

Final Phase I Hazardous Toxic or Radioactive Waste Environmental Site Assessments

Pump Station Storm Proofing Activities
Orleans Parish, Louisiana

Prepared for:
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, Louisiana 70160-0267

Prepared by:
Earth Tech, Inc.
536 Washington Avenue
New Orleans, Louisiana 70130
Telephone: 504-962-5363

ECAS Contract Number DACA45-03-D-0032
Earth Tech Project No.: 105225

July 2008

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 SUMMARY	1
2.0 INTRODUCTION.....	3
2.1 Purpose	3
2.2 Detailed Scope of Services	3
2.3 Significant Assumptions	4
2.4 Limitations and Exceptions.....	4
2.5 Special Terms and Conditions	4
2.6 User Reliance.....	5
See Volume II for Sections 3.0 through 9.0 for each of the individual 26 sites.....	6
10.0 CONCLUSIONS	7
11.0 DEVIATIONS/DATA GAPS	9
11.1 Historical Data Gaps/Data Failure	9
11.2 Other Deviations/Data Gaps	9
12.0 ADDITIONAL SERVICES.....	10
13.0 REFERENCES.....	11
14.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONALS.....	12
15.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	13
16.0 APPENDICES	14
Appendix A Scope of Services	
Appendix B Property Maps	
Appendix C Photographs	
Appendix D Computer Database Search	
Appendix E Regulatory Records	
Appendix F Environmental Observations	
Appendix G Interview Documentation	
Appendix H Qualifications of Environmental Professionals	

1.0 SUMMARY

At the request of the U.S. Army Corps of Engineers (USACE), Earth Tech, Inc. (Earth Tech) has performed a Hazardous Toxic or Radioactive Waste (HTRW) Phase I Environmental Site Assessment (ESA) in accordance with the Scope of Services attached in Appendix A and in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 for the Pump Station Storm Proofing Activities located in Orleans Parish, Louisiana (the “Property”). Any exceptions to, or deletions from, the ASTM Practice are described in Section 2.0 of this report.

The Pump Station Storm Proofing Activities for Orleans Parish includes 22 pump stations, two river intakes, one water treatment plant, and one frequency changer station, for a total of 26 locations. All but two of the sites are located on the southern descending side of the Mississippi River in New Orleans, with the remaining two sites located on the northern descending side of the Mississippi River in Algiers.

When the search of government databases (by a firm whose business it is to provide that service) was conducted, the proximity of some site locations allowed for 10 of the 26 sites to be partially combined together for an overall total of 21 database searches. However, in this report all 26 sites are discussed individually.

NOTE: There are 26 locations included in this Phase I HTRW ESA report. For convenience, the Sections 3 through 9 are treated as individual site-specific Phase I HTRW ESA site reports. Sections 10 through 16 address all 26 sites.

Known or Suspect Recognized Environmental Conditions (RECs)

The RECs observed are listed below. Other environmental observations are included in Appendix F.

Site	Location	REC Site Description
OP-14	First floor area located under second floor diesel engine; Lat: 30° 03' 13.14082" N, Long: 89° 57' 59.37575" W	Drain line from diesel engine on second floor drains to storage room below on first floor with no capture. Diesel fluid drains directly to concrete, flows to an open pit that appears to drain to the canal.
Carrollton Water Treatment Plant	Equipment storage area in the southeast corner; Lat: 29° 57' 23.47957" N, Long: 90° 07' 40.63540" W	Diesel and/or oil stains on soils. An active diesel fuel above ground storage tank (AST) is also located in the area. Staining is likely due to equipment leaks and fueling operations.
Carrollton Water Treatment Plant	North of Power House Building; Lat: 29° 57' 29.4170" N, Long: 90° 07' 42.67208" W	Six transformers located north of the Power House Building had visible stains on the casing that might be due to transfer spills.

Other Environmental Concerns

Each drainage pump station was observed to have stored 55-gallon drums, 5-gallon containers, 1-gallon containers, and spray cans that contained petroleum products that consisted of different grades of oil, kerosene, mineral spirits, waste oil, antifreeze, transmission fluid, grease, cleaning chemicals, paint, and granular dry absorbent material. The 55-gallon drums contained different grades of oil used to maintain the pumps as well as antifreeze, transmission fluid, mineral spirits, kerosene, and cleaning agents. The 55-gallon drums and 5-gallon containers are also used to store the previously mentioned products as waste. The 5-gallon buckets contained oil for the pumps, used oil from the pumps, grease used to lubricate and seal the pumps, and cleaning agents. The gallon containers were used to store paint and liquid cleaning materials. The containers were observed to be stored inside as well as outside the buildings. Many sites had fluid-filled transformers of different sizes owned by the New Orleans Sewage & Water Board (S&WB) and transformers owned by Entergy (the local electrical company).

