RESPONSE TO NOTICE OF DEFICIENCY

RCRA HAZARDOUS WASTE PERMIT

RENEWAL APPLICATION FOR EXIDE TECHNOLOGIES BATON ROUGE SMELTER

LAD 086 478 047 (AI #1396/PER #2003001)

Prepared for:
EXIDE TECHNOLOGIES
Baton Rouge, Louisiana

Prepared by:
ADVANCED GEOSERVICES

ADVANCED GeoServices
Engineering for the Environment. Planning for People.™

Project No. 2003-1058-03
October 20, 2005

MAIN FILE

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October 20, 2005

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2003-1058-03

Ms. Karla Vidrine
Louisiana Department of Environmental Quality
Permits Division
P.O. Box 4313
602 North Fifth Street
Baton Rouge, LA 70802

RECEIVED
OCT 21 2005
LDEQ

RE: Exide Technologies Baton Rouge Smelter
LAD 086 478 047
AI# 1396/PER# 20030001
Response to Notice of Deficiency (NOD)

Dear Ms. Vidrine:

Advanced GeoServices (AGC), on behalf of Exide Technologies (Exide), submits four (4) copies of the following responses to deficiencies noted by the Louisiana Department of Environmental Quality on May 18, 2005. Each deficiency and Exide's associated response is provided below for your convenience. Only revised appendices and figures have been provided.

GENERAL COMMENTS

1. *LAC 33:V.515.A.14.i* — *The Applicant must provide other relevant environmental permits (i.e., solid waste, water, air, etc.).*

Section 515.A.14.i of the renewal application has been revised to provide the list of environmental permits for the facility. The revised pages of the renewal application have been provided in Response Attachment 5. The list of permits in Part A was also updated to revise the list of permits and to revise the locations where Exide conducts hazardous waste activities. The revised Part A form has been provided in Response Attachment A.

2. *LAC 33:V.517.A* — *The Applicant must include all changes at the facility since the original permit application was submitted (i.e., a revised closure plan and closure cost estimates, a revised contingency plan, the upgrades to the containment building, the dust suppression plan, etc.).*

Section 517.A of the renewal application has been revised to indicate that a Class 3 permit modification request was submitted on October 17, 2001 to include the interim status Containment Building in the Hazardous Waste permit and to conduct upgrades at the Containment Building. LDEQ-approved Containment Building upgrades were completed in November 2003. The revised page of the renewal application has been provided in Response Attachment 5.

3. *LAC 33:V.517.B.4*

The Applicant's response must explain if the map or maps show the potentiometric surface for aquifers within 100 feet of the lowest elevation of disposal cells, or other facilities containing hazardous waste, from 1,000 feet upstream to 1,000 feet downstream, where applicable. A general area map with cross sections identifying the extent of freshwater sands, and the degree of isolation from waste sources by confining layers of clay should be included.

Figure 14 has been prepared to show the surface drainage conditions within 1,000 feet of the Site. The figure includes topographic information (contour interval = 2 feet) and groundwater contours for the shallow aquifer (<100 feet) beneath the Site. Insufficient groundwater level data exists to allow estimation of the potentiometric surface for the shallow aquifer beyond the site boundary. The first major aquifer is the combined 400-ft / 600-ft sand, the top of which is > 120 feet below the lowest estimated elevation of hazardous waste; therefore, no potentiometric contours are shown for the 400 ft / 600 ft sand. Figure 15 provides 3 cross-sections that were developed using boring logs from the Site groundwater wells and geotechnical borings. The cross sections also depict the top of the 400 ft / 600 ft sand which was inferred from information contained in the October 1969 Louisiana Water Resources Research Institute Bulletin GT-4 "Geohydrology of the Shallow Aquifers of Baton Rouge, Louisiana" (Charles L. Smith). The figures are provided in Response Attachment F.

4. *LAC 33:V.517.B.5*

The nearest resident is 2 miles from the facility and therefore must be included on the Surrounding Land Use Map. Figure 2, Site Location Map is not to scale and does not clearly show and identify the surrounding land uses. The nearest pasture land is 1.5 miles from the facility. The map does not show or identify the pasture land on Figure 2, Site Location Map as indicated in the response. A revised map accurately identifying the surrounding land uses must be provided.

Figure 5A & 5B, Topography Map does not show the pasture nor residential area as indicated in the response. A revised map accurately identifying the surrounding land uses must be provided.

Figure 7, Surrounding Topography Map does not show the pasture nor residential area as indicated in the response. The map is blurry and does not clearly and accurately identify the surrounding land uses. A revised map accurately identifying the surrounding land uses must be provided.

Section 517.B.5 of the renewal application has been revised to indicate that Figure 7 identifies surrounding land use within 2 miles at a scale of 1"=1000' and that Figure 2 presents the Site and surrounding areas with topography at a scale of 1"=200'. References to Figures 2 and 5 have been removed. The revised page of the renewal application is provided in Response Attachment 5. The revised Figure 7 is provided in Response Attachment F.

5. *LAC 33:V.517.B.8*

Figure 3, Water Well Location Map is not to scale (i.e., 1"≤200'). The map does not include a north arrow. The map legend does not indicate the two deep wells used for potable water. The map at its current scale is difficult to read and identifying the water wells is difficult. A revised map that is to scale with north orientation and that includes all the wells on-site and off-site must be provided. A color map should be provided, if possible.

Figures 2 and 7 have been revised to show wells within 1,000 feet and 2 miles of the facility respectively. Figure 2 is at a scale of 1"=200' and Figure 7 is at a scale of 1"=1,000'. Figure 3 (scale 1"=2,000') has been retained for use as a quick reference. A north arrow and legend have been provided on Figure 3. The two deep on-site potable water wells are shown as Well Nos. 967 and 748 on Figure 3. Figure 3 is not available in color. Figures 2, 3 and 7 have been provided in Response Attachment F.

6. *LAC 33:V.517.B.14*

Figure 2, Site Location Map is not to scale and does not clearly indicate the natural features that affect off-site drainage patterns, etc. A color map should be provided, if possible.

Figure 7, Surrounding Topography Map is blurry and does not clearly and accurately identify the natural features that affect off-site drainage patterns, etc. A color map should be provided, if possible.

As requested, Figure 2 has been developed in color at a scale of 1 inch equal to 200 ft. The new Figure 2 superimposes topographic information over aerial photographs and clearly defines topographic conditions and natural physical features affecting off-site drainage, transportation, utilities and location of effluent discharges. Figure 2 has been provided in Response Attachment F.

The original references to Figures 5 and 7 are no longer required to depict the information requested in this section of the renewal application. The references to Figures 5 and 7 have been removed. The revised page of the renewal application has been provided in Response Attachment 5.

7. *General Comment* — *The Applicant's responses to each regulatory chapter should be divided, using tabbed divider sheets for easy and accurate reference.*

Tabbed divider sheets have been used in this response letter and will also be provided in the next complete submission as requested.

8. *LAC 33:V.517.F* — *Response should include compliance with the equipment required in LAC 33:V.1507. The Applicant states that the facility gates are lighted and monitored but an explanation of the lighting around the perimeter should be provided (e.g., lighted poles are every 100').*

This section has been revised to indicate that light posts are present at the main gate entrance off of Brooklawn Avenue, the center and west side of the parking lot, the administration building, the railroad spurs and the northwest portion of the facility. The revised page of the renewal application has been provided in Response Attachment 5. Light post locations are provided on Figure 5A in Response Attachment F.

9. *LAC 33:V.517.J.3* — *The Applicant should provide an explanation of leachate drained from Area 2 including the location of the sump, the collection system and the processing.*

The leachate drained from Area 2 is free liquid within lead oxide paste which is introduced through the battery breaking process. Lead oxide paste is a red-brown, high density solid material. Sloped floors facilitate the collection of liquids for removal. During construction, drainage was confirmed by pouring water on all concrete surfaces at a rate of 25 gallons per minute. No puddling was observed. The liquids collected at the sumps are pumped from the sump and transferred to the facility wastewater treatment plant or battery breaker unit. As-built drawings of the Area 2 floor system, including sump, are provided in the Containment Building Certification Document which is provided as Response Attachment A11. Figure 6 has been revised to show the sump location and is provided in Response Attachment F. Revised pages of the permit renewal application are provided in Response Attachment 5.

10. *LAC 33:V.517.J.4* *An explanation of the liner system, sumps, collection system, etc. used to prevent contamination to the water supplies should be provided.*

Section 517.4 of the renewal application has been revised to indicate that the Containment Building has an efficient primary barrier designed and constructed to prevent the migration of any hazardous constituents through the barrier or into water supplies. Area 1 manages wastes without free liquids; but will utilize small amounts of water for the purpose of dust suppression. However, this activity should not generate any free standing liquids. Area 1 is not required to have a liquid collection system as liquids are not managed in the area. The floor system at Area 1 is constructed of, from top to bottom, 6 inches reinforced concrete, Amoco 4516 geotextile, 40 mil HDPE geomembrane, and 1 inch sand over existing concrete and is sloped to collection points to facilitate removal of wastes from the primary barrier to prevent migration of hazardous constituents into the barrier.

Area 2 is used to manage lead oxide paste which may have free liquids. The Area 2 floor system consists of, from top to bottom, acid brick, minimum 6 inches of 4,000 psi reinforced concrete, 12 ounce geotextile, 80 mil HDPE liner and geonet drainage layer. Drainage is directed to a sump to minimize the accumulation of free liquids on the primary barrier. Sloped floors facilitate the collection of liquids for removal. The liquids collected at the sump are pumped from the sump and transferred to the facility wastewater treatment plant. As-built drawings of the Area 2 floor system, including sump, are provided in Response Attachment A11. Figure 6 has been revised to show the sump location and is provided in Response Attachment F.

The revised pages of the renewal application are provided in Response Attachment 5.

11. *LAC 33:V.517.L* *The Applicant must provide an outline of both the introductory and continuing training programs. A list of the general qualifications of key operating positions and a brief description of how the training program is designed to meet actual job tasks, in accordance with the requirements, must be provided.*

Section 517.L of the renewal application has been revised to state that initial employee training includes Medical Surveillance Program; Lockout Tagout Program; Confined Space Entry Program; Hearing Conservation Program; Respiratory Protection Program; Powered Industrial Truck Safety; Hazard Communication; HAZWOPER Training; Contingency Plan; Environmental Regulations; Spill Response; Work Practice Training Program; DOT Hazardous Material Training; Sexual Harassment; Blood Borne Pathogens; Heat Stress; Fire Extinguisher Use and Incipient Fire Control; Fall Protection; Slip Trip and Fall Hazard Avoidance; Proper Lifting Techniques and Back Protection. These topics are also addressed at least annually as part of continuing training programs, with the exception of Powered Industrial Truck Safety which is conducted once every three years and DOT Hazardous Material Training which is conducted periodically. The general qualifications and

the associated training program elements for key operating positions are provided in the Training Manual (Appendix 13) and are summarized as follows:

Job Description	Qualifications	Training
Refinery Supervisor	Several years experience as a refinery operator, know refinery operations completely and have a high degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Refinery Operator	Several years experience in the refining of lead and lead alloys, must be knowledgeable of chemical additives required to produce quality lead and lead alloy.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Caster	On the job training, mobile equipment operations and some basic mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Laboratory Technician	Basic understanding of chemistry, lead smelting, refining, and instrumentation.	Basic environmental regulations, chemical handling, contingency plan, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Furnace Supervisor	Several years experience in furnace operations, know	Basic environmental regulations, chemical handling, contingency

Job Description	Qualifications	Training
	furnace operations completely and have a high degree of mechanical aptitude.	plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Furnace Operator	Experience in furnace operations, metallurgy, charging and have a high degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Furnace Helper	Experience in furnace operations, and have a high degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Wastewater Treatment Plant Operator	Several years experience in treatment plant operations, water and acid chemistry, and equipment maintenance.	Basic environmental regulations, chemical handling, contingency plan, pH calibration and monitoring, proper clean up procedures, and all Exide safety procedures including lockout tagout, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Wastewater Treatment Plant Supervisor	Several years experience as a treatment plant operator, high degree of technical aptitude, perform maintenance on all equipment in treatment plant, able to treat water to acceptable standards.	Basic environmental regulations, chemical handling, contingency plan, pH calibration and monitoring, proper clean up procedures, and all Exide safety procedures including lockout tagout, right-to-know, blood lead

Job Description	Qualifications	Training
		monitoring, respiratory protection and MSDS.
Baghouse Operator	Several years experience in baghouse operations and equipment maintenance.	Basic environmental regulations, bag handling, baghouse cleanup procedures, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Baghouse Supervisor	Several years experience as a baghouse operator, high degree of technical aptitude, know baghouse operations completely.	Basic environmental regulations, bag handling, baghouse cleanup procedures, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Dust Reverbatory Furnace Operator	Several years experience as an operator, high degree of technical aptitude, know basic elements of baghouse operations.	Basic environmental regulations, contingency plan, furnace operations, clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Slag Stabilization Operator	Several years experience operating the slag stabilization unit, a mobile equipment operator, experience with equipment maintenance.	Basic environmental regulations, contingency plan, slag handling, clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Slag Stabilization Supervisor	Several years experience as a slag stabilization operator, high degree of technical aptitude, know stabilization operations completely.	Basic environmental regulations, contingency plan, hazardous material handling, landfill operations, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.

Job Description	Qualifications	Training
Yard Man	Mobile equipment operator, experience handling, shipping and receiving products.	Basic environmental regulations, contingency plan, incoming hazardous materials handling, clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Yard Foreman	Several years experience working in the yard, high degree of mechanical aptitude.	Basic environmental regulations, contingency plan, hazardous material handling, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Supervisor	Experience working in the battery breaker unit, high degree of mechanical aptitude and chemical knowledge.	Basic environmental regulations, contingency plan, chemical handling, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Operator	Complete operator training at Battery Breaker Unit, high degree of mechanical aptitude and chemical knowledge.	Basic environmental regulations, contingency plan, chemical handling, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Dock Leader	Experience working at the battery breaker dock, mobile equipment operator.	Basic environmental regulations, chemical (battery) handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Dock Crew	Mobile equipment operator, high degree of mechanical aptitude.	Basic environmental regulations, chemical (battery) handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-

Job Description	Qualifications	Training
		to-know, blood lead monitoring, respiratory protection and MSDS.
Mechanic	High degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Electrician	High degree of electrical knowledge and mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Welder	Welding experience and mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Change House, Lunchroom and Respirator Maintenance Operator	Be able to follow specific procedures and cleaning instructions.	Basic environmental regulations, chemical handling, contingency plan, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Yard Supervisor	Several years of experience working in the yard, high degree of mechanical aptitude	Basic environmental regulations, hazardous material handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.

Revised pages of the renewal application are provided in Response Attachment 5. The revised Training Manual (Appendix 13) is provided in Response Attachment A13.

12. *LAC 33:V.517.T*

The Applicant has not satisfactorily addressed this regulation. In addition to providing published studies, the Applicant must provide:

- *aerial reconnaissance of the area within a five-mile radius from the facility;*
- *analysis of aerial photographs covering a 3,000-foot radius of the facility; and*
- *if needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility.*

The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The Applicant must include a certification statement from a qualified geologist. The information provided as Appendix B does not constitute a site-specific geological certification.

If the above information does not demonstrate compliance with the seismic standard, the Applicant must satisfy the requirements of LAC 33:V.517.T.1.a.ii.

As part of the response to this comment, Paul Stratman performed a review of available publications and aerial photographs to determine the proximity of active (Holocene) faults to the RCRA permitted units. Mr. Stratman possesses Bachelor of Science degrees in Civil Engineering and Geology, practices in the area of geotechnical engineering and holds professional licensure as both a Professional Engineer and Professional Geologist in multiple states. His Louisiana Professional Engineering Registration Number is 29150. A certification statement is provided in Appendix 27 in Response Attachment A27. The revised pages of the renewal application have been provided in Response Attachment 5. The revision includes Appendix 27, which includes a copy of 40 CFR Part 264 Appendix VI, aerial reconnaissance within a five mile radius of the facility, and an analysis of the aerial photos within 3,000 feet of the facility. Reconnaissance by foot was not necessary as the facility is in excess of 3,000 feet from the nearest known or suspected Holocene fault. Appendix 27 also includes a certification of compliance by a Professional Engineer licensed in the state of Louisiana. The certificate of compliance indicates compliance with the seismic standard, therefore, the requirements of LAC 33:V.517.T.1.a.ii are not required. Appendix 27 is provided as Response Attachment A27.

13. *LAC 33:V.517.T.1.a.i-ii* *The seismic requirements in 40 CFR 264.18(a) must be addressed. The comment following 40 CFR 264.18(a) states that if these requirements are met then the procedures for demonstrating compliance with 40 CFR 270.14(b)(11) have been established. The Louisiana Administrative Code (LAC) requires a response to this regulation. The state regulations do not contain the comment that follows the 40 CFR 264.18 and 270.14. The Applicant must provide a response that contains the information required in the regulation.*

As part of the response to this comment, Paul Stratman performed a review of available publications and aerial photographs to determine the proximity of active (Holocene) faults to the RCRA permitted units. Mr. Stratman possesses Bachelor of Science degrees in Civil Engineering and Geology, practices in the area of geotechnical engineering and holds professional licensure as both a Professional Engineer and Professional Geologist in multiple states. His Louisiana Professional Engineering Registration Number is 29150. A certification statement is provided in Appendix 27 in Response Attachment A27. The revised pages of the renewal application have been provided in Response Attachment 5. The revision includes Appendix 27, which includes a copy of 40 CFR Part 264 Appendix VI, aerial reconnaissance within a five mile radius of the facility, and an analysis of the aerial photos within 3,000 feet of the facility. Reconnaissance by foot was not necessary as the facility is in excess of 3,000 feet from the nearest known or suspected Holocene fault. Appendix 27 also includes a certification of compliance by a Professional Engineer licensed in the state of Louisiana. The certificate of compliance indicates compliance with the seismic standard, therefore, the requirements of LAC 33:V.517.T.1.a.ii are not required. Appendix 27 is provided as Response Attachment A27.

The revised pages of the renewal application are provided in Response Attachment 5.

14. *LAC 33:V.517.T.3.b* *The Applicant must include the basis for identification (i.e., the information was obtained from hydrogeologic investigations of the facility area) of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility, including groundwater flow direction and rate.*

This section has been revised to indicate that soil information for the facility was obtained from boring logs conducted as part of previous investigations and as summarized in the previous RCRA Permit package. Copies of available boring logs have been added to Appendix 10, which is provided as Response Attachment A10. Groundwater information for the site was summarized from previous investigations for permit applications for the facility. Hydraulic testing information was obtained from slug testing conducted by Exide at the existing hazardous waste cells monitoring wells. Revised pages of the renewal application are provided in Response Attachment 5.

15. *LAC 33:V.517.T.3.c* — *A response to this requirement should include a statement that no hazardous waste disposal cells or impoundments, landfill and land treatment facilities are planned.*

The response for this section has been revised to indicate that no hazardous waste disposal cells, impoundments, landfills or land treatment facilities are planned. Solid waste disposal facilities may be required as part of future facility operations; however, the schedule and planned activities are not yet known. Approvals will be applied for when appropriate. The revised page of the renewal application has been provided in Response Attachment 5.

16. *LAC 33:V.517.T.3.e* — *The Applicant's response to this regulatory requirement should include a statement that a general map and cross sections indicating the extent of freshwater sands, and the degree of isolation of these aquifers to a depth of 1,000 feet from waste sources by confining layers of clay is not provided.*

As part of the response to this comment, Paul Stratman performed a review of available publications and aerial photographs to determine the proximity of active (Holocene) faults to the RCRA permitted units. Mr. Stratman possesses Bachelor of Science degrees in Civil Engineering and Geology, practices in the area of geotechnical engineering and holds professional licensure as both a Professional Engineer and Professional Geologist in multiple states. His Louisiana Professional Engineering Registration Number is 29150. A certification statement is provided in Appendix 27 in Response Attachment A27. The revised pages of the renewal application have been provided in Response Attachment 5. The revision includes Appendix 27, which includes a copy of 40 CFR Part 264 Appendix VI, aerial reconnaissance within a five mile radius of the facility, and an analysis of the aerial photos within 3,000 feet of the facility. Reconnaissance by foot was not necessary as the facility is in excess of 3,000 feet from the nearest known or suspected Holocene fault. Appendix 27 also includes a certification of compliance by a Professional Engineer licensed in the state of Louisiana. The certificate of compliance indicates compliance with the seismic standard, therefore, the requirements of LAC 33:V.517.T.1.a.ii are not required. Appendix 27 is provided as Response Attachment A27.

17. *LAC 33:V.517.T.4.a* — *The Applicant must explain if the natural surface drainage system is within 1,000 feet of the property.*

The response has been revised to clarify that Baton Rouge Bayou is the only natural perennial surface drainage system within 1,000 feet of the property as shown on Figure 2. Figure 2 is provided in Response Attachment F. The revised page of the renewal application is provided in Response Attachment 5.

18. *LAC 33:V517.T.4.b.ii* — *The maximum, minimum, and average temperature/month for past 10 years should be provided (i.e., the response provided was for 29 years). Documentation of the climatology should be provided as an appendix.*

NOAA climatological monthly records for 1995 through 2004 have been added as Appendix 28 in Response Attachment A28.

The revised page of the renewal application has been provided in Response Attachment 5.

19. *LAC 33:V.517.T.4.b.iv* — *Documentation of the climatology should be provided as an appendix.*

The response has been revised to indicate that climatological data is provided as Appendix 28 in Response Attachment A28. The revised page of the renewal application is provided in Response Attachment 5.

20. *LAC 33:V.517.5.a* — *The information provided in the response was based on information from 1993. Updated information should be provided. Many conditions at the facility have changed since 1993.*

Letters were submitted on July 7, 2005 to the Department of Wildlife and Fisheries Wildlife Division, Fur and Refuge Division and Inland Fisheries Division, the Division of Historic Preservation, U.S. Army Corps of Engineers and Louisiana Division of Archaeology requesting reviews of the Site. Responses have been received from the Wildlife Division, Inland Fisheries Division, Fur and Refuge Division, and Louisiana Department of Archaeology. Updated information received to-date regarding historical or ecological impacts is provided in Appendix 21 in Response Attachment A21. The response has been revised to indicate that the pallid sturgeon and its habitat in the Mississippi River may be affected by the facility. However, impacts are due to the loss of habitat caused by construction of dams that have modified flows, reduced turbidity and lowered water temperatures. Exide does not propose to construct any dams or otherwise impede flow through Baton Rouge Bayou; therefore, the proposed permit renewal should not impact the pallid sturgeon. Exide will continue to avoid any degredation of the water quality in the Mississippi River. No other potential impacts to rare, threatened or endangered species or critical habitats were identified. The revised page of the renewal application is provided in Response Attachment 5.

