2 and 3 leave wastes onsite above levels that allow for unlimited use, these remedies would be reviewed no less than once every five years. Alternative 4 and Alternative 5 provide greater long-term effectiveness and permanence by reducing the inherent hazards posed by the contaminants at the Site to health-based levels and eliminating further controls to ensure remedy effectiveness and permanence.

4. Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment

Alternative 5 provides no reduction of the toxicity, mobility, or volume of contaminants. Alternative 2 provides reduction of the mobility of the contaminants, however it does not reduce

contaminant toxicity or volume. Like Alternative 2, Alternatives 3 and 4 provide reduction in mobility and do not reduce toxicity, however these are expected to increase the volume of contaminated material through the stabilization process due to the addition of stabilization reagents. Ultimately, Alternatives 4 and 5 will result in wastes being disposed of offsite.

5. Short-term Effectiveness

Alternatives 2 through 5 involve excavation of contaminated soils and thus present a potential for short-term exposure. All alternatives pose potential risks to construction workers and nearby residents during excavation and handling of contaminated material primarily associated with equipment movement and exposure to contaminated dust. Control of dust and run-off will limit the amount of materials that may migrate to a potential receptor, and workers would be required to wear the appropriate level of protection to avoid exposure during excavation and treatment activities. Air monitoring and short-term monitoring of the surface water and ground water will be performed during all excavation activities.

Alternatives 3 and 4 may also pose additional short term risks to the nearby residents and onsite workers due to the increased handling required for application of the reagent and potential emissions from the onsite stabilization. Alternatives 4 and 5 may present a higher short-term risk to the nearby residents because of the potential for exposure to the contaminated soils by trucking the material to an offsite facility.

6. Implementability

For all Alternatives, administrative coordination, labor, equipment, materials, and outside services will be required. These alternatives utilize conventional material and equipment which are widely used and accepted in the construction industry.

Difficulties may be encountered for Alternatives 2 and 3 during construction of the onsite disposal cell depending on the conditions of the subsurface soil.

7. Cost

Order of magnitude cost estimates were developed for each remedial alternative using procedures outlined in the EPA *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study* (EPA 2000). These cost estimates were prepared for assistance with comparing the relative costs between the various remedial alternatives and are considered accurate only to +50/-30 percent. The cost estimates have been based on the information that is currently available for the Site and on the cost data available from EPA guidance. A revised cost estimate should be prepared with additional detail after developing a conceptual design for the selected remedial alternative. The estimated present worth cost for Alternative 3 is less than Alternative 2. Alternative 2 is less than Alternative 4, and Alternative 5 is the most costly.

8. State/Support Agency Acceptance

The State of Louisiana supports the Preferred Alternative (Appendix A).

9. Community Acceptance

Throughout the Site project there has been a continued public interest. During the public comment period for the proposed plan, both oral and written comments were received. The responses to these comments are included in the Responsiveness Summary to this ROD (Part 3).

The community supports a remedy that removes wastes from the site.

19. PRINCIPAL THREAT WASTES

The contaminated soil and sediment as well as the ACM, UST liquid, and wastes exceeding lead TCLP are identified as principal threat wastes. The UST contents will be characterized during the remedial design to determine whether the contents will be cleaned up under CERCLA or OPA authority. These principal threat wastes are either highly toxic, liquid, or hazardous source materials that would pose a significant risk to young children and adults. Redevelopment of the Site as a recreational/commercial environment would result in an unacceptable risk to children through direct exposure with Site soils unless remediated.

The EPA expects to use treatment to address the principal threats posed by a site, wherever practicable, and engineering controls for waste that poses a relatively low long-term threat or where treatment is impracticable. Through the use of treatment as a principal element, the response action will satisfy the preference for treatment and reduce the toxicity and mobility of the hazardous source material that constitutes the principal threat wastes at the Site.

WHAT IS A "PRINCIPAL THREAT"?

The NCP establishes an expectation that EPA will use treatment to address the principal threats posed by a site wherever practicable (NCP Section 300.430(a)(1)(iii)(A)). The "principal threat" concept is applied to the characterization of "source materials" at a Superfund site. A source material is material that includes or contains hazardous substances, pollutants or contaminants that act as a reservoir for migration of contamination to ground water, surface water or air, or acts as a source for direct exposure. Contaminated ground water generally is not considered to be a source material; however, Non-Aqueous Phase Liquids (NAPLs) in ground water may be viewed as source material. Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained, or would present a significant risk to human health or the environment should exposure occur. The decision to treat these wastes is made on a site-specific basis through a detailed analysis of the alternatives using the nine remedy selection criteria. This analysis provides a basis for making a statutory finding that the remedy employs treatment as a principal element.

20. THE SELECTED REMEDY

1. Summary of the Rationale for the Selected Remedy

The Preferred Alternative for cleaning up the Ruston Foundry Site is Remedial Alternative 4 (Stabilization and Offsite Disposal). Alternative 4 meets the RAOs through attainment of cleanup levels and is selected over other alternatives because it is easily implemented, expected to achieve substantial and long-term permanence and risk reduction through treatment and offsite disposal, and is expected to allow the property to be used for the reasonably anticipated future land use, which is recreational/commercial. Because the waste material will be disposed offsite, operations and maintenance activity and five-year reviews of the remedy will not be required. Alternative 4 also reduces the risk within a reasonable time frame and at less cost than Alternative 5.

Based on the information available at this time, the EPA and the State of Louisiana believe the Preferred Alternative will be protective of human health and the environment, will comply with ARARs, and will utilize permanent solutions and alternative treatment technologies to the maximum extent practicable. Because it will treat the hazardous source materials constituting principal threats, a portion of the remedy will meet the statutory preference for the selection of a remedy that involves treatment as a principal element. Treatment of the lead and antimony

contaminated soil will not be cost effective since the soils are not identified as hazardous wastes and can be disposed of in a RCRA Subtitle D facility.

2. Description of the Selected Remedy

Implementation of this remedial alternative at the Ruston Foundry Site would involve the following general sequence.

- During remedial action, efforts will be made to control dust and run-off to limit the amount of materials that may migrate to a potential receptor. Air monitoring and short-term monitoring of the surface water and ground water will be conducted during times of remediation to ensure that control measures are working to regulate Site emissions.
- Initial clearing and grubbing will be required for Site access and implementation of remedial activities.
- The ACM will be consolidated onsite, contained, and transported offsite to a disposal facility licensed to accept asbestos material. This work will be performed by a licensed asbestos contractor and methods to control airborne dispersion of asbestos will be implemented during remediation.
- The UST, its contents, and surrounding petroleum and PCB contaminated soils will be removed and disposed offsite in accordance with all federal, state, and local regulations. Confirmation sampling will be required to ensure wastes are removed.
- Existing buildings will be demolished and the building debris, concrete slabs, existing sump, and trash will be removed and disposed offsite.
- The former onsite water supply well will be plugged and abandoned in accordance with all federal, state, and local regulations.
- Lead and antimony contaminated soils will be excavated and segregated from the hazardous waste foundry material and the building debris. Confirmation sampling will be required to adequately segregate the wastes and ensure wastes are removed.
- The hazardous waste stockpile will be stabilized. This process can take several forms, but basically will involve mixing the material with a reagent (cement, proprietary agents, flyash, etc.) to physically or chemically bind the metals in the waste material to prevent leaching. A treatability study will be required prior to implementing this alternative to determine the proper agent and the proper mixing ratio. Mixing can be accomplished with conventional construction equipment, a pug mill, or with tilling/discing equipment. Once the material has been stabilized, it will be sampled to verify that it no longer exceeds TCLP for lead.
- The stabilized material and the lead and antimony contaminated soil will be disposed offsite at a RCRA regulated Subtitle D facility.
- Subsequent to confirmation sampling of the soils to ensure all waste has been removed from the site, the excavated areas will be backfilled with clean fill and compacted. Topsoil will be placed over the disturbed area and a natural vegetative cover will be established.
- Institutional controls, such as enforceable land use restrictions, should not be required because none of the waste material will be left onsite. In addition, long-term monitoring of the surface water in Mill Street Ditch and Chatlin Lake Canal as well as the ground water should not be required. However, short-term monitoring of the surface water and ground water may be necessary, to ensure that impacts from the RA have not occurred.

3. Summary of Estimated Remedial Cost

Table 13 shows the Estimated Costs for the Selected Remedy. The information in this cost estimate summary table is based on the best available information regarding the anticipated

scope of the remedial alternative. Changes in the cost elements are likely to occur as a result of new information and data collected during the engineering design of the remedial alternative. Major changes may be documented in the form of a memorandum in the Administrative Record file, an Explanation of Significant Differences (ESD), or a ROD amendment. This is an order-of-magnitude engineering cost estimate that is expected to be within +50 to -30 percent of the actual project cost.

4. Expected Outcomes of the Selected Remedy

The expected outcome of the selected remedy is that the Site will no longer present an unacceptable risk to human health because the hazardous waste will be excavated, stabilized, and disposed of offsite, contaminated soil and sediment will be excavated and disposed of offsite, and the ACM and UST will be removed and disposed of offsite (Table 14). The property will be suitable for recreational/commercial land use approximately one year after the start of the remedial action. The remedy will also be protective of ground water by removing soil that exceeded the Louisiana screening criteria for concentrations protective of ground water. It is anticipated that the selected remedy will also provide community revitalization impacts because it will be compatible with Alexandria's Site reuse plan.

21. STATUTORY DETERMINATIONS

The remedial action selected for implementation at the Ruston Foundry Superfund Site is consistent with CERCLA and, to the extent practicable, the NCP. The selected remedy is protective of human health and the environment, will comply with ARARs and is cost effective. In addition, the selected remedy utilizes permanent solutions to the maximum extent practicable, and satisfies the statutory preference for treatment that permanently and significantly reduces the mobility, toxicity or volume of hazardous substances as a principal element.

1. The Selected Remedy is Protective of Human Health and the Environment

The remedy at this Site will adequately protect human health and the environment by eliminating, reducing or controlling exposures to human receptors through treatment and offsite disposal of the hazardous waste and excavation and offsite disposal of soil and sediment contaminated with hazardous substances.

The selected remedy will reduce potential human health risk levels such that these levels do not exceed a non-carcinogenic hazard index of 1 and do not present a greater than 5% chance of a child exceeding a 10 μ g/dl blood lead level. Also, CLs will ensure minimal migration, to the extent possible, of Site contaminants into the ground water. In addition, the remedy will comply with ARARs and is anticipated not to pose any unacceptable short-term risks or cross-media impacts.

2. Compliance with Applicable or Relevant and Appropriate Requirements

ARARs include substantive provisions of any promulgated Federal or more stringent State environmental standards, requirements, criteria, or limitations that are determined to be legally applicable or relevant and appropriate requirements for a CERCLA site or action. Applicable requirements are those clean-up standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Relevant and appropriate requirements are requirements that, while not legally "applicable" to circumstances at a particular

CERCLA site, address problems or situations sufficiently similar to those encountered at the site that their use is well-suited.

The selected remedy will comply with all Federal and any more stringent State ARARs that pertain to the Site. Section 121 (d) of CERCLA states that remedial actions must attain or exceed ARARs. The ARARs are divided into three categories, location-specific, chemical specific, and action-specific and are listed in Table 15 through 17.

3. The Selected Remedy is Cost-Effective

The selected remedy is cost-effective because the remedy's costs are proportional to its overall effectiveness (see 40 CFR § 300.430(f)(1)(ii)(D)). This determination was made by evaluating the overall effectiveness of those alternatives that satisfied the threshold criteria (i.e., that are protective of human health and the environment and comply with all Federal and any more stringent State ARARs, or as appropriate, waive ARARs). Overall effectiveness was evaluated by assessing three of the five balancing criteria — long-term effectiveness and permanence; reduction in toxicity, mobility, and volume through treatment; and short-term effectiveness, in combination. The overall effectiveness of each alternative then was compared to the alternative's costs to determine cost-effectiveness. The relationship of the overall effectiveness of this remedial alternative was determined to be proportional to its costs and hence represents a reasonable value for the money to be spent.

The present worth cost of Alternative 4, the Selected Remedy, is higher in costs than alternative 2 (Containment) and alternative 3 (Stabilization and Capping), and is lower in costs to Alternative 5 (Excavation and Offsite disposal). However, the Selected Remedy offers a much higher degree of protectiveness and overall effectiveness than Alternatives 2 and 3 because it offers treatment and removal of wastes versus consolidation of wastes (i.e., containment) or onsite disposal of wastes (capping). The benefits of The Selected Remedy compared to the other alternatives are much higher than the increase in costs.

4. Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

EPA has determined that the Selected Remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a practical manner at the Site. The Selected Remedy provides the best balance of trade-offs in terms of the five balancing criteria, considering State and community acceptance, while also considering the statutory preference for treatment as a principal element and the bias against offsite treatment and disposal.

The Selected Remedy utilizes treatment of the hazardous wastes to address this principal threat waste at the Site. All lead and antimony contaminated soil and sediment will not satisfy the preference for treatment because soil and sediment will be excavated and disposed of offsite.

5. Preference for Treatment as a Principal Element

Because it will treat the hazardous source materials constituting principal threats, a portion of the remedy will meet the statutory preference for the selection of a remedy that involves treatment as a principal element. Treatment of the lead and antimony contaminated soil, ACM, and UST contents would not be cost effective since the wastes are not identified as hazardous wastes and can be disposed of in a RCRA Subtitle D facility.

6. Five-year Review Requirements

Because this remedy will not result in hazardous substances, pollutants, or contaminants remaining onsite above levels that allow for unlimited use and unrestricted exposure, a five-year review will not be required for this remedial action.

22. DOCUMENTATION OF SIGNIFICANT CHANGES

The proposed plan for the Ruston Foundry Superfund Site was released on March 30, 2002. The Proposed Plan identified Alternative 4 (Stabilization and Offsite Disposal) as the preferred alternative. The public comment period was held from April 1, 2002, to April 30, 2002. The EPA reviewed and responded to two written and twenty-four verbal comments submitted during the public comment period (see Part 3. The Responsiveness Summary). It was determined that no significant changes to the remedy, as originally identified in the proposed plan, were necessary.

23. STATE ROLE

The Louisiana Department of Environmental Quality, on behalf of the State of Louisiana, has reviewed the various alternatives and has indicated its support for the selected remedy. The State has also reviewed the Remedial Investigation, Risk Assessment and Feasibility Study to determine if the selected remedy is in compliance with applicable or relevant and appropriate State environmental and facility siting laws and regulations. The State of Louisiana concurs with the selected remedy for the Ruston Foundry Superfund Site (Appendix A).

PART 3. THE RESPONSIVENESS SUMMARY

The concerns of the community should be considered when selecting a remedial alternative. Much information has been exchanged with the area residents and community leaders concerning the Site. The EPA held an Open House (March 28, 2002) and a Public Meeting (April 18, 2002) in Alexandria, Louisiana, to provide information to the public regarding cleanup activities. There is also an Administrative Record file at all information repositories that contain documents supporting this Record of Decision. This Administrative Record file includes a transcript of the Public Meeting, which records answers to the public comments. Many of the comments concerned the differences between Alternatives 4 and 5 and the future site reuse project. These comments and any additional comments received during the comment period (April 1 through April 30, 2002) are summarized below:

Comment 1: Who will be required to pay for the costs? What's the expected time frame needed to make that happen?