The above-mentioned containers stored *inside the facilities*, in general were protected from the outside elements. Petroleum product stains or standing liquids observed inside the pump station facilities were observed on or around the equipment and floors due to pump leaks, ongoing or past work on the equipment, and/or transfer spills. The transfer spills ranged in size from small stains to medium stains, to standing fluids on the equipment. Some metal containers appeared to be rusting near the bottom where the container came in contact with the concrete floor, and petroleum stains or liquids were observed. In general, the petroleum product buildup observed on top of storage containers and surrounding areas were due to housekeeping and maintenance issues.

The above-mentioned containers stored *outside the facilities*, in general, were not protected from the elements. Some of the containers were severely rusted or physically damaged, improperly stored and not covered, and open. Petroleum product stains or liquids observed on the ground outside and underneath pumping stations appeared to be due to rusting containers, overflows from cans or drums not sealed to keep the rain out, transfer spills, and, in some instances, due to a lack of proper waste petroleum capture from the diesel engines located above. According to site contacts, there is a regular schedule to pick up containers not needed on site, and the containers are supposed to be stored temporarily. However, it appeared that many containers have been on site exposed to the elements for some time, with varying degrees of damage to the containers. Again, the petroleum product buildup observed on top of storage containers and surrounding areas were due to housekeeping and maintenance issues.

2.0 INTRODUCTION

This Phase I ESA report for the Pump Station Storm Proofing Activities was prepared by Earth Tech for USACE, who is the “User” of this report, as that term is defined in ASTM Standard Practice E1527-05 for a Phase I Environmental Site Assessment. In this report, the term User includes any legal counsel or other representative of the User.

The format of this report generally follows the recommendations in ASTM Standard Practice E1527-05. The following definitions from that Standard Practice are important for understanding this report. Terms in italics are defined in that Standard Practice.

- 1.1 *de minimis* conditions - conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

- 3.2.39 *historical recognized environmental condition* - environmental condition which in the past would have been considered a *recognized environmental condition*, but which may or may not be considered a *recognized environmental condition* currently.

- 3.2.52 *material threat* - a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the *environmental professional*, is threatening and might result in impact to public health or the environment.

- 3.2.74 *recognized environmental conditions* - the presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, groundwater, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not represent a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not *recognized environmental conditions*.

2.1 Purpose

The primary purpose of this ESA was to provide the intended recipients with information about the general environmental character of the Property.

To the extent applicable, another purpose of this ESA was to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser* limitations on CERCLA liability (hereinafter, the “*landowner liability protections*,” or “*LLPs*”). An ESA in conformance with ASTM E1527-05 constitutes “*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice” as defined at 42 U.S.C. §9601(35)(B). Terms in italics in this paragraph are defined in the U.S.C.

2.2 Detailed Scope of Services

The detailed Scope of Services for this ESA is in Appendix A. The standard professional practices that Earth Tech conducted to determine if any RECs existed in connection with the Property included, among other things:

- Conducting a visual reconnaissance of the Property;
- Interviewing selected individuals who might have knowledge of its present and/or historical RECs;
- Reviewing readily available historical information such as aerial photographs and fire insurance maps that depict the Property;
- Conducting a drive-by inspection of accessible adjacent parcels;
- Reviewing selected environmental records that were made available to Earth Tech; and
- Reviewing a computer search of selected Federal and State environmental databases for indications of the presence of hazardous substances or petroleum products on the Property or on nearby parcels from which those substances might have migrated to the Property in other than vapor form.

In general, the Scope of Services has been completed in accordance with the scope and limitations of ASTM Standard Practice E1527-05. Any deviations from the ASTM Standard Practice are discussed in Section 11.0.

2.3 Significant Assumptions

In preparing this report, Earth Tech has relied upon certain verbal information and representations provided by government employees and others, documents provided by the Property owner and/or operator, and a computer search of government databases by a firm whose business it is to provide that service. Except as discussed, Earth Tech has relied upon that information and did not attempt to independently verify its accuracy or completeness, but did not detect any inconsistency or omission of a nature that might call into question the validity of any of it. To the extent that the conclusions in this report are based in whole or in part on such information, they are contingent on its validity. Earth Tech assumes no responsibility for any consequence arising from any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to Earth Tech.

2.4 Limitation and Exceptions

During the site reconnaissance, portions of the Properties could not be fully assessed due to access constraints from lack of keys, areas that were considered confined space, or areas that were located over open water.