21. *LAC 33:V.517.5.b* — *Documentation should be provided for no historical sites, recreational areas or critical habitat and wildlife, etc.*

Letters were submitted on July 7, 2005 to the Department of Wildlife and Fisheries Wildlife Division, Fur and Refuge Division and Inland Fisheries Division, the Division of Historic Preservation, U.S. Army Corps of Engineers and Louisiana Division of Archaeology requesting reviews of the Site. Responses have been received from the Wildlife Division, Inland Fisheries Division, Fur and Refuge Division, and Louisiana Department of Archaeology. Updated information received to-date regarding historical or ecological impacts is provided in Appendix 21 in Response Attachment A21. The response has been revised to indicate that the pallid sturgeon and its habitat in the Mississippi River may be affected by the facility. However, impacts are due to the loss of habitat caused by construction of dams that have modified flows, reduced turbidity and lowered water temperatures. Exide does not propose to construct any dams or otherwise impede flow through Baton Rouge Bayou; therefore, the proposed permit renewal should not impact the pallid sturgeon. Exide will continue to avoid any degredation of the water quality in the Mississippi River. No other potential impacts to rare, threatened or endangered species or critical habitats were identified. The revised page of the renewal application is provided in Response Attachment 5.

22. *LAC 33:V.517.6.d*

Figure 2, Site Location Map is not to scale and does not clearly show and identify the surrounding land uses. A revised map accurately identifying the surrounding land uses must be provided.

The response to this requirement has been revised to indicate that surrounding land use is provided on Figure 7. The revised page of the renewal application is provided in Response Attachment 5. Figure 7 is provided in Response Attachment F.

23. *LAC 33:V.521.A.3*

The Applicant must provide an explanation for the capacity of the containment system relative to the number and volume of containers to be stored instead of referencing a response to another regulatory requirement.

The Applicant must clarify the paste containing free liquids in The Paste Storage Area (Area 2) and the management of these free liquids.

The K069/D008 storage area identified in the 1993 Permit is no longer utilized by the facility for the management of hazardous waste. The area formerly occupied by this permitted unit is now included in the battery breaking area. At the time of the change, the closure requirements for the K069/D008 area were sweeping and power-washing, followed by collection of a rinsate sample to determine the completeness of the cleaning. No additional sampling was required.

Facility personnel present at the time of the change have stated that at the time of conversion from a RCRA permitted storage area to a process area for facility operations, all materials contained in the building were removed, the floors swept and the area paved with asphalt. No other information

could be located regarding the closure. Because the area is already closed, references to the K069/D008 Storage Area in the Hazardous Waste Permit Renewal Application and its attachments have been revised to remove reference to the unit, except to the extent that is discussed as a formerly permitted unit.

The maximum storage capacity at the Truck/Trailer Storage Area is 85,000 batteries (85,000 gallons). The secondary containment at the Truck/Trailer Storage Area has a capacity of 269,280 gallons, which is sufficient to contain a 12-inch 25-year, 24-hour storm event and 10% of the battery acid stored.

The Whole Battery Storage Area has a maximum storage capacity of 81,000 batteries (81,000 gallons). The secondary containment at the Whole Battery Storage Area has a capacity of 23,375 gallons, which is sufficient to contain 10% of the battery acid stored. The requirement to contain stormwater does not apply as there is a roof and run-on controls at the Whole Battery Storage Area.

Desulfurized battery paste, is stored in Area 2 of the Containment Building. Prior to the battery breaker/desulfurization process the paste is a moist red-brown, high density solid material with a typical moisture content less than 5%. The material may contain free liquids after the battery breaking operation. Any free liquids drain to a sump at Area 2 and are pumped to the Battery Breaker Unit or wastewater treatment plant for processing. Paste is not stored at the Container Storage Areas.

The revised page of the renewal application has been provided in Response Attachment 5.

24. *LAC 33:V.521.A.5*

The Applicant's response states that Exide does not accept waste that contains free liquids. Previous responses (i.e., pages 5-47, 5-48 and 5-62) state that free liquids are stored in Area 2. Clarification is needed about what free liquids are accepted and stored. Also, clarification of how the accumulated liquids are analyzed and removed to prevent an overflow must be provided.

Exide receives whole lead acid batteries at the facility for recycling, which are stored at the container storage areas. Whole batteries do contain acid. No other wastes received at the facility contain free liquid. The batteries are broken and separated into three waste streams (lead, liquid and plastic) as part of the recycling process. The majority of the liquid is immediately separated out and sent to the on-site treatment plant. The plastic is washed, loaded into trailers and shipped off-site for recycling. The lead, including grids, posts and paste, is sent to the Containment Building. The paste is a moist red-brown high density solid material that may contain free-liquid after being processed through the battery breaker and desulfurization unit. Any liquid from Area 2 of the Containment Building is drained to a sump and pumped to the Battery Breaker Unit where it is processed or to the wastewater

treatment system where it is treated. The sump is inspected as indicated in the Inspection Plan. The revised page of the renewal application is provided in Response Attachment 5.

25. *LAC 33:V.Chapter 9* — *The Applicant must provide responses to all applicable regulatory requirements of this chapter.*

Responses to LAC 33:V.Chapter 9 have been provided in Response Attachment 9.

26. *LAC 33:V.1103.C* — *The response to this regulatory requirement states that hazardous wastes managed at the facility includes a lead residue and sludges. The Applicant must explain where the waste is being stored also how these wastes are being stored, generated, treated and disposed.*

The response has been clarified to indicate that lead residues and sludges are received from off-site sources in labeled containers and do not contain free liquids. The residues and sludges from off-site sources are stored in the Containment Building until they are added to the furnace feed piles. Lead residues and sludges are also generated on-site and are stored in the Containment Building until they are added to the furnace feed piles. The facility operates one blast furnace and one reverbatory furnace to smelt the lead-bearing raw materials. The revised page of the renewal application has been provided in Response Attachment 11.

27. *LAC 33:V.1503.B.2* — *An explanation of the capability to divert run-on from adjoining land should be provided. The Applicant should provide an explanation of how low lying land (swales) controls run-on from adjoining land. An explanation of why subsurface run-on and run-off control features are not present at the facility should be provided.*

The response has been revised to indicate that the facility has the capability to divert run-on from a 24-hour, 25-year storm event as the site is elevated in comparison to adjoining lands. Run-on from the north and west is prevented by a 40-ft difference in topographic relief that falls from a nominal elevation 80-ft mean sea level (MSL) on-site to a nominal elevation below 39-ft MSL at Baton Rouge Bayou. The NPC Services, Inc. access road that represents a high point between the Exide facility and the adjacent Great Lakes Carbon facility has a drainage swale controls drainage along the eastern boundary of the Site. Precipitation falling on the access road is shed either to the east or west as roughly defined by the centerline of the road. The edge of the access road defines the eastern property boundary for the Exide facility. Run-on from areas south of the Site is prevented by a swale that drains from the main gate along the property boundary towards Baton Rouge Bayou. The swale intercepts surface water draining towards the Site and redirects it from away from the facility. The limited amount of surface water run-on and effectiveness of the surface controls (i.e., swales)

precludes the need for subsurface controls such as pipes or culverts. The revised page of the renewal application has been provided in Response Attachment 15.

28. *LAC 33:V.1503.B.4*

The Applicant should explain the protection from the entry of water by natural or created barriers since Baton Rouge Bayou is on the northwest side of the property and the Mississippi River is southwest of the facility.

Since the facility is in an area subject to hurricanes, a professional engineer must certify the protection from the entry of water by natural or created barriers, where applicable.

The response has been revised to indicate that the facility is elevated approximately 40 feet above Baton Rouge Bayou and the Mississippi River. The elevation of the Bayou is approximately 39 ft MSL. The nominal elevation of the operating areas of the facility is approximately elevation 80 ft MSL. The difference in elevation provides a natural barrier to protect from entry of water. In addition, the facility is located outside of the limits of the 100-year floodplain as shown on Figure 9. Figure 9 is provided in Response Attachment F. A certification statement by a Louisiana Licensed Professional Engineer indicating that the natural barrier provides protection from entry of water has been provided in Appendix 29 as Response Attachment A29. The revised page of the removal application has been provided in Response Attachment 15.

29. *LAC 33:V.1503.B.6*

Since swales, low tracts of marshy land, were identified, a delineation about whether these are areas of critical environmental concern should be provided.

Letters were submitted on July 7, 2005 to the Department of Wildlife and Fisheries Wildlife Division, Fur and Refuge Division and Inland Fisheries Division, the Division of Historic Preservation, U.S. Army Corps of Engineers and Louisiana Division of Archaeology requesting reviews of the Site. The responses received from the Wildlife Division, Inland Fisheries Division, Fur and Refuge Division, and Louisiana Department of Archaeology. Updated information received to-date regarding historical or ecological impacts is provided in Appendix 21 in Response Attachment A21. The response has been revised to indicate that the pallid sturgeon and its habitat in the Mississippi River may be affected by the facility. However, impacts are due to the loss of habitat caused by construction of dams that have modified flows, reduced turbidity and lowered water temperatures. Exide does not propose to construct any dams; therefore, the proposed permit renewal should not impact the pallid sturgeon. Exide will continue to avoid any degredation of the water quality in the Mississippi River. No other potential impacts to rare, threatened or endangered species or critical habitats were identified. The revised page of the renewal application is provided in Response Attachment 15.

30. *LAC 33:V.1507.B* — *An explanation of how the natural barrier on one side of the facility is used to prevent entry should be provided.*

The response has been revised to indicate that a natural barrier to prevent entry is provided by the Baton Rouge Bayou as the Bayou physically separates the facility from surrounding land. The slope between the Bayou and the facility is very steep, heavily vegetated and not easily negotiated by foot. Boat traffic is not allowed on the Bayou for national security reasons related to surrounding industries. In addition, wildlife such as alligators provide a natural deterrent to trespassers. The revised page of the renewal application is provided in Response Attachment 15.

31. *LAC 33:V.1507.J.3* — *An explanation of the number of lights, light spacing, types of lights, etc. must be provided.*

This section has been revised to indicate that light posts are present at the main gate entrance off of Brooklawn Avenue, the center and west side of the parking lot, the administration building, the railroad spurs and the northwest portion of the facility. The revised pages are provided in Response Attachment 15. Light post locations are provided on Figure 5A in Response Attachment F.

32. *LAC 33:V.1511.C.4* — *The Applicant must explain if the facility is equipped with a sprinkler system or other water spray systems.*

The response has been revised to indicate that Exide does not maintain a facility-wide sprinkler system. A sprinkler system is maintained at the baghouses. The revised page of the renewal application is provided in Response Attachment 15.

33. *LAC 33:V.1511.D* — *An explanation of the use of decontamination equipment must be provided.*

The response has been revised to indicate that a boot wash is provided for personnel decontamination at the main employee entrance and exit to the Containment Building. Wheel washes are provided for decontamination of equipment leaving the feed storage portion of the Containment Building. Wheel washes are automated high-pressure water-spray containment bays. In the unlikely event of an emergency within the Containment Building that would require evacuation of personnel and equipment, the vehicles would be staged in the RCRA permitted Truck/Trailer Storage Area until the emergency is controlled. At that time, the vehicles would return to the Containment Building if rendered operable, or will proceed to the truck washdown area for decontamination. All wastewater generated at the personnel and equipment decontamination areas is contained and routed to the wastewater treatment plant. These items are inspected during monthly inspection of the Containment Building as indicated in the Inspection Plan (Appendix 5). The revised page of the renewal application is provided in Response Attachment 15.

34. *LAC 33:V.1511.E.2* *The Applicant states that ". . . emergency communications, typically in the form of two-way radios" are used. A detailed explanation of the internal alarms and all other types of emergency communication devices must be provided.*

The response has been revised to indicate that two-way radios, the intercom system or telephone system will be used to alert employees of the emergency and to give instructions on what action is to be taken. If an emergency occurs during week day hours, notification will follow the Organizational Chart provided as Table 1 of the Contingency Plan (Appendix 6). Appendix 6 is provided in Response Attachment A6. If an emergency occurs during weekends, nights or holidays, the Shift Foreman or supervisor will notify the Chief Officer and the Communications officer. The Communication Officer will then proceed to contact all necessary personnel. Should the telephone, intercom and portable 2-way radios become inoperable, selected personnel (runners) will be sent to the effected departments. The telephone system has a battery backup in the event of a power failure. If the battery back-up unit also fails, the telephone jack located by the front door of the main office may be used since it is not connected to the plant electricity. The plant alarm siren will also be used to alert employees to the emergency. If the plant alarm siren is to be used the Chief Officer or his designate will instruct one of the Contingency Plan officers to go to the laboratory and sound the alarm. Each employee should respond to instructions being given by the telephone page system. If the page system is inoperative or no instructions are given, employees are to check with their immediate supervisor for further instructions. The siren alarm system is as follows:

BLAST	FREQUENCY	DESCRIPTION
1 Long	Continuous	Low water alarm. Signal to supervision to check and take necessary corrective action to bring the water level in the water tower back up to operating levels.
1 Short	Scheduled by Timer	Notification to employees of work and break schedule.
2 Short	Intermittent	Emergency in office or changehouse areas.
3 Short	Intermittent	Emergency in the Shop, Lunchroom, Lab or Yard areas.
4 Short	Intermittent	Emergency at the Production, Baghouse or Warehouse areas.
5 Short	Intermittent	Emergency at the Battery Breaker, Dust Reverb or Water Treatment Areas
Short, Long, Short, Long	Intermittent	Alarm signal to an emergency involving the total plant and calls for immediate evacuation of the plant. Employees are to follow supervisory instructions or report to front parking lot if not other instructions are given. The short/long blast are to be repeated several times to give notice to all employees.

The revised page of the renewal application is provided in Response Attachment 15.

35. *LAC 33:V.1511.G.1.a* — *An explanation of the arrangements made to familiarize law enforcement, fire departments, and emergency response teams with the facility must be provided (i.e., training exercises, tour of the facility, etc.).*

The response has been revised to indicate that in April 2003, Exide delivered copies to and received acknowledgement of the Contingency Plan (Appendix 6) from the Louisiana State Police, Baker Fire Department and Alsen Fire Department. In addition, Exide will offer to conduct a tour of the facility for key representatives from the State Police and both fire departments when the revised Contingency Plan is distributed. No training exercises are planned. Appendix 6 is provided in Response Attachment A6. The revised pages of the renewal application are provided in Response Attachment 15.

36. *LAC 33:V.1511.G.1.c* — *If the local law enforcement (i.e., Sheriff's Department) is utilized in an emergency then this information must be provided.*

The response has been revised to indicate that it is not anticipated that local law enforcement (i.e., Sheriff's Department) will be contacted during an emergency. The revised page of the renewal application has been provided in Response Attachment 15.

37. *LAC 33:V.1511.G.1.d* — *An explanation of the arrangements made to familiarize local hospitals with the facility must be provided (i.e., training exercises, tour of the facility, etc.).*

The response has been revised to indicate that in April 2003, Exide delivered copies to and received acknowledgement of the Contingency Plan (Appendix 6) from the Baton Rouge General Hospital (Florida Boulevard and Picardy Avenue locations), Our Lady of the Lake Hospital, and Lane Memorial Hospital. Exide will provide updated copies of the Contingency Plan when the Plan is revised and will request written documentation to confirm receipt. Exide will offer to conduct a tour of the facility when the revised Contingency Plan is distributed. No training exercises are planned. Appendix 6 is provided in Response Attachment A6. The revised page of the renewal application is provided in Response Attachment 15.

38. *LAC 33:V.1513.F.8.b* — *An explanation of the procedures for cleaning all emergency equipment should be provided in addition to the referencing of the contingency plan procedures.*

The response has been revised to indicate that equipment used to respond to an on-site emergency will be cleaned by scrapping and water spray, and if necessary, hand scrubbing to remove visual waste or sediment material. Decontamination activities will occur in a paved area of the facility. Decontamination water will be collected by the facility Wastewater Drainage and Collection System and processed in the on-site treatment system. The revised pages of the renewal application are provided in Response Attachment 15.

39. *LAC 33:V.1515.A.3.b-f* — *A brief description of each emergency procedure, emergency equipment, emergency system, etc. should be provided in addition to referencing the Training Manual.*

The response to LAC 33:V.1515.A.3.b has been revised to indicate that the facility does not have an automatic waste feed system. Each furnace is individually charged with a predetermined ratio of lead feed stock materials and other alloys depending on production specifications. Coke fuel may be added to the furnace crucible. Molten lead is poured into ingot molds by locally controlled lead pumps. Should a spill of molten lead occur, the shift foreman will immediately shut off the pump, stopping the spill. If the spill is due to a catastrophic crucible failure, personnel will communicate by two-way radio to the furnace/utilities operators and the Assistance Chief Officer to shut off the oxygen feed, secure charging and drain the crucible, to the extent possible, into the receiving kettle. All other operators will become alerted to the emergency during this communication. The Shift Supervisor and Assistant Chief Officer will then communicate by two-way radio or telephone the incident to the Chief Officer to implement the required degree of response required.

The response to LAC 33:V.1515.A.3.c has been revised to indicate that emergency communications will be conducted using two-way radios, intercom system or telephone system. If an emergency occurs during a week day, notification will follow the Organizational Chart provided as Table 1 of the Contingency Plan (Appendix 6). If an emergency occurs during weekends, nights or holidays, the Shift Foreman or Supervisor will notify the Chief Officer and the Communications Officers. The communication officer will then proceed to contact all necessary personnel.

The response to LAC 33:V.1515.A.3.d has been revised to indicate that employees will be restricted from areas where fire is occurring. The Fire Officer will work with the Utilities Officer to see that plant utilities such as electricity, natural gas, and oxygen are shut off as required. All employees are trained in incipient fire control. If the fire progresses to an uncontrolled stage, local and regional fire departments will be called to respond. Should any of these incidents occur and result in a spill of hazardous materials to an uncontained area, after resolving the emergency nature of the incident, the Chief Officer will employ response personnel to immediately clean-up, containerize, recycle on-site or dispose of spilled material as specified in LAC 33:V.Subpart I.

The response to LAC 33:V.1515.A.3.e has been revised to indicate that the possibility of groundwater contamination incidents will be evaluated after the emergency is rendered under control and all spilled materials cleaned up as described above. The nature and amount of spilled material (including water used to extinguish a fire) and length of time that it contacted uncontained areas will be evaluated for assessment of potential groundwater contaminants. A report containing the above information will be composed and delivered to LDEQ within the timeframe prescribed in LAC 33:I.Chapter 39. Exide will commit the resources and take action agreed to with LDEQ should a subsurface investigation be required.

The response to LAC 33:V.1515.A.3.f has been revised to indicate that the Chief Officer or his delegate will decide whether or not a shut down is required in any or all units. In the event of a unit shutdown, proper lockout/tagout procedures will be followed. Locks and tags will only be removed when the unit has been declared safe. Minimum shutdown procedures for each unit are as follow:

Blast Furnaces: Tap remaining lead and slag; Shut off oxygen supply; Pull down the air relief valve; Shut down the roots blower; Lower the crucible; and clean the shaft.

Reverbatory Furnace: Tap remaining lead and slag; Empty the feed belt, hopper, and dryer; Switch the flue dust return; Empty and shutdown the feed ram; Shutdown the burners; and Shutdown the blowers to the baghouses.

Baghouses: Close the dampers and shutdown baghouse fan; Shut down the cleaning cycle and screw conveyors.

Natural Gas: The Utility Officer will determine if shutdown is required. The shut off valve is at the metering station located by the main gate.

Electrical: The Utility Officer will work with the utility company to restore power. The Maintenance Officer will arrange for motor-generator units to be placed in the most important areas, if it is likely that power outage will be for a considerable time. If electricity needs to be shut off or isolated from a certain portion of the smelter, the Utilities Officer will lockout/tagout the appropriate circuits. Power will not be restored until the affected unit or area is cleared.

Water Supply: The water supply main valve is beneath the water tower. The Utility Officer or his designee will be responsible for shutting off water during an emergency and restoring the water once the all clear has been given.

Mobil Equipment: During and emergency all mobile equipment will be removed from the danger area to a designated location.

Revised pages of the renewal application have been provided in Response Attachment 15.

40. *LAC 33:V.1519.B.1* — *An explanation of the rationale for the selection of testing parameters for each waste must be provided.*

An explanation of the additional testing that may be conducted at the discretion of the Environmental Manager should be provided.

This response has been revised to indicate that testing is conducted for compliance with LAC 33:V.1519 and to determine if a waste is acceptable to the facility. The analysis results are reviewed to ensure the waste materials will not cause equipment or operational problems, air and water management issues, explosions or fires. Lead analyses are used to determine how the material is managed within the facility for recovery of lead content. The revised page of the renewal application is provided in Response Attachment 15.

41. *LAC 33:V.1529.B.1* — *Clarification is needed on the statement that "Exide only accepts solid waste and prohibits the receipt of hazardous waste that contains free liquids."*

The response has been revised to indicate that whole unbroken lead-acid batteries contain an acidic liquid, but whole unbroken batteries are specifically excluded as a hazardous waste. Exide does not accept any other wastes containing free liquids. The revised page of the renewal application has been provided in Response Attachment 15.

42. *LAC 33:V.1529.B.4* — *The Applicant must include the methods and dates of the treatment, storage and disposal.*

The response has been revised to indicate that the method of treatment, storage and disposal will be recorded. The date when a material is accepted at the facility is also recorded. Wastes are placed in the Containment Building the same day they are received. The revised page of the renewal application is provided in Response Attachment 15.

43. *LAC 33:V.1529.B.15 & 17* — *These requirements refer to the use of an off-site disposal facility and an off-site storage facility. The Applicant must respond, accordingly.*

These responses have been revised to indicate that Exide does not use or operate off-site disposal or off-site storage facilities; therefore, these requirements do not apply. The response to LAC 33:V.1529.B.13 has been revised to indicate that Exide ships tin dross for off-site recycling. Submission of notice, certification and demonstration for off-site recycling of tin dross is not required as it is exempted because it is not a solid waste. The revised page of the renewal application has been provided in Response Attachment 15.

44. *LAC 33:V.1529.C.2* — *The Applicant must provide an updated response to this requirement.*

The response has been revised to indicate that Exide acknowledges, understands and will comply with this requirement. Revised pages of the renewal application are provided in Response Attachment 15.

45. *General Comment* — *Responses should include that the Applicant acknowledges, understands and will comply with the regulatory requirements. The Applicant must respond, accordingly.*

The responses have been revised to indicate that Exide acknowledges, understands and will comply with this requirement. Revised pages of the renewal application are provided in Response Attachments 5, 11, 13, 15, 18, 21, 33, 35, 38, 40 and 51.