EPA Response 1: At this time, we have identified three potentially responsible parties (PRPs): the Louisiana Pine Products, the Ruston Foundry and Machine Shop, Inc., and Kansas City Southern Railway. They did not step forward and provide services for the remedial investigation. Before remedial action begins, the PRPs will be provided with an opportunity to do the remedial design/remedial action (RD/RA). The PRPs have 60-days to submit a good-faith offer. If an offer is made, negotiations can be extended 60-days, for a total of 120-days. If additional time is needed, an extension can be granted past the 120-days. If they do not provide a good-faith offer, the RD/RA may be implemented using superfund moneys, or the PRPs may be ordered to do the work. If the PRPs do not do the work, we could pursue the PRPs in cost recovery.

Comment 2: What is the difference between Alternative 4 and 5, and why does EPA choose 4

rather than 5?

EPA Response 2: Alternative 4, Stabilization and Offsite Disposal, requires that the hazardous wastes be stabilized (treated) onsite. Following treatment, the hazardous waste, along with other site wastes (soil, underground storage tank, asbestos, debris) will be shipped offsite for disposal. Alternative 5, Excavation and Offsite Disposal, requires that the hazardous waste, along with other site wastes, be removed and shipped offsite for disposal. Alternative 5 does not treat the hazardous wastes prior to disposal. The cost difference between Alternatives 4 and 5 is due to the stabilization process. By treating the hazardous waste onsite prior to disposal, the waste can be disposed of in a RCRA subtitle D facility. Untreated hazardous waste must be disposed of in a RCRA subtitle C facility which is more costly.

During remedial action for Alternatives 4 and 5, air monitoring and dust suppression methods will be used to control air emissions. The risks associated with removal of wastes will be about the same for each alternative because both involve the excavation of wastes and the shipment of waste through the neighborhood. Alternative 4 may be safer because the hazardous waste will be treated prior to offsite disposal. Once the waste is removed, a long-term monitoring plan will not be needed.

Remedial action for both alternatives is estimated at 9 to 12 months. Confirmation samples will be taken to make sure that we have met our cleanup-level. At the completion of remedial action, all hazardous waste and contaminated site wastes will have been removed, and the site will be available for reuse.

As part of the feasibility study, we are required to identify a range of alternatives that include treatment and containment options. The range represents those alternatives that will address site contamination through various techniques or methods and at various costs. Using the nine criteria, we compare the various alternatives to choose one. Alternative 4 was selected because the hazardous waste will be treated, all site wastes will be removed, the site will be available for reuse, the construction time frame is relatively short and cost-effective, no future remedy monitoring is necessary, it is protective of human health and the environment, and meets all ARARs.

Comment 3: Do you have other sites where you have used Alternative 4?

EPA Response 3: The Delatte Metals site is located southeast of Ponchatoula, Louisiana. The remedy for this Site requires that lead waste be stabilized and then shipped offsite.

Gulf Coast Vacuum Services is a superfund site located in Abbeville, Louisiana. The remedy for this site is similar in that, stabilization of soil contaminated with metals was performed onsite. Disposal for this site was done in an onsite landfill rather than being disposed of offsite.

Comments 4: How are we going to develop the property? Is there anything that we can or can't do? We don't want a park; we want to create jobs. We have an economic development district that falls in the area, and we're working on creating a tax base by bringing in businesses.

EPA Response 4: The Reuse Grant provided to the City of Alexandria requires that the city and the community collaborate on a future reuse plan for development of the area. We encourage the citizens to get involved with their local government to produce a plan that will be beneficial for all involved.

We do not specify the specific reuse project, however, the future plan must be compatible with

the site clean-up levels and landuse designations. After the implementation of Alternative 4, all wastes will be removed. Though the site risk assessment used a recreational scenario to evaluate future site risk, the clean-up and removal of site wastes will leave the area open to redevelopment of any type, including commercial.

Comments 5: I am concerned about the health hazards residents in the area have been exposed to for 70-odd years. I've been a long-term resident, and when I moved to the area, my son was two weeks old. He's 20 years old now, and he has been sick the whole time.

LOPH Response 5: I'm (Dr. Naponick) going to give you my card. If you can call me next week, we'll see if we can look into some of the troubles with your son and see what type of testing we can do. We did some surveys and went door to door to try to find out what the health concerns were. We'll check into it and take a look and see what we can do.

Comment 6: When this decision is made, will this be made out of Washington, D.C., or will it be made out of the Dallas office? Who do we need to talk to?

EPA Response 6: The decision will be made out of the Dallas Office. You can contact EPA using the toll free number, 1-800-533-3508. The remedial project manager is Katrina Coltrain (214-665-8143) and the community involvement coordinator is Janetta Coats (214-665-7308).

Comment 7: My understanding of this is, the slag and ground soil that is contaminated will be removed, but the drums and the tanks will not. We had a couple of drums that were leaking, old, and rusty. How will you remove these and not recontaminate the area?

EPA Response 7: The slag, soil, and the underground storage tank will be removed. The tank will be drained of its liquid which will be placed in containment drums and shipped offsite. Then, we'll remove the tank parts and dispose of those offsite. We'll remove the associated contaminated soil and take confirmation samples to make sure we have removed all the waste. The slag waste will be stabilized and shipped offsite, and contaminated Site soils will be removed and shipped offsite. Confirmation soil samples will be taken to make sure that we've removed all waste. The air will be monitored during remedial action and dust suppression techniques will be used to make sure that we limit air emissions.

Comment 8: I am concerned about the contaminated water. We talked about the purity level and lead, mercury, and other contaminants in the water. Is there anything we can do to inform the people that this water is indeed contaminated?

EPA Response 8: The surface water did have lead and mercury associated with it. When the human health risk assessment evaluated the surface water, there was no unacceptable risk identified for the child recreator. You would expect a child to play in the canal, drink the water, and play in the sediment, however when evaluated, the risk assessment showed that at the current levels the children were not exposed to an unacceptable risk. Therefore, according to the risk assessment the water is safe.

Comment 9: Can you pick and choose some things from Alternative 3 or 5 and fit into 4?

EPA Response 9: These are proposed alternatives, so send a comment or comment now on how you would like to see them changed.

Comment 10: Is there anything being done with the adjoining Hind Yard Area (scrap iron facility)? Are you being proactive in looking at this property?

LDEQ Response 10: You can call 1-888-263-5424 and tell DEQ you have a complaint to make. DEQ will send an inspector, and if he sees spills or if he sees things they're not supposed to be doing, then they're going to have to correct it. Either way, the facility will have to take samples, or we will take samples if there is a problem. If the site is identified as being contaminated, then the state does take action. But if we don't know about it, we can't do anything. Usually, the action entails finding out who owns the site and ordering them to clean it up. If they don't clean it up, then we have a state fund that we use to clean it up. Then, we go to court and sue the previous business to get the money back. We don't always get the money back, so the tax payers sometimes end up having to pay for it.

Comment 11: It is stated that the Louisiana Department of Environmental Quality had identified this site in 1990. Then, in 1999, Superfund notified the area. Why was nothing done in that length of time?

LDEQ Response 11: Sometimes a site can be handled quicker and better by the EPA than by the State. In other words, the EPA's generally more neutral towards any businesses that might own that property. The State of Louisiana may have reasons why they can't or don't enforce something on somebody. By handing it over to the EPA, it may take a little longer, but it does get done that way.

Comment 12: What's the process when allowing or letting the contracts to remediate? Are there criteria for local contractor involvement? Is it a possibility for others to be certified to become a regional contractor for such work?

EPA Response 12: Generally, if it is fund-lead, EPA would take charge. With all EPA fund-lead projects, the regional contractors are used which, in our case, will be either CH2M Hill or Tetra Tech. From there, they actually do the subcontracting to get the work done, and would know when and at what time they're letting contracts. If the PRPs step forward, we can't stipulate to the PRPs who to hire to do the work, but we can encourage them to look to the local area and local businesses to do the work. Our regional contracts do contain small/small disadvantaged, hub zones and women-owned business goals for subcontract work. Thus far, the regional contractors have exceeded those goals. The contracts for those two regional contractors were extended for five years, so the next time that it's put out for bid would be in either 2005 or 2006. It's a nationwide letting process and bids come in from all over.

Comment 13: Where is the human factor as we get past the clean up? How do we treat those persons that have been effected by this hazardous waste area?

EPA Response 13: The human factor is intertwined with the superfund process. Throughout the process, the community has been interested and involved with Site activity. We have kept the community and other interested parties updated on Site activities through informational meetings, fact sheets, and public meetings. Human health risks are evaluated during the human health risk assessment. Our remedial action will be based on our human health evaluation which tells us what levels we have to clean-up to in order to be safe.

Throughout the whole process we have worked with the Louisiana Office of Public Health (LOPH). Information that we gathered during the remedial investigation and the human health risk assessment was passed onto the LOPH. You're health concerns can be directed to Sharee Rusnak, who works for LOPH in New Orleans.

Comment 14: What's the process for hotline calls or reporting? Is there a method of notification for the reporter? How far in advance are they given notice that you're coming?

LDEQ Response 14: When a complaint comes into DEQ, a field person from the Alexandria office, the Monroe office, or even our office will be sent out. These inspections are unannounced, and if there is a problem, they'll refer it to the remediation group, who goes out, looks at it, and takes samples. The DEQ is going to make their decision on those samples to see whether or not there's a problem. If the facility has broken a law, for instance, storing hazardous waste improperly, they're discharging contaminated waste without their permits, or they have unmarked waste drums or tanks without containment, they're going to get an enforcement action, and the law is going to make them fix those problems. The other problem, ground water contamination, will be more of a long-term process because we're going to have to get them to put in ground water wells, send us any work plans, and come up with the money. If they don't, then we have to go through the legal process to find out if they can afford this. If they're an active business that doesn't have the money to do a multi-million dollar clean-up, they may claim bankruptcy, and go out of business.

Comment 15: Once we get to the end, and the site's ready to be developed, is there some type of partnership between EPA and HUD for development of funds, or is there anything else available?

EPA Response 15: Barbara Greenfield, our redevelopment contact, may be able to put you in contact with other programs that may provide assistance to communities involved in Superfund.

Comment 16: I am disagreeing with this plant operating in a community. I am suggesting that this site be moved to an area that would not include any harm being done to human beings. I would like to suggest that the following be considered for the people in the community: 1) relocate the iron foundry to a new site where it would not involve people's lives, and (2) if the iron foundry must remain, then buy the surrounding property and relocate the citizens in the community.

EPA Response 16: The Ruston Foundry site is currently an abandoned facility which ceased operations in 1985. The operations of that facility resulted in contamination of the soils and sediment. The purpose of EPA's involvement is to clean up this contamination and leave the site available for reuse by the City of Alexandria and the community. The discussions regarding business development are a part of the future reuse plans being developed by the City and the community.

REFERENCES

Agency for Toxic Substances and Disease Registry. 2000. *Public Health Assessment for Ruston Foundry, Alexandria, Rapides Parish, Louisiana. CERCLIS No. LAD985185107*. Louisiana Department of Health and Hospitals, Office of Public Health/Section of Environmental Epidemiology and Toxicology. October 26, 2000.

CH2M Hill, Inc., 2000a. *Pre-Remedial Investigation Sampling Event, Ruston Foundry Site*. March, 2000.

CH2M Hill, 2001. *Final Ecological Risk Assessment, Ruston Foundry Site, Alexandria, Rapides Parish, Louisiana*. Remedial Action Contract Work Assignment 930-RICO-061F. October 2001.

CH2M Hill, 2002a. *Final Remedial Investigation, Ruston Foundry Site, Alexandria, Rapides Parish, Louisiana*. Remedial Action Contract Work Assignment 930-RICO-061F, 2 vols. February 2002.

CH2M Hill, 2002b. *Final Feasibility Study, Ruston Foundry Site, Alexandria, Rapides Parish, Louisiana*. Remedial Action Contract Work Assignment 930-RICO-061F. February 2002.

CH2M Hill, 2002c. *Final Human Health Risk Assessment, Ruston Foundry Site, Alexandria, Rapides Parish, Louisiana*. Remedial Action Contract Work Assignment 930-RICO-061F. March 2002.

Ecology and Environment, Inc., 1991. *Site Assessment Report, Ruston Foundry*. February 28, 1991.

Ecology and Environment, Inc., 1994. *Site Assessment Report, Ruston Foundry*. May 18, 1994.

Ecology and Environment, Inc., 1998. *Expanded Site Inspection Report for Ruston Foundry*. September 1998.

Ecology and Environment, Inc., 1999a. *Removal Assessment Report for Ruston Foundry - Offsite*. September 20, 1999.

Ecology and Environment, Inc., 1999b. *Time-Critical Removal Report for Ruston Foundry - Onsite*. June 28, 1999.

U.S. Environmental Protection Agency, 1999. *Metals-In-Soil, Presumptive Remedy*. EPA/540/F-98/054. OSWER Directive 9355.0-72FS. May 1999.

U.S. Environmental Protection Agency, 2000. *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study*. EPA/540/R-00/002. OSWER Directive 9355.0-75. July 2000.

Table 1: Summary of Chemicals of Concern and Medium-Specific Exposure Point Concentrations

Exposure Point	Chemical of Concern	Concentration Detected		Units	Frequency of Detection	Exposure Point Concentration	Exposure Point Concentration Units	Statistical Measure
		Min	Max					
Scenario Timeframe: Current-Youth Trespasser Medium: Soil Exposure Medium: Hot Spot								
Soil: Onsite, Direct Contact	Antimony	7.8	7300	mg/kg	4/4	7300	mg/kg	MAX
Scenario Timeframe: Future-Adult Recreator Medium: Soil Exposure Medium: Hot Spot								
Soil: Onsite Direct Contact	Antimony	7.8	7300	mg/kg	4/4	7300	mg/kg	MAX
Scenario Timeframe: Future-Child Recreator Medium: Soil Exposure Medium: Soil								
Soil: Onsite Direct Contact	Antimony	.62	10,000	mg/kg	80/80	250	mg/kg	95% UCL of log transformed data
Soil: Onsite Direct Contact	Lead	21	38,000	mg/kg	80/80	1400	mg/kg	95% UCL of log transformed data
Scenario Timeframe: Future-Child Recreator Medium: Soil Exposure Medium: Hot Spot								
Soil: Onsite Direct Contact	Antimony	7.8	7300	mg/kg	4/4	7300	mg/kg	MAX
Scenario Timeframe: Future-Child Recreator Medium: Soil Exposure Medium: Slag								
Soil: Onsite Direct Contact	Antimony	6.7	1300	mg/kg	23/23	190	mg/kg	95% UCL of log transformed data
Key mg/kg: milligrams per kilograms Reference: Human Health Risk Assessment (Hill, 2002) tables 2.2, 2.9, 2.10, 2.11, 2.13, 3.2, 3.9, 3.10, 3.11, and 3.13. 95% UCL: 95% Upper Confidence Limit MAX: Maximum Concentration								

Table 2: Summary of Exposure Parameters based on Reasonable Maximum Exposure.