This report is limited to representations of identified RECs on and near the Property as they existed at the time of this ESA, and of the conclusions drawn based upon the information obtained and assumptions made during the assessment process. This ESA was restricted to the Scope of Services as defined herein. No representations or warranties are made concerning the nature or quality of the air, soil, water, building materials, or any other substance on the Property (including the potential for any substance to migrate into a structure), other than the visual observations and the representations by others as stated in this report. By definition, a Phase I ESA is not intended to be a definitive investigation of existing or potential adverse environmental impacts, and thus it is possible that such an impact exists on the Property but was not identified during the ESA. Conclusions in this report represent professional judgments based upon the information evaluated during the course of the assessment, not scientific certainties.

Within the limitations of the agreed-upon Scope of Services, this ESA has been undertaken and performed in a professional manner, in accordance with generally accepted practices, using the degree of skill and care ordinarily exercised by reputable environmental consultants under similar circumstances. No other warranty, express or implied, is made.

2.5 Special Terms and Conditions

There were no special terms and conditions between the User and Earth Tech, except as specified in the Scope of Work.

2.6 User Reliance

This report is intended for use only as the complete document. It is based upon the Scope of Services, and is subject to the Limitations and Exceptions and other restrictions, defined herein. It has been prepared for the exclusive use of USACE and its legal counsel. No other person or organization is entitled to rely upon any part of it without the prior written consent of Earth Tech. USACE or its legal counsel may release or authorize the release of all or part(s) of this report to third parties. However, if any third party uses or relies on this report without the express written permission of Earth Tech, such third party agrees that it shall have no legal recourse against Earth Tech or its parent or subsidiaries, and shall indemnify and defend them from and against all claims arising out of or in conjunction with such use or reliance.

See Volume II for Sections 3.0 through 9.0 for each of the individual 26 sites.

10.0 CONCLUSIONS

At the request of USACE, Earth Tech has performed a Phase I ESA in accordance with the Scope of Services attached in Appendix A and in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 for the Pump Station Storm Proofing Activities that include 22 pump stations, two river intakes, a water treatment plant, and a frequency changer station that are located in Orleans Parish, Louisiana.

Any exceptions to, or deletions from, the ASTM Practice are described in Section 2.0 of this report.

Known or Suspect Recognized Environmental Conditions

The RECs observed are listed below. Other environmental observations are included in Appendix F.

Site	Location	REC Site Description
OP-14	First floor area located under second floor diesel engine; Lat: 30° 03' 13.14082" N, Long: 89° 57' 59.37575" W	Drain line from diesel engine on second floor drains to storage room below on first floor with no capture. Diesel fluid drains directly to concrete, flows to an open pit that appears to drain to the canal.
Carrollton Water Treatment Plant	Equipment storage area in the southeast corner; Lat: 29° 57' 23.47957" N, Long: 90° 07' 40.63540" W	Diesel and/or oil stains on soils. An active diesel fuel above ground storage tank (AST) is also located in the area. Staining is likely due to equipment leaks and fueling operations.
Carrollton Water Treatment Plant	North of Power House Building; Lat: 29° 57' 29.4170" N, Long: 90° 07' 42.67208" W	Six transformers located north of the Power House Building had visible stains on the casing that might be due to transfer spills.

Other Environmental Concerns

Each drainage pump station was observed to have stored 55-gallon drums, 5-gallon containers, 1-gallon containers, and spray cans that contained petroleum products that consisted of different grades of oil, kerosene, mineral spirits, waste oil, antifreeze, transmission fluid, grease, cleaning chemicals, paint, and granular dry absorbent material. The 55-gallon drums contained different grades of oil used to maintain the pumps as well as antifreeze, transmission fluid, mineral spirits, kerosene, and cleaning agents. The 55-gallon drums and 5-gallon containers are also used to store the previously mentioned products as waste. The 5-gallon buckets contained oil for the pumps, used oil from the pumps, grease used to lubricate and seal the pumps, and cleaning agents. The gallon containers were used to store paint and liquid cleaning materials. The containers were observed to be stored inside as well as outside the buildings. Many sites had fluid-filled transformers of different sizes owned by the New Orleans S&WB, and transformers owned by Entergy (the local electrical company).

The above-mentioned containers stored *inside the facilities*, in general were protected from the outside elements. Petroleum product stains or standing liquids observed inside the pump station facilities were observed on or around the equipment and floors due to pump leaks, ongoing or past work on the equipment, and/or transfer spills. The transfer spills ranged in size from small stains to medium stains, to standing fluids

on the equipment. Some metal containers appeared to be rusting near the bottom where the container came in contact with the concrete floor, and petroleum stains or liquids were observed. In general, the petroleum product buildup observed on top of storage containers and surrounding areas were due to housekeeping and maintenance issues.