46. *LAC 33:V.1759.C.4.c* — *When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection. The Applicant must respond accordingly.*

The response has been revised to indicate that first efforts to repair any defect noted during the inspection will be made as soon as possible, but no later than one working day after detection. The revised response has been provided in Response Attachment 17.

47. *LAC 33:V.1801.A.3* — *A brief summary of how migration is prevented should be provided.*

The response has been revised to indicate that migration is prevented by the primary barrier, which consists of 6 inches of concrete and HDPE geomembrane. These materials have a very low permeability and prevent liquids from moving vertically. The floors are sloped to collection points to facilitate removal of liquids which are intercepted by the primary barrier. The revised page of the renewal application has been provided in Response Attachment 18.

48. *LAC 33:V.1802.A.2.b* — *A summary of response to LAC 33:V.1801 must be provided.*

The response has been revised to indicate that in order to support operations, the concrete strength of the Containment Building floor would need to be a minimum of 17.15 psi. As concrete has a typical strength of 3,000 to 4,000 psi, the concrete floor is capable of supporting the anticipated loads when properly reinforced and constructed on adequately prepared subgrade. Qualitatively, it is obvious that the Containment Building reinforced concrete walls provide adequate strength based on the observation that the walls have been functioning since their construction over 10 years ago. To

substantiate the qualitative observation that the strength of the walls is adequate, a simplified quantitative evaluation for shear stress was performed. As shown in the Appendix 22 calculations, shear forces imposed by the lateral loads from the materials contained in the building are easily handled (F.S. = 1.7) by the resistance developed in the reinforced wall. The revised page of the renewal application is provided in Response Attachment 18.

> *The Applicant must clarify the statement made that although specific design data from the initial design of the building is not available, the foundation and structure of the containment building were designed and constructed to meet applicable building standards to ensure the integrity of the building and to ensure the safety of the facility personnel.*

This response has been revised in indicate that Exide believes the existing response is accurate as certification documents provided in Appendix 11A demonstrate that the design and construction of the building were in conformance with the plans for the project and the requirements of LAC 33:V.1802.A-C. As a licensed professional, the certifying engineer was obligated to design the Containment building to meet the applicable standards and to ensure the integrity of the building and the safety of personnel. The revised page of the renewal application is provided in Response Attachment 18.

> *The Applicant states that prior to installing the foundation, the bearing capacity of the underlying soil was tested to ensure that it could adequately support the building and the design loads required by the facility's operation. The Applicant also states that test results are not available and are not provided. These statements are contradictory. An explanation must be provided.*

This statement has been removed from the response. The revised page of the renewal application is provided in Response Attachment 18.

> *The Applicant must clarify the statement that the concrete foundation was properly reinforced according to the design standards of the American Concrete Institute (ACI); however, the type and quantity of reinforcement are not available. In addition, to meet the utilization needs of the building, the exterior walls were constructed of reinforced concrete in accordance with the ACI standards; however, the type and quantity of reinforcement are not available. The design wind load for the area, according to the building code standards of the time, was also utilized in the design and construction of*

the exterior walls; however the specific design load is not known. These statements are contradictory. An explanation must be provided.

The statement has been revised to indicate that Exide believes the existing response is accurate as the Containment Building was designed by a licensed professional. The certifying engineer was obligated to design the Containment Building to meet the applicable standards, including those for concrete reinforcement and wind load. The Containment Building was constructed similar to existing Containment Buildings at other Exide facilities, all of which function safely and appropriately. No visual observations have been made at the Baton Rouge smelter to indicate that the Containment Building has not been adequate for the service loads experienced during the last 10 years of operation. The revised page of the renewal application is provided in Response Attachment 18.

49. *LAC 33:V.1802.A.4*

The Applicant must provide a brief explanation of the design and specification of the walls and floors at Areas 1 and 2 in addition to referencing the structural calculations. They must have sufficient strength and thickness to support themselves, wastes, equipment and 55 personnel and the movement of heavy equipment within the unit and contact of such equipment with containment walls.

The response has been revised to indicate that the Area 1 floor system consists of, from top to bottom, 6 inches concrete, Amoco 4516 geotextile, 40 mil HDPE geomembrane, and 1 inch sand over existing concrete. The strength of the concrete is not known as the original design documents are not available although the concrete is performing in a manner consistent with concrete used for usual construction projects which typically has a compressive strength equal to or greater than 3,000 psi. The reinforced concrete walls of Area 1 are 12 feet high and 1 foot thick. The quantity and size of reinforcing steel and the concrete strength are not known as the original design data for the building is not available. The certification report for Area 1 was provided in Appendix 11A. The Area 2 floor system consists of, from top to bottom, acid brick, 6 inches 4,000 psi reinforced concrete, 12 ounce geotextile, 80 mil HDPE geomembrane, and geonet drainage layer. The concrete was reinforced with #5 rebar at 12 inches on center in each direction. All joints were covered with corrosive resistant tape. Concrete was mixed and placed in accordance with ACI standards. Design drawings were provided in Appendix 25. The certification report is provided in Appendix 11C in Response Attachment A11. The reinforced walls of Area 2 are 12 feet high and 1 foot thick. The type and quantity of reinforcement and the strength of the concrete are not known as original design information is not available. The revised page of the renewal application is provided in Response Attachment 18.

A brief explanation of the leak detection system in Area 2, as described in LAC 33:V.1801, must be provided in addition to referencing a previous response.

The response has been revised to indicate that the leak detection and liquid collection system at Area 2 consists of a geonet drainage layer beneath the geomembrane. The secondary containment system is the prepared surface of the existing 4 inch thick concrete. The geonet and concrete are compatible with any free liquid that may be produced by the lead oxide paste. The revised page of the renewal application is provided in Response Attachment 18.

50. *LAC 33:V.1802.B.2.b* — *A brief explanation of the size, location and number of sumps used in the collection and removal of liquids must be provided.*

The response has been revised to indicate that the Area 2 upgrades have been constructed. There is one sump at Area 2. The sump is located at the southwest corner of Area 2. The sump is 4 feet wide by 8 feet long by 2 feet deep. The revised page of the renewal application is provided in Response Attachment 18.

51. *LAC 33:V.1802.B.3.b* — *The Applicant must respond to this requirement. An explanation should be provided as to any treatment to be conducted in the building.*

The response has been revised to indicate that physical treatment, such as stabilization and solidification, is not performed in the Containment Building; therefore this requirement is not applicable. Materials managed in the Containment Building are fed into the reverbatory and blast furnaces for recycling. Blast furnace slag stored in the Containment Building which cannot be recycled is treated at the Slag Stabilization Unit prior to on-site disposal. The revised pages of the renewal application have been provided in Response Attachment 18.

52. *LAC 33:V.1802.B.3.c* — *An explanation of the slope at 1% or more and the construction materials that are chemically resistant should be provided.*

The response was revised to indicate that the Area 2 drainage layer and floor have a minimum slope of 1.5%, which is adequate for drainage to the sump. The as-built drawing for the Area 2 floor is provided in Response Attachment A11. The HDPE geonet drainage layer and the existing concrete secondary containment are chemically resistant to the liquids that may be experienced. The revised page of the renewal application is provided in Response Attachment 18.

53. *LAC 33:V.1802.C.1.c* — *An explanation of the select access areas of the building should be provided.*

The response has been revised to indicate that personnel boot and hand wash areas are located at the employee entrance / exit at the south side of the Containment Building. The location has been added to Figure 3 of the Contingency Plan (Appendix 6). Appendix 6 is provided in Response Attachment A6. Boot and hand wash stations are also present at the lunch and break room. Boot wash stations are also present at the Administration Building and change house. Showers are also present at the change house. The revised page of the renewal application is provided in Response Attachment 18.

54. *LAC 33:V.1802.C.3.c*

"Upon completion of all repairs and cleanup, the owner or operator must notify the Office of Environmental Assessment, Environmental Technology Division in writing and provide verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted and in accordance with LAC 33:V.1802.C.3.a.iv." Since the repairs and cleanup to the containment building have been completed, the Applicant must provide a response and documentation that this information was submitted.

This response has been revised to indicate that the Area 2 Certification Report, sealed by a professional engineer, was provided to the Department on November 25, 2003 to document that Containment Building upgrades were completed. The Certification Report is also provided in Appendix 11C (Response Attachment A11). The revised page of the renewal application is provided in Response Attachment 18.

55. *LAC 33:V.1802.E*

The Applicant must explain if a request was made for the administrative authority to waive requirements for secondary containment for a permitted containment building where the owner or operator demonstrates that the only free liquids in the unit are limited to the amounts of dust suppression liquids.

The response has been revised to indicate that Exide will submit a request for the administrative authority to waive requirements for secondary containment for a permitted containment building where the owner or operator demonstrates that the only free liquids in the unit are limited to the amounts of dust suppression liquids. The request will be submitted separately from the Part B Permit Application. The revised page of the renewal application is provided in Response Attachment 18.

56. *LAC 33:V.2109.C*

The Applicant must clarify the statement that since the original permit application, Exide has revised its inspection procedures to maintain compliance with regulations and safe

work practices. The specifics of the changes are not available. An explanation must be provided.

The response has been revised to remove statements regarding changes to the Inspection Plan. The Inspection Plan was provided in Appendix 5. The revised page of the renewal application is provided in Response Attachment 21.

57. *Figure 2* — *The map should be to a scale of 1"≤200', include a legend and be in color, if possible. The map must include all appropriate information.*

As requested, Figure 2 has been provided in color at a scale of 1 inch equal to 200 ft in Response Attachment F.

58. *Figure 3* — *The map should be to a scale of 1"≤200', include a legend, north arrow and be in color, if possible. The map must include all appropriate information.*

Figure 3 has been maintained at its original scale of 1"=2000' for use as a reference map. Greater detail (1"=200') is provided on Figure 2 which includes well locations. A north arrow and legend has been provided. The two deep on-site potable water wells are shown as Well Nos. 967 and 748 on Figure 3. Figure 3 is not available in color. Figure 3 is provided in Response Attachment F.

59. *Figure 4* — *The map is at a scale of 1"=150' but reading it is difficult. A legend should be included to help identify the information provided on the map.*

A revised Figure 4 is provided in Response Attachment F. The scale has been increased to 1 inch equal to 80 feet. A legend has been added.

60. *Figure 5A & 5B* — *The topographic map does not include the surrounding land (within 2 miles of the facility boundaries). If this information is included on another map, please explain which map shows the surrounding land within 2 miles of the facility boundaries.*

Surrounding land use within 2 miles of the facility is not provided on Figure 5. Figure 7 has been created to identify surrounding land use within 2 miles of the facility boundaries. Figure 2 provides topography. Figures 2 and 7 have been provided in Response Attachment F.

61. *Figure 6* — *The map does not show a sump in Area 2 that collects liquids, as stated in response to LAC 33:V.517.J.3.*

As-built drawings of the Area 2 floor system, including sump, are provided in Appendix 11C in Response Attachment A11. Figure 6 has been revised to show the sump location and has been provided in color. The revised Figure 6 is provided in Response Attachment F.

62. *Figure 7* — *The topography map is blurry, distorted and difficult to read. The map should be in color, if possible, and enhanced for clarity. The map does not show the surrounding land use. The map must be revised.*

Figure 7 has been revised to identify surrounding land use within 2 miles of the facility boundaries. Figure 7 has been provided in Response Attachment F. Figure 2 has been revised for clarity and show topography of surrounding areas at a scale of 1"=200'. Figure 2 is provided in Response Attachment F.

63. *Figure 9* — *An official full scale Flood Insurance Map from FEMA should be provided.*

Full scale FEMA Flood Insurance Rate Maps 220058 0060 D and 220058 0035 D have been provided as Figures 9A and 9B. The location of the site has been provided. These figures are provided in Response Attachment F.

64. *Figure 14* — *The potentiometric map is not to scale and should be in color, if possible, for clarity. The facility boundaries are not shown. A revised map must be provided.*

Figure 14 has been provided at a scale of 1 inch equal to 171 feet. This figure is not available in color. The facility boundaries have been provided. The revised figure is provided in Response Attachment F.

65. *Figure 15* — *The potentiometric map is not to scale and should be in color, if possible, for clarity. The facility boundaries are not indicated. A revised map must be provided.*

Figure 15 has been provided at a scale of 1inch equal to 150 feet. This figure is not available in color. The facility boundaries and a north arrow have been provided. The revised figure is provided in Response Attachment F.

66. *Appendix 6 - Contingency Plan* — *In Section 1.7, several tanks are discussed but they are not referenced in response to Chapter 17 of the regulatory requirements. The Applicant must explain these tanks' usages (i.e., less than 90-day storage, nonhazardous storage, meet secondary containment or not, etc.) and locations.*

The Contingency Plan (Appendix 6) has been revised to indicate that, as indicated in the Spill Prevention, Control and Countermeasures Plan, all tanks and transfer equipment are visually inspected on a daily basis as part of normal operations and more detailed quarterly inspections as required by LAC 33:IX.907.J. While these tanks store some hazardous materials such as fuels, acids and caustics, none of the tanks store hazardous waste and therefore are not regulated under LAC 33:V. All tanks have secondary containment as required by LAC 33:IX.907.F.1. The revised Contingency Plan is provided in Response Attachment A6.

67. *Appendix 6 - Contingency Plan* *In Section 3.3 and 3.3.1, an explanation of the use of the three types of personnel alert systems that will be used during an evacuation must be provided. An explanation of how personnel are alerted to begin evacuating an area or the entire facility should be provided.*

The Contingency Plan has been revised to indicate that should the Chief Officer (or his designee) determine an evacuation of an area of the plant is necessary, the following communications will occur. The Shift Supervisor and Assistant Chief Officer will communicate by two-way radio and/or telephone to the Chief Officer the incident, their assessment and recommendation to evacuate a specified area of the plant. If the radio and telephone both fail, then personal messenger (runner) will be used. The Shift Supervisor will immediately by two-way radio, telephone pager and intercom communication instruct all employees in the area to evacuate. All evacuations ordered in specified plant areas are to be walk-out as specified in Section 3.3.1. In conjunction with this evaluation, the Chief Officer will have engaged the activation of the plant alarm system as specified in Section 6.0. Should the Chief Officer deem it necessary to evacuate plant wide, he will engage the activation of the Plant Alarm System as specified in Section 6.0. The Communications Officer (and his designees) will correspondingly activate all other communications media (telephone, intercoms, and two-way radios) to contact all production area managers to evacuate all employees as specified in Section 3.3.1. The revised Contingency Plan is provided in Response Attachment A6.

68. *Appendix 6 - Contingency Plan* *In Section 3.3.2, if an air evacuation is necessary, the Applicant must state who will order the air evacuation, the contract personnel for this service, and who is responsible for designating the helicopter landing site.*

The Contingency Plan has been revised to indicate that the First Aid Officer will order an air evacuation. The location of the helicopter landing site would be designated by the Plant Manager or On-Scene Commander. The helicopter would land in the parking lot. The parking lot location has been added to Figure 3 of the Contingency Plan. If the parking lot is not available, the helicopter would land at one of the closed landfills. The helicopter service is Acadian. The revised Contingency Plan is provided in Response Attachment A6.

69. *Appendix 6 - Contingency Plan* *Figure 1, Site Location Plan is difficult to read. A color map should be provided, if possible. The map is not to a scale of 1"≤200'. The current scale is 1"=2000'. At this scale the map is small, hard to read and hard to identify the facility boundaries. The map must be revised.*

As requested, Contingency Plan Figure 1 has been provided in color at a scale of 1 inch equal to 200 ft in Response Attachment A6. Contingency Plan Figure 1 is provided for general site location only.

70. *Appendix 6 - Contingency Plan* *Figure 3, Location of Emergency Response Equipment Map is small and difficult to read. The map should be to a larger scale than 1"=150' to identify the location of the emergency equipment. A color-coded map should be provided for clarity and easier identification.*

Revised Contingency Plan Figure 3 has been provided in color at a scale of 1 inch equal to 60 feet in Response Attachment A6.

71. *Appendix 6 - Contingency Plan* *Copies of letters of acceptance by local authorities should be Appendix A provided.*

Exide will obtain letters of acceptance from local authorities in conjunction with distribution of the revised Contingency Plan.

72. *General Comment* *In the closure cost estimates, if coring samples are required then the cost for coring through the acid brick must be provided.*

The cost for coring through concrete and acid brick has already been provided in the Closure Cost Estimate, Table 1B, E1. A revision is not required.

73. *Appendix 8 - Closure and Post-Closure Plans* *Figure 1, Facility Plot Plan scale is difficult to identify the units and their locations. The map should be enlarged for clarity and color coded, if possible, to identify each unit, etc.*

Revised Closure and Post-Closure Plan Figure 1 has been provided at a scale of 1 equal to 80 feet in Response Attachment A8. Each unit is identified with labels.

74. *Appendix 11 - Containment Bldg.* *No information was included in this appendix.*

Appendix 11 consists of Appendix 11A and 11B. No pages are intended between the fly sheets for Appendix 11 and 11A.

75. *Appendix 14 - Spill Prevention, Control & Countermeasure Plan Figure 1, Site Location Plan is difficult to read. A color map should be provided, if possible. The map is not to a scale of 1"≤200'. The current scale is 1"=2000'. At this scale the map is small, hard to read and hard to determine the facility and boundaries. The map should be revised.*

As requested, SPCC Plan Figure 1 has been provided in color at a scale of 1 inch equal to 200 ft in Response Attachment A14. SPCC Plan Figure 1 is provided for general site location only.

76. *Appendix 14 - Spill Prevention, Control & Countermeasure Plan* *Figure 3, Location of Emergency Response Equipment Map is small and difficult to read. The map should be at a larger scale than 1"=150' in order to identify the location of the emergency equipment. A color-coded map should be provided for clarity and easier identification.*

Revised SPCC Plan Figure 3 has been provided in color at a scale of 1 inch equal to 60 feet in Response Attachment A14.

77. *Appendix 20 - Potentiometric Map* *An updated map that is color coded for clarity should be provided, if possible.*

The potentiometric maps that were provided in Appendix 20 are from the original RCRA Hazardous Waste Permit Application and are not available in color.

78. *Appendix 21 - Documentation For No Historical or Ecological Impacts* *The letters documented in this appendix are for the facility's Solid Waste Facility. The Applicant must provide this information for the hazardous waste permitted facility.*

Letters were submitted on July 7, 2005 to the Department of Wildlife and Fisheries Wildlife Division, Fur and Refuge Division and Inland Fisheries Division, the Division of Historic Preservation, U.S. Army Corps of Engineers and Louisiana Division of Archaeology requesting reviews of the Site. Responses have been received from the Wildlife Division, Inland Fisheries Division, Fur and Refuge Division, and Louisiana Department of Archaeology. Updated information received to-date regarding historical or ecological impacts is provided in Appendix 21 in Response Attachment A21. The response has been revised to indicate that the pallid sturgeon and its habitat in the Mississippi River may be affected by the facility. However, impacts are due to the loss of habitat caused by construction of dams that have modified flows, reduced turbidity and lowered water

temperatures. Exide does not propose to construct any dams; therefore, the proposed permit renewal should not impact the pallid sturgeon. Exide will continue to avoid any degredation of the water quality in the Mississippi River. No other potential impacts to rare, threatened or endangered species or critical habitats were identified.

ENGINEERING DIVISION COMMENTS

1. *IT Question* — *I.1.c., (page 4) - The response to this section states that lead paint chips are part of the recycled materials. Another statement elsewhere within the permit renewal application states that no organics are burned in the furnace. The facility must clarify what the additional components in the lead-based paint chips are, and if organic, what portion of annual feed is organic.*

The response has been revised to remove the reference to paint chips. The Baton Rouge smelter no longer recycles paint chips or organic lead waste. The revised page of the renewal application is provided in Response Attachment IT.

2. *IT Question* — *I.2., (page 5) - The response states that sulfuric acid is neutralized, crystallized and sold as a product. The facility must explain to what use the product serves that it is a product and not a waste.*

This response has been expanded to indicate that sodium sulfate salt is sold as a product to a broker who sells the product to others. There is a thriving industrial marketplace for sodium sulfate salt. Sodium sulfate salt has many industrial uses including as a bleach during pulp and paper production and as an ingredient in laundry detergent. The revised page of the renewal application is provided in Response Attachment IT.

3. *IT Question* — *I.2.b., (page 7) - The response describes the number of batteries, drums, or tons of waste potentially stored in the storage areas, but does not use the common description of surface area. The facility must also use the square feet of storage area when describing each storage area.*

The response has been revised to indicate that the Truck/Trailer Storage Area has a surface area of 120 ft by 120 ft, or 14,400 square feet. The Whole Battery Storage Area has a surface area of 75 ft by 100 ft, or 7,500 square feet. Within the Containment Building, there is 5,965 square feet of storage surface area for blast furnace slag and 15,100 square feet of storage surface area for other materials. The revised page of the renewal application is provided in Response Attachment IT.

The K069/D008 storage area identified in the 1993 Permit is no longer utilized by the facility for the management of hazardous waste. The area formerly occupied by this permitted unit is now included in the battery breaking area. At the time of the change, the closure requirements for the K069/D008 area were sweeping and power-washing, followed by collection of a rinsate sample to determine the completeness of the cleaning. No additional sampling was required.

Facility personnel present at the time of the change have stated that at the time of conversion from a RCRA permitted storage area to a process area for facility operations, all materials contained in the building were removed, the floors swept and the area paved with asphalt. No other information could be located regarding the closure. Because the area is already closed, references to the K069/D008 Storage Area in the Hazardous Waste Permit Renewal Application and its attachments have been revised to remove reference to the unit, except to the extent that is discussed as a formerly permitted unit.

4. *IT Question* — *IV.F.7., (page 26) - The response references control devices, but does not describe what type of control device. The facility must describe the control devices and the areas covered by each device.*

The response has been revised to indicate that the facility operates five fabric filter bag houses. Baghouse #1 services the blast furnace. Baghouse #4 services the reverb furnace. The remaining three baghouses can be cross-connected and service the kettle hoods, slag taps, feed systems, and dross pots. The revised page of the renewal application is provided in Response Attachment IT.

5. *LAC 33:V.517.A* — *The neutralized sulfuric acid is crystallized. The facility must describe what process/equipment is used in the crystallization process.*

The response has been revised to indicate that the sodium sulfate solution generated during the recycling process is collected in a storage tank. The solution is pre-heated and introduced into an evaporator / crystallizer. The unit operates on the principle of a draft-tube-baffle crystallizer where brine is continuously circulated. The stream of crystal-laden brine is extracted and centrifuged. The mother liquor is returned to the process while the crystals are pneumatically conveyed and dried in a warm air stream and stored in a silo for loadout. The salt is sold as a product. The moisture laden vapors from the evaporator / crystallizer unit are ducted to a heat exchanger for condensing. Condensate is collected in a tank and used for cake washing in the main filter press. The condenser cooling water is recirculated through a cooling tower and reused for the same purpose. The revised page of the renewal application is provided in Response Attachment 5.