Exposure Route	Parameter Code	Parameter Definition	Units	Youth Trespasser	Residential Adult	Residential Child-soils
Ingestion	CS	Chemical Concentration in Soil	mg/kg	Chemical Specific	Chemical Specific	Chemical Specific
	IR (IRc)	Ingestion Rate of Soil	mg/day	150	100(200)	200
	FI	Fraction Ingested	unitless	1.0	1	1.00
	EF	Exposure Frequency	days/year	60	60	60
	ED (EDc)	Exposure Duration	years	10	30(6)	6
	CF	Conversion Factor	kg/mg	1.OE-6	1.OE-6	1.OOE-6
	BW (BWc)	Body Weight	kg	43	70 (15)	15
	AT_C	Averaging Time (Cancer)	days	25,550	25,550	25,550
	AT_N	Averaging Time (Non-Cancer)	days	3,650	10,950	2,190
	IR_adj	Age-adjusted Soil Intake Rate	mg-yr/kg-day		114	
Dermal	CS	Chemical Concentration in Soil	mg/kg	Chemical Specific	Chemical Specific	Chemical Specific
	SA	Skin Surface Area Available for Contact	cm ²	5,000	5,800	2,900
	AF	Adherence Factor	mg/cm ²	.14	.07	.20
	ABS	Absorption Constant	unitless	Chemical Specific	Chemical Specific	Chemical Specific
	EF	Exposure Frequency	days/year	60	60	60
	ED	Exposure Duration	years	10	30	6
	CF	Conversion Factor	kg/mg	1.OE-6	1.OE-6	1.OOE-6
	BW	Body Weight	kg	43	70	15
	AT_C	Averaging Time (Cancer)	days	25,550	25,550	25,550
	AT_N	Averaging Time (Non-Cancer)	days	3,650	10,950	2,190

KEY

mg/kg
mg/day
kg/mg
kg
cm

milligrams per kilogram
milligrams per day
kilograms per milligram
kilograms
centimeters

mg-yr/kg-day
mg/cm
Reference:
(c)

milligrams a year per kilograms a day
milligrams per centimeter
Human Health Risk Assessment (Hill, 2002) tables 4.2a, 4.9a, 4.10a, 4.1 la, and 4.13a.
Risk Assessment Guidance for Superfund. Volume I: Human Health Evaluation Manual
Supplemental Guidance Dermal Risk Assessment Interim Guidance, (USEPA, 1998)

Table 3: Equation and Input Values Used to Calculate TWA Soil Concentrations (PbS_w)

$$PbS_w = EF_{site} * [(F_{site} * PbS_{site}) + (F_{yard} * PbS_{yard})] + (EF_{yard} * PbS_{yard})$$

Parameter	Description	Units	Activity Level		
			Low	Medium	High
			0.1428571	0.4285714	0.7142857
EF_site	Exposure frequency onsite	dys/wk	1 dy/wk	3 dy/wk	5 dy/wk
F_site	Fraction of daily outdoor time spent onsite	unitless	0.1	0.25	0.5
PbS_site	Average soil concentration onsite	µg/g	1,400	1,400	1,400
F_yard	Fraction of daily outdoor time at local background (1-F_site)	unitless	0.9	0.75	0.5
PbS_yard	Average Soil Concentration near home	µg/g	yard-specific	yard-specific	yard-specific
EF_yard	Fraction of days/week child does not visit site (1-EF_site)	unitless	0.8571429	0.5714286	0.2857143

KEY

ug/g micrograms per gram

dy/wk days per week

Table 4: Non-Cancer Toxicity Data Summary**Pathway: Ingestion, Dermal****Youth Trespasser and Adult Recreator**

Chemical of Concern	Chronic/ Subchronic	Oral RfD Value	Oral RfD Units	Adjusted Dermal RfD	Dermal RfD Units	Primary Target Organ	Combined Uncertainty/ Modifying Factors	Sources of RfD: Target Organ	Dates of RfD: Target Organ (MM/DD/YYYY)
Antimony	Chronic	4.0E-04	mg/kg-day	6.0E-05	mg/kg-day	Circulatory	1000/1	IRIS	03/26/01
Lead	—	—	—	—	—	—	—	—	—
Child Recreator									
Antimony	Subchronic	4.0E-04	mg/kg-day	6.0E-05	mg/kg-day	Circulatory	1000/1	HEAST	7/31/97
Lead	—	—	—	—	—	—	—	—	—

KEY

mg/kg-day

milligrams per kilogram a day

IRIS

Integrated Risk Information System

HEAST

Health Effects Assessment Tables

Reference:

Human Health Risk Assessment (Hill, 2002) tables 5.2, 5.9, 5.10a, 5.1 la, and 5.13a.

Table 5: TWA Soil concentrations based on Exposure Frequency and Fraction of Time Spent at the Site.

	EF_site	.1428	.1428	.1428	.4285	.4285	.4285	.7142	.7142	.7142
	F_site	0.1	0.25	0.5	0.1	0.25	0.5	0.1	0.25	0.5
Resident	Pb_S Yard	Low Activity			Medium Activity			High Activity		
RES01	414.2	428.28	449.41	484.61	456.45	519.82	625.44	484.61	590.24	766.27
RES02	105.7	124.19	151.92	198.15	161.17	244.37	383.05	198.15	336.82	567.95
RES03	110	128.43	156.07	202.14	165.29	248.21	386.43	202.14	340.36	570.71
RES04	314.9	330.40	353.65	392.41	361.40	431.16	547.42	392.41	508.67	702.44
RES05	114.3	132.67	160.22	206.14	169.40	252.05	389.81	204.14	343.89	573.48
RES06	159.1	176.83	203.42	247.74	212.28	292.05	425.01	247.74	380.69	602.28
RES07	97.9	116.50	144.40	190.91	153.70	237.41	376.92	190.91	330.42	562.94
RES08	350.7	365.69	388.17	425.65	395.67	463.12	575.55	425.65	538.07	725.45
RES09	1530	1528.14	1525.36	1520.71	1524.43	1516.07	1502.14	1520.71	1506.79	1483.57
RES10	121	139.27	166.68	212.36	175.81	258.04	395.07	212.36	349.39	577.79
RES 11	413.5	427.59	448.73	483.96	455.78	519.20	624.89	483.96	589.66	765.82
RES12	126.7	144.89	172.17	217.65	181.27	263.12	399.55	217.65	354.07	581.45
RES13	141	158.99	185.96	230.93	194.96	275.89	410.79	230.93	365.82	590.64
RES14	106.3	124.78	152.50	198.71	161.74	244.91	383.52	198.71	337.32	568.34
RES15	59.4	78.55	107.28	155.15	116.85	203.04	346.67	155.16	298.79	538.19
RES16	89	107.73	135.82	182.64	145.19	229.46	369.93	182.64	323.79	557.21
RES17	72.5	91.46	119.91	167.32	129.39	214.73	356.96	167.32	309.55	546.61
Average	254.48	270.85	295.39	336.31	303.58	377.22	499.95	336.31	459.04	663.60

KEY

EF_site = exposure frequency onsite

PbS_yard = Average Soil Concentration, near home

F_site = Fraction of daily outdoor time spent onsite

TWA = time-weighted average

Table 6: Predicted Percent Above Criteria For Various Exposure Frequencies - IEUBK Model Default Ingestion Rates

Resident	Average Yard Soil Concentration	Low Activity			Medium Activity			High Activity		
		Soil TWA	GM	% above target BLL	Soil TWA	GM	% above target BLL	Soil TWA	GM	% above target BLL
RES01	414.2	428.28	5.6	9.95	519.82	6.4	15.43	766.27	8.3	32.051
RES02	105.7	124.19	2.8	.31	244.37	4.0	2.243	567.95	6.8	18.593
RES03	110	128.43	2.8	.346	248.21	4.0	2.384	570.71	6.8	19.777
RES04	314.9	330.40	4.7	5.315	431.16	5.6	10.595	702.44	7.8	28.476
RES05	114.3	132.67	2.9	.388	252.05	4.0	2.534	573.48	6.8	19.777
RES06	159.1	176.83	3.3	.865	292.05	4.4	3.662	602.28	7.0	21.033
RES07	97.9	116.50	2.7	.262	237.41	3.9	2.111	562.94	6.7	18.593
RES08	350.7	365.69	5.1	6.826	463.12	5.9	12.013	725.45	8.0	30.218
RES09	1530	1528.14	13.4	69.73	1516.07	13.3	69.73	1483.57	13.1	69.73
RES10	121	139.27	3.0	.434	258.04	4.1	2.693	577.79	6.9	19.77
RES 11	413.5	427.59	5.6	9.95	519.20	6.4	15.43	765.82	8.3	32.051
RES12	126.7	144.89	3.0	.0486	263.12	4.1	2.863	581.45	6.9	19.777
RES13	141	158.99	3.1	.648	275.89	4.3	3.237	590.64	7.0	21.033
RES 14	106.3	124.78	2.8	.328	244.91	4.0	2.243	568.34	6.8	18.593
RES15	59.4	78.55	2.4	.092	203.04	3.6	1.307	538.19	6.5	17.475
RES16	89	107.73	2.6	.21	229.46	3.8	1.871	557.21	6.7	18.593
RES17	72.5	91.46	2.5	.135	214.73	3.7	1.562	546.61	6.6	17.475

KEY

Soil concentrations presented in mg/kg.

Assumes mass fraction of soil in indoor dust (MSD) is 70%.

BLL

Blood lead level; target BLL = 10 ug/dl.

GM

Geometric mean BLL (ug/dl).

TWA

Time-weighted average

Low Activity

1 day/wk, 0.4 hours onsite

Medium Activity

High Activity

ug/dl

mg/kg

day/wk

3 days/wk, 1 hour onsite

5 days/wk, 2 hours onsite

micrograms per deciliter

milligrams per kilogram

days per week

Table 7: Predicted Percent Above Criteria For Various Exposure Frequencies - Additional Low Ingestion Rates

		Low Activity			Medium Activity			High Activity		
Resident	Average Yard Soil Concentration	Soil TWA	GM	% above target DLL	Soil TWA	GM	% above target BLL	Soil TWA	GM	% above target BLL
RES01	414.2	428.28	6.5	17.475	519.82	7.4	25.253	766.27	9.7	45.01
RES02	105.7	124.19	3.1	.611	244.37	4.5	4.41	567.95	7.9	28.476
RES03	110	128.43	3.2	.686	248.21	4.6	4.41	570.71	7.9	28.476
RES04	314.9	330.40	5.5	9.344	431.16	6.5	17.475	702.44	9.2	40.315
RES05	114.3	132.67	3.2	.727	252.05	4.6	4.692	573.48	8.0	30.218
RES06	159.1	176.83	3.7	1.762	292.05	5.1	6.826	602.28	8.2	32.051
RES07	97.9	116.50	3.0	.515	237.41	4.5	3.895	562.94	7.9	28.476
RES08	350.7	365.69	5.9	12.013	463.12	6.9	19.777	725.45	9.4	42.616
RES09	1530	1528.14	15.6	81.015	1516.07	15.5	78.293	1483.57	15.3	78.293
RES10	121	139.27	3.3	.865	258.04	4.7	4.994	577.79	8.0	30.218
RES11	413.5	427.59	3.5	16.422	519.20	7.4	25.253	765.82	9.7	45.01
RES12	126.7	144.89	3.4	.973	263.12	4.7	5.315	581.45	8.0	30.218
RES13	141	158.99	3.5	1.231	275.89	4.9	6.023	590.64	8.1	30.218
RES14	106.3	124.78	3.1	.611	244.91	4.5	4.41	568.34	7.9	28.476
RES15	59.4	78.55	2.6	.168	203.04	4.1	2.534	538.19	7.6	26.822
RES16	89	107.73	2.9	.41	229.46	4.4	3.662	557.21	7.8	28.476
RES17	72.5	91.46	2.7	2.62	214.73	4.2	3.044	546.61	7.7	26.822

KEY

Soil concentrations presented in mg/kg.

Assumes mass fraction of soil in indoor dust (MSD) is 70%.

BLL

Blood lead level; target BLL = 10 ug/dl.

GM

Geometric mean BLL (ug/dl).

TWA

Time-weighted average

Low Activity

1 day/wk, 0.4 hours onsite

Medium Activity

High Activity

ug/dl

mg/kg

day/wk

3 days/wk, 1 hour onsite

5 days/wk, 2 hours onsite

micrograms per deciliter

milligrams per kilogram

days per week

Table 8: Predicted Percent Above Criteria For Various Exposure Frequencies - Additional Medium Ingestion Rates

		Low Activity			Medium Activity			High Activity		
Resident	Average Yard Soil Concentration	Soil TWA	GM	% above target BLL	Soil TWA	GM	% above target BLL	Soil TWA	GM	% above target BLL
RES01	414.2	428.28	7.2	22.362	519.82	8.2	32.051	766.27	10.8	52.707
RES02	105.7	124.19	3.4	.973	244.37	5.0	6.412	567.95	8.8	35.995
RES03	110	128.43	3.4	1.032	248.21	5.0	6.826	570.71	8.8	35.995
RES04	314.9	330.40	6.1	13.617	431.16	7.2	23.767	702.44	10.2	47.492
RES05	114.3	132.67	3.5	1.161	252.05	5.1	6.826	573.48	8.8	38.108
RES06	159.1	176.83	4.1	2.693	292.05	5.6	9.95	602.28	9.1	40.315
RES07	97.9	116.50	3.3	.816	237.41	4.9	6.023	562.94	8.7	35.995
RES08	350.7	365.69	6.5	16.422	463.12	7.6	26.822	725.45	10.4	50.06
RES09	1530	1528.14	17.2	86.106	1516.07	17.1	83.628	1483.57	16.8	83.628
RES10	121	139.27	3.6	1.307	258.04	5.1	7.268	577.79	8.9	38.108
RES 11	413.5	427.59	7.2	22.362	519.20	8.2	32.051	765.82	10.8	52.707
RES12	126.7	144.89	3.7	1.472	263.12	5.2	7.739	581.45	8.9	38.108
RES 13	141	158.99	3.8	1.987	275.89	5.4	8.774	590.64	9.0	38.108
RES14	106.3	124.78	3.4	.973	244.91	5.0	6.412	568.34	8.7	35.995
RES15	59.4	78.55	2.7	.262	203.04	4.4	3.895	538.19	8.4	33.976
RES16	89	107.73	3.1	.648	229.46	4.8	5.315	557.21	8.7	35.995
RES17	72.5	91.46	2.9	.388	214.73	4.6	4.693	546.61	8.5	33.976

KEY

Soil concentrations presented in mg/kg.

Assumes mass fraction of soil in indoor dust (MSD) is 70%.

BLL

Blood lead level; target BLL = 10 ug/dl.

GM

Geometric mean BLL (ug/dl).

TWA

Time-weighted average

Low Activity

1 day/wk, 0.4 hours onsite

Medium Activity

High Activity

ug/dl

mg/kg

day/wk

3 days/wk, 1 hour onsite

5 days/wk, 2 hours onsite

micrograms per deciliter

milligrams per kilogram

days per week

Table 9: Predicted Percent Above Criteria For Various Exposure Frequencies - Additional High Ingestion Rates

		Low Activity			Medium Activity			High Activity		
Resident	Average Yard Soil Concentration	Soil TWA	GM	% above target BLL	Soil TWA	GM	% above target BLL	Soil TWA	GM	% above target BLL
RES01	414.2	428.28	11.5	58.21	519.82	13.1	69.73	766.27	17.0	83.628
RES02	105.7	124.19	5.0	6.412	244.37	7.8	28.476	567.95	13.9	72.626
RES03	110	128.43	5.1	6.826	248.21	7.9	28.476	570.71	13.9	72.626
RES04	314.9	330.40	9.6	45.01	431.16	11.5	58.21	702.44	16.0	81.015
RES05	114.3	132.67	5.2	7.739	252.05	7.9	30.218	573.48	14.0	72.626
RES06	159.1	176.83	6.2	14.496	292.05	8.8	35.995	602.28	14.5	75.489
RES07	97.9	116.50	4.8	5.315	237.41	7.6	26.822	562.94	13.8	72.626
RES08	350.7	365.69	10.3	50.06	463.12	12.1	63.922	725.45	16.4	83.628
RES09	1530	1528.14	26.1	96.819	1516.07	26.0	96.818	1483.57	25.6	96.818
RES10	121	139.27	5.3	8.774	258.04	8.1	30.218	577.79	14.1	72.626
RES11	413.5	427.59	11.5	58.21	519.20	13.1	69.73	765.82	17.0	83.628
RES12	126.7	144.89	5.5	9.344	263.12	8.2	32.051	581.45	14.1	72.626
RES13	141	158.99	5.8	12.013	275.89	8.5	33.976	590.64	14.3	75.488
RES14	106.3	124.78	5.0	6.412	244.91	7.8	28.476	568.34	13.9	72.626
RES15	59.4	78.55	3.8	1.871	203.04	6.9	19.777	538.19	13.4	69.73
RES16	89	107.73	4.6	4.41	229.46	7.5	25.253	557.21	13.7	72.626
RES17	72.5	91.46	4.1	2.863	214.73	7.1	22.362	546.61	13.5	69.73

KEY

Soil concentrations presented in mg/kg.