The above-mentioned containers stored *outside the facilities*, in general, were not protected from the elements. Some of the containers were severely rusted or physically damaged, improperly stored and not covered, and open. Petroleum product stains or liquids observed on the ground outside and underneath pumping stations appeared to be due to rusting containers, overflows from cans or drums not sealed to keep the rain out, transfer spills, and, in some instances, due to a lack of proper waste petroleum capture from the diesel engines located above. According to site contacts, there is a regular schedule to pick up containers not needed on site, and the containers are supposed to be stored temporarily. However, it appeared that many containers have been on site exposed to the elements for some time, with varying degrees of damage to the containers. Again, the petroleum product buildup observed on top of storage containers and surrounding areas were due to housekeeping and maintenance issues.

11.0 DEVIATIONS/DATA GAPS

Following is a list of the data gaps and deviations from ASTM Standard Practice E1527-05 that occurred during the performance of this assessment.

In this section, any term in *italics* has the meaning defined in ASTM Standard Practice E1527-05.

11.1 Historical Data Gaps/Data Failure

In accordance with the requirements in ASTM E1527-05, the history of the Properties was researched back to the first developed use (including agricultural use or incidence of import of fill material), or to 1940, whichever was earlier.

In accordance with the requirements in ASTM E1527-05, when conducting the historical review, intervals of not greater than five years were researched, unless the use of the Property was unchanged over a period of longer than five years.

No further historical data sources were evaluated, because: (1) they were not *reasonably ascertainable*, and/or (2) the assessor's experience indicates that additional available sources were not likely to be sufficiently useful, accurate, or complete in terms of satisfying the historical research objectives. Based on these two criteria, no attempt was made to evaluate the following historical sources:

- Recorded land title records
- Property tax files
- Building department records
- Zoning/land use records
- Other historical sources, including miscellaneous maps, newspaper archives, internet sites, community organizations, local libraries, historical societies, or current owners/occupants of neighboring parcels.

11.2 Other Deviations/Data Gaps

In accordance with the Scope of Work (Appendix A), no interviews or site visits were conducted with any business operators or residents within or outside the required footprint, with the exception of the Orleans Parish S&WB.

An interview with Mr. Bob Moeinian of the S&WB Environmental Division has been scheduled for Thursday, July 17, 2008. Results of this interview will be documented and submitted as an addendum to this final report.

No other deviation or *data gap* was identified that was deemed material to this assessment.

12.0 ADDITIONAL SERVICES

No additional services were requested to be included in this HTRW Phase I ESA.

13.0 REFERENCES

“ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, E 1527-05,” ASTM, Philadelphia, Pennsylvania.

EDR® Standard Package Report, Environmental Data Resources, Milford, Connecticut.

Personal Communications with Earth Tech, May, June, and July 2008

- Orleans Parish Drainage Department
- Orleans Parish Levee Board
- Orleans Parish Sewage and Water Board
- Louisiana Department of Environmental Quality
- LADEQ Public Records Department/EDMS
- Louisiana State Fire Marshall’s Office (ASTs)
- Entergy

U.S. Army Corps of Engineers, *Hazardous, Toxic and Radioactive Waste (HTRW) Guidelines for Civil Works Projects*, ER 1165-2-132, June 26, 1992.

14.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of *environmental professional* as defined in §312.10 of 40 CFR 312.

We have the specific qualifications based on education, training, and experience to assess a *Property* of the nature, history, and setting of the subject *Property*. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

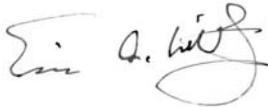


Zoe Knesl
Environmental Scientist



Kyle Parker
Environmental Engineer

Reviewed by:



Eric Milton
Environmental Scientist

15.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Resumes of the environmental professionals named in Section 14.0 above are in Appendix H.

16.0 APPENDICES

The remainder of this report consists of the appendices that are listed in the Table of Contents.

APPENDIX A
SCOPE OF SERVICES

APPENDIX B
PROPERTY MAPS

APPENDIX C
PHOTOGRAPHS

APPENDIX D
COMPUTER DATABASE SEARCH

APPENDIX E
REGULATORY RECORDS

APPENDIX F
ENVIRONMENTAL OBSERVATIONS

APPENDIX G
INTERVIEW DOCUMENTATION

APPENDIX H

**QUALIFICATIONS OF
ENVIRONMENTAL PROFESSIONALS**

See Volume III, Books 1 through 3 for additional computer database search reports.