6. *LAC 33:V.517.A* — *The lead oxide paste is described as containing 5% moisture. The facility must be more descriptive in the moisture and containment descriptions since this material will have been in contact with sulfuric acid that is extremely corrosive.*

The response has been revised to indicate that the lead oxide paste is de-sulfurized and neutral. The Paste Storage Area of the Containment Building (Area 2) has a floor system suitable for containing wastes which may contain free liquids. The floor system consists of, from top to bottom, acid brick, 6 inches 4,000 psi reinforced concrete, 12 ounce geotextile, 80 mil HDPE geomembrane, and geonet drainage layer. The revised page of the renewal application is provided in Response Attachment 5.

7. *LAC 33:V.521.A.1* *The calculations of the containment area with the 2-inch freeboard allowance do not state whether the 5/12 ft height is with or without the freeboard. The facility must be more descriptive in setting up the calculations to ensure understanding whether the freeboard is or is not included.*

The calculations have been revised to include the freeboard volume. The available containment volume (23,375 gallons) is greater than the total liquid volume to be stored plus free board (8,100 gallons + 9,350 gallons = 17,450 gallons). The revised page of the renewal application is provided in Response Attachment 5.

8. *LAC 33:V.1108.B* *The response states that the facility does not use railroads to ship hazardous waste. Since the railroad tracks are present at the site, railroads may be used for shipping. The facility must explain if railroads have ever been used for shipping of any materials to or from the facility occur.*

The response has been revised to indicate that the rail spur is only used to ship non-hazardous sodium sulfate and recycled lead and to receive non-hazardous coke. Occasionally, whole unbroken batteries are received by rail. Whole unbroken batteries are not a hazardous waste. Exide does not ship hazardous waste by rail. The revised page of the renewal application is provided in Response Attachment 11.

9. *LAC 33:V.1501.A* *The mixing of slag, sodium silicate and portland cement is done in a large volume with solids. The facility must describe in some more descriptive terms how this mixing is achieved to produce a consistent stabilized product.*

This response has been revised to indicate that the slag is crushed and screened to 3/8 inch maximum and is fed into a pugmill. The pugmill was manufactured by Cedar Rapids, Model No. 400. Portland cement, sodium silicate and water are added to the slag in the pugmill in fixed volumes and are mixed to form a thick pasty mixture which cures to a soil-like solid. The use of a pugmill for mixing allows for control of reagent addition and uniform mixing to create a consistent stabilized product. The treated product is discharged into a dump truck for transport to the permitted on-site landfill. Foaming and misting do not occur during the treatment process. A water mist is used for dust suppression. The sodium silicate is delivered in 300 gallon totes and is stored in a tank and

diluted with water. Portland cement is stored in a silo above the pugmill. Treatment is conducted on a batch basis. The revised page of the renewal application is provided in Response Attachment 15.

10. *LAC 33:V.1509.A* — *The response states "operator errors will be corrected immediately by discussing the situation with the operator and identifying the appropriate methods to conduct work." The facility does not reference documentation of the error, nor promulgation of the resolution to other operators to ensure no repeat of the error. The facility must ensure that errors and associated corrections are documented and the corrections are promulgated to all affected employees.*

The response has been revised to indicate that Exide will document the repairs and corrective action on the inspection forms. Information regarding the error and its correction is shared with other operators at pre-shift meetings to ensure errors are not repeated. For serious errors, a formal incident investigation is also conducted and a report generated, including root cause determination and action taken to prevent recurrence. The revised page of the renewal application is provided in Response Attachment 15.

11. *LAC 33:V.1521.B* — *The slag stabilization process is a chemical and physical treatment, which is above ground. The facility must respond to this subsection, or defend the explanation that this does not apply to the facility.*

Responses to this subsection have been provided for the chemical and physical treatment at the Slag Stabilization Unit. Exide does not conduct any biological treatment. The revised pages of the renewal application are provided in Response Attachment 15.

12. *LAC 33:V.1529.B.1* — *The response may be misleading by stating the facility does not accept hazardous waste that contains free liquids. Hazardous waste is accepted at the facility. Hazardous waste with limited free liquids is anticipated to have been received, but excessive free liquids are unacceptable. The facility must phrase the statement to be more explicit about receiving hazardous waste with no, or limited, free liquids.*

The response has been revised to indicate that Exide does not accept hazardous wastes containing free liquids. Whole unbroken lead-acid batteries contain an acidic liquid, but whole unbroken batteries are specifically excluded as a hazardous waste. The revised page of the renewal application is provided in Response Attachment 15.

13. *LAC 33:V.1802* *The containment building is designed to maintain a negative pressure relative to the atmosphere and to control particulate emissions with a series of bag filters. The facility must also explain the control of metallic vapors and acid fumes that may also exist in the facility's air, which may be emitted and estimate quantities released during the year.*

Operating the Containment Building under negative pressure also controls metallic vapors and acid fumes. On a facility-wide basis, the following emissions occurred in 2004:

- Particulate Matter (NEDS 81102) 23.59 tons;
- Lead (NEDS 12128) 1.94 tons;
- Carbon Monoxide (NEDS 42101) 3.60 tons;
- SO_2 (NEDS 42401) 1103.76 tons;
- NO_x (NEDS 42602) 14.23 tons; and
- VOC (NEDS 43104) 0.41 tons.

The revised page of the renewal application has been provided in Response Attachment 18.

14. *LAC 33:V.3509* *There is no accept/reject criteria specified for the final decontamination determination level for the decontamination wash water. The facility must specify what is the accept/reject detection level of contaminants in the decontamination wash water that will define "clean."*

The response has been revised to indicate that decontamination will be considered complete when wash water levels meet the following performance standards: Lead, 0.050 mg/L; Arsenic, 0.050 mg/L; Chromium, 0.050 mg/L; Cadmium, 0.010 mg/L; and Mercury, 0.002 mg/L. These standards are LAC 33:IX Subpart 1 Human Health Protection Drinking Water Supply standards which apply to surface water bodies designated as drinking water supply and also protect for primary and secondary contact recreation and fish consumption. The revised page of the renewal application is provided in Response Attachment 35.

15. *LAC 33:V.3509* *Lead is the only specified contaminant that will be analyzed though cadmium, arsenic, nickel, mercury and other metals are commonly found in batteries and their components. The facility must include the analysis of more metals, which may have been brought onto the site because of their presence in batteries and battery components. The facility must list the accept/reject criteria for all metals, which are analyzed.*

The response has been revised to indicate that soil samples will be collected for total lead, arsenic, chromium, barium, cadmium, silver, selenium, mercury, antimony and pH. The performance standards will be as follows: lead, 1,400 mg/kg; arsenic, 12 mg/kg; chromium, 310,000 mg/kg; barium, 14,000 mg/kg; cadmium, 100 mg/kg; silver, 1,000 mg/kg; selenium, 1,000 mg/kg; mercury, 61 mg/kg; antimony, 82 mg/kg; and pH, 2 units minimum. These standards are LDEQ RECAP Screening Option standards for industrial soils. The revised page of the renewal application is provided in Response Attachment 18.

16. *LAC 33:V.3845.A.1* *The response lists three labels, which may be used within the facility. The facility must be more explicit with which label will be used instead of saying anyone will be used. If all three labels are appropriate, the facility must describe where which signs will be used within the facility.*

The response has been revised to indicate that markings are assigned by the generator; therefore, any of the three labels may be used. Exide will ensure that the trailers are marked. A sample label is provided as Appendix 31 in Response Attachment A31. The revised page of the renewal application is provided in Response Attachment 38.

17. *LAC 33:V.4005* *The response states that the facility does not burn fuel oil for energy recovery. The Applicant's response to LAC 33:V.4003.D.1 and 2 states that the mixing of oil with fuel oil or other products does happen on occasion as part of facility operations. The Applicant must describe in detail how this occasional mixing of oil does occur and the applicable regulations that govern these mixing and reuse operations.*

The response has been revised to indicate that it is not standard practice at Exide to mix oil with diesel fuel; however, mixing of oil with diesel happens on occasion as part of facility operations such as during use of a weed wacker. Mixed oil and diesel is not introduced into the furnaces for energy recovery as furnace capacity is designated for lead smelting. The revised page of the renewal application is provided in Response Attachment 40.

18. *Volume 3, Attachment A* *The letters of arrangement are from Exide to the supporting facilities where the Contingency Plan is distributed. The facility must request a letter from the response organizations committing to support Exide in the case of an emergency and include the response organizations' letters in this Attachment.*

Exide will request commitment letters from the supporting facilities when the Revised Contingency Plan is distributed.

19. *Volume 3, Attachment 8* *The Closure and Post Closure Plan does not include an accept/reject criteria for lead to define "clean." Other metals that are commonly found in batteries and may be present at this site are not included on the list of metals to be tested. The facility must expand the list of metals to be tested to include all battery associated metals that have been at the site and include the accept/reject levels to define a clean decontamination wash concentration.*

Appendix 8 has been revised to indicate that decontamination will be considered complete when wash water levels meet the following performance standards: Lead, 0.050 mg/L; Arsenic, 0.050 mg/L; Chromium, 0.050 mg/L; Cadmium, 0.010 mg/L; and Mercury, 0.002 mg/L. These standards are LAC 33:IX Subpart 1 Human Health Protection Drinking Water Supply standards which apply to surface water bodies designated as drinking water supply and also protect for primary and secondary contact recreation and fish consumption. The revised Appendix 8 has been provided in Response Attachment A8.

20. *Volume 3, Attachment 8* *The Closure and Post Closure Plan does not include an accept/reject criteria for testing the soil for acid contamination. The Applicant must address the issue of acid/caustic contamination of the soil for closure efforts.*

Appendix 8 has been revised to indicate that soil samples will be collected for total lead, arsenic, chromium, barium, cadmium, silver, selenium, mercury, antimony and pH. The performance standards will be as follows: lead, 1,400 mg/kg; arsenic, 12 mg/kg; chromium, 310,000 mg/kg; barium, 14,000 mg/kg; cadmium, 100 mg/kg; silver, 1,000 mg/kg; selenium, 1,000 mg/kg; mercury, 61 mg/kg; antimony, 82 mg/kg; and pH, 2 units minimum. These standards are LDEQ RECAP Screening Option standards for industrial soils. The revised Appendix 8 is provided in Response Attachment A8.

21. *Volume 3, Appendix 11* *The containment building description was missing page 4. The Applicant must ensure all pages are present in the submitted copies.*

Page 4 of the C-K Associates Inc. Hazardous Waste Containment Building Certification dated November 1999 has been provided in Response Attachment A11.

22. *Volume 3, Appendix 15* *The Waste Minimization Plan lists several materials destined for the furnace for recovery of lead contaminants that may be on the surfaces of the materials. Expired or unused chemicals are listed for the furnace or Lab Pak disposal. The facility must be more explicit in describing what determines that the expired or unused chemicals are sent to the furnace or not.*

The Waste Minimization Plan has been revised to indicate that expired or unused chemicals will be processed in the furnace if there is potential for lead recovery. If there is no potential for lead recovery, the chemicals would be lab packed for disposal. The revised Appendix 15 is provided in Response Attachment A15.

GEOLOGIST'S COMMENTS

1. *General Comments* — *Based on the well construction information, the monitoring wells installed to monitor the RCRA regulated waste piles are not all screened in the same geologic zone. Any data collected from the sampling of these wells is meaningless for detection monitoring and comparing data trends and/or upgradient versus downgradient concentrations. This also means the potentiometric maps submitted for this permit application are not accurate. The Applicant must submit a workplan to evaluate and correct this situation so that they will be able to provide accurate data, information and potentiometric maps. Therefore, until the RFI has been completed and it has been determined whether or not the current groundwater monitoring system is adequate, no information or data gathered from the monitoring wells located at the facility should be used in this permit renewal application.*

The RCRA Waste Piles were identified in the RCRA Facility Assessment (RFA) (A.T. Kearney, 1987) as Areas of Concern/Solid Waste Management Units 32 and 33, were closed and are currently part of a Post-Closure Permit. Groundwater monitoring has been performed as a requirement of the Post-Closure Permit on a regular basis for the past 15 years and the results have been reported to LDEQ. The wells used to monitor the down-gradient side of the Post-Closure Hazardous Waste Piles were installed in December 1994 and January 1995 by Soils and Foundation Engineers, Inc. The wells were identified on their original logs as W-4R, W-12R, W-13R, W-16, W-17 and W-18, but are now referenced with an M before the W (i.e., MW-4R). A copy of those logs is provided in Response Attachment A-10.

As shown on the logs, each of the wells, except MW-13R first encountered water between +27 and +41-ft MSL. MW-13R encountered water at +70-ft MSL. The top of the screened horizon is at approximately elevation +20-ft MSL in MW-12R. The top of the screened horizon becomes progressively shallower as you move south along the west side of Post-Closure Waste Pile #1. The screened horizon around the south and southwest side of Post-Closure Waste Pile #2 is between +29 and +44-ft MSL.

Based on our review of the original logs for the monitoring wells and other subsurface information, also provided in Response Attachment A-10 we believe that useful information can be taken from the RCRA Waste Pile groundwater monitoring for inclusion in the RCRA Hazardous Waste Permit

Renewal Application. Such information obtained from these and other monitoring wells in the vicinity of the Plant Operations Area is that shallow groundwater moves from the plant area towards Baton Rouge Bayou. We also know that silty clay and clayey silt dominate the subsurface stratigraphy with thin, discontinuous layers of sand and silt.

The localized effects of the layers of sand and silt may affect the potentiometric data obtained from the wells. Although, the amount of that impact is dependent upon the aerial extent and degree of interconnection of the sand and silty layers, whether or not complete pathways of preferential flow exist, and whether or not the existing groundwater monitoring wells are adequately spaced for the given conditions.

The comment requests that Exide prepare and submit a work plan to assess the suitability of the monitoring network for the closed RCRA Waste Piles. Based on our review of the available information, we believe that the current network of groundwater monitoring wells is adequate and we do not believe additional investigation focused on the RCRA Waste Piles is necessary.

2. *General Comments*

In several locations throughout the application, whenever groundwater monitoring is discussed, the Applicant states that groundwater monitoring is not required. However, in portions of the application, the Applicant states that Exide maintains a groundwater monitoring system designed to monitor and detect subsurface impact and that the system provides early detection of releases.

The response is misleading and infers that Exide has a groundwater monitoring system for the complete facility that can detect any release to subsurface from any portion of the regulated units or operational area. When in fact, the groundwater monitoring system has been installed as a detection monitoring system for the four land units at the facility. Also, due to deterioration that has occurred over the years to the structures and environmental controls that were to minimize impact to the environment, a release to the soil and subsurface may have already occurred. Due to the distance of the monitoring wells from the operational portion of the facility, and the depth at which the wells are screened, it is possible that a release has not yet been detected.

To address this possibility and adequately define the subsurface geologic and hydrogeologic conditions beneath the operational portion of the facility (the borings and the geologic report were specific to the waste management units and not the operational portion of the facility), Exide must develop and submit for approval a subsurface assessment plan. The plan must be capable of not only

determining if the subsurface has been adversely impacted by historical activities at the facility, but must also completely define the underlying geology/hydrogeologic characteristics. This subsurface assessment plan must also evaluate all pertinent water bearing zones beneath the facility and determine which zone the monitoring wells for the waste piles are to be screened. It should also be capable of determining if the monitoring wells for the Old Landfill are screened in the proper zone (this must be determined by establishing the maximum depth the Old Landfill was excavated to and then establishing the depth of the first subsequent water bearing zone).

The subsurface assessment plan must include plans to collect soil and groundwater samples from around the perimeter of all operational buildings and units. Areas or units that are a solid waste management unit (SWMU) or part of a SWMU that falls under the RCRA Facility Investigation (RFI) should not be included in this site wide assessment.

Exide did not intend for the references to existing groundwater monitoring to be misleading. As you are aware, the existing groundwater monitoring is specific to the Post-Closure Permit for the Closed RCRA Waste Piles (#1 and #2) and the Closed Hazardous Waste Landfill. Exide is also performing groundwater monitoring for the Solid Waste Landfill on the opposite side of Baton Rouge Bayou. Exide has reviewed the text in the renewal application and has attempted to clarify the references to existing groundwater monitoring activities.

The comment also requests that Exide submit a Subsurface Assessment Plan (SAP) for the Plant Operations Area. The request for groundwater monitoring for the Plant Operations Area represents a change on the LDEQ's position from the current permit, which determined that Exide "does not conduct hazardous waste activities under this permit which currently require groundwater monitoring."

Exide believes that improvements made at the facility, including floor upgrades in both the Container Storage and Containment Buildings has improved operations at the facility and reinforces the original position of LDEQ that Exide does not conduct hazardous waste activities under this permit which require groundwater monitoring.

3. *IT Question*

Section 5, page 9, The Applicant states that no hazardous wastes will remain on-site permanently. Since the Applicant maintains two closed hazardous waste piles that are currently in post-closure monitoring, this is not an accurate statement. The Applicant must clarify this response.

The response has been revised to indicate that excluding the two closed hazardous waste piles, no additional hazardous waste will remain on-site permanently. The revised page of the renewal application is provided in Response Attachment IT.

4. *IT Question* — *Section A.3, page 10, The Applicant states that Exide maintains a groundwater monitoring system designed to monitor and detect subsurface impact. The Applicant further states that this system provides early detection of releases thereby further protecting any local residents or other living organisms. These statements are not accurate. All of the monitoring wells at the Exide facility are for the purpose of detection monitoring at the disposal units at the facility. These wells are only intended to detect a release to the subsurface in the vicinity of the units they monitor, but they are not meant or designed for detection monitoring of the operational area of the facility. The Applicant must clarify this response.*

The response has been revised to indicate that Exide maintains a groundwater monitoring monitoring system designed to monitor and detect subsurface impacts of the disposal units at the facility. This system provides early detection of releases at the disposal units thereby further protecting any local residents or other living organisms. The revised page of the renewal application is provided in Response Attachment IT.

5. *IT Question* — *Section 4, page 23, The monitoring wells are in association with the facility's disposal units and are not all screened in the same zone. Therefore, the hydrological information concerning the upper permeable zone, including rate and direction of groundwater flow, may not be accurate. The Applicant must clarify this response.*

In response to this comment, new cross-sections (Figure 15) have been compiled showing the stratigraphy documented during test boring investigations and the installation of groundwater monitoring wells at the facility. As shown in the cross-sections, the shallow subsurface conditions at the Site is dominated by silty clay and clayey silt interbedded with units of clayey/silty sand, sandy silt/clay and/or sands. The interbedded permeable units appear to be thin and discontinuous. The variability of the stratigraphy from monitoring well to monitoring well makes it difficult to specifically quantify groundwater flow rates and direction beneath the Site, but in general it can be concluded that shallow groundwater flow is towards Baton Rouge Bayou which is situated towards the north and west. The revised pages of the renewal application are provided in Response Attachment IT. The figure is provided in Response Attachment F.

6. *IT Question* — *Section 5, page 23, The Applicant only supplies information concerning the groundwater quality for the uppermost water bearing zone. Information concerning the groundwater quality of the underlying aquifers must be provided.*

No data for groundwater quality within the 400 ft/600 ft sands is available for directly beneath the facility and, therefore, no such information can be included in this response. As mentioned in the permit renewal application, Exide has a backup water supply well that is screened between 1228 and 1278 ft below MSL. To address the concerns expressed in this comment, Exide will have a sample collected from that well during the next semi-annual groundwater sampling event and will include the results as part of the regular report submitted for the Post-Closure Hazardous Waste Piles.

7. *IT Question* — *Section G, page 25-26, The Applicant has not adequately defined the subsurface characteristics for the specific areas that this application covers. The Applicant must develop and submit for approval, an assessment workplan capable of defining the subsurface geologic and hydrogeologic conditions in the operational areas of the facility.*

All of the information illustrated does not provide accurate understanding of the subsurface geologic and hydrogeologic conditions at the Exide facility. The Applicant must evaluate the existing subsurface information and determine where the data gaps are and develop a subsurface workplan to fill any data gaps.

The hazardous waste permit renewal application covers the containment building and container storage area located within the main operations area for the Site. These areas are not new additions to the permit. Subsurface information, specifically for the hazardous waste permit were first provided in reports prepared by Woodward Clyde Consultants in the early 1980s. The results of that and subsequent investigation activities have demonstrated that the material beneath the Site is consistent and well defined. It is most typically a clay or silty clay with strengths estimated to be equal to or greater than 2 tons per square foot. The most notable variation in the stratigraphy from one boring location to another is the occasional presence of a silty sand. For the reasons stated above, we believe that existing information adequately defines subsurface conditions beneath the Site.

8. *LAC 33:V.515.A.15* — *Figures 2 and 3 are not acceptable as they are black and white copies of topographic maps. The maps do not clearly show and identify all the necessary features and information that original color topographic maps display. The maps fail to identify and label neighboring facilities.*

Figure 2 scale is too small to identify structures and features on the map clearly and accurately. The map should include a north arrow and a legend. The Applicant must revise Figure 2.

Figure 3 does not contain a north arrow or a legend and does not clearly identify all of the wells within the two-mile radius. The Applicant must provide information on the wells that includes the well owner, well name, elevation of the top casing, depth, screened intervals (including depth below the surface for the top and bottom of the screened interval and the elevation of both), the aquifer the well is screened in, the amount of pumpage, water level (annual maximum and minimum), types of wells (monitor, recovery, public water supply, irrigation, industrial or private, etc.) and water analysis from the water well nearest the site. Figure 3 must be revised and all well information must be provided.

Figure 3 does not include any of the monitoring or recovery wells associated with the NPC Services Facility that is located within a two-mile radius of the facility boundaries.

Revised Figure 2 has been provided in color at a scale of 1 inch equal to 200 ft in Response Attachment F.

Figure 3 has been retained for quick reference and is provided in Response Attachment F. The two deep on-site potable water wells are shown as Well Nos. 967 and 748 has been added to Figure 3. Figure 3 is not available in color. Information regarding well owner, name, elevation, depth, screened intervals, and well type has been provided in Appendix 30 as Response Attachment A30. Well information was obtained from the Louisiana DOT, Public Works & Water Resources Section, Registered Water Wells database. A summary table of on-site well construction information has been provided in Appendix 30 as Response Attachment A30.

9. *LAC 33:V.515.A.16*

Figure 4 does not include a legend and does not clearly identify the location and extent of the two closed hazardous waste piles or the closed solid waste landfill. The figure does not indicate the location and extent of the new solid waste landfill. The figure must clearly show the location of all past, present and future treatment, storage and disposal areas. Figure 4 should include types and areas of vegetation, water bodies, roads, rail lines, walkways and parking lots, etc.