Assumes mass fraction of soil in indoor dust (MSD) is 70%.

BLL Blood lead level; target BLL = 10 ug/dl.

GM Geometric mean BLL (ug/dl).

TWA Time-weighted average

Low Activity 1 day/wk, 0.4 hours onsite

Medium Activity

High Activity

ug/dl

mg/kg

day/wk

3 days/wk, 1 hour onsite

5 days/wk, 2 hours onsite

micrograms per deciliter

milligrams per kilogram

days per week

Table 10: Risk Characterization Summary - Non-Carcinogens: Youth Trespasser								
Scenario Timeframe:		Current						
Receptor Population:		Trespasser						
Receptor Age:		Youth						
Medium	Exposure Medium	Exposure Point	Chemical of Concern	Primary Target Organ	Non-Carcinogenic Hazard Quotient			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Soil/ hot spot	Soil Onsite-Direct Contact	Antimony	Circulatory	1.0E00	N/A	3.2E 00	1.4E+1
Total Receptor Hazard Index								1.4E+1
Total Circulatory Hazard Index								1.4E+1

Reference: Human Health Risk Assessment (Hill, 2002) table 10.2a.

Table 11: Risk Characterization Summary - Non-Carcinogens: Adult Recreator								
Scenario Timeframe:		Future						
Receptor Population:		Recreational						
Receptor Age:		Adult						
Medium	Exposure Medium	Exposure Point	Chemical of Concern	Primary Target Organ	Non-Carcinogenic Hazard Quotient			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Soil/ hot spot	Soil Onsite-Direct Contact	Antimony	Circulatory	1.1E+1	N/A	1.2E00	1.3E+1
Total Receptor Hazard Index								1.3E+1
Total Circulatory Hazard Index								1.3E+1

Reference: Human Health Risk Assessment (Hill, 2002) table 10.10a.

Table 12: Risk Characterization Summary - Non-Carcinogens: Child Recreator								
Scenario Timeframe:		Future						
Receptor Population:		Recreator						
Receptor Age:		Child						
Medium	Exposure Medium	Exposure Point	Chemical of Concern	Primary Target Organ	Non-Carcinogenic Hazard Quotient			
					Ingestion	Inhalation	Dermal	Exposure Routes Total
Soil	Soil	Soil Onsite-Direct Contact	Antimony	Circulatory	1.4E00	N/A	2.7E-01	1.6E00
Soil	Soil/ hot spot	Soil Onsite-Direct Contact	Antimony	Circulatory	4.0E+1	N/A	7.7E 00	4.8E+1
Soil	Soil/Slag	Soil Onsite-Direct Contact	Antimony	Circulatory	1.1E 00		2.1E-01	1.3E00
Total Receptor Hazard Index-soils								1.6E00
Total Circulatory Hazard Index-soils								1.6E00
Total Receptor Hazard Index-hot spots								4.8E+1
Total Circulatory Hazard Index-hot spots								4.8E+1
Total Receptor Hazard Index-slag								1.3E00
Total Circulatory Hazard Index-slag								1.3E00

Reference: Human Health Risk Assessment (Hill, 2002) tables 10.9a, 10.11a, and 10.13a.

Table 13: Detailed cost estimate for Alternative 4 - Stabilization and Offsite Disposal.

REMEDIAL ALTERNATIVE COST SUMMARY
 ALTERNATIVE 4 - STABILIZATION MO OFFSITE DISPOSAL
 RUSTON FGUNBY
 FEBRUARY 2002

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	WBS	PERCENTILE	COMMENT	
CAPITAL COSTS								
Mobilization								
Construction Equipment and Facilities	1	aadi	\$ 14,344	\$ 14,344	331-01-01-00	Median		
Mobilization Personnel	1	aadi	\$ 7,039	\$ 7,039	331-01-02-00	Median		
Submittals/Implementation Plans	1	aadi	\$ 7,780	\$ 7,780	331-01-03-00	Median		
Setup/Construct Temporary Facilities	1	aadi	\$ 80,773	\$ 80,773	331-01-04-00	Median		
Monitoring, Sampling, Testing and Analysis								
Air Monitoring and Sampling	1	aadi	\$ 7,110	\$ 7,110	331-02-03-00	Median		
Soil Sampling	120	each	\$ 272	\$ 32,633	331-02-05-00	Median	20 confirmation samples per acre	
Laboratory Chemical Analysis	120	aadi	\$ 286	\$ 34,320	331-02-09-00	Median	20 confirmation samples per acre	
Site Work								
Demolition	1930	icf/areyard	\$ 21	\$ 37,764	331-03-01-00	Median		
Clearing and Grubbing	6.6	acre	\$ 6,508	\$ 42,953	331-03-02-00	Median		
Water Well Plug and Abandon	1	aadi	\$ 2,048	\$ 2,048	NA	NA		
Surface Water Collection and Control								
Excavation	6.6	acre	\$ 13,137	\$ 86,702	33KIHM0	Median		
Air Pollution Control and Containment								
Fugitive Dust/Vapor/Gas Emissions Control	6.6	acre	\$ 13,903	\$ 91,758	ffil-0741-00	Median		
Soil Collection and Containment								
Contaminated Soil Collection	15000	cube yard	\$ 10	\$ 150,000	331-08-01-00	Median	Excavate and contain contaminated material	
Capping of Contaminated Area (soil/asphalt)	0	sq ft	\$ 301,882	\$ -	331-08-05-00	75th%		
Drums/Tanks/Structures/Misc. Demolition and Removal								
Tank Removal	1	aadi	\$ 8,378	\$ 8,378	SOT	331-10-02-00	Remove/Dispose of UST/liquid tanks	
Structure Removal	8808	sq ft	\$ 12	\$ 105,696	33MMMO	Median	Remove Buildings/Debris	
Asbestos Abatement	6030	square ft	\$ 11	\$ 66,330	E72D	331-10-04-00	Remove/Dispose Asbestos	
Stabilization/Fixation/Encapsulation								
Stabilization Process (Umicore/Cemert)	1500	cube yards	\$ 33	\$ 49,500	331-15-04-00	Median	Stabilize TCLP Waste	
Disposal (Other than Commercial)								
Landfill/Burn/Other Treatment/Disposal	0	cubic yards	\$ -	\$ -	33MM1-00	Median	Construct Containment Cell	
Disposal (Commercial)								
Transport to Storage/Disposal Facility	16030	Ton	\$ 55	\$ 881,650	331-19-21-00	Median	RCRAD Facility	
Disposal Fee and Taxes	16000	Ton	\$ 96	\$ 1,536,000	331-19-22-00	Median	RCRAD Facility	
Transport to Disposal Facility	0	Ton	\$ 246	\$ -	331-19-21-00	75th%		
Disposal Fees and Taxes	0	Ton	\$ 214	\$ -	331-1MM0	75th%		
Site Remediation								
Earthwork	19000	cubic yard	\$ 13.5	\$ 256,500	331-20-01-00	Median	Backfill Excavated Areas	
Revegetation and Planting	66	acre	\$ 6,706	\$ 442,596	331-20-04-00	Median	Revegetate Excavated Areas	
Demolition/Removal								
Removal of Temporary Facilities	1	aadi	\$ 5,288	\$ 5,288	331-21-01-00	Median		
Removal of Temporary Utilities	1	aadi	\$ 2,574	\$ 2,574	ffil-21-CWID	Median		
Final Decontamination	1	aadi	\$ 21,716	\$ 21,716	33121-03-00	Median		
Demobilization of Construction Equipment	1	aadi	\$ 8570	\$ 8,570	BJ7D	331-21-04-00	Median	
Demobilization of Personnel	1	aadi	\$ 5,997	\$ 5,997	331-21-05-00	Median		
Submittals/Implementation Plans	1	each	\$ 4,701	\$ 4,701	331-2WMO	Median		
SUBTOTAL				\$ 3,355,693				
Contingency				\$ 838,923	101 scope 4 15% bid			
SUBTOTAL				\$ 4,194,616				
Project Management				\$ 209,731				
Remedial Design				\$ 335,589				
Construction Management				\$ 251,677				
Institutional Controls Plan				\$ 5,000				
Site Information Database				\$ 4,800				
TOTAL CAPITAL COST				\$ 4,790,713				

Table 13: continued.

**REMEDIAL ALTERNATIVE COST SUMMARY
ALTERNATIVE 4, STABILIZATION AND OFFSITE DISPOSAL
RUSTOH FOUNDRY
FEBRUARY 2002**

DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	COMMENTS	
ANNUAL O&M COSTS						
Site Monitoring						
Surface Water Sampling	d	quarter	\$ 1,000	\$ -	Estimated Unit Cost Erin-Bled Unit Cost Estimated Unit Cost Estimated Unit Cost	
Surface Water Lab Analysis	0	quarter	1200	\$ -		
Groundwater Sampling	a	quarter	1200	\$ -		
Groundwater Lab Analysis	0	quarter	1230	\$ -		
Site Maintenance						
Mowing	0	months	\$ 300	\$ -		
SUBTOTAL				\$ -		
Contingency		m		\$ -	10% scope + 20% bid	
SUBTOTAL				\$ -		
Project Management		5%		\$ -		
Technical Support		10%		\$ -		
Institutional Controls	a	each	\$ 3,800	\$ -		
TOTAL ANNUAL OSM COSTS				\$ -		
DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL	COMMENTS	
PERIODIC COSTS						
Year 0						
5-Year Review report	a	each	\$ 26,000	\$ -	1 Report End of Year 6 180 H @ \$1(W+\$800 mobil/mob) % of construction activities % of construction + contingency	
Well/Institutional Controls Plan	S	each	\$ 460	\$ 2,300		
Contingency (% of sum)		26%		\$ STB		
Project Management (% of sum * on st)		5%		\$ 144		
Final Remedial Action Report	1	each	\$ 8,000	\$ 8,000		
Subtotal				\$ 11,018		
Year 5						
5-Year Review report	0	each	\$ 15,000	\$ -	1 Report End of Year 10	
Update Institutional Controls Plan	a	each	\$ 2,800	\$ -	1 Report End of Year 10	
Subtotal				\$ -		
Year 10						
5-Year Review report	9	each	\$ 15,000	\$ -	1 Report End of Year 15	
Update Institutional Controls Plan	0	each	\$ 2,800	\$ -	1 Report End of Year 15	
Subtotal				\$ -		
Year 15						
5-Year Review report	a	each	\$ 15,000	\$ -	1 Report End of Year 20	
Update Institutional Controls Plan	a	each	\$ 2,300	\$ -	1 Report End of Year 20	
Subtotal				\$ -		
Year 20						
5-Year Review report	0	each	\$ 16,030	\$ -	1 Report End of Year 26	
Update Institutional Controls Plan	0	each	\$ 2,100	\$ -	1 Report End of Year 26	
Subtotal				\$ -		
Year 25						
5-Year Review report	0	each	\$ 15,000	\$ -	1 Report End of Year 30	
Vital Abandonment	a	each	\$ 460	\$ -	153 ft @ \$101+\$800 mobil/mob	
Contingency (% of sum)		15%		\$ -	% of construction activities	
Project Management (% of sum * on st)		5%		\$ -	% of construction + contingency	
Remedial Action Report	a	each	\$ 8,000	\$ -		
Subtotal				\$ -		
TOTAL PERIODIC COSTS				\$ 11,019		
DESCRIPTION	YR	TOTAL COST	TOTAL COST PER YEAR	DISCOUNT FACTOR (1%)	PRESENT VALUE	COMMENTS
PRESENT VALUE ANALYSIS						
Capital Cost	a	\$ 4,996,383	\$ 4,996,383	1.000	3	4,966,383
Annual O&M Cost	1 to 2	\$ -	\$ -	1.000	3	1,808.5
Periodic Cost	a	\$ 11,019	\$ 11,019	1.000	j	11,019
Periodic Cost	10	\$ -	\$ -	0.508	%	-
Periodic Cost	15	\$ -	\$ -	0.323	\$	-
Periodic Cost	20	\$ -	\$ -	0.208	\$	-
Periodic Cost	25	\$ -	\$ -	0.184	\$	-
Periodic Cost	30	\$ -	\$ -	0.131	%	-
SUBTOTAL		\$ 5,007,412				\$ 5,007,412

Table 14 - Cleanup Levels for Chemicals of Concern

Media: Soil
Site Area: Waste Area
Available Use: Recreational/Commercial
Controls to Ensure Restricted Use (if applicable): N/A

Chemical of Concern	Cleanup Level	Basis for Cleanup Level	Risk At Cleanup Level
Antimony	150 mg/kg ¹	Risk Assessment	HI= 1
Lead	500 mg/kg ¹	Risk Assessment	< 5% exceed 10µg/dl blood lead level
Antimony	LA SPLP ²	LA criteria for protection of ground water	N/A
Lead	LA SPLP ²	LA criteria for protection of ground water	N/A

Notes

- 1 - cleanup levels presented in this table are based on the risk associated with exposure to soil contamination through direct contact and ingestion by future onsite recreators.
- 2 - soil that exceeded the Louisiana screening criteria for concentrations protective of ground water

The purpose of this response action is to control risks posed by direct contact with soil and to minimize migration of contaminants to ground water. The results of the baseline risk assessment indicate that existing conditions at the Site pose a noncarcinogenic health concern due to antimony exceeding a HI of 1. The Site also poses a risk to children due to the concentration of lead at levels that could result in a greater than 5% chance of exceeding 10µg/dl blood lead level. This remedy shall address all soils contaminated with antimony in excess of 150 mg/kg and lead in excess of 500 mg/kg.

Table 15: Location-Specific ARARs.

Federal	
Requirement	Justification
Executive Order on Floodplain Management, Order No. 11988	Requires all federal agencies and associates to avoid long- and short-term adverse impacts associated with occupancy and modification of floodplains. Any actions taken to reduce the risk or impact of remedial actions should accomplish the following: (1) Reduce the risk of flood loss. (2) Minimize the impacts of floods on human safety, health, and welfare. (3) Restore and preserve the natural and beneficial values served by floodplains. This requirement is applicable only if the site lies within the 100-year floodplain or the remedy impacts a 100-year floodplain. The Ruston Foundry Site lies within a 100-year floodplain and this order is applicable to the Site.
Fish and Wildlife Coordination Act 16USC§661etseq. 16 USC §742 a 16 USC §2901	Requires consultation when a modification of a stream or other water body is proposed or authorized and requires adequate provision for protection of fish and wildlife resources. Relevant and appropriate to Ruston Foundry Site for removal of contaminated soils along the Chatlin Lake Canal and Mill Street Ditch.
Archeological and Historic Preservation Act 16USC §469 40 CFR § 6.301©	Establishes procedures to provide for preservation of scientific, historical, and archeological data that might be destroyed through alteration of terrain as a result of a federal construction project or a federally licensed activity or program. If scientific, historical, or archaeological artifacts are discovered at the site, work in the area of the Site affected by such discovery will be halted pending the completion of any data recovery and preservation activities required pursuant to the act and its implementing regulations. Would be applicable at Ruston Foundry Site during the remedial activities if scientific, historic, or archeological artifacts are identified during implementation of the remedy.
Endangered Species Act 16 USC §153 let. seq. 50 CFR Part 402	Requires that proposed action minimize impacts on endangered species within critical habitats upon which endangered species depend, including consulting with Department of Interior. Endangered or threatened species have not been identified at the Site; however, the Act may be an applicable ARAR for the Ruston Foundry Site if endangered species are identified during remedial action.
State	

Louisiana Historical Preservation Act
RS 36:208

The Ruston Foundry Site would be archaeologically significant and this Act would be applicable if remains were discovered that yield information about the nations history or prehistory.

Table 16: Contaminant-Specific ARARs.

Federal	
Requirement	Justification
Clean Air Act (CAA) 40 CFR Part 61	The CAA is the primary federal legislation protecting air quality. National Primary and Secondary Ambient Air Quality Standards (NAAQS), National Emission Standards for Hazardous Air Pollutants (NESHAP), and the New Source Performance Standards (NSPS) are promulgated by the EPA under the CAA. Relevant and appropriate to Ruston Foundry.
National Primary and Secondary Air Quality Standards (NAAQS) 40 CFR, Part 50	The NAAQS specify the maximum concentration of a federally regulated air pollutant (i.e., SO ₂ , particulate matter (PM ₁₀), NO ₂ , CO, ozone, and lead) in an area resulting from all sources of that pollutant. No new construction or modification of a facility, structure or installation may emit an amount of any criteria pollutant that will interfere with the attainment or maintenance of a NAAQS (see 40 CFR § 51.160). For the federal NAAQS, all measurements of air quality are corrected to a reference temperature of 25°C and to a reference pressure of 760mm Hg (1,013.2 millibars). 40 C.F.R. § 50.3. May be applicable during the excavation and demolition activities at Ruston Foundry.
Solids	
Hazardous substances 40 CFR Part 11 6.3 and 11 6.4	Establishes reporting requirements for certain discharges of reportable quantities of hazardous substances. Creates no substantive clean up requirement. May be relevant and appropriate to the Ruston Foundry Site based on the chosen remedial alternative and if discharges of reportable quantities of hazardous substances occur during implementation of the remedy.
State	
Solids - To be Considered	
Hazardous Waste determination 33 LAC: V.I 103	Guidelines for generators to determine if a solid waste is a hazardous waste. Applicable to the soils to be excavated at Ruston Foundry, which may or may not be hazardous by characteristic.

Table 17: Action-Specific ARARs.

Federal

Air

Toxic Substances Control Act (TSCA)
Asbestos Abatement Projects
40CFR§763.121

Specifies operational and personal protection requirements for asbestos abatement workers not covered under 29 CFR 1925.58 or under an OSHA-approved state asbestos abatement plan. May be relevant and appropriate to the Ruston Foundry Site.

Clean Air Act (CAA) §112
40CFRPart61

Specifies asbestos and inorganic arsenic as hazardous air pollutants. The asbestos requirement would be applicable to the Ruston Foundry Site during the abatement activities. The inorganic arsenic requirements are for facilities not sufficiently similar to Ruston Foundry and therefore are not ARARs.

National Emission Standards for
Hazardous Air Pollutants (NESHAPs)
Standards for Asbestos Abatement
40 CFR Part 61.147 and 61.156

Provides procedures for controlling the emissions of asbestos during demolition and disposal activities. These requirements would be applicable to the Ruston Foundry Site during asbestos abatement activities.

Asbestos Standards for Demolition and
Renovation
40 CFR Part 61.145

Specifies national standards for asbestos abatement during demolition or renovation. Applicable to Ruston Foundry during removal of asbestos-containing materials.

Prevention of Significant Deterioration of
Air Quality
42 USC § 7475
40 CFR § 52.21

These provisions impose various requirements (e.g., use of best available control technology) on any new major stationary source of a federally regulated air pollutant in an area that has been designated attainment or unclassifiable for that pollutant. A "major stationary source" is a source listed in 40 CFR § 52.21 that emits, or has the potential to emit, 100 tons per year of a federally regulated air pollutant or any non-listed source that emits, or has the potential to emit, 250 tons per year of a federally regulated air pollutant. Activities at Ruston Foundry are not expected to constitute a major stationary source of any federally regulated air pollutant, but this requirement is relevant and appropriate.

Water

<p>Stormwater Regulations 40 CFR Parts 122,125</p>	<p>National Pollution Discharge Elimination System (NPDES) permits are addressed relative to stormwater discharges associated with industrial activity. These regulations require the development and implementation of a stormwater pollution prevention plan or a stormwater best management plan. Monitoring and reporting requirements for a variety of facilities are outlined. Runoff from construction activities at the Ruston Foundry Site would make this an applicable requirement depending on the nature of the remedial action selected.</p>
<p>Soils/Solids</p>	
<p>Toxic Substances and Control Act (TSCA) Regulations Regarding the Disposal of Polychlorinated Biphenyls (PCBs) 40 CFR Part 761</p>	<p>Requires that all PCBs in concentrations greater than 500 parts per million (ppm) be disposed of by incineration, and PCBs in concentrations between 50 ppm and 500 ppm may be disposed of by incineration or in a chemical waste landfill as defined at 40 CFR 761.75. These requirements are applicable to the Ruston Foundry Site.</p>
<p>Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities 40 CFR Part 264 Subparts B, C, D and G</p>	<p>Subparts B, C, and D establish minimum standards that define the acceptable management of hazardous waste for owners and operators of facilities that treat, store, or dispose of hazardous waste. Subpart G establishes standards for closure and postclosure care for site design and operation. These standards will be relevant and appropriate to Ruston Foundry if wastes onsite are identified as RCRA hazardous wastes or are sufficiently similar to RCRA hazardous wastes.</p>
<p>Use and Management of Containers Tank Systems 40 CFR Part 264 Subparts I and J</p>	<p>Subpart I sets operating and performance standards for container storage of hazardous waste. These requirements would be relevant and appropriate to Ruston Foundry for containers used for storage of liquids, soil, or other wastes as part of the remedial action. Subpart J outlines similar standards but applies to tanks rather than containers.</p>

<p>Land Disposal Restrictions (LDRs) 40 CFR Part 268 Subpart C - Prohibitions on Land Disposal Subpart D - Treatment Standards</p>	<p>40 CFR Part 268 establishes restrictions on land disposal unless treatment standards are met or a "no migration exemption" is granted. LDRs establish prohibitions, treatment standards, and storage limitations before disposal for certain wastes as set forth in Subparts C and D. Treatment standards are expressed as either concentration-based performance standards or as specific treatment methods. Wastes must be treated according to the appropriate standard before wastes or the treatment residuals of wastes may be disposed in or on the land. The Universal Treatment Standards (UTS) establish a concentration limit for 300 regulated constituents in soil regardless of waste type. The LDRs are applicable to Ruston Foundry.</p>
<p>Requirements for Identification and Listing of Hazardous Wastes 40 CFR Part 261</p>	<p>These regulations establish the requirements for the identification and listing of hazardous wastes. These requirements are applicable to the Ruston Foundry Site and would require that potential hazardous wastes be tested for identification and listed if appropriate.</p>
<p>Standards Applicable to Generators and Transporters of Hazardous Waste 40 CFR Part 262 and Part 263</p>	<p>Part 262 establishes the record keeping requirements and manifesting requirements for the transport of hazardous wastes. Part 263 establishes requirements for the transport of hazardous wastes. These requirements would be applicable to the Ruston Foundry Site if hazardous wastes are shipped offsite for disposal.</p>
<p>Department of Transportation Requirements Governing the Transportation of Hazardous Materials 49 CFR Parts 107 and 171-179</p>	<p>Establishes the requirements for the transportation of hazardous materials as defined by the U. S. Department of Transportation. These requirements would be applicable to the Ruston Foundry Site if hazardous materials are transported offsite for disposal.</p>
<p>Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs), and Requirements for Out-of-Service Underground Storage Tank Systems and Closure 40 CFR 280 Subpart G</p>	<p>Establishes the requirements for closure and corrective action related to the removal of UST systems. These requirements would be relevant and appropriate for the removal of the UST at the Ruston Foundry Site.</p>
<p>State</p>	

Air	
Control of Fugitive Emissions 33LAC:III.1305	Requires that all reasonable precautions shall be taken to prevent particulate matter from becoming airborne, including use of water or chemicals for control of dust in the demolition of existing structures, construction operations, clearing of land, and on dirt roads or stockpiles. Applicable during the demolition of buildings, excavation and transport of soils, or any other activity that may generate airborne particulate matter at Ruston Foundry.
Monitoring Well Abandonment and Sealing of Bore Holes 33 LAC:V.3323	Specifies abandonment procedures and requirements for abandonment approval. Applicable to Ruston Foundry Site during the abandonment of the monitoring wells installed onsite.
Louisiana Department of Transportation and Development -Water Well Enforcement Program (Construction and Plugging Standards) RS:3091-3098.8	Specifies standards for construction and plugging of water wells to minimize chances of contaminating groundwater resources via improper construction or abandonment of water wells and minimize health and safety hazards associated with construction of water wells and with unplugged or improperly abandoned wells and holes. Applicable to Ruston Foundry Site for the abandonment of the existing water well.
Surface Water Criteria 33LAC:XI.1113	Outlines surface water quality criteria for the state of Louisiana to promote restoration, maintenance, and protection of state waters and wetlands. Applicable to the Chatlin Lake Canal, and Mill Street Ditch.
Solids	
Temporary Units 33 LAC:V.2603	Definition and requirements associated with Temporary Units designated at a facility. May be applicable if hazardous soils at Ruston Foundry are temporarily stored onsite prior to disposal.
Corrective Action 33 LAC:V.3322	States that the owner or operator of a facility for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment both onsite and offsite for all releases of hazardous wastes or constituents from any solid waste management unit. Applicable to Ruston Foundry if the remedy results in an onsite or offsite release of hazardous wastes or constituents from a waste management unit.

Manifest Requirements 33 LAC:V.903	Required information for manifest forms for shipments of hazardous waste within the state of Louisiana. Applicable if hazardous soils at Ruston Foundry are shipped to an offsite disposal facility.
Manifest Document Flow 33 LAC:V.913	Outlines manifest document flow and procedures from the generator, transporter, and hazardous waste facility operator. Applicable if hazardous soils at Ruston Foundry are shipped to an offsite disposal facility.
EPA Identification Numbers 33LAC:V.1105	EPA identification number requirements for generators, a generator must not treat, store, dispose of, transport or offer for transportation hazardous waste without receiving an active EPA identification number. Relevant and appropriate to Ruston Foundry if disposing onsite or transporting hazardous soils offsite.
The Manifest System 33LAC:V.1107	Specific manifest requirements for generators of hazardous waste. Applicable to Ruston Foundry if hazardous soils are shipped offsite.
Manifest System Emergency Response Information 33LAC:V.1108	Generators must provide guidelines for an emergency situation involving the hazardous waste to accompany the manifest. Applicable to Ruston Foundry if hazardous soils are shipped offsite.
Pre-Transport Requirements 33LAC:V.1109	Packaging, labeling, and other requirements for generators prior to shipment of hazardous wastes. Applicable to Ruston Foundry if hazardous soils are shipped offsite.
Standards Regulating Permanent Closure and Change-in-service of USTs LAC 33:XI.905	Establishes the requirements for closure and corrective action related to the removal of UST systems. These requirements would be relevant and appropriate for the removal of the UST at the Ruston Foundry Site.
To Be Considered	
Standards Governing Industrial Solid Waste Generators 33LAC:Vn.701.B	States requirements for generator notification and waste testing confirming waste is not a characteristic or listed hazardous waste as defined by 33 LAC:Part V or by federal regulations. May be applicable to Ruston Foundry if industrial solid wastes are shipped offsite for disposal.