The response has been revised to indicate that the required information is provided on Figures 4 and 5. The revised page of the renewal application is provided in Response Attachment 5. A revised Figure 4 is provided in Response Attachment F. The scale has been increased to 1 inch equal to 80 feet. A legend has been added. Closed hazardous waste pile #1 is located at the west portion of the facility and is marked as 'Post-Closure Hazardous Waste Pile #1'. Closed hazardous waste pile #2 is located south of the stormwater storage tank and is marked 'Post-Closure Hazardous Waste Pile #2.' The closed solid waste landfill is located at the northern portion of the facility and is marked 'Closed Solid Waste Landfill.' The location of the new solid waste landfill is not provided on Figure 4; the location of the new solid waste landfill is provided on Figure 5. Figure 4 clearly identifies past, and present treatment, storage and disposal areas. Future treatment, storage and disposal areas are not known at this time. Figure 4 includes areas of vegetation, water bodies, roads, rail lines, walkways and parking lots.

10. *LAC 33:V.515.A.17* *The Applicant did not provide photographs of all existing structures at the Exide facility. There are several buildings at the facility for which no photograph was provided. Photographs of the two solid waste landfills and the two closed hazardous waste piles should be provided.*

Photographs of permitted hazardous waste buildings and areas were provided in the Renewal Application. Additional photographs of the two closed hazardous waste piles and the closed solid waste landfill have been provided in Appendix 17 as Response Attachment A17.

11. *LAC 33:V.516.A.1* *Figure 5B does not contain a north arrow.*

Figure 5B has been revised to include a north arrow. The revised figure is provided in Response Attachment F.

12. *LAC 33:V.516.B* *A subsurface assessment of the portions of the facility that are not being addressed by the RFI is needed. Justification for requesting a subsurface assessment is based on the past operating, maintenance and housekeeping practices that have resulted in the deterioration of structures such as the containment building roof and floor. The failure to maintain items such as these could have resulted in a release of contaminants to the environment. The Applicant should submit a sitewide subsurface assessment plan that is capable of determining if the subsurface has been impacted by the operations of this facility.*

The assessment plan should cover all the operational areas at the facility that are not being assessed by the RFI. The plan should meet all of the requirements of LAC 33.I.Chapter 14 (Risk Evaluation/Corrective Action Program) (RECAP). Appendix B.

Exide believes that improvements made at the facility, including floor upgrades in both the Container Storage and Containment Buildings have improved operations at the facility and do not support the claim made in this comment. Exide does not believe that investigation activities are necessary beneath the operating areas of the facility.

13. *LAC 33:V.516.C* — *The Applicant is currently undergoing the RFI workplan development/approval process. Once the RFI is conducted, the requirements of LAC 33:V.516.B met and the complete groundwater monitoring system has been evaluated, the requirements of this regulation will have been met.*

No response is necessary.

14. *LAC 33:V.517.B.1* — *See comments for LAC 33:V.516.A.1 concerning Figure 5. Figure 7 is not clear and is difficult to read. The copy of the topographic map does not clearly provide all the relevant information that a color topographic map can provide.*

Figure 5B has been revised to include a north arrow. The revised figure is provided in Response Attachment F.

Figure 7 has been revised to identify surrounding land use within 2 miles of the facility boundaries. Figure 7 has been provided in Response Attachment F.

15. *LAC 33:V.517.B.2* — *See comments for LAC 33:V.516.A.1 concerning Figure 5.*

Figure 5B has been revised to include a north arrow. The revised figure is provided in Response Attachment F.

16. *LAC 33:V.517.B.3* — *The Applicant must provide a detailed color flood plain map that covers a smaller aerial extent than the map provided. The revised figure must be developed with a larger scale. This is needed so that it can be determined how close the facility is to the flood plain and whether outlying portions of the facility are in the flood plain.*

Figure 9C has been created to show the portion of the FEMA FIRM where the facility is located at an increased scale of 1 inch equal to 600 feet. This figure is not available in color. The figure is provided in Response Attachment F. The Baton Rouge smelter is located outside the limits of the 100 year flood plain.

17. *LAC 33:V.517.B.4* *Since the facility's monitoring wells are not screened in the same interval, any potentiometric map developed from these wells may be inaccurate. Figures 14 and 15 are not acceptable. Figure 15 does not include a north arrow. Appendix 20 contains three (3) figures that are not acceptable. The figures are unclear, and it is hard to identify the information of the potentiometric surface of the 600, 1200 and 1500 foot sands that underlie the facility. The Applicant must revise these figures to identify clearly and accurately all pertinent information. Also see comments discussed in LAC 33:V.515.A.15 and .517.B.1.*

Figure 14 has been prepared to show the surface drainage conditions within 1,000 feet of the Site. The figure includes topographic information (contour interval = 2 feet) and groundwater contours for the shallow aquifer (<100 feet) beneath the Site. Insufficient groundwater level data exists to allow estimation of the potentiometric surface for the shallow aquifer beyond the site boundary. The first major aquifer is the combined 400-ft / 600-ft sand, the top of which is > 120 feet below the lowest estimated elevation of hazardous waste; therefore, no potentiometric contours are shown for the 400 ft / 600 ft sand. Figure 15 provides 3 cross-sections that were developed using boring logs from the Site groundwater wells and geotechnical borings. The cross sections also depict the top of the 400 ft / 600 ft sand which was inferred from information contained in the October 1969 Louisiana Water Resources Research Institute Bulletin GT-4 "Geohydrology of the Shallow Aquifers of Baton Rouge, Louisiana" (Charles L. Smith). The figures are provided in Response Attachment F.

18. *LAC 33:V.517.B.5* *See comments discussed in LAC 33:V.515.A.15, .516.A.1 and .517.B.1.*

Revised Figure 2 has been provided at a scale of 1 inch equal to 200 feet in Response Attachment F.

Figures 2 and 7 have been revised to show withdraw and injection wells within 1,000 feet and 2 miles of the facility, respectively. Figure 3 has been retained for quick reference. The two deep on-site potable water wells are shown as Well Nos. 967 and 748 on Figure 3. Figure 3 is not available in color. Figure 3 is provided in Response Attachment F.

Figure 5B has been revised to include a north arrow. The revised figure is provided in Response Attachment F.

Figure 7 has been created to identify surrounding land use within 2 miles of the facility boundaries. Figure 7 has been provided in Response Attachment F.

19. *LAC 33:V.517.B.6* *See comments discussed in LAC 33:V.516.A.1 and .517.B.1.*

Figure 5B has been revised to include a north arrow. The revised figure is provided in Response Attachment F.

Figure 7 has been created to identify surrounding land use within 2 miles of the facility boundaries. Figure 7 has been provided in Response Attachment F.

20. *LAC 33:V.517.B.8* *See comments discussed in LAC 33:V.515.A and comments concerning Figure 3.*

Revised Figure 2 has been provided at a scale of 1 inch equal to 200 feet in Response Attachment F.

Figures 2 and 7 have been revised to show wells within 1,000 feet and 2 miles of the facility, respectively. Figure 3 has been retained for quick reference. The two deep on-site potable water wells are shown as Well Nos. 967 and 748 on Figure 3. Figure 3 is not available in color. Figure 3 is provided in Response Attachment F.

21. *LAC 33:V.517.B.9* *Currently these requirements may not be applicable; however, if the subsurface assessment determines that a release to the subsurface has occurred, these requirements will be applicable.*

This requirement is not currently applicable.

22. *LAC 33:V.517.B.10* *Currently these requirements may not be applicable; however, if the subsurface assessment determines that a release to the subsurface has occurred, these requirements will be applicable.*

This requirement is not currently applicable.

23. *LAC 33:V.517.T.1* *Figure 8 is difficult to read, and it is difficult to identify the pertinent information due to the small scale. The Applicant must revise the figure to a scale that will clearly show the site and all pertinent features.*

Figure 8 has been revised to a scale of 1 inch equal to 1 mile. The revised figure is provided in Response Attachment F.

As part of the response to this comment, Paul Stratman performed a review of available publications and aerial photograph to determine the proximity of active (Holocene) faults to the RCRA permitted units. Mr. Stratman possesses Bachelor of Science degrees in Civil Engineering and Geology, practices in the area of geotechnical engineering and holds professional licensure as both a Professional Engineer and Professional Geologist in multiple states. His Louisiana Professional Engineering Registration Number is 29150. A certification statement is provided in Appendix 27 in Response Attachment A27.

24. *LAC 33:V.517.T.2.a* *Please see comments in LAC 33:V.517.B.3 concerning Figure 9.*

Figure 9C has been created to show the portion of the FEMA FIRM where the facility is located at an increased scale of 1 inch equal to 600 feet. This figure is not available in color. The figure is provided in Response Attachment F. The Baton Rouge smelter is located outside the limits of the 100 year flood plain.

25. *LAC 33:V.517.T.3* *The report in Appendix 10 does not include a signed certification by a geologist or independent, Louisiana-registered, professional engineer specializing in geotechnical engineering. The Applicant must provide this information.*

As provided in the original Hazardous Waste Permit Application and the renewals, Woodward Clyde Consultants, Inc. completed a subsurface investigation for the plant area. The results of that investigation are reproduced and provided as Attachment A10 to this response letter. Based upon the information contained in that report and subsequent geotechnical and environmental borings completed at the Site, a Certification Statement has been prepared. The Certification Statement is also provided in Attachment A10.

As previously stated, the information concerning the subsurface conditions in and around the facility is not adequate. The information supplied in Appendix 10 is not for the operational areas of the facility covered in this permit application. The boring logs are for borings that were to define the subsurface conditions in the area of the hazardous waste pile and old landfill; not the operational areas.

The information that is provided in Attachment A10 is sufficient to make a determination about the adequacy of the ground and subsurface conditions for facility operations. It should be noted that the available information was adequate in the original application and the subsequent renewal applications to satisfy this requirement. The new Certification provided above also determined that sufficient information is known about subsurface conditions to make a determination that the ground and subsurface conditions are capable of supporting plant operations. No additional investigation is necessary to respond to this requirement.

Figure J-1 in Appendix 10 is not legible at the current scale and should be in color to show all the geologic formations clearly. The Applicant must revise this figure.

Figure J-2 in Appendix 10 is not legible at the current scale. The Applicant must revise this figure.

Figures J-3, J-4 and J-5 in Appendix 10 do not include real cross sections, fence diagram or isometric soil profiles. The Applicant must revise these figures.

Figures J-6 and J-7 in Appendix 10 are not clear and do not clearly and accurately identify the area covered. The figures are difficulty to read at the current small scale. These factors contribute to the difficulty of identifying all the major aquifers that underlie the facility. The Applicant must revise these figures.

Plates 6, 8, 12, 14 and 16 in Appendix 10 are not legible and do not contain a north arrow. Referenced plates in the inset have not been provided. The Geohydrologic Sections Through East and West Baton Rouge, East and West Feliciana, Point Coupee, and St. Helena Parishes, Louisiana figures are not legible. They are not numbered, and the information contained in these figures cannot be deduced. The Applicant must revise these figures.

Figures J-1 through J-7 and Plates 6, 8, 12, 14 and 16 in Appendix 10 were attachments to the investigation conducted as part of the original Hazardous Waste Permit Application and the format observed is in the only format that is available. To assist the reviewer with the review of this document a large scale topographic map and new cross-sections are provided as Attachment F.

26. *LAC 33:V.517.T.4.c-f* *Once a subsurface assessment is conducted, the results will determine if these regulatory requirements will need to be addressed.*

No subsurface assessment is being proposed.

27. *LAC 33:V.517.T.6.a* *See comments discussed in LAC 33:V.515.A.15 concerning Figure 2.*

Revised Figure 2 has been provided at a scale of 1 inch equal to 200 feet in Response Attachment F. A north arrow and legend have been provided.

28. *LAC 33:V.520* *All requirements of this section must be amended following a sitewide subsurface assessment. If it is found that there are no contaminant impacts to the subsurface; the current groundwater monitoring system has been installed correctly; the monitoring wells have all been screened in the same water bearing zone; and all of the assumptions that the Applicant has made concerning the subsurface are correct, then no changes will be needed.*

No subsurface assessment is being proposed.

29. *LAC 33:V.1503.A.2* *The boring logs provided in Appendix 10 are for boreholes completed in the areas of the solid waste landfills and the hazardous waste piles and therefore do not adequately define the geology in the operational areas of the facility. To address this issue and to provide information on the geology and hydrogeology, the Applicant must conduct a subsurface assessment that will provide information on the possibility of any releases to the subsurface.*

The borings conducted as part of the initial subsurface investigations at the Site are sufficient for the response provided to this requirement. They include borings on three sides of the area where the RCRA permitted operations are performed and the information obtained is a testimony to the uniformity of the subsurface conditions. The only notable variations are in the gradation of the material present. No notable variation in the geotechnical characteristics of the soil was noted from one side of the facility to the other.

30. *LAC 33:V.1503.A.3* *Please see comments discussed in LAC 33:V.517.T.1.*

Figure 8 has been revised to a scale of 1 inch equal to 1 mile. The revised figure is provided in Response Attachment F.

31. *LAC 33:V.Chapter 33* *Based on the requirements for the operational area, and the information supplied by the Applicant, groundwater monitoring is not required for the operational area. However, due to the age of the facility, past operational, maintenance and housekeeping practices, a subsurface assessment is needed to define the geologic and hydrogeologic conditions and to identify any possible subsurface contamination that may be present. Based on the results of the assessment, Chapter 33 regulatory requirements may be required.*

No subsurface assessment is being proposed.

32. *LAC 33:V.Chapter 35* *The closure plan must include provisions for the possibility that clean closure cannot be achieved. Clean closure may not be achievable due to several factors, which include the age of the facility, past operating practices and the condition of the concrete floor, before the upgrade, in the containment building. It is possible that all contamination may not be removed from units and that soil and/or groundwater contamination may be present beneath one or more of the units. The Applicant must develop and submit an amended closure plan to address these possibilities.*

The closure plan as originally provided is believed to be sufficient for addressing evaluating conditions beneath the floors of the permitted units. If sampling performed at the time of closing indicates that removal of the floor system and subsurface soils are necessary then Exide will revise and resubmit the closure plan as necessary.

Specifically, the Applicant must develop and submit a closure plan and cost estimate that provides for the demolishing and disposing of each permitted unit. This plan must include all structures, buildings, equipment, machinery and the floors of all affected units. The amended plan must include the subsurface assessment plan that can delineate the extent and concentration of all subsurface (soil and groundwater) contamination that may be present beneath the units. This assessment plan must meet the requirements of LAC 33:I.Chapter 13 (Risk Evaluation/Corrective Action Program) (RECAP), Appendix B.

If a release of hazardous constituents is identified then Exide will revise the current Closure Plan to include appropriate measures to address such a release.

A sampling and analysis plan needs to be developed and submitted for conducting all sampling activities that take place during closure. The plan should include collecting samples of the subsurface (soil and groundwater); concrete (primarily the old concrete floor of the containment building that underlies the new floor upgrades); surfaces of the structures (walls, floors, ceilings, etc.); equipment and machinery; collected wash water; and any other media that may need to be sampled. Sample collection methodologies and analytical methods must be specified. The constituents of concern for soil samples, concrete samples and any swabbed or swipe samples are lead and cadmium. The constituents of concern for all groundwater samples are pH, Specific Conductivity, Chloride, Sulfate, Total and Dissolved Lead and Cadmium, and Total Iron, Manganese, and

Sodium. The constituents of concern for the collected wash water should include all the groundwater constituents along with any other constituent that may need to be sampled for in order for the water to be disposed of or discharged.

A brief description of sampling and analysis procedures has been added to the Closure Plan. The actual methods for sample collection and analysis will be modified as necessary to be consistent with relevant standards in place at the time of closure.

A contingent post-closure plan and cost estimates should be developed for the possibility that clean closure cannot be achieved. The post-closure plan must meet all applicable requirements of LAC 33:V.Chapter 35.

The Baton Rouge smelter does not have an operating hazardous waste disposal unit for which post-closure care is required under 40 CFR 264.117. If after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures and equipment, Exide finds that not all such materials can be removed, Exide will close the facility and perform post-closure care in accordance with the closure and post-closure requirements for landfills (40 CFR 264.310). Long-term care and monitoring for the units subject to the existing post-closure permit are already included in the Cost Estimates.

33. *Appendix 8 - Closure Plan & LAC 33:V.Chapter 35*

The closure plan states that steam cleaning of all structures, buildings, floors and equipment will be conducted in each unit until the contaminant concentration in the collected wash water is at an acceptable level. The facility needs to evaluate the effectiveness of steam cleaning versus hydro-blasting. The Applicant should provide documentation of this evaluation.

The Closure Plan text has been revised to indicate that steam cleaning or pressure washing (i.e., hydro-blasting) will be utilized for cleaning structures. The determination of which will be used will be the decision of the Contractor retained to perform the work. Both techniques have been used successfully on similar Sites.

The closure plan states that contaminant concentration will be established by collecting and analyzing the collected wash water to determine if the decontamination process is complete. This method for determining decontamination is not acceptable. In order to determine if all equipment and structures have been adequately decontaminated to an acceptable level, the Applicant must develop and submit for

approval a sampling and analysis plan that employs swabbing (or swiping) as a method of sample collection. The plan must include methods and procedures for collecting the samples from all decontaminated surfaces, and the number of samples that are to be collected based on the size/area of the surface to be sampled. The methods to be utilized must follow all state and/or federal guidelines concerning collecting samples by way of swabbing or swiping (the state/federal guidelines or guidance must be provided as an appendix to the sampling and analysis plan).

Determining the acceptability of the steam cleaning/pressure washing process will be dependent on the surface in question. For secondary lead smelting facilities the evaluation of the wash water to determine the completeness of decontamination is widely accepted and consistent with the procedures in the closure plans at other Exide facilities. The premise being that if the structure were to remain exposed to precipitation it would produce a runoff similar in nature to the wash water. In addition, there would be no relevant standard to compare the test results for a wipe sample against.

Irrespective of the comment, we have clarified the text of the closure plan as follows:

1) Equipment destined for resale/reuse shall be cleaned until visually clean.
2) Debris such as structural steel destined for recycling shall be cleaned until visually noticeable contamination has been removed in accordance with the Debris Rule.
3) Debris such as wood, masonry rubble, etc., destined for land disposal at a permitted facility must meet the acceptance criteria of the facility. Therefore, if material is going to a hazardous waste disposal facility, it may still be characteristically hazardous. Material destined for a non-hazardous disposal facility must be characterized non-hazardous. The type and amount of characterization sampling shall be determined by the receiving facility.
4) The adequacy of cleaning for building components and other materials that remain on-site will be determined using the wash water evaluation method.

The closure plan lists the number of soil samples that will be collected from each unit. The plan does not provide the rationale for the selection of the number for each unit, and it does not provide the locations from which the samples are to be collected or the rationale for choosing a sample collection location. The Applicant must provide the rational for determining how many samples that are to be collected from each unit. The Applicant must identify and explain the location points for each sample and the rational for selecting these location points (if the sample collection locations are to

be determined in the field, the rational and methodology in determining the sample location and who will be responsible for the determination must be provided).

The basis for the number of soil samples within each unit is stated in the Confirmation Sampling Section of the Supplemental Closure Cost Information Tables provided at the end of the Closure Plan document. As shown, the number of samples is one sample for every 1,000 sf or less. The sample locations will be selected at the time of closure to coincide with areas identified as possible areas of release (such as cracks or structural joints). In general it is expected that the soil sample will be taken from immediately beneath the floor slab. The environmental consultant responsible for certification of closure activities will make the actual selection.

In the containment building, during the process of collecting the soil and groundwater samples, samples from the top, midpoint and bottom of the old floor must be collected and analyzed for lead and cadmium. The methodology for sample collection and analysis must be included in the sampling and analysis plan. If contamination is present in the old floor, clean closure will not be possible unless the old floor or the portions of the old floor affected are removed and disposed of properly.

A statement has been included in Section 3.3 of the Closure Plan that samples shall be collected from the surface of the original floor in the Paste Storage Area. Sampling at multiple levels within that slab would not provide any relevant information and has not been provided. If at the time of closure the surface sample is hazardous, then sampling at levels may be performed to determine appropriate remedial techniques.

The Facility Plot Plan provided in the closure plan is not acceptable. The plot plan must be of a size and scale that clearly shows all of the units. Additionally, each unit must be clearly designated and labeled on the plot plan.

The Plan included with the Closure Plan has been revised.

In addition, Figures 1, 10, 11, 12, 13, 16, and 18 have been revised to update changes in AGC's title block. Figure 10 has also been provided in color. The revised figures are provided in Response Attachment F. Typographical errors have also been corrected in Chapters 37 and 41. The revised pages of the renewal application are provided in Response Attachment 37 and 41, respectively.

Sincerely,

ADVANCED GEOSERVICES CORP.

Jennifer W. DiJoseph
Project Professional

Paul G. Stratman, P.E.
Senior Project Consultant

JWD:PGS:vm

Enclosures

cc: F. Ganster, Exide Reading
T. Harris, Exide Baton Rouge

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RESPONSE ATTACHMENT
IT

IT QUESTIONS

in the Waste Analysis Plan. The Waste Analysis Plan outlines the requirements for receiving material at the Baton Rouge smelter.

Exide does not accept any material that contains organic constituents, PCBs, organic lead, or metallic aluminum. Additionally, material is not accepted that contains any free liquids.

As a part of the recycling process, the facility generates waste. Generated wastes include baghouse dust, refractory brick, spent personal protective equipment, blast furnace slag, used oil, nickel-cadmium batteries, and spent solvent from parts washing operations.

a. Classes of chemicals

Exide handles characteristic hazardous waste (D008, D002, D004, D006, D007, D010, and D011), listed hazardous waste (K069), and industrial solid waste (exempt lead-bearing material for recycling). The classes of chemicals are solid inorganic metals, including lead-bearing wastes.

b. Quantities (hazardous and non hazardous)

Exide handles approximately 330,000 tons of hazardous and non-hazardous waste annually.

The facility receives approximately 25,000 tons of hazardous waste lead-bearing material in drums, including 1,000 tons with other metals in addition to lead. The facility generates approximately 20,000 tons per year of hazardous blast furnace slag. The facility also generates approximately 1,000 tons per year of hazardous emission control dust that are recycled on site.

Approximately 250,000 tons of spent lead-acid batteries are received by the facility. Approximately 30,000 tons of non-hazardous recyclable lead-bearing material in drums is received per year.

c. Physical and chemical characteristics

Lead-acid batteries are constructed of a plastic case, conductive plates (metallic lead grids coated with lead oxide paste), separators, a sulfuric acid/water electrolyte solution, and metallic lead posts or terminals. Industrial and military batteries are constructed in the same manner, except that the casing is made of different material and the size of the batteries is greater. During the recycling process, the

batteries are broken and segregated into plastic, acid and lead bearing materials. The lead bearing materials include grids, plates and lead-oxide paste.