Figure 2: Site Map

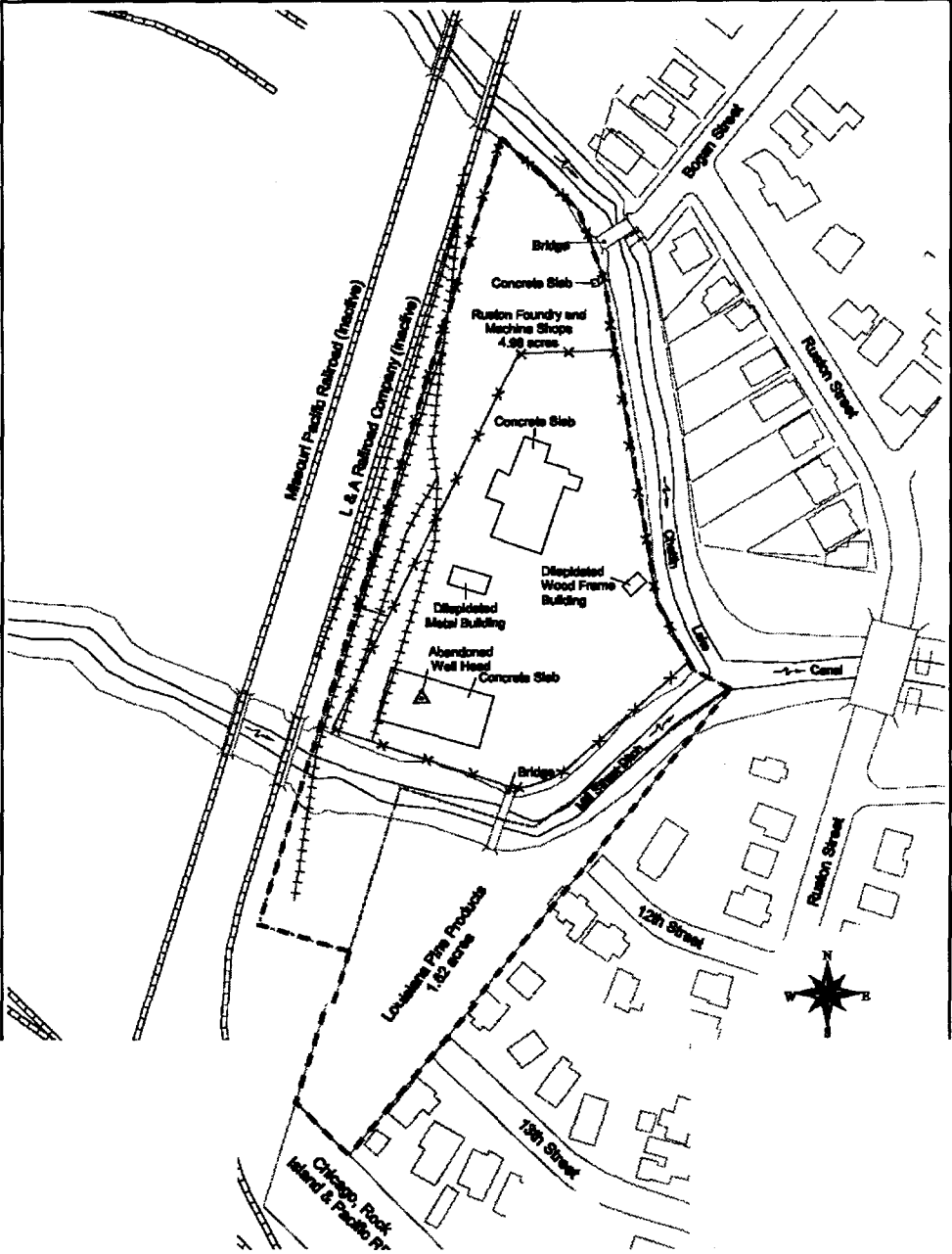


Figure 3: Stratigraphic Section

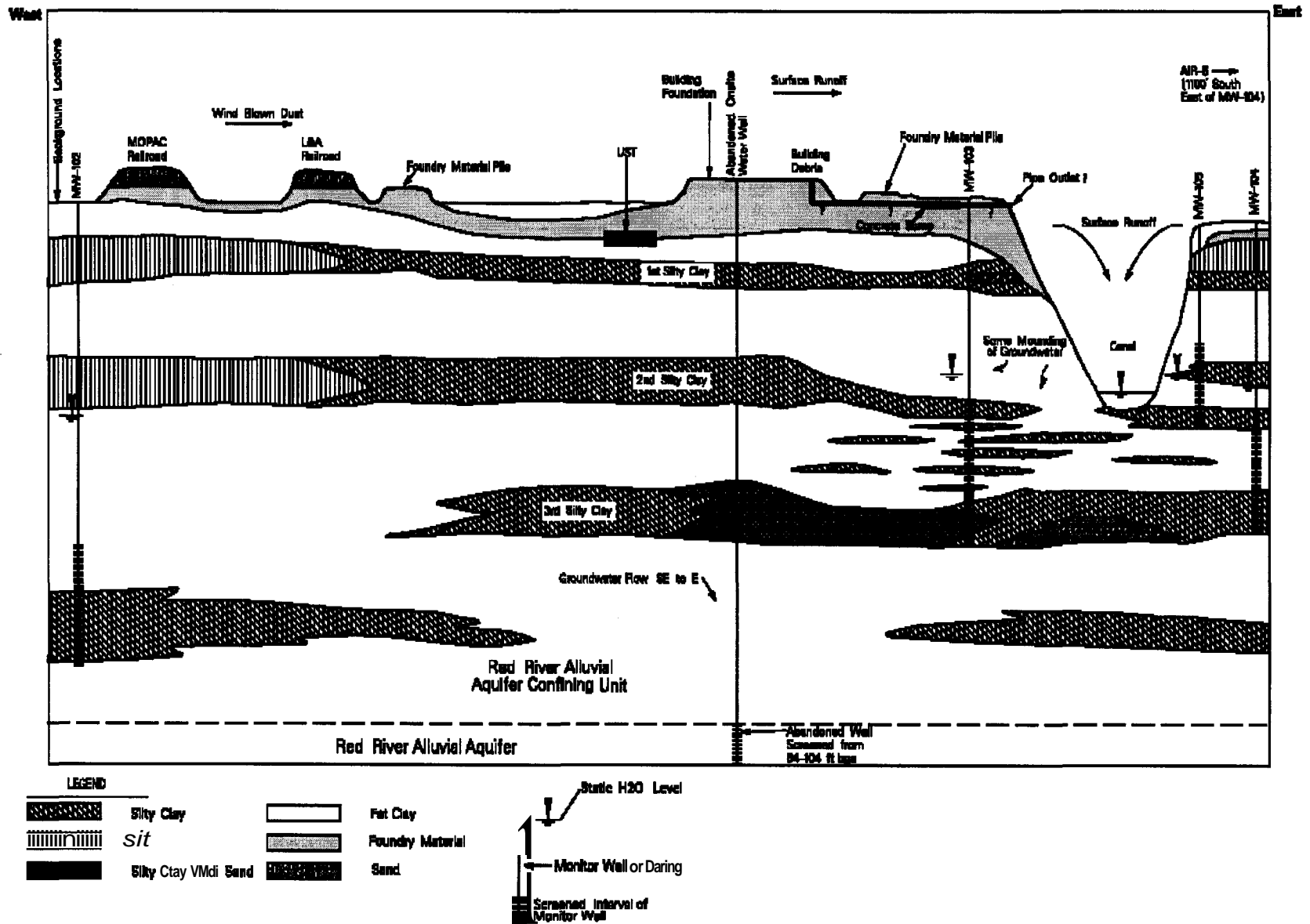
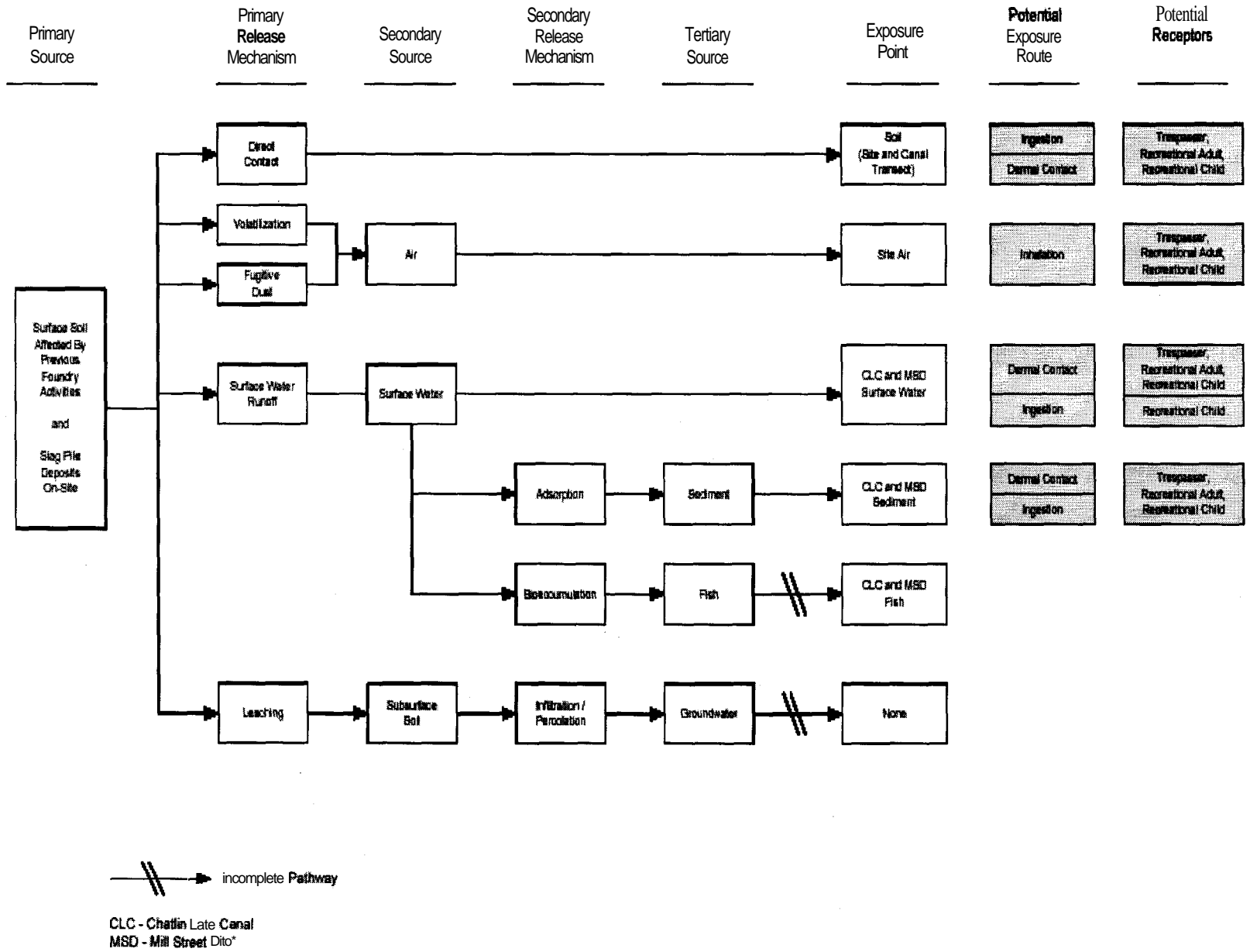


Figure 4: Conceptual Site Model

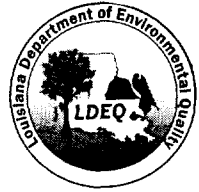


Appendix A: Record of Communication from
Louisiana Department of Environmental Quality



State of Louisiana

Department of Environmental Quality



M.J. "MIKE" FOSTER, JR.
GOVERNOR

J. DALE GIVENS
SECRETARY

June 17, 2002

Ms. Katrina Coltrain, Remedial Project Manager
6SF-LP
US ERA, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

RE: Ruston Foundry Site, CERCLIS #: LAD 985 185 107; **AI 12443**
Bogan Street, Alexandria, Rapides Parish, Louisiana
Draft Record Of Decision dated June 4, 2002

Dear Ms. Coltrain:

The Louisiana Department of Environmental Quality - Remediation Services Division (LDEQ-RSD) has reviewed the Draft Record of Decision dated June 4, 2002.

The LDEQ-RSD supports the remedy selected (Alternative 4) and described in the Draft Record of Decision dated June 4, 2002, and offers the following comment:

1. On Page 30 of 34 of the Draft ROD, tenth bullet item: "The excavated areas will be backfilled with clean fill and compacted".

There did not appear to be any reference to confirmatory sampling from soils left in place in order to verify that the goals of the alternative have been accomplished. Possibly a statement could be inserted that explains that **confirmatory samples** will be obtained from the soils remaining (prior to backfilling and compacting) to ensure that the concentration of antimony has been reduced 150 mg/kg and/or less than the LA SPLP; and that confirmatory samples will be obtained from the soils remaining (prior to backfilling and compacting) to ensure that the concentration of lead has been reduced to 500 mg/kg and/or less than the LA SPLP.

Thank you for allowing us to comment on this draft Record of Decision (ROD). If you have any questions, please call me at 225-765-0479 or email at nora_l@ldeq.org.

Sincerely,

Nora Lane, Environmental Scientist
Remediation Services Division

nl

c: LDEQ File Scanning Room 1400- IAS

RECEIVED
02 JUN 28 AM 8:11
STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
REMEDIATION SERVICES DIVISION



recycled paper



Appendix B: Administrative Record Index

Prepared for
United States Environmental Protection Agency

Region 6

FINAL
ADMINISTRATIVE RECORD INDEX

for

RUSTON FOUNDRY
SUPERFUND SITE

EPA ID No. LAD985185107

ESS II
Task Order No. 083-017

Katrina Coltrain
Remedial Project Manager
U.S. EPA Region 6

Prepared by:

TechLaw, Inc.
750 N. St. Paul Street, Suite 600
Dallas, Texas 75201

June 28, 2002

PREAMBLE

The purpose of this document is to provide the public with an index to the Administrative Record (AR) for a U.S. Environmental Protection Agency's (EPA) selected remedial action to respond to conditions at the Ruston Foundry Superfund site (the "Site"). EPA's remedial action is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9601 et seq.

Section 113 (j)(1) of CERCLA, 42 U.S.C. Section 9613 (j)(1), provides that judicial review of the adequacy of a CERCLA response action shall be limited to the administrative record. Section 113 (k)(1) of CERCLA, 42 U.S.C. Section 9613 (k)(1), requires the EPA to establish an administrative record upon which it shall base the selection of its remedial actions. As the EPA decides what to do at the site of a release of hazardous substances, it compiles documents concerning the site and the EPA's decision into an "administrative record file." This means that documents may be added to the administrative record file from time to time. Once the EPA Regional Administrator or the Administrator's delegate signs the Record of Decision memorializing the selection of the action, the documents which form the basis for the selection of the response action are then known as the "administrative record."

Section 113(k)(1) of CERCLA requires the EPA to make the administrative record available to the public at or near the site of the response action. Accordingly, the EPA has established a repository where the record may be reviewed near the Site at:

Rapids Parish Library
411 Washington Street
Alexandria, LA 71301
(318) 442 -1840

The public may also review the administrative record at the EPA Region 6 offices in Dallas, Texas, by contacting the Remedial Project Manager at the address listed below. The record is available for public review during normal business hours. The record is treated as a non-circulating reference document. Any document in the record may be photocopied according to the procedures used at the repository or at the EPA Region 6 offices. This index and the record were compiled in accordance with the EPA's Final Guidance on Administrative Records for Selecting CERCLA Response Actions, Office of Solid Waste and Emergency Response (OSWER) Directive Number 9833.3A-1 (December 3, 1990).

Documents listed as bibliographic sources for other documents in the record might not be listed separately in the Site index. Where a document is listed in the Site index but not located among

the documents which EPA has made available in the repository, EPA will, upon request, include the document in the repository or make the document available for review at an alternate location. This applies to documents such as verified sampling data, chain of custody forms, guidance and policy documents, as well as voluminous site-specific reports. Copies of guidance documents also can be obtained by calling the RCRA/Superfund/Title 3 Hotline at (800) 424-9346. Documents in EPA's confidential file are not available for review.

These requests should be addressed to :

Katrina Coltrain
Remedial Project Manager
U.S. EPA Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665- 8143

The documents included in the AR index are arranged predominantly in chronological order. The AR index helps locate and retrieve documents in the file. It also provides an overview of the response action history. The index includes the following information for each document:

- **Doc ID** - The document identifier number.
- **Date** - The date the document was published and/or released. "01/01/2525" means no date was recorded.
- **Pages** - Total number of printed pages in the document, including attachments.
- **Title** - Descriptive heading of the document.
- **Document Type** - General identification, (e.g. correspondence, Remedial Investigation Report, Record of Decision.)
- **Author** - Name of originator, and the name of the organization that the author is affiliated with. If either the originator name or the organization name is not identified, then the field is captured with the designation "None".
- **Addressee**- Name and affiliation of the addressee. If either the originator name or the organization name is not identified, then the field is captured with the designation "None".

NOTE TO READER

In accordance with the EPA'S Final Guidance on Administrative Records for Selecting CERCLA Response Actions, Office of Solid Waste and Emergency Response (OSWER) Directive Number 9833.3A-1 (December 3, 1990), data that support EPA's Presumptive Remedy for Metals-In-Soil Sites, OSWER Directive 9355.0-72FS (September 1999) are not physically present in the administrative record file located at the repository. The data are part of the administrative record for the Record of Decision, and may be reviewed upon request by contacting the Remedial Project Manager, Ms. Katrina Coltrain at (214) 665-8143.

The Presumptive Remedy guidance can be located at:

<http://www.epa.gov/oerrpage/superfund/resources/presump/index.htm>

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 141113
Date: 07/18/1990
Pages: 17
Title: [LDEQ REQUESTS EPA ASSISTANCE DUE TO POTENTIAL HEALTH AND ENVIRONMENTAL RISKS PRESENT AT THIS SITE]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	ETHRIDGE , HAROLD F	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Addressee:	HAMMACK , PATRICK L	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908520
Date: 02/28/1991
Pages: 276
Title: SITE ASSESSMENT REPORT
Doc Type: REPORT / STUDY

	Name	Organization
Author:	NAQUIN , TROY M	ECOLOGY & ENVIRONMENT INCORPORATED
Addressee:	SULLIVAN , BOB	U.S. ENVIRONMENTAL PROTECTION AGENCY
	PETERSEN , CHRIS J	U.S. ENVIRONMENTAL PROTECTION AGENCY
	FRUITWALA , KISHOR	ECOLOGY & ENVIRONMENT INCORPORATED

Docid: 914198
Date: 09/01/1993
Pages: 8
Title: PRESUMPTIVE REMEDIES: POLICY AND PROCEDURES
Doc Type: ELECTRONIC RECORD
FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908518
Date: 05/18/1994
Pages: 47
Title: SITE ASSESSMENT REPORT
Doc Type: REPORT / STUDY

	Name	Organization
Author:	NAQUIN , TROY M	ECOLOGY & ENVIRONMENT INCORPORATED
Addressee:	PETERSEN , CHRIS J	U.S. ENVIRONMENTAL PROTECTION AGENCY
	QUINA , CHRISTOPHER L	ECOLOGY & ENVIRONMENT INCORPORATED
	SULLIVAN , ROBERT	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 104288
Date: 03/12/1998
Pages: 3
Title: MARCH 2-3 1998, SITE RECONNAISSANCE INSPECTION FOR THE RUSTON FOUNDRY SUPERFUND SITE
Doc Type: MEMORANDUM

	Name	Organization
Author:	HORN , KEITH	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Addressee:	NONE ,	RUSTON FOUNDRY AND MACHINE SHOPS

Docid: 131503
Date: 08/20/1998
Pages: 1
Title: [DESIGN SUSPENSION OF CAPITAL CONSTRUCTION ON CHATLIN CANAL ADJACENT TO RUSTON FOUNDRY]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	WILLIAMSON , DARRELL	ALEXANDRIA CITY OF
Addressee:	CANELLAS , BARTOLOME J	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 91731
Date: 09/01/1998
Pages: 826
Title: EXPANDED SITE INSPECTION REPORT FOR RUSTON FOUNDRY SUPERFUND SITE
Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	ECOLOGY & ENVIRONMENT INCORPORATED
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908517
Date: 01/01/1999
Pages: 37
Title: AERIAL PHOTOGRAPHIC ANALYSIS
Doc Type: PHOTOGRAPH / SLIDE

	Name	Organization
Author:	KARTMAN , A.S.	LOCKHEED ENVIRONMENTAL SYSTEMS & TECHNOLOGIES COMPANY
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 104308
Date: 01/19/1999
Pages: 3
Title: RUSTON FOUNDRY SITE UPDATE - EPA, LDEQ BEGIN PLANS FOR SITE CLEANUP
Doc Type: FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

Docid: 104088
Date: 02/22/1999
Pages: 3
Title: FACT SHEET FOR RUSTON FOUNDRY SUPERFUND SITE
Doc Type: FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

Docid: 106265
Date: 04/12/1999
Pages: 3
Title: EPA PLANS SOIL SAMPLING FOR RUSTON FOUNDRY SUPERFUND SITE
Doc Type: FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 116135
Date: 03/17/1999
Pages: 3
Title: [TRANSMITTAL AND APPLICATION FOR TECHNICAL ASSISTANCE GRANT ELIGIBILITY CRITERIA FOR THE RUSTON FOUNDRY SUPERFUND SITE]

Doc Type: CORRESPONDENCE
OUTLINE

	Name	Organization
Author:	NEGRI , BEVERLY	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	MEDICA , SAM	NONE

Docid: 116161
Date: 04/02/1999
Pages: 2
Title: [EPA'S RESPONSE TO THE LOWER THIRD NEIGHBORHOOD CONCERNED CITIZENS INCORPORATED LETTER OF INTENT TO APPLY FOR THE TECHNICAL ASSISTANCE GRANT FOR THE RUSTON FOUNDRY SUPERFUND SITE]

Doc Type: CORRESPONDENCE

	Name	Organization
Author:	NEGRI , BEVERLY	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	HARRIS , MARGIE	NONE

Docid: 907826
Date: 08/01/1999
Pages: 24
Title: COMMUNITY INVOLVEMENT PLAN
Doc Type: COMMUNITY RELATIONS PLAN

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 131519
Date: 08/11/1999
Pages: 1
Title: [LETTER FROM DEPARTMENT OF INTERIOR INDICATING NO NEED OF INVOLVEMENT FOR RUSTON FOUNDRY]

Doc Type: CORRESPONDENCE

	Name	Organization
Author:	SEKAVEC , GLENN	DEPARTMENT OF INTERIOR
Addressee:	HIGGINS , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 145109
Date: 08/11/1999
Pages: 10
Title: THE CERCLA OFF-SITE DISPOSAL REPORT FOR RUSTON FOUNDRY SITE FOR RECEIVING RCRA FACILITY:
TEXAS ECOLOGISTS, INC.
Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	CET ENVIRONMENTAL SERVICES INCORPORATED

	Name	Organization
Addressee:	NONE ,	NONE

Related Document(s):

Docid: 902662
Date: 08/11/1999
Pages: 9
Title: THE CERCLA OFF-SITE DISPOSAL REPORT FOR RUSTON FOUNDRY SITE FOR RECEIVING RCRA FACILITY:
TEXAS ECOLOGISTS, INC.

Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	NONE

	Name	Organization
Addressee:	NONE ,	NONE

Docid: 902663
Date: 08/11/1999
Pages: 12
Title: THE CERCLA OFF-SITE DISPOSAL REPORT FOR RUSTON FOUNDRY SITE FOR RECEIVING RCRA FACILITY:
CLEAN HARBORS ENVIRONMENTAL

Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	NONE

	Name	Organization
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 902664

Date: 08/11/1999

Pages: 9

Title: THE CERCLA OFF-SITE DISPOSAL REPORT FOR RUSTON FOUNDRY SITE FOR RECEIVING RCRA FACILITY:
CHEMICAL WASTE MANAGEMENT

Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	NONE

	Name	Organization
Addressee:	NONE ,	NONE

Docid: 914199

Date: 09/01/1999

Pages: 48

Title: PRESUMPTIVE REMEDY FOR METALS-IN-SOIL SITES

Doc Type: ELECTRONIC RECORD
FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

	Name	Organization
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 131087
Date: 09/20/1999
Pages: 615
Title: REMOVAL ASSESSMENT REPORT DATED SEPTEMBER 20, 1999, FOR THE RUSTON FOUNDRY SUPERFUND SITE
Doc Type: REPORT / STUDY

	Name	Organization
Author:	QUINA , CHRISTOPHER L	ECOLOGY & ENVIRONMENT INCORPORATED
	NANCE , GENE	ECOLOGY & ENVIRONMENT INCORPORATED
	THOMPSON JR. , HENRY	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	Name	Organization
	SULLIVAN , ROBERT	U.S. ENVIRONMENTAL PROTECTION AGENCY

Related Document(s):

Docid: 907811
Date: 05/27/1999
Pages: 175
Title: [LABORATORY REPORT OF THE ANALYSIS CONDUCTED ON SAMPLES RECEIVED AT THE ANALYTICAL SERVICES CENTER ON APRIL 29, 1999]
Doc Type: REPORT / STUDY

	Name	Organization
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED
	Name	Organization
Addressee:	NANCE , GENE	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 907812
Date: 05/27/1999
Pages: 178
Title: [LABORATORY REPORT OF THE ANALYSIS CONDUCTED ON SAMPLES RECEIVED AT THE ANALYTICAL SERVICES CENTER ON APRIL 22, 1999]
Doc Type: REPORT / STUDY

	Name	Organization
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED
	Name	Organization
Addressee:	NANCE , GENE	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 907813

Date: 05/27/1999

Pages: 86

Title: [LABORATORY REPORT OF THE ANALYSIS CONDUCTED ON SAMPLES RECEIVED AT THE ANALYTICAL SERVICES CENTER ON APRIL 22, 1999]

Doc Type: REPORT / STUDY

	<u>Name</u>	<u>Organization</u>
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED

	<u>Name</u>	<u>Organization</u>
Addressee:	NANCE , GENE	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 907814

Date: 05/26/1999

Pages: 174

Title: [LABORATORY REPORT OF THE ANALYSIS CONDUCTED ON SAMPLES RECEIVED AT THE ANALYTICAL SERVICES CENTER ON APRIL 28, 1999]

Doc Type: REPORT / STUDY

	<u>Name</u>	<u>Organization</u>
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED

	<u>Name</u>	<u>Organization</u>
Addressee:	NANCE , GENE	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 907815

Date: 05/27/1999

Pages: 190

Title: [LABORATORY REPORT OF THE ANALYSIS CONDUCTED SAMPLES RECEIVED AT THE ANALYTICAL SERVICES CENTER ON APRIL 22, 1999]

Doc Type: REPORT / STUDY

	Name	Organization
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED

	Name	Organization
Addressee:	NANCE , GENE	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 907816

Date: 06/02/1999

Pages: 33

Title: [LABORATORY REPORT FOR THE REDIGESTION AND REANALYSIS OF SAMPLE RES04-1 FOR LEAD]

Doc Type: REPORT / STUDY

	Name	Organization
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED

	Name	Organization
Addressee:	ANDERSON , DAVID	ECOLOGY & ENVIRONMENT INCORPORATED

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 907817

Date: 05/27/1999

Pages: 226

Title: [LABORATORY REPORT OF THE ANALYSIS CONDUCTED ON SAMPLES RECEIVED AT THE ANALYTICAL SERVICES CENTER ON MAY 29, 1999]

Doc Type: REPORT / STUDY

	<u>Name</u>	<u>Organization</u>
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED

	<u>Name</u>	<u>Organization</u>
Addressee:	NANCE , GENE	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 907818

Date: 05/27/1999

Pages: 149

Title: [LABORATORY REPORT OF THE ANALYSIS CONDUCTED SAMPLES RECEIVED AT THE ANALYTICAL SERVICES CENTER ON APRIL 30, 1999]

Doc Type: REPORT / STUDY

	<u>Name</u>	<u>Organization</u>
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED

	<u>Name</u>	<u>Organization</u>
Addressee:	NANCE , GENE	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 907819

Date: 08/09/1999

Pages: 259

Title: [REPORT ON LABORATORY RESULTS FROM SAMPLES RECEIVED ON JULY 20, 1999]

Doc Type: REPORT / STUDY

	Name	Organization
Author:	BOGOLIN , TONY	ECOLOGY & ENVIRONMENT INCORPORATED

	Name	Organization
Addressee:	MCREYNOLDS , DOUG	ECOLOGY & ENVIRONMENT INCORPORATED

Docid: 901553

Date: 09/24/1999

Pages: 41

Title: RESPONSE ACTION CONTRACT - REMEDIAL INVESTIGATION HEALTH AND SAFETY PLAN, VERSION 1 - RUSTON FOUNDRY SITE

Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	CH2M HILL

	Name	Organization
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 131573

Date: 10/11/1999

Pages: 2

Title: [CORRESPONDENCE REGARDING HEALTH AND SAFETY PLAN FOR RUSTON FOUNDRY]

Doc Type: CORRESPONDENCE

	Name	Organization
Author:	CASANOVA , KEITH L	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

	Name	Organization
Addressee:	HIGGINS , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 901554
Date: 11/01/1999
Pages: 23
Title: RESPONSE ACTION CONTRACT - INTERIM SITE MANAGEMENT PLAN - REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Doc Type: WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 901555
Date: 11/01/1999
Pages: 62
Title: RESPONSE ACTION CONTRACT - QUALITY ASSURANCE PROJECT PLAN - PRE-REMEDIAL INVESTIGATION FIELD EVENT
Doc Type: WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 901558
Date: 11/01/1999
Pages: 88
Title: RESPONSE ACTION CONTRACT - FIELD SAMPLING PLAN - PRE-REMEDIAL INVESTIGATION FIELD EVENT
Doc Type: WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 131968
Date: 12/01/1999
Pages: 4
Title: RUSTON FOUNDRY SITE UPDATE: ENVIRONMENTAL PROTECTION AGENCY PLANS INVESTIGATION FOR RUSTON FOUNDRY SITE
Doc Type: FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIATION

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIATION

Docid: 908502
Date: 12/29/1999
Pages: 13
Title: [CORRESPONDENCE REGARDING CONTRACT LABORATORY PROGRAM DATA REVIEW]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	CHIANG , TOM C	LOCKHEED MARTIN SERVICES GROUP
Addressee:	HUMPHREY , MARVELYN	U.S. ENVIRONMENTAL PROTECTION AGENCY
	RITTER , MELVIN	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908507
Date: 01/05/2000
Pages: 13
Title: [CORRESPONDENCE REGARDING CONTRACT LABORATORY PROGRAM DATA REVIEW]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	CHIANG , TOM C	LOCKHEED MARTIN SERVICES GROUP
Addressee:	HUMPHREY , MARVELYN	U.S. ENVIRONMENTAL PROTECTION AGENCY
	RITTER , MELVIN	U.S. ENVIRONMENTAL PROTECTION AGENCY REGION VI

Docid: 908505
Date: 01/19/2000
Pages: 12
Title: [CORRESPONDENCE REGARDING CONTRACT LABORATORY PROGRAM DATA REVIEW]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	CHIANG , TOM C	LOCKHEED MARTIN SERVICES GROUP
Addressee:	HUMPHREY , MARVELYN	U.S. ENVIRONMENTAL PROTECTION AGENCY
	RITTER , MELVIN	U.S. ENVIRONMENTAL PROTECTION AGENCY REGION VI

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 901987
Date: 03/13/2000
Pages: 2
Title: [SITE UPDATE - EPA SCHEDULES OPEN HOUSE FOR RUSTON FOUNDRY SITE]
Doc Type: FACTSHEET

	<u>Name</u>	<u>Organization</u>
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

Related Document(s):

Docid: 902367
Date: 03/28/2000
Pages: 1

Title: [OPEN HOUSE ANNOUNCEMENT AND HOW TO RECEIVE MORE INFORMATION ABOUT RUSTON FOUNDRY SUPERFUND SITE]

Doc Type: NOTICE

	<u>Name</u>	<u>Organization</u>
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

Docid: 901989
Date: 03/23/2000
Pages: 2
Title: [LETTER OF ACCEPTANCE FOR: RESPONSE ACTION CONTRACT-SITE MANAGEMENT PLAN, FIELD SAMPLING PLAN, QUALITY ASSURANCE PROJECT PLAN FOR THE RUSTON FOUNDRY SITE]
Doc Type: CORRESPONDENCE
WORK PLAN / AMENDMENT

	<u>Name</u>	<u>Organization</u>
Author:	BELL , JAMES	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Addressee:	HIGGINS , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 141898
Date: 04/20/2000
Pages: 2
Title: REQUEST FOR APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS [ARARS]
Doc Type: ARARS

	Name	Organization
Author:	STENGER , WREN	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	CASANOVA , KEITH L	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Docid: 141897
Date: 05/05/2000
Pages: 2
Title: PRE-REMEDIAL INVESTIGATION PLAN REVISIONS AND QUALITY ASSURANCE PROJECT PLAN REVISIONS
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	BELL , JAMES	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Addressee:	HIGGINS , KATRINA M	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 141900
Date: 05/24/2000
Pages: 2
Title: LOUISIANA RESPONSE TO REQUEST FOR APPROPRIATE REQUIREMENTS
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	CASANOVA , KEITH L	LOUISIANA DEPARTMENT OF NATURAL RESOURCES
Addressee:	STENGER , WREN	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908681
Date: 06/01/2000
Pages: 3
Title: INFORMATION BULLETIN- SITE SOIL SAMPLING RESCHEDULED FOR AUGUST 2000
Doc Type: FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908687
Date: 06/01/2000
Pages: 108
Title: TECHNICAL ACTIVITIES WORK PLAN- REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Doc Type: WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE , NONE ,	CH2M HILL SCIENCE APPLICATIONS INTERNATIONAL CORPORATION GEOMARINE, INCORPORATION
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908686
Date: 06/19/2000
Pages: 83
Title: SCREENING-LEVEL PROBLEM FORMULATION AND SCREENING RISK EVALUATION
Doc Type: HEALTH ASSESSMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	HIGGINS , KATRINA RODDY , SUSAN	U.S. ENVIRONMENTAL PROTECTION AGENCY U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 141111
Date: 06/30/2000
Pages: 10
Title: RUSTON FOUNDRY REMOVAL ADMINISTRATIVE RECORD INDEX
Doc Type: INDEX