The battery plant scrap, received from either other Exide facilities or from other customers, is typically in the form of metallic lead that has been stamped into grids, lead oxide paste and battery plates. The grids are solid metal and are recycled. The lead oxide paste is generated on-site during the battery breaking process. The paste is a solid material, typically with a moisture content of less than 5%, with the potential to contain free liquid. It is reddish brown in color and has a very high density. The lead oxide is placed in feed piles and smelted in the reverberatory furnace. The battery plates received are grids that have been pasted with lead oxide. They are solid, with a very high density and low moisture content. The plates are typically recycled in the blast furnace.

The Baton Rouge smelter also receives lead dross and from both Exide facilities and other customers. Lead dross is a solid material generated by the melting of metallic lead. The dross is composed primarily of lead with trace metals such as arsenic and antimony. The dross are stored in feed piles and recycled in the furnaces.

Exide periodically receives shipment of metallic lead scrap for recycling. This material is usually in the form of wheel weights, lead pipe or other scrap lead metal. This material is recycled.

Other recyclable materials received by the Baton Rouge smelter include lead-bearing ceramics, spent pasting boards and lead scrap from firing range remediation. The Baton Rouge Smelter no longer recycles paint chips or organic lead waste and it is unlikely that these materials will be processed at the facility in the future.

As part of the lead recycling, a blast furnace slag is generated. The blast furnace slag exits the furnace in a molten state and is cast into iron pots. The slag solidifies and is cooled to room temperature. It is then dumped from the pots, broken up and separated for either further recycling or stabilization and disposal.

The blast furnace slag is characteristically hazardous because it leaches lead, when subjected to TCLP testing, at concentrations greater than the regulatory threshold limit of 5

mg/L. The slag is rock-like in physical appearance and engineering properties. The chemical composition of the blast furnace slag is 30-35% iron oxide (FeO), 25-30% silicon dioxide (SiO_2), 15-35% calcium oxide (CaO), and less than 0.5% lead (Pb). The specific gravity of the stabilized blast furnace slag as deposited in the on-site landfill is approximately 1.3 tons/cubic yard. The slag melting point is 2100 to 2400°F. The slag is neither ignitable, corrosive, nor reactive.

Additional wastes generated by the Baton Rouge smelter include used oil, refractory bricks, and spent nickel-cadmium batteries.

d. Hazardous waste classification (listed, characteristic, etc.)

Exide handles characteristic hazardous waste (D008, D002, D004, D006, D007, D010, and D011), listed hazardous waste (K069), and industrial solid waste (exempt lead-bearing material for recycling).

2. How will they be handled?

Generally, material is received by Exide at the receiving area where it is inspected and sampled if required. Material is stored in designated areas based upon the material type

Lead-acid batteries arriving in tractor-trailers are weighed in, and sent to the Battery Breaker Unit. Typically, the batteries are unloaded and immediately processed by the breaker unit. The batteries are loaded onto the unit where they are broken down into component parts. The sulfuric acid is neutralized and crystallized to form a sodium sulfate salt that is sold as a product to a broker who sells the salt to others. There is a thriving industrial marketplace for sodium sulfate salt. Sodium sulfate salt has many industrial uses including as a bleaching agent in pulp and paper production and as an ingredient in laundry detergent. The plastic from the battery casings is washed and shipped off-site to make new batteries. The lead paste is recycled on-site to produce metallic lead for making new batteries.

If the batteries are not immediately recycled, they are stored in two permitted storage areas.

a. **Treatment**

Exide recycles the lead from spent batteries and other lead-bearing materials for reuse. The recycled lead is shipped off-site as ingots, blocks, or billets.

The only waste that is treated is blast furnace slag. Treatment involves crushing the slag into small diameter particles and chemical stabilizing it using Portland cement and sodium silicate.

As previously discussed, a sample of the stabilized slag is collected and sent to a contract laboratory for TCLP toxicity analysis in accordance with EPA approved procedures. The slag is disposed in Exide's permitted on-site solid waste landfill.

b. **Storage**

Exide stores hazardous waste on-site in one interim status Containment Building and two permitted container storage areas. All materials are stored in their designated areas in accordance with applicable state and federal regulations.

The Truck/Trailer Storage Area is used to hold spent batteries in trailer. It has a permitted capacity 85,000 batteries. It has a surface area of 120 ft by 120 ft, or 14,400 square feet.

The Whole Battery Storage Area is used to hold batteries on pallets. It has a permitted capacity of 81,000 batteries. It has a surface area of 75 ft by 100 ft, or 7,500 square feet.

The Containment Building (currently in interim status) is used to hold lead-bearing raw materials prior to recycling. The building has an engineered capacity of 3,333 tons of blast furnace slag that is stored prior to on-site stabilization and disposal. The surface area for blast furnace slag storage is 5,965 square feet. Additionally, the building has the capability to hold 12,080 tons of lead material for recycling, including battery plates, lead oxide paste, reverberatory furnace slag, lead dross, and purchased scrap. The surface area for storage of these materials is 15,100 square feet.

These areas are maintained to meet all applicable environmental regulatory requirements. The purpose of this hazardous waste permit application is to renew the existing hazardous waste permit.

c. Disposal

Exide does not dispose of any hazardous waste on-site. All hazardous waste is disposed of off-site at an approved disposal facility. Incoming hazardous materials that do not meet the incoming material strict screening process are returned to the material generator or disposed of off-site at an approved facility.

Exide occasionally generates hazardous wastes D006/D008 (refractory bricks) from maintenance and/or replacement of firebricks in the furnace inner lining. Refractory bricks that are generated are either recycled in the blast furnace or sent off-site to be disposed of in a permitted commercial hazardous waste landfill. The bricks are not stored prior to shipment off-site, but are taken out of the furnace and loaded directly onto a truck roll off container for off-site commercial disposal. If the bricks are to be recycled on-site, they are containerized for storage prior to recycle.

Exide also generates used motor oil that is recycled by International Petroleum Corp. Exide intermittently receives spent nickel-cadmium (D006) batteries intermingled with lead-acid batteries. The spent nickel-cadmium batteries are accumulated and stored in drums prior to shipment off-site to a permitted recycling facility.

Exide does generate stabilized blast furnace slag, a non-hazardous solid waste, which is disposed of on-site in a permitted solid waste landfill. The stabilized slag is sampled in accordance with the Waste Analysis Plan to ensure the waste meets federal and state non-hazardous waste regulations.

3. Sources of waste

a. On-site generation (type and percentage of total handled)

Exide generates approximately 21,450 tons of waste per year. Blast furnace slag, generated as a part of the recycling process, makes up approximately 96% of the waste generated on-site. The refractory bricks from furnace

maintenance make up approximately 1% of the waste generated on-site. Exide intermittently receives spent nickel-cadmium (D006) batteries intermingled with lead-acid batteries. The nickel-cadmium batteries make up approximately 2% of the waste generated by Exide. The used oil makes up approximately 1% of the waste generated by Exide.

b. Off-site generation (type and percentage of total handled)

Lead bearing materials for recycling are the only off-site generated hazardous wastes received by Exide. Typically the Baton Rouge smelter will receive 25,000 batteries per day, (250,000 tons per year) for recycling. Exide typically receives approximately 56,000 tons per year of other lead-bearing material for recycling.

4. Where will the wastes be shipped if not handled at this site?

Exide does not dispose of hazardous waste on-site. Any hazardous waste generated is shipped for disposal at a permitted hazardous waste management facility. Exide contracts with International Petroleum to remove used oil. Due to the intermittent accumulation of the refractory bricks (D006/008), and spent nickel-cadmium batteries (D006), Exide will contract with a permitted hazardous waste disposal facility on an as needed basis to dispose of these materials.

5. What wastes will remain on-site permanently?

Excluding the two closed hazardous waste piles, no hazardous wastes will remain on-site permanently. The disposal portion of the blast furnace slag will be stabilized in the slag stabilization unit using Portland cement and sodium silicate. The stabilized blast furnace slag does not exhibit the characteristics of a hazardous waste. The stabilized blast furnace slag and construction debris that are generated by the facility will be disposed of in an on-site permitted solid waste landfill.

A. By which of the following potential pathways could releases of hazardous materials from the proposed facility endanger local residents or other living organisms?

1. Air

The potential exists that lead-containing dust could be released through the air. Exide minimizes this potential by maintaining compliance with state air permit Number 0840-00004-00. The

Containment Building is equipped with a ventilation system that keeps a constant inward airflow (negative pressure) on all of the emission sources, which minimizes the potential for any fugitive emissions. Additionally, Exide maintains a dust suppression program for the lead-bearing material that is stored in the Containment Building. These controls prevent the exposure of the lead bearing materials within the Containment Building to the elements, and ensure their containment.

2. Water

The potential exists that hazardous materials could be released through surface water discharge. Exide minimizes this potential by maintaining compliance with state water permit LA00004464. All on-site storm, wastewater and contact cooling water is routed through the plant's wastewater treatment system prior to discharge through a permitted outfall. Water samples are collected and analyzed in accordance with the requirements of Exide's LPDES permit are met.

3. Soil

The potential exists for soils in the immediate vicinity of Exide to be impacted by hazardous materials. Exide minimizes this potential through the implementation of environmental controls including a lined, self-contained building for the storage of hazardous material, and a composite lined landfill for the storage of solid waste. Furthermore, Exide maintains a groundwater monitoring system designed to monitor and detect subsurface impacts of the disposal units at the facility. This system provides early detection of releases at the disposal units thereby further protecting any local residents or other living organisms.

4. Food

No food production or handling occurs in the vicinity of the Exide facility. Therefore, food is not a recognized pathway for the release of hazardous materials.

B. What is the likelihood or risk potential of such releases?

The risk potential for releases to air, water, or soil exist. However, each of the potentials are minimized by the use of control technology. The facility has a personnel training program, a Waste Analysis Plan, a Spill Prevention, Control & Countermeasures Plan, a Closure Plan, etc., all developed to minimize the impact of spills and releases on the environment by the facility.

C. **What are the real adverse environmental impacts of the permittee's proposed facility?**

1. **Short term effects**

a. **Land area taken out of system**

The land area at this facility was taken out of the natural system when the facility was built approximately 30 years ago. Therefore, impacts to land have already been realized. The proposed modifications to the existing Containment Building and this permit renewal do not involve an expansion of the existing footprint of the facility and consequently, will not impact further land area.

2. **Long term effects**

Environmental controls are in place at the facility to try to minimize the potential impact of the facility to the surrounding environment. Exide previously sought a modification to upgrade the floor of an existing storage area (Area 2 of the Containment Building) to further reduce potential environmental impact. The upgrades were completed in November 2003. This submittal requests renewal of the Hazardous Waste Permit.

II. **Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?**

The social and economic benefits of the Exide facility, by any reasonable measure, far outweigh any environmental costs. In fact, the recovery of lead from spent batteries for reuse, compared to the alternative of disposing of spent batteries in waste piles or landfills, is very beneficial to the environment. Related potential impacts to the environment such as spills, are minimized by the design, maintenance and operation of the facility.

The Exide facility is located in a sparsely populated industrialized area, remote from commercial or residential centers. The facility employs approximately 120 people, mostly from the greater Baton Rouge and Baker areas. Additionally, Exide contributes significantly to the financial well being of local suppliers and vendors.

In contrast, the environmental costs, are generally very small. As mentioned before, the recycling of lead batteries is beneficial to the environment. With respect to spills or releases that could adversely affect the environment, the Exide facility is designed so that K069, D008 and other Group I hazardous wastes are received and stored in permitted container storage areas. These

Due to the area surrounding the facility, future uses of the property have a high probability of being industrial related.

III. Are there alternative projects which would offer more protection to the environment than the proposed facility without unduly curtailing nonenvironmental benefits?

There are no known alternatives to the Exide recycling facility, which would offer more protection to the environment.

Also, this is the only facility providing this service in the state of Louisiana, and in the Gulf South.

A. Why was this technology chosen (e.g., incineration over landfilling?)

Recovery of lead from spent lead batteries and other lead-bearing material for reuse, compared to the alternative of disposing of spent batteries in a waste pile or landfill, is very beneficial to the environment and fulfill the general waste minimization program through reuse/recycling of hazardous waste materials.

1. Are other technologies available?

There are no known alternatives to the Exide recycling process, which would offer more protection to the environment.

2. Describe the engineering design and operating techniques used to compensate for any site deficiencies.

There are no deficiencies at Exide's site that require any specific engineering design and operating techniques.

B. Is the proposed technology an improvement over that presently available?

Exide is involved in recycling rather than disposing of lead and lead-bearing materials. This technology is more environmental friendly than disposing and/or landfilling spent batteries and other lead-bearing materials. The proposed modification to the Containment Building will incorporate state-of-the-art technology involving waste handling, liner systems, liquids management and ventilation. Floor upgrades at the Containment Building Area 2 were completed in November 2003. The permit renewal application does not propose any additional modifications.

C. Describe the reliability of technology chosen.

Exide processes spent lead and lead-bearing materials into lead ingots so that the lead can be reused instead of being disposed. Exide has been in operation for over 30 years utilizing lead recycling processes. The

process track record shows that the process is a proven and reliable process.

1. **Past experiences.**

   In 2000, the Baton Rouge Smelter recycled 59,700 tons of lead.

2. **Environmental Impacts**

   While the potential exists for environmental impacts in the vicinity of the facility, the overall benefits from the recycling process used by Exide greatly benefit the environment by eliminating many batteries from disposal in landfills.

D. **Describe the sequence of technology used from arrival of wastes to the end process at the facility (flow chart).**

1. Analysis of waste – material is analyzed for chemical and physical content prior to being accepted at the Baton Rouge smelter.

2. Unloading – material is received in tractor-trailers and unloaded with fork-lifts.

3. Storage – the material may be stored in permitted storage areas prior to recycling.

4. Treatment - Batteries are processed through the Battery Breaker unit. The sulfuric acid is neutralized and crystallized to form a sodium sulfate salt that is sold as a product. The plastic from the battery casings is washed and shipped off-site to make new batteries. The lead paste is recycled on-site in the reverberatory furnace. Other lead-bearing materials are smelted in the blast furnace. The metallic lead is refined in kettles to meet client specifications and then cast into blocks or bars. Residual material, blast furnace slag crushed to a small diameter, treated with Portland cement and sodium silicate and disposed in an onsite landfill.

5. Monitoring – Groundwater monitoring wells are located at the perimeter of the facility. These wells are sampled following the specifications of Exide's Groundwater Sampling and Analysis Plan. This plan includes the well network, sampling procedures, documentation, decontamination, cross-contamination control, analytical parameters, field and laboratory QA/QC, well maintenance and reporting.

6. Closure – The Closure Plan for the Exide facility specifies clean-closure. The plan includes closure procedures for each hazardous

waste unit, post-closure procedures for the closed hazardous waste piles and cost estimates for closure and post-closure.

7. Post-closure – Any required post-closure work, such as groundwater monitoring or cap inspections will be completed.

A process flow diagram is included as Figure 1 of this document.

E. Will this facility replace an outmoded/worse polluting one?

The Baton Rouge smelter is an existing facility, and will not replace any outmoded facility. The modification to the Containment Building will also provide for an upgrade that will be more protective of the environment. Floor upgrades at the Containment Building Area 2 were completed in November 2003. The permit renewal application does not propose any additional modifications.

F. What consumer products are generating the waste to be disposed? Are there alternative products that would entail less hazardous waste generation?

The lead recovered from the lead-bearing materials is the primary consumer product generated. However, the lead product is not sold to the general public, but rather to manufacturing companies that turn them into consumer products. For example, in 1997, Exide Technologies (nation wide) recycled over 20 million batteries and sold over 25 million new batteries manufactured from recycled materials. In 2004, the Baton Rouge Smelter cast 79,909 tons of recycled lead.

IV. Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing nonenvironmental benefits?

The Baton Rouge smelter is the only lead recycling facility in the Gulf South region. Exide is an existing facility and the cost of relocating the facility would be prohibitive. Alternative sites, would not offer more protection to the environment, and would adversely impact non-environmental benefits. The existing site is located in a relatively remote industrial area, apparently ideally situated for this type operation. The local geology and topography has also proven to be suitable for the facility. A good transportation infrastructure (river, highway, and railroad) system is already in place that allow for Exide to effectively serve the region.

A. Why was this site chosen?

This location of the site was initially chosen because it was in the vicinity of the major industrial area of Baton Rouge and within easy access to road and railway transportation to the entire Southeastern United States.

Although the facility is located in an area subject to hurricanes, they are infrequent and have resulted in minimal damage. Exide facilities have been designed and constructed to withstand normal forces associated with storms and hurricanes.

a. Is the site in an area subject to storm surge?

No, the site is not subjected to storm surge.

b. What are the design storm specifications?

The facility was constructed in the late 1960s and early 1970s and much of the specific design information and engineering criteria are not available. The facility's stormwater system is reported to have been designed to manage a 24-hour 25-year storm event. However, the facility, in its current form, has withstood several hurricane and tropical storm events with little or no damage including Tropical Storm Isidore and Hurricane Lili in 2002.

c. Should damage from wave action be considered?

No, the facility is not located in an area likely to receive damage from wave action.

d. For what levels of wind speed is the facility designed?

The facility was constructed in the late 1960s and early 1970s and much of the specific design information and engineering criteria are not available. However, the facility, in its current form, has withstood several hurricane and tropical storm events with little or no damage including Tropical Storm Isidore and Hurricane Lili in 2002.

E. Is groundwater protected?

1. Are aquifers or recharge area underlying the site used for drinking water?

The uppermost water-bearing zone at the site is not used for drinking water. The uppermost water aquifer that is used for drinking water at the site is the '400-foot sand' that is laterally continuous in the vicinity of the facility, according to published groundwater data. Exide does not use the "400-foot sand" for drinking water. Exide has two deep wells that are used for potable water and non-contact cooling water for operations at the Baton Rouge smelter. The primary well (No. 3 well) is 2,447 feet deep and screened from 1,870-feet to 2,434-feet. The backup well (No. 1 well) is 1278 feet deep and screened from 1,228-feet to 1,278-

feet. Both of these wells are tested periodically for water quality by Exide. Additionally, the Louisiana Department of Health and Hospitals tests the two drinking water wells for water quality parameters every three years. Previous sampling events indicate that constituents of concern have not been detected in either of the wells.

According to Map No. 13 of the Aquifer Recharge Atlas ("Aquifer Recharge Potential of the Baton Rouge Quadrangle," 1988), prepared for the LDEQ Ground Water Protection Division, the Exide site and areas within 1,000 feet of the site are located in an area mapped with either a low to moderate recharge potential for the Southeast Louisiana Aquifer System, or no recharge potential for the Alluvial Aquifer System.

2. What is the relationship of the site to the water table?

Groundwater from the site's uppermost water bearing zone discharges to Baton Rouge Bayou.

3. What wells exist in the area?

Exide has seven groundwater monitoring wells (upgradient well MW-1R, and downgradient wells MW-4R, MW-12R, MW-13R, MW-16, MW-17 MW-18) that are placed to monitor the two closed hazardous waste piles located in the north and west sections of the facility. Exide has three wells that monitor the closed solid waste landfill to the north of the property (MW-1A, MW-14A and MW-15A). There are also three wells set to monitor the New Landfill, an active solid waste landfill on the western portion of the Exide site. The wells are MW-19 that is upgradient, MW-20 and MW-21 that are downgradient of the landfill. All of these wells are screened in the first water-bearing unit encountered at the site.

Exide also has two deep wells at the Baton Rouge smelter for supplying potable water and non-contact cooling water for operations. The primary well (No. 3 well) is 2,447 feet deep and screened from 1,870-feet to 2,434-feet. The backup well (No. 1 well) is 1278 feet deep and screened from 1,228-feet to 1,278-feet.

4. What is the flow rate and direction of the groundwater flow?

Available site-specific hydrological information for the shallow saturated horizon monitored by the existing groundwater wells in the main facility area is limited to slug testing and laboratory permeability testing conducted on monitoring wells MW-1R, MW-16 and MW-17. The laboratory permeability testing were conducted on samples collected from within the screened zone of each well.

A description of the sample, logged thickness and laboratory permeability were as follows:

MW-1R	2.5 ft of alternating layers of tan and light gray silty CLAY and SILT (CL-ML), k=1.16 x 10(-6) cm/sec (0.0033 ft/day). The remainder of the screened horizon was logged as either a "stiff to very stiff tan and light gray silty CLAY with silt pockets of calcareous nodules (CH)", or "very stiff tan and light gray CLAY with sand streaks and pockets (CH)".
MW-16	2.0 ft of firm tan sandy SILT with clay, k=4.38 x 10(-7) cm/sec (0.0012 ft/day). The remainder of the screened horizon was logged as a "very stiff tan and light gray CLAY with sand and silt pockets and calcareous nodules (CH)".
MW-17	10.0 ft of alternating layers of hard brown and gray CLAY and firm to dense brown and gray SILT (CL-ML), k=1.79 x 10(-7) cm/sec (0.0005 ft/day). No other horizons were noted on the logs.

Detailed information for the slug testing could not be located, but a narrative summary of the testing stated that the average hydraulic conductivity based on the slug testing for the same three wells was 4.43 x 10(-4) cm/sec (1.25 ft/day).

Based on the *Old Landfill Solid Waste SemiAnnual Groundwater Monitoring Report, June 204 Sampling Event* (August 2004), the average groundwater flow velocity in the vicinity of the "Old Landfill" as monitored by MW-1A, MW-14A and MW-15A was 0.017 ft/day. This report indicated that the flow direction beneath the old landfill was generally towards the north.

Based on the *SemiAnnual Hazardous Waste Groundwater Monitoring Report* (August 2004), the average groundwater flow velocity in the vicinity of the two closed hazardous waste cells monitored by MW-1R, MW-4R, MW-12R, MW-13R, MW-16, MW-17 and MW-18 was 0.12 ft/day. This report indicated that the flow direction, as determined by this monitoring well network, was generally towards the west.

5. **What is the groundwater quality in the underlying aquifers?**

The uppermost water-bearing zone at the site is not used for drinking water. The zone is monitored by Exide on a semiannual basis. Groundwater reports are submitted to LDEQ on a semiannual basis. To this date, there has been no impact to groundwater believed to be from the Baton Rouge smelter/ therefore, investigations have not been conducted in underlying aquifers.

6. **Is there a hydraulic connection between the aquifers?**

Based on published information, the aquifers in the upper 100-feet at the site are hydraulically connected. Between the upper water table zone and the first usable aquifer (400-foot sand) there is a clay confining layer.