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	NONE

Docid: 902047
Date: 07/01/2000
Pages: 24
Title: RESPONSE ACTION PLAN - SITE MANAGEMENT PLAN REMEDIAL INVESTIGATION FIELD EVENT RUSTON FOUNDRY SITE
Doc Type: WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 901556
Date: 07/05/2000
Pages: 1
Title: [LETTER - SOIL SURVEY REPORT TO DETERMINE IF ANY NORM CONTAMINATION IS PRESENT FOR RUSTON FOUNDRY]

Doc Type: CORRESPONDENCE

	Name	Organization
Author:	NGUYEN , RICKY	LOUISIANA DEPARTMENT OF ENVIRONMENT QUALITY

	Name	Organization
Addressee:	NONE ,	NONE

Docid: 901628
Date: 07/13/2000
Pages: 1
Title: [RESPONSE EMAIL MESSAGE FROM ALEXANDRIA GAS COMPANY REGARDING ON THE METER USED AT THE RUSTON FOUNDRY SITE]

Doc Type: CORRESPONDENCE
E-MAIL MESSAGE

	Name	Organization
Author:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

	Name	Organization
Addressee:	JOHNSON , THOMAS L	CH2M HILL

Docid: 901559
Date: 08/01/2000
Pages: 58
Title: VERSION 2.0 - REMEDIAL INVESTIGATION/FEASIBILITY STUDY - HEALTH AND SAFETY PLAN

Doc Type: WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE ,	CH2M HILL

	Name	Organization
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 902169
Date: 08/11/2000
Pages: 2
Title: [CORRESPONDENCE - SCREENING -LEVEL PROBLEM FORMULATION AND SCREENING RISK EVALUATION RUSTON FOUNDRY]

Doc Type: CORRESPONDENCE

	Name	Organization
Author:	BELL , JAMES	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

	Name	Organization
Addressee:	HIGGINS , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 902170
Date: 08/30/2000
Pages: 2
Title: [CORRESPONDENCE - SITE MANAGEMENT PLAN AND TECHNICAL ACTIVITIES WORK PLAN, REMEDIAL INVESTIGATION RUSTON FOUNDRY]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	BELL , JAMES	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908679
Date: 09/15/2000
Pages: 41
Title: FINAL DRAFT- FIELD SAMPLING PLAN FOR FIELD VERIFICATION OF ECOLOGICAL SAMPLING DESIGN
Doc Type: WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 907092
Date: 10/01/2000
Pages: 112
Title: QUALITY ASSURANCE PROJECT PLAN FOR RUSTON FOUNDRY SITE
Doc Type: ELECTRONIC RECORD
WORK PLAN / AMENDMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908680
Date: 10/24/2000
Pages: 2
Title: RUSTON FOUNDRY SUPERFUND SITE OPEN HOUSE QUESTION AND ANSWER SESSION
Doc Type: NOTICE

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	PUBLIC

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908061
Date: 10/26/2000
Pages: 52
Title: PUBLIC HEALTH ASSESSMENT
Doc Type: HEALTH ASSESSMENT

	Name	Organization
Author:	NONE ,	LOUISIANA DEPARTMENT OF HEALTH & HOSPITALS
Addressee:	NONE ,	NONE

Docid: 907573
Date: 11/01/2000
Pages: 106
Title: FINAL FIELD SAMPLING PLAN REMEDIAL INVESTIGATION/FEASIBILITY STUDY FOR RUSTON FOUNDRY SITE
Doc Type: ELECTRONIC RECORD
REPORT / STUDY

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908694
Date: 12/06/2000
Pages: 54
Title: SUMMARY OF ECOLOGICAL SAMPLING OF TERRESTRIAL HABITATS AT THE RUSTON FOUNDRY SITE
Doc Type: HEALTH ASSESSMENT

	Name	Organization
Author:	CHARTRAND , ANDREW	ECOLOGY & ENVIRONMENT INCORPORATED
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	RODDY , SUSAN	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 903411
Date: 12/18/2000
Pages: 40
Title: CHARACTERIZATION OF AQUATIC HABITATS UPSTREAM, ADJACENT TO, AND DOWNSTREAM OF THE RUSTON FOUNDRY SITE
Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	RODDY , SUSAN	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIATION

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIATION

Docid: 908690
Date: 02/13/2001
Pages: 1
Title: [CORRESPONDENCE REGARDING DATE, TIME, AND LOCATION OF SCHEDULED MEETINGS FOR THE RUSTON FOUNDRY SUPERFUND SITE]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	WILLIAMSON , DARRELL	ALEXANDRIA CITY OF
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 908692
Date: 02/15/2001
Pages: 4
Title: [TRANSMITTAL OF THREE NEWSPAPER ARTICLES WHICH APPEARED IN THE ALEXANDRIA TOWN TALK]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	MOORE , PATRICK C	PATRICK C. MOORE, ASLA
Addressee:	GREENFIELD , BARBARA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 902691
Date: 03/22/2001
Pages: 15
Title: HEALTH CONSULTATION
Doc Type: REPORT / STUDY

	Name	Organization
Author:	CARRILLO , GENNY	OFFICE OF PUBLIC HEALTH
	PETTIGREW , GEORGE	AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY
	GALLO , KIMBERLY M	OFFICE OF PUBLIC HEALTH
	METCALF , MARGARET	OFFICE OF PUBLIC HEALTH
	MCRAE , TAMMIE	AGENCY FOR TOXIC SUBSTANCE AND DISEASE REGISTRY
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIATION

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908684
Date: 03/28/2001
Pages: 2
Title: [INVITATION TO AN INFORMATIONAL MEETING TO BE HELD ON APRIL 9, 2001]
Doc Type: NOTICE

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	PUBLIC

Docid: 908688
Date: 08/01/2001
Pages: 1
Title: [TRANSMITTAL OF THE RAGS-D TABLES- TABLES NOT ATTACHED]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	CUMMINGS , LINDA	NONE

Docid: 908683
Date: 10/01/2001
Pages: 4
Title: INFORMATION BULLETIN-EPA COMPLETES SITE REMEDIAL INVESTIGATION
Doc Type: FACTSHEET

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	PUBLIC

Docid: 908167
Date: 10/01/2001
Pages: 301
Title: FINAL ECOLOGICAL RISK ASSESSMENT
Doc Type: HEALTH ASSESSMENT

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908682
Date: 10/09/2001
Pages: 1
Title: [INVITATION TO INFORMATIONAL MEETING]
Doc Type: NOTICE

	Name	Organization
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	PUBLIC

Docid: 908847
Date: 01/22/2002
Pages: 1
Title: [REGARDING DRAFT FEASIBILITY STUDY DATED DECEMBER 2001]
Doc Type: CORRESPONDENCE

	Name	Organization
Author:	LANE , NORA	STATE OF LOUISIANA
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908166
Date: 02/01/2002
Pages: 1096
Title: FINAL REMEDIAL INVESTIGATION REPORT [UNREVISED COVER PAGE]
Doc Type: REPORT / STUDY

	Name	Organization
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Related Document(s):

Docid: 908762
Date: 07/17/2001
Pages: 2

Title: [E-MAIL REGARDING CONSISTENCY WITH RECAP NUMBERS]
Doc Type: E-MAIL MESSAGE

	Name	Organization
Author:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	FAUL , TRAVIS	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	FAUL , TRAVIS	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 908766
Date: 08/23/2001
Pages: 3

Title: [REGARDING RUSTON GROUND WATER CLASSIFICATION]

Doc Type: E-MAIL MESSAGE

	<u>Name</u>	<u>Organization</u>
Author:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

	FAUL , TRAVIS	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
--	---------------	---

	<u>Name</u>	<u>Organization</u>
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

	CINCOTTA , TOM	CH2M HILL
--	----------------	-----------

	FAUL , TRAVIS	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
--	---------------	---

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908170
Date: 02/28/2002
Pages: 166
Title: FINAL FEASIBILITY STUDY
Doc Type: ELECTRONIC RECORD
REPORT / STUDY

	Name	Organization
Author:	NONE ,	CH2M HILL

	Name	Organization
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Related Document(s):

Docid: 914066
Date: 03/11/2002
Pages: 1

Title: [COMMENTS ON THE FINAL FEASIBILITY STUDY DATED FEBRUARY 2002]

Doc Type: CORRESPONDENCE

	Name	Organization
Author:	LANE , NORA	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

	Name	Organization
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 908168
Date: 03/01/2002
Pages: 773
Title: FINAL HUMAN HEALTH RISK ASSESSMENT [UNREVISED COVER PAGE]
Doc Type: HEALTH ASSESSMENT

	<u>Name</u>	<u>Organization</u>
Author:	NONE ,	CH2M HILL
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

Related Document(s):

Docid: 913084
Date: 01/28/2002
Pages: 4

Title: [RESPONSE TO OUTSIDE REVIEWER COMMENTS CONCERNING DRAFT HUMAN HEALTH RISK ASSESSMENT]

Doc Type: CORRESPONDENCE

	<u>Name</u>	<u>Organization</u>
Author:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

	<u>Name</u>	<u>Organization</u>
Addressee:	CUMMINGS , LINDA	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 910724
Date: 03/30/2002
Pages: 20
Title: SUPERFUND PROGRAM PROPOSED PLAN
Doc Type: PROPOSAL

	<u>Name</u>	<u>Organization</u>
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
Addressee:	NONE ,	PUBLIC

Related Document(s):

Docid: 907825
Date: 03/04/2002
Pages: 2

Title: [REGARDING REQUEST FOR INPUT FROM THE STATE ON THE PROPOSED PLAN]
Doc Type: CORRESPONDENCE

	<u>Name</u>	<u>Organization</u>
Author:	STENGER , WREN	U.S. ENVIRONMENTAL PROTECTION AGENCY

	<u>Name</u>	<u>Organization</u>
Addressee:	CASSANOVA , KEITH L	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Docid: 913797
Date: 05/03/2002
Pages: 1

Title: [E-MAIL REGARDING COMMENTS ON THE PROPOSED PLAN]
Doc Type: E-MAIL MESSAGE

	<u>Name</u>	<u>Organization</u>
Author:	LANE , NORA	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

	<u>Name</u>	<u>Organization</u>
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 913798
Date: 04/18/2002
Pages: 80
Title: HEARING CONCERNING THE RUSTON FOUNDRY SUPERFUND SITE PROPOSED PLAN
Doc Type: PUBLIC MEETING TRANSCRIPT

	<u>Name</u>	<u>Organization</u>
Author:	COATS , JANNETTA	U. S. ENVIRONMENTAL PROTECTION AGENCY
	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	JAMESON , LORRAINE	CH2M HILL

	<u>Name</u>	<u>Organization</u>
Addressee:	NONE ,	NONE

Related Document(s):

Docid: 913799
Date: 04/26/2002
Pages: 2

Title: [PUBLIC COMMENT REGARDING SUGGESTION THAT THE IRON FOUNDRY BE RELOCATED]
Doc Type: PUBLIC COMMENT

	<u>Name</u>	<u>Organization</u>
Author:	MARVE , JOSEPH W	NONE

	<u>Name</u>	<u>Organization</u>
Addressee:	COATS , JANNETTA	U. S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 913800
Date: 04/26/2002
Pages: 2

Title: [PUBLIC COMMENT RECOMMENDING THAT THE SITE BE RELOCATED]
Doc Type: PUBLIC COMMENT

	<u>Name</u>	<u>Organization</u>
Author:	MARVE , KATHY A	NONE

	<u>Name</u>	<u>Organization</u>
Addressee:	COATS , JANNETTA	U. S. ENVIRONMENTAL PROTECTION AGENCY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Docid: 913827
Date: 06/24/2002
Pages: 103
Title: RECORD OF DECISION SUMMARY FOR RUSTON FOUNDRY SUPERFUND SITE
Doc Type: RECORD OF DECISION / AMENDMENT

	<u>Name</u>	<u>Organization</u>
Author:	MCGEE , AMY	U.S. ENVIRONMENTAL PROTECTION AGENCY
	SHEEHAN , CHARLES	U. S. ENVIRONMENTAL PROTECTION AGENCY
	BUZZELL , JUNE	U. S. ENVIRONMENTAL PROTECTION AGENCY
	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	PEYCKE , MARK A	U.S. ENVIRONMENTAL PROTECTION AGENCY
	KNUDSON , MYRON O	U.S. ENVIRONMENTAL PROTECTION AGENCY
	PHILLIPS , PAMELA	U.S. ENVIRONMENTAL PROTECTION AGENCY
	CHIA , SING	U.S. ENVIRONMENTAL PROTECTION AGENCY
	STENGER , WREN	U.S. ENVIRONMENTAL PROTECTION AGENCY
	<u>Name</u>	<u>Organization</u>
Addressee:	NONE ,	PUBLIC

Related Document(s):

Docid: 914065
Date: 06/04/2002
Pages: 2
Title: [CONCURRENCE COPY OF CORRESPONDENCE REGARDING REQUEST FOR INPUT FROM THE STATE ON THE RECORD OF DECISION]
Doc Type: CORRESPONDENCE

	<u>Name</u>	<u>Organization</u>
Author:	STENGER , WREN	U.S. ENVIRONMENTAL PROTECTION AGENCY
	<u>Name</u>	<u>Organization</u>
Addressee:	CASANOVA , KEITH	LOUISIANA DEPARTMENT OF ENVIROMENTAL QUALITY

ADMINISTRATIVE RECORD INDEX

FINAL 06/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 913828
Date: 06/04/2002
Pages: 1

Title: REGION 6 EXECUTIVE SUMMARY
Doc Type: RECORD OF DECISION / AMENDMENT

	<u>Name</u>	<u>Organization</u>
Author:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY

	<u>Name</u>	<u>Organization</u>
Addressee:	NONE ,	PUBLIC

Docid: 913829
Date: 06/01/2002
Pages: 1

Title: COMMUNICATION STRATEGY DOCUMENTS CHECK SHEET
Doc Type: LIST

	<u>Name</u>	<u>Organization</u>
Author:	COATS , JANNETTA	U. S. ENVIRONMENTAL PROTECTION AGENCY

COLTRAIN , KATRINA U.S. ENVIRONMENTAL PROTECTION AGENCY

	<u>Name</u>	<u>Organization</u>
Addressee:	NONE ,	NONE

ADMINISTRATIVE RECORD INDEX

FINAL 6/28/2002

REMEDIAL

Site Name RUSTON FOUNDRY (LAD985185107)
CERCLIS LAD985185107
OUID N/A
SSID RUSTON FOUNDRY (1F)
Action REMEDIAL

Related Document(s):

Docid: 913081
Date: 06/17/2002
Pages: 1

Title: DRAFT RECORD OF DECISION DATED JUNE 4, 2002

Doc Type: CORRESPONDENCE

	Name	Organization
Author:	LANE , NORA	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

	Name	Organization
Addressee:	COLTRAIN , KATRINA	U.S. ENVIRONMENTAL PROTECTION AGENCY

Docid: 913830
Date: 06/28/2002
Pages: 35
Title: FINAL ADMINISTRATIVE RECORD INDEX FOR RUSTON FOUNDRY SUPERFUND SITE
Doc Type: INDEX

	Name	Organization
Author:	NONE ,	TECHLAW INCORPORATED

	Name	Organization
Addressee:	NONE ,	U.S. ENVIRONMENTAL PROTECTION AGENCY