F. **Does prospective site pose potential health risks as defined by proximity to:**

1. **Prime agricultural area (crop or pasture land)**

The facility is not located in or adjacent to crop or pasture land. The nearest pasture land is located 1.5-mile from the facility.

2. **Residential area**

The facility is not located in a residential area. The nearest resident is located 1.5 miles from the facility.

3. **Schools or day care centers**

The nearest school in the vicinity of the site is located in Baker Louisiana, at least 5-miles from the site.

4. **Hospitals or prisons**

The nearest prison is the Jetson Correctional Center, located approximately 2.5-miles from the facility. The nearest hospital to

the site is Lane Memorial Hospital in Zacary, LA, which is located approximately 10-miles from the site.

5. **Public buildings or entertainment facilities**

The nearest public building is the Alsen Community Center, located approximately 4-miles from the Exide site.

6. **Food storage area**

The facility is not located near any food storage areas.

7. **Existing community health problems that may be aggravated by operation of additional hazardous waste disposal capacity**

The facility is currently in operation. The permit renewal will not change facility operations and, therefore, will not create additional impacts to the community. The proposed modification to the Containment Building will be an upgrade and will be more protective of the environment. Floor upgrades at Area 2 in the Containment Building were completed in November 2003.

G. **Is air quality protected?**

1. **Is the site within an ozone or non-attainment area?**

Yes, the site is within an ozone non-attainment area.

2. **What contaminants are likely to be generated at the site?**

Lead particulate matter is likely to be generated at the site.

3. **What protection is afforded from each contaminant generated by the site?**

Exide will comply with applicable state and federal air emission regulations. Additionally, all identified sources of airborne lead are vented to baghouses to capture airborne particles. Water suppression is used in the Containment Building to reduce dust and potential airborne particles from the recycled materials.

4. **What is the potential for unregulated emissions?**

The potential for unregulated emissions is very low. All identified sources of airborne lead particulate are vented to baghouses. Water suppression is used to reduce dust and potential airborne particles from the recycled materials.

5. **What plans are implemented to provide for odor control?**

The lead-bearing material being recycled does not generate any bad odor.

6. **Who will be affected by emissions?**

There are no schools or residential communities within the 2-mile radius to be affected by emission.

a. **What is the direction of the prevailing winds?**

The prevailing wind is from the east/southeast.

b. **Describe the expected frequency of "bad air" conditions.**

The secondary lead smelting process does not generate any noticeable odor or "bad air" conditions.

7. **Describe the control of vapors at various stage of process.**

All of the possible air emission points are vented to control devices. The facility operates five fabric filter process baghouses. Baghouse #1 services the blast furnace. Baghouse #4 services the reverb furnace. The remaining three baghouses can be cross-connected and service the kettlehoods, slag taps, feed systems, and dross pots.

H. **Have physical site characteristics been studied; what has been done in terms of a geotechnical investigation?**

Approximately 35 soil borings have been installed to identify stratigraphy and geotechnical characteristics. The Baton Rouge smelter has thirteen groundwater monitoring wells set in the uppermost water bearing zone.

1. **Site Geology**

Based on soil borings completed throughout the site, the Baton Rouge smelter is underlain by natural soils of low permeability with some interbedded units of clayey sands, sandy clays, and sands. The top of the uppermost aquifer (first competent permeable zone) is encountered at elevations of approximately 28 to 32 feet msl, and the base of is encountered at elevations of approximately 20 to 25 feet msl. The thickness of this zone ranges from approximately 3 to 25 feet.

2. **Hydrogeology**

The uppermost aquifer at the site consists of interbedded fine-grained sand, sandy clay, clayey sand, and silty sand. Hydrogeologic testing

ATTACHMENT 1

Hazardous Waste Materials

Type Material	Code	Estimated Annual Quantity Handled
Spent Lead-Acid Batteries	D002, D008	250,000 tons
Lead residues, sludges, plant scraps & other Group I lead bearing hazardous waste	D008	24,000 tons
Lead residues, sludges, slags, and other Group I lead bearing hazardous waste with impurity-level other metal content	D008 (D004, D006, D007, D010, D011)	1,000 tons
Emission control dust from facility baghouse	K069	1,000 tons
Group II Recyclable lead bearing non-hazardous materials	D008	30,000 tons
Refractory Brick (exempt from permit)	D006, D008	200 tons
Spent nickel-cadmium batteries	D006	250 tons
Battery Components	D008	125,000 tons
Blast Furnace Slag	D008	20,000 tons

RESPONSE
ATTACHMENT A

SEND COMPLETED FORM TO: The Appropriate State or EPA Regional Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**	
1. Reason for Submittal (See instructions on page 14.) MARK ALL BOX(ES) THAT APPLY	**Reason for Submittal:** ☐ To provide Initial Notification of Regulated Waste Activity (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities) ☐ To provide Subsequent Notification of Regulated Waste Activity (to update site identification information) ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application ☒ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #_____) ☐ As a component of the Hazardous Waste Report	
2. Site EPA ID Number (page 15)	**EPA ID Number** |L|A|D|0|0|8|1|8|4|1|3|7|	
3. Site Name (page 15)	**Name:** Exide Technologies	
4. Site Location Information (page 15)	**Street Address:** 2400 Brooklawn Drive	
	City, Town, or Village: Baton Rouge	**State:** LA
	County Name: USA	**Zip Code:** 70807-2400
5. Site Land Type (page 15)	**Site Land Type:** ☒ Private ☐ County ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other	
6. North American Industry Classification System (NAICS) Code(s) for the Site (page 15)	**A.** |3|3|1|4|9|2| Secondary smelting of nonferrous metals	**B.** ||||||| (except copper and aluminum)
	C. |||||||	**D.** |||||||
7. Site Mailing Address (page 16)	**Street or P. O. Box:** P.O. Box 74040	
	City, Town, or Village: Baton Rouge	
	State: LA	
	Country: USA	**Zip Code:** 70874-4040
8. Site Contact Person (page 16)	**First Name:** Joseph **MI:**	**Last Name:** Acker, Jr.
	Phone Number: 225-775-3040 **Extension:** 127	**Email address:**
9. Operator and Legal Owner of the Site (pages 16 and 17)	**A. Name of Site's Operator:** Exide Technologies	**Date Became Operator (mm/dd/yyyy):** 1995
	Operator Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other	
	B. Name of Site's Legal Owner: Exide Technologies	**Date Became Owner (mm/dd/yyyy):** 1995
	Owner Type: ☒ Private ☐ County ☐ District ☐ Federal ☐ Indian ☐ Municipal ☐ State ☐ Other	

9. Legal Owner (Continued) Address	Street or P. O. Box: 210 Carnegie Center	
	City, Town, or Village: Princeton	
	State: NJ	
	Country: USA	Zip Code: 08540

10. Type of Regulated Waste Activity
Mark "Yes" or "No" for all activities; complete any additional boxes as instructed. (See instructions on pages 18 to 21.)

A. Hazardous Waste Activities
Complete all parts for 1 through 6.

Y ☒ N ☐ **1. Generator of Hazardous Waste**
If "Yes", choose only one of the following - a, b, or c.

☒ a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo.) of non-acute hazardous waste; or

☐ b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo.) of non-acute hazardous waste; or

☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo.) of non-acute hazardous waste

In addition, indicate other generator activities.

Y ☐ N ☒ d. United States Importer of Hazardous Waste

Y ☐ N ☒ e. Mixed Waste (hazardous and radioactive) Generator

Y ☐ N ☒ **2. Transporter of Hazardous Waste**

Y ☒ N ☐ **3. Treater, Storer, or Disposer of Hazardous Waste (at your site)** Note: A hazardous waste permit is required for this activity.

Y ☒ N ☐ **4. Recycler of Hazardous Waste (at your site)**

Y ☐ N ☒ **5. Exempt Boiler and/or Industrial Furnace**
If "Yes", mark each that applies.
☐ a. Small Quantity On-site Burner Exemption
☐ b. Smelting, Melting, and Refining Furnace Exemption

Y ☐ N ☒ **6. Underground Injection Control**

B. Universal Waste Activities

Y ☒ N ☐ **1. Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. If "Yes", mark all boxes that apply:**

	Generate	Accumulate
a. Batteries	☐	☒
b. Pesticides	☐	☐
c. Thermostats	☐	☐
d. Lamps	☐	☐
e. Other (specify) _____	☐	☐
f. Other (specify) _____	☐	☐
g. Other (specify) _____	☐	☐

Y ☒ N ☐ **2. Destination Facility for Universal Waste**
Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities N/A
Mark all boxes that apply.

Y ☐ N ☒ **1. Used Oil Transporter**
If "Yes", mark each that applies.
☐ a. Transporter
☐ b. Transfer Facility

Y ☐ N ☒ **2. Used Oil Processor and/or Re-refiner**
If "Yes", mark each that applies.
☐ a. Processor
☐ b. Re-refiner

Y ☐ N ☒ **3. Off-Specification Used Oil Burner**

Y ☐ N ☒ **4. Used Oil Fuel Marketer**
If "Yes", mark each that applies.
☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

11. Description of Hazardous Wastes (See instructions on page 22.)

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D002	D004	D006	D007	D008	D010	D011
K069						

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

D002	D004	D006	D007	D008	D010	D011
K069						

12. Comments (See instructions on page 22.)

13. Certification. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
For the RCRA Hazardous Waste Part A Permit Application, all operator(s) and owner(s) must sign (see 40 CFR 270.10 (b) and 270.11). **(See instructions on page 22.)**

Signature of operator, owner, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
Joseph R Acker Jr.	Joseph Acker, Jr., Plant Manager	10/11/05

EPA ID NO: | L | A | D | 0 | 0 | 8 | 1 | 8 | 4 | 1 | 3 | 7 |

OMB #: 2050-0034 Expires 11/30/2005

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact (See instructions on page 23)	First Name: Joseph	MI:	Last Name: Acker, Jr.
	Phone Number: 225-775-3040		Phone Number Extension: 127
2. Facility Permit Contact Mailing Address (See instructions on page 23)	Street or P.O. Box: P.O. Box 74040		
	City, Town, or Village: Baton Rouge		
	State: LA		
	Country: USA		Zip Code: 70874
3. Operator Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: P.O. Box 74040		
	City, Town, or Village: Baton Rouge		
	State: LA		
	Country: USA	Zip Code: 70874	Phone Number 225-775-3040
4. Legal Owner Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: 13000 Deerfield Parkway, Suite 200		
	City, Town, or Village: Alpharetta		
	State: GA		
	Country: USA	Zip Code: 30004	Phone Number
5. Facility Existence Date (See instructions on page 24)	Facility Existence Date (mm/dd/yyyy): 01/01/1960		

6. Other Environmental Permits (See instructions on page 24)

A. Permit Type (Enter code)	B. Permit Number	C. Description
N	LA004464	NPDES (expires 3/06)
R	LAD008184137	RCRA Hazardous Waste (effective 11/01/93)
P	0840000040 0	Air Permit (effective 7/12/95)
E	LAD008184137	LDEQ Post-Closure Permit (Haz. Waste Piles)
		#1 and #2, effective 5/21/01)

7. Nature of Business (Provide a brief description; see instructions on page 24)

Secondary lead smelter and refiner which recycles spent lead acid batteries and other lead bearing materials into metallic lead ingots for use in batteries, ammunitions, weights, chemicals and other commercial products.

E	GD033 2 054P0326	LDEQ Solid Waste Permit (effective 7/02/98)
E	GD033 2 054P0160	LDEQ Solid Waste Permit (closed 1999)
E	1 1 0 0 0 0 4 5 0 1 2 8	

P	2 2 0 3 3 0 0 0 0 4	Air Permit, Operating, Minor
E	7 0 8 7 4	EP 313

Process Codes and Design Capacities (See instructions on page 24) - Enter information in the Sections on Form Page 3.

A. **PROCESS CODE** - *Enter the code from the list of process codes in the table below that best describes each process to be used at the facility. Fifteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), enter the process information in Item 9 (including a description).*

B. **PROCESS DESIGN CAPACITY**- *For each code entered in Section A, enter the capacity of the process.*

1. **AMOUNT** - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.*
2. **UNIT OF MEASURE** - *For each amount entered in Section B(1), enter the code in Section B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.*

C. **PROCESS TOTAL NUMBER OF UNITS** - *Enter the total number of units for each corresponding process code.*

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards
D99	Other Disposal	Any Unit of Measure in Code Table Below
	Storage:	
S01	Container	Gallons; Liters; Cubic Meters; or Cubic Yards
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards
S06	Containment Building Storage	Cubic Yards or Cubic Meters
S99	Other Storage	Any Unit of Measure in Code Table Below
	Treatment:	
T01	Tank Treatment	Gallons Per Day; Liters Per Day
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour
	Treatment (continued):	
T81	Cement Kiln	For T81-T93:
T82	Lime Kiln	
T83	Aggregate Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, or Refining Furnace	
T88	Titanium Dioxide Chloride Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed In 40 CFR §260.10	
T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
	Miscellaneous (Subpart X):	
X01	Open Burning/Open Detonation	Any Unit of Measure in Code Table Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G
Gallons Per Hour	E
Gallons Per Day	U
Liters	L
Liters Per Hour	H
Liters Per Day	V

UNIT OF MEASURE	UNIT OF MEASURE CODE
Short Tons Per Hour	D
Metric Tons Per Hour	W
Short Tons Per Day	N
Metric Tons Per Day	S
Pounds Per Hour	J
Kilograms Per Hour	R
Million Btu Per Hour	X

UNIT OF MEASURE	UNIT OF MEASURE CODE
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu Per Hour	I

Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 8 (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	(2) Unit of Measure (Enter code)	C. Process Total Number of Units	For Official Use Only
X	1	S	0	2	5 3 3 . 7 8 8	G	0 0 1	
	1							
	2	S	0	1	85,000·00	G	0 0 1	
	3	S	0	1	81,000·00	G	0 0 1	
	4	S	0	6	7,614·810	Y	0 0 1	
	5				.			
	6				.			
	7				.			
	8				.			
	9				.			
1	0				.			
1	1				.			
1	2				.			
1	3				.			
1	4				.			
1	5				.			

NOTE: If you need to list more than 15 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item 9.

9. Other Processes (*See instructions on page 25 and follow instructions from Item 8 for D99, S99, T04 and X99 process codes*)

Line Number (Enter #s in sequence with Item 8)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY (1) Amount (Specify)	(2) Unit of Measure (Enter code)	C. Process Total Number of Units	D. Description of Process
X	2	T	0	4	1 0 0 . 0 0 0	U	0 0 1	In-situ Vitrification
		T	0	4	100.00	D		Slag stabilization using pozzolonic material and amorphous compound
					.			
					.			
					.			
					.			

10. Description of Hazardous Wastes (See instructions on page 25) - Enter information in the Sections on Form Page 5.

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in Section A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Section A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C. UNIT OF MEASURE - *For each quantity entered in Section B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the listed hazardous wastes.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of Item 10.D(1).*
3. *Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 10.E.*

2. PROCESS DESCRIPTION: *If a code is not listed for a process that will be used, describe the process in Item 10.D(2) or in Item 10.E(2).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. *Select one of the EPA Hazardous Waste Numbers and enter it in Section A. On the same line complete Sections B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In Section A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Section D(2) on that line enter "included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

EXAMPLE FOR COMPLETING Item 10 (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number		A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									(2) PROCESS DESCRIPTION- (If a code is not entered in D(1))
X	1	K	0	5	4	900	P	T	0	3	D	8	0				
X	2	D	0	0	2	400	P	T	0	3	D	8	0				
X	3	D	0	0	1	100	P	T	0	3	D	8	0				
X	4	D	0	0	2												Included With Above

10. Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number pages as 5 a, etc.)

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)									D. PROCESSES (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1	D008	250,000	T	S01									Batteries in storage
2	D006	250	T	S01									prior to recycling
3	D002	included in Line 10		S01									
4													
5	D008	125,000	T	S06									Containment Building
6	D007	included in Line 14		S06									storage prior to
7	D006	included in Line 14		S06									recycling
8	D004	included in Line 14		S06									
9	D010	included in Line 14		S06									
10	D011	included in Line 14		S06									
11	K069	included in Line 14		S06									
12													
13	D008	20,000	T	T04									Treatment unit for
14													stabilization of slag
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
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37													
38													
39													

11. Map (See instructions on pages 25 and 26)

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements. See Figures 2, 3, 4 and/or 7

12. Facility Drawing (See instructions on page 26)

All existing facilities must include a scale drawing of the facility (see instructions for more detail). See Figures 5A and 5B

13. Photographs (See instructions on page 26)

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

14. Comments (See instructions on page 26)

Additional information required by LAC 33:V.515

6. Facility Location: Latitude 30° 35'008" Longitude 91° 14'040"
See Appendix 18 for legal description

13..The facility is not constructed on Indian Lands.

14. The construction documents associated with Containment Building modifications were approved by LDEQ. However, approval of the application has not yet been received.

22. Exide Technologies is conducting closure activities at a facility in Heflin, Louisiana. Exide also conducts Hazardous Waste activities in Pennsylvania, Indiana, Tennesee, Missouri, Texas, California and Georgia.

23. The zoning at the facility is M-2, Heavy Industrial.

History: Part I and Part A

Revised 09/15/05

Date of Revision	Revision	Explanation	Revised Pages Page Number
3/27/86	LDEQ interpretation that batteries are containers add container/truck trailer storage area.	Chapter 41 (12/85) Schuylkill notified 3/85 inapplicability of this section to storage of batteries.	A2, B1, B2, B4, B6, C1, C3
4/29/88	Add container storage area for batteries on pallets.	Chapter 41, 12/85 See letter dated 05/04/88.	C1, C3, B6, B2, B4, B1, A2
2/15/89	Notification of Generation of Refractory Brick.	See letter dated 2/15/89.	A2, B1, B2, B4, B6
2/12/90	Petroleum Naptha Waste Generation Notice.	See letter dated 2/12/90.	A2, B1, B2, B4, B6
11/02/90	Submitted Part II Application for Battery Plates/Oxide in Piles.	Exempted by LDEQ from 12/85 rules. LDEQ issued Notice of Intent to Deny Exemption/Variance 09/23/91 and denied Variance 01/24/92. Schuylkill has appealed. EPA has proposed rules to allow storage of these materials in containment buildings. No determination has been made as to requirement for permitting of these buildings. See attached 11/02/90 letter.	
8/14/91	Notified acceptance of a portion of lead bearing D008 Group II recyclable by producer will be classified D004, D006, D007, D010, and D011 in addition to D008.	See letter dated 8/14/91.	A2, B1, B2, B4, B6

Date of Revision	Revision	Explanation	Revised Pages Page Number
8/28/91	Add stabilization fixaton process for blast furnance slag rather than "permit by rule" as a totally enclosed treatment facility.	Chapter 22 Land Ban Restriction D008 inorganic solid debris. Fed. Regs. Prom. 5/90. On 12/11/90 notified LDEQ this process was a totally enclosed treatment facility. LDEQ forwarded letter to EPA. Process in existence prior to May 1990. See attached letters 12/04/90 and 8/28/91.	A2, B1, B2, B3, B6, C1, C3
3/24/92	Nickel Cadmium Batteries Generation and Accumulation Notice	See attached letter dated 3/24/92.	Notes Section B Item 4
4/02/92	Complete revision to comply with LDEQ Technical Review of Part II H.W. Permit Application.		All Pages
1/30/97	Change from Part I to EPA - Hazardous Waste permit Application - Part A.	See Attachment Number 1 - Change of Ownership Letter dated October 29, 1996.	All Pages
5/23/97	Revised Part A	To correct Process Design Capacities. See DEQ letter of 04/08/97.	All Pages
2/03/99	Revised Part A	To correct Process Design Capacities.	3
7/31/01	Revised Part A	Name Change	A1, A2
5/05/03	Submitted Revised Part A and B	Permit Renewal Application. Permit to expire 11/01/03.	All Pages
9/15/05	Submitted Revised Part A and Part B	Response to NOD. Remove K069/D008 Storage Area.	All Pages

RESPONSE
ATTACHMENT 5

CHAPTER 5

PERMIT APPLICATION CONTENTS

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality Hazardous Waste

Chapter 5. Permit Application Contents
Subchapter A. General Requirements for Permit Applications

§501. Permit Application

A. Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit a permit application to the administrative authority as described in this Section and LAC 33:V.4301, 4303, and 4305. Persons currently authorized with interim status shall apply for permits when required by the administrative authority. Persons covered by RCRA permits by rule (LAC 33:V.305.D) need not apply. Procedures for applications, issuance, and administration of emergency permits are found exclusively in LAC 33:V.701 and 703. Procedures for application, issuance, and administration of research, development, and demonstration permits are found exclusively in LAC 33:V.329.

<u>Response</u>
Exide currently is operating under the provisions of Hazardous Waste Operating Permit LAD008184137. This permit was issued by the Louisiana Department of Environmental Quality (LDEQ) on November 1, 1993, and expires on November 1, 2003. Exide is herein submitting this Permit Application to renew the Hazardous Waste Operating Permit. Exide also operates a Containment Building under interim status. Exide submitted a Class 3 permit modification to LDEQ on October 17, 2001. The modification included upgrades to the containment building and a request to operate the building under the hazardous waste permit as required by LDEQ in Appendix 1. Floor upgrades at Area 2 of the Containment Building were completed in November 2003. The modification has not yet been approved. Exide is currently responding to comments provided by the LDEQ on the October 17, 2001 submission. This renewal application has assumed that the containment building will continue to operate under interim status until approval by LDEQ.

B. When a facility or activity is not owned and operated by one person, it is the operator's duty to obtain a permit. The owner must also sign the permit application.

Response
Exide is a corporation. Mr. Joseph Acker, Plant Manager of Baton Rouge, and a duly authorized officer of Exide, has signed this application.

C. Existing Hazardous Waste Management Facilities and Interim Status Qualifications

1. Owners and operators of existing hazardous waste management facilities or of hazardous waste management facilities in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit must submit Part I of their permit application no later than:

a. six months after the date of publication of regulations which first require them to comply with LAC 33:V.Chapters 11, 15, 25, 30, 41 or 43; or

b. thirty days after the date they first become subject to the standards set forth in LAC 33:V.Chapters 11, 15, 25, 30, 41, or 43, whichever first occurs.

Response
Exide is submitting an updated Part I application as part of this permit renewal application.

2. The owner and operator of an existing hazardous waste management facility may be required to submit Part II of their permit application. The administrative authority may require submission of Part II. Any owner or operator shall be allowed at least 120 days from the date of request to submit Part II of the application. Any owner or operator of an existing hazardous waste management facility may voluntarily submit Part II of the application at any time. Notwithstanding the above, any owner or operator of an existing hazardous waste management facility must submit a Part II permit application in accordance with the dates specified in LAC 33:V.4305. Any owner or operator of a land disposal facility in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit must submit a Part II application in accordance with the dates specified in LAC 33:V.4305.

Response
Exide is submitting this pemit renewal Part II application at least 120 days prior to the expiration of the current permit.

§503. Completeness

The administrative authority shall not issue a permit before receiving a complete application for a permit except for permits by rule (LAC 33:V.305.D) or emergency permits (LAC 33:V.701). An application for a permit is complete when the administrative authority receives an application form and any supplemental information which are completed to his or her satisfaction. The administrative authority may deny a permit for the active life of a hazardous waste management facility or TSD unit before receiving a complete application for the permit. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in this Section.

A. Any Part II permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill must be accompanied by information reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

1. reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

2. the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under LAC 33:V.503.A.1; and

3. the potential magnitude and nature of the human exposure resulting from such releases.

<u>Response</u>
Exide acknowledges, understands and will comply with the above. However, Exide does not operate any facilities that store, treat, or dispose of hazardous waste in a surface impoundment or a landfill.

B. By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a Part II application must submit the exposure information required in LAC 33:V.503.A.

<u>Response</u>
Exide acknowledges, understands and will comply with the above citation; however, Exide does not operate a hazardous waste surface impoundment or landfill.

false information, including the possibility of fine and imprisonment for knowing violations."

Response
Exide is a corporation that owns and operates the Baton Rouge Smelter. Joe Acker, the Baton Rouge smelter Plant Manager, has signed this document certifying the above statement. This signed certification statement is included as Appendix 2.

2. **For remedial action plans (RAPs) under LAC 33:V.Chapter 5.Subchapter G, if the operator certifies according to Subsection A.1 of this Section, then the owner may choose to make the following certification instead of the certification in Subsection A.1 of this Section:**

   "Based on my knowledge of the conditions of the property described in the RAP and my inquiry of the person or persons who manage the system referenced in the operator's certification, or those persons directly responsible for gathering the information, the information submitted is, upon information and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

   Response
   Should Exide submit a remedial action plan, the above statement will be duly noted and signed by an authorized representative.

B. **Certification of an owner who is not the operator:**

"I certify that I understand that this application is submitted for the purpose of obtaining a permit to operate a hazardous waste management facility on the property as described. As owner of the property/facility, I understand fully that the facility operator and I are jointly and severally responsible for compliance with both LAC 33:V.Subpart 1 and any permit issued pursuant to those regulations." For owners of land disposal facilities, add: "I further understand that I am responsible for providing the notice in the deed to the property required by LAC 33:V.3525."

Response
The owner of this facility is also the operator; therefore this certification statement does not apply. The certification statement required by LAC 33:V.513.A.1 is included as Appendix 2.

Subchapter C. Permit Applications: Parts I and II

§515. Part I Information Requirements

All applicants for TSD permits shall provide the following information to the administrative authority using the application form provided. Other formatting requirements may be specified by the administrative authority.

1. **date of application;**

   Response
   The application date is provided on the document cover.

2. **EPA identification number;**

   Response
   The EPA identification number is provided on the Part 1 form.

3. **a brief description of the nature of the business;**

   Response
   Exide is a secondary lead smelter and refiner which recycles spent lead acid batteries and other lead bearing materials into metallic lead ingots for use in batteries, ammunitions, weights, chemicals and other commercial products. This information is provided on the Part 1 form.

4. **the activities conducted by the applicant which require it to obtain a TSD permit;**

   Response
   Exide operates hazardous waste storage and treatment units.

5. **name, mailing address, and location of the facility for which the application is submitted;**

   Response
   Exide's name, mailing address and location of the facility are provided on the Part 1 form.

6. **the latitude and longitude of the facility and a legal description of the site;**

   Response
   The latitude and longitude of the facility are provided on the Part 1 form. A legal description of the site is provided in Appendix 18.

7. **up to four SIC codes which best reflect the principal products or services provided by the facility;**

Response
The SIC code is provided on the Part 1 form.

8. **an indication of whether the facility is new or existing and whether it is a first or revised application;**

Response
The Baton Rouge smelter is an existing facility. This permit renewal has been indicated on the Part 1 form.

9. **the operator's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity;**

Response
This information is provided on the Part 1 form.

10. **owner's name, address, and phone number if different from operator's;**

Response
This information is provided on the Part 1 form.

11. **contact: name of individual to be contacted concerning hazardous waste management;**

Response
This information is provided on the Part 1 form.

12. **telephone number of contact;**

Response
This information is provided on the Part 1 form.

13. **whether the facility is located on Indian lands;**

Response
The facility is not located on Indian lands. This information is indicated on the Part 1 form.

14. **a listing of all permits or construction approvals received or applied for under any of the following programs:**

    a. **hazardous waste management program;**

    Response
    LA D008184137 RCRA Hazardous Waste Permit (effective 11/01/93)

LA D008184137 Post Closure Permit for Hazardous Waste Piles #1 and #2 (effective 5/21/01)

b. **Underground Injection Control (UIC) program;**

Response
Not applicable.

c. **National Pollution Discharge Elimination System (NPDES) program;**

Response
LA004464 NPDES Permit (expires March 2006).

d. **Prevention of Significant Deterioration (PSD) program under the Federal Clean Air Act;**

Response
08400000400 Air Permit (effective 7/12/95)
2203300004 Air Permit Operating, Minor

e. **nonattainment program under the Clean Air Act;**

Response
Not applicable.

f. **National Emission Standards for Hazardous Air Pollutants (NESHAP) preconstruction approval under the Clean Air Act;**

Response
Not applicable.

g. **ocean dumping permits under the Marine Protection Research and Sanctuaries Act;**

Response
Not applicable.

h. **dredge or fill permits under Section 404 of the federal Clean Water Act (CWA); or**

Response
Not applicable.

i. **other relevant environmental permits;**

Response
GD0332054P0326 LDEQ Solid Waste Permit (effective 7/2/98)
GD0332054P0160 LDEQ Solid Waste Permit (closed 1999)
70874 EP313

This information is also provided on the Part 1 form. Exide also submitted a Class 3 permit modification on October 17, 2001. The modification included upgrades to the Containment Building and a request to include the Containment Building in the Hazardous Waste Permit as required by LDEQ in Appendix 1. Approval of the modification has not yet been received.

15. **a topographic map (or other map if a topographic map is unavailable) extending two miles beyond the property boundaries of the facility indicating the following; each hazardous waste treatment, storage, and disposal facility; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant;**

Response
As indicated on Part 1 form, the requested information is provided on Figures 2, 3, 4 and/or 7.

16. **for existing facilities, a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas;**

Response
As indicated on the Part 1 form, the requested information is provided on Figures 5A and 5B.

17. **for existing facilities, photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas;**

Response
As indicated on the Part 1 form, photographs are provided in Appendix 17.

18. **a description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items;**

Response
The design capacity of the storage and treatment units is provided on the Part 1 form.

19. **a specification of the hazardous wastes listed or designated to be treated, stored, or disposed of at the facility; an estimate of the quantity of such wastes to be treated, stored, or disposed of annually; and a general description of the processes to be used for such wastes;**

Response
The type and annual quantity of waste to be treated and stored is provided on the Part 1 form.

20. **status: ownership status of existing site or land for proposed site (federal, state, private, public, other);**

Response
This information is indicated on the Part 1 form.

21. **operation status;**

Response
This information is indicated on the Part 1 form. The Baton Rouge Smelter is an active facility.

22. **list other company hazardous waste operations in Louisiana (permitted or non-permitted and current or abandoned);**

Response
This information is provided on the Part 1 form.

23. **list other states in which hazardous waste operations are or have been conducted, as required by LAC 33:I.1701;**

Response
This information is provided on the Part 1 form.

24. **zoning of site, if applicable;**

Response
As indicated on the Part 1 form, the site is zoned M-2, Heavy Industrial.

25. **for hazardous debris: a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility;**

Response
Exide does not manage hazardous debris; therefore this citation does not apply.

26. **other information required in LAC 33:I.1701; and**

Response
Exide acknowledges and understands this requirement and will comply.

27. **comments.**

Response
Exide acknowledges and understands this requirement and will comply.

Subchapter D. Part II General Permit Information Requirements

§516. Information Requirements for Solid Waste Management Units

A. **The following information is required for each solid waste management unit at a facility seeking a permit:**

1. **the location of the unit on the topographic map required under LAC 33:V.517.B;**

Response
The location of the two container storage areas, the treatment unit and the Containment Building are shown on Figure 5A.

2. **designation of type of unit;**

Response
There are two container storage areas at the Baton Rouge smelter. The Truck/Trailer Storage Area is used to hold spent lead-acid and nickel-cadmium batteries in tractor trailers. The Whole Battery Storage Area is used to hold spent lead-acid batteries on pallets prior to recycling. The Containment Building houses the primary recycling operation. The Containment Building is configured with three areas all under one roof as shown on Figure 6. The Raw Material Storage Area (Area 1) is used to store dry materials prior to recycling. The Paste Storage Area (Area 2) is used for the initial staging of neutralized lead paste from the battery breaking/desulfurization process prior to moving the paste to Area 1. Lead oxide paste is a red-brown, high density solid material with a moisture content less than 5%. The Production Area (Area 3) houses the blast furnace, reverberatory furnace and the refining kettles. This area is not regulated since it is a recycling/production facility. The Slag Stabilization Unit is a hazardous waste treatment unit that treats blast furnace slag by mixing it with Portland cement and sodium silicate.

3. **general dimensions and structural description (supply any available drawings);**

Response
Figure 5A (Topographic Map) shows the locations of each unit. Figures 6 (Containment Building Map), 12 (Truck/Trailer Storage Area), and 13 (Whole Battery Storage Area) present the available detailed design information about each unit. Appendix 25 provides the proposed upgrades to the Containment Building Floor Design. These upgrades were completed in November 2003 and certification documents are provided in Appendix 11C. Appendix 11 provides additional design information for the Containment Building. Photographs of the units are included in Appendix 17.

4. **when the unit was operated; and**

Response
Exide has operated the Containment Building since 1991. The Slag Stabilization Unit was completed and commenced operations in 1993. The former K069/D008 Area became operational when the facility started, in 1969. The Truck/Trailer Area was built in 1986. The Whole Battery Storage Area was completed in 1999.

5. **specification of all waste codes for all hazardous wastes that have been managed at the unit.**

Response
The Truck/Trailer Storage Area holds spent lead-acid batteries with waste codes of D002, D006 and D008. The Whole Battery Storage Area hold spent lead-acid batteries with waste codes of D002 and D008. The Slag Stabilization Unit contains materials that have a waste code of D008. The Containment Building has materials with waste codes of D008, D007, D006, D004, D010, D011 and K069.

6. **details of all ancillary equipment including tanks storing hazardous waste in less than 90-day service and pipes carrying hazardous waste to the injection well(s) must meet the requirements of LAC 33:V.Chapter 19. A certification by an independent Louisiana Registered Professional Engineer must be provided attesting to the adequacy of pipes, valves, and pumps to handle hazardous waste under pressure and to the adequacy of secondary containment provided to meet the requirements of LAC 33:V.Subpart 1.**

Response
Exide does not use tanks to store hazardous waste, or have pipelines carrying hazardous waste. Therefore this section is not applicable.

B. **The owner or operator of any facility containing one or more solid waste management units must submit all available information pertaining to any known release of hazardous wastes or hazardous constituents from such unit or units.**

Response

Exide was issued a Post-Closure Permit for two closed hazardous waste piles in April 2001. The permit describes four solid waste management units (SWMUs) that were originally identified during a RCRA Facility Assessment conducted in 1987. These SWMUs are identified in Appendix 3 and discussed and shown on Figure 5 and include SWMU #34 (Slag Storage Area), SWMU #40 (Truck Washdown Area), SWMU #49 (Wastewater Drainage System), and SWMU #60 (Railcar Area). As required by the Post-Closure Permit, Exide submitted a Preliminary Report on November 13, 2001 to describe current facility conditions. A Phase I RCRA Facility Investigation Work Plan was also submitted on November 16, 2001. The Phase I RCRA Facility Investigation Work Plan was developed using existing information to propose collection of additional information necessary to determine the presence, magnitude, extent and mobility of hazardous waste constituents on and beneath the site that may have originated from the pre-RCRA and RCRA-permitted SWMUs. As comments or approval have not yet been received from LDEQ, RFI activities have not yet begun.

However, the permitted container storage areas, the permitted treatment unit and interim status Containment Building are not included in the proposed investigations as SWMUs and, accordingly, this section does not apply to this current application.

C. **The owner/operator must conduct and provide the results of sampling and analysis of groundwater, land surface and/or subsurface strata, surface water, and/or air, which may include the installation of wells, if the administrative authority ascertains it is necessary to complete a RCRA Facility Assessment that will determine whether a more complete investigation is necessary. If the owner/operator has an EPA approved RCRA Facility Investigation, the results of this investigation may be provided to the administrative authority.**

Response

Exide, as a result of the 1997 RCRA Facility Assessment (RFA) and the Post-Closure Permit, has submitted a RCRA Facility Investigation (RFI) Work Plan for investigation of four identified solid waste management units (SWMUs). These SWMUs are identified and discussed and shown in Appendix 3 and include SWMU #34 (Slag Storage Area), SWMU #40 (Truck Washdown Area), SWMU #49 (Wastewater Drainage System), and SWMU #60 (Railcar Area). As comments or approval have not yet been received from LDEQ, RFI activities have not yet begun. Results from

these investigations will be provided to LDEQ as required. However, the permitted container storage areas, the permitted treatment unit and the interim-status Containment Building are not identified as SWMUs and, accordingly, this section does not apply to this current application.

§517. Part II Information Requirements (the Formal Permit Application)

The formal permit application information requirements presented in this Section reflect the standards promulgated in LAC 33:V.Subpart 1. These information requirements are necessary in order to determine compliance with all standards. Responses and exhibits shall be numbered sequentially according to the technical standards. The permit application must describe how the facility will comply with each of the sections of LAC 33:V.Chapters 15—37 and 41. Information required in the formal permit application shall be submitted to the administrative authority and signed in accordance with requirements in LAC 33:V.509. The description must include appropriate design information (calculations, drawings, specifications, data, etc.) and administrative details (plans, flow charts, decision trees, manpower projections, operating instructions, etc.) to permit the administrative authority to determine the adequacy of the hazardous waste permit application. Certain technical data, such as design drawings, specifications, and engineering studies, shall be certified by a Louisiana registered professional engineer. If a section does not apply, the permit application must state it does not apply and why it does not apply. This information is to be submitted using the same numbering system and in the same order used in these regulations:

A. a general description of the facility including hours of operation/day and day/week;

Response

The Exide Baton Rouge smelter is a secondary lead smelter and refinery that recycles lead-bearing materials including spent lead-acid batteries to make metallic lead used in production of new batteries. The facility is located in East Baton Rouge Parish, at latitude 30 degrees, 35 minutes, 8 seconds, longitude 91 degrees, 14 minutes, 40 seconds. Figure 2 shows the Site Location Map and Figure 5 shows the Topographic Map. The plant is in operation 24 hours per day, seven days per week. Normal office hours are Monday through Friday 8:00 a.m. through 4:30 p.m. The facility has 24-four hour security.

Exide processes lead bearing raw materials, including spent lead acid batteries, emissions control dust, sludges and by products into metallic lead for resale and reuse. Some of the raw materials used in the process and stored on site are classified as hazardous wastes by regulation. Exide was issued a Hazardous Waste Permit (LAD008184137) to operate two container storage areas (the Truck/trailer Storage area and the Whole Battery Storage area). Exide operates a Containment Building, which is

currently under interim status. A hazardous waste treatment unit, the Slag Stabilization unit, is also permitted under LAD008184137.

Most of the raw materials used by the Baton Rouge smelter to produce lead are purchased off-site. The lead-bearing raw materials are delivered to the facility in trucks or trailers and are unloaded at the loading dock. If the material is classified a hazardous, it will be received under manifest, as specified in the Louisiana Department of Environmental Quality, Hazardous Waste Division Environmental Regulatory Code. Other nonhazardous and exempt materials are received under bill of lading. Some of these lead-bearing materials are received in drums. These drums will either be emptied directly into a feedstock pile in the Containment Building.

Lead acid batteries are either fed directly into the battery breaker or are stored temporarily onsite in one of two permitted storage area, the Truck/Trailer storage area or the Whole Battery storage area. Lead acid batteries are processed in the battery breaker unit, by cutting the batteries, and hydraulically separating the individual components. The plastic is thoroughly washed to remove residual acid and lead. It is then loaded into trailers and shipped offsite for recycling. The battery acid, a weak sulfuric acid solution, is neutralized with sodium hydroxide and crystallized to form sodium sulfate salt. The sodium sulfate solution generated during the recycling process is collected in a storage tank. The solution is pre-heated and introduced into an evaporator/crystallizer. The unit operates on the principle of a draft-tube-baffle crystallizer where brine is continuously circulated. The stream of crystal-laden brine is extracted and centrifuged. The mother liquor is returned to the process while the crystals are neumatically conveyed and dried in a warm air stream and stored in a silo for loadout. The salt is sold as a product. The moisture laden vapors from the evaporator/crystallizer unit are ducted to a heat exchanger for condensing. Condensate is collected in a tank and used for cake washing in the main filter press. The condenser cooling water is re-circulated through a cooling tower and reused for the same purpose.

The lead material from the batteries is processed to convert lead sulfate to lead oxide. The de-sulfurized and neutralized lead oxide paste is then stored in the Paste Storage Area of the Containment Building, prior to recycling. Lead oxide paste is a red-brown, high density solid material with a moisture content less than 5%. The Paste Storage Area of the Containment Building (Area 2) has a floor system suitable for containing wastes which may contain free liquids. The floor system is, from top to bottom, acid brick, 6 inches 4000 psi reinforced concrete, 12 ounce geotextile, 80 mil HDPE geomembrane, and geonet drainage layer.

The facility operates one blast furnace and one reverberatory furnace that are used to smelt the lead-bearing raw materials. The molten lead is cast either into ingots using two casting machines or blocks using molds. Additionally, the facility operates a billet casting machine to produce lead billets. The finished lead is tested to determine if it meets client specifications and is then loaded into trucks and transported off-site for reuse.

As a part of the lead recycling, a blast furnace slag is generated. This slag contains mostly iron, silica and calcium oxides, with typically less than 1% lead. However, the slag is classified as a hazardous waste due to the lead content, since it typically cannot pass the TCLP analysis for lead. The slag is allowed to cool, crushed to small diameter, and treated using a mixture of cement and sodium silicate, as specified in the facility's Hazardous Waste Permit. The stabilized slag is rock-like in appearance and engineering properties. After treatment, the slag is placed in a permitted onsite Solid Waste landfill.

Operations are summarized on the Process Flow Diagram, Figure 1.

Since the original permit application was submitted in 1993, the facility has had several changes to the operations including:

- Installation of the current Battery Breaker Unit in 1995, which replaced the former MA breaker system.
- Upgrades to the groundwater monitoring system. New wells were installed in 1995 and initially sampled in 1998.
- Completed construction of the New Landfill, an onsite Type I solid waste landfill which began receiving stabilized blast furnace slag on July 3, 1998.
- Installation of the No. 7 Baghouse in November 1998.
- Completion of the Whole Battery Storage Area in 1999.
- Closure of the Old Landfill, an onsite Type I solid waste landfill closed in 1999.
- Discontinued use of the No. 2 Blast Furnace in December 1999.
- Taken refining kettles No. 2 and No. 11 out of service in January 2000.

- Taken the billet casting machine out of service in January 2000.

- Submission of Type 3 Permit Modification on October 17, 2001 to include the interim status Containment Building in the hazardous waste permit and to conduct Containment Building upgrades.

- LDEQ-approved Containment Building upgrades were completed in November 2003.

- Cease use of the K069/D008 storage area.

B. a topographic map or maps showing a distance of 1,000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet); contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. The map or maps shall clearly show the following:

1. map and scale date;

Response
A topographic map of the facility is included as Figure 5, Topographic Map. The scale of the map is 1 inch equals 50 feet. The map shows the facility and the adjacent areas. Figure 7, Surrounding Topography Map, provides contours for the facility and an area 1,000 feet outside the facility, including water bodies. The scale of the map is 1 inch equals 200 feet.

2. orientation of the map (north arrow);

Response
A north arrow is included on Figures 5 and 7.

3. 100-year floodplain area;

Response
Exide has included maps showing the 100-year flood plain area in Figure 9. The Baton Rouge Smelter is located outside the limits of the 100-year flood plain.

4. Surface waters including intermittent streams and surface flow through the site and a map of the potentiometric surface for aquifers within 100 feet of lowest elevation of disposal cells, or other facilities containing hazardous waste, from 1,000 feet upstream to 1,000 feet downstream, where practicable. Included should be a general area map and cross sections

indicating the extent of freshwater sands, and the degree of isolation from waste sources by confining layers of clay;

Response

Figure 14 has been prepared to show the surface conditions within 1,000 ft of the facility boundary. Figure 2 has been prepared using an aerial photograph overlain with topographic contours for areas within 1,000 feet of the facility boundary. As shown, Baton Rouge Bayou is the only perennial surface water body in the area. Intermittent flow is experienced in the swales located along the south and east property boundaries, and from areas across the Baton Rouge Bayou from the Main Facility. The closed hazardous waste disposal facilities have estimated bottom of waste elevations no lower than +50 ft MSL. The first major aquifer beneath the Site is a sand aquifer consisting of the "400-ft sand" and "600-ft sand" aquifers. While these aquifers are identified as separate units south of the Site they are merged beneath the Site. The top of the merged 400-ft/600-ft aquifer is mapped to be at or about elevation -70-ft MSL, or 120-ft below the lowest estimated bottom of hazardous waste. Based on published information, the potentiometric surface for the merged 400-ft/600-ft aquifer is at approximate elevation +20 MSL and the general direction of flow is south-southwest (Whiteman, Jr., 1979).

Figure 14 provides the potentiometric map for the shallow aquifer beneath the Site. The groundwater elevation ranges from 63-ft MSL at the southeastern end of the Site to 37-ft MSL at the northwestern end of the Site. Groundwater within this unnamed uppermost water table aquifer flows towards and is hydraulically connected with the Baton Rouge Bayou. The groundwater is reported to fluctuate in response to changes in the bayous stage. Figure 15 provides cross-sections developed using a combination of site borings and published information. The cross-sections show the vertical relationship between the closed hazardous waste disposal areas and the 400-ft/600-ft sand aquifers.

5. **surrounding land uses (residential, commercial, agricultural, recreational, public) such as schools, hospitals, libraries, etc.;**

Response

The map in Figure 7 shows the surrounding land uses within 2 miles at a scale of 1"=1000'. Figure 2 shows the Site and surrounding topographic information within 1000 ft of the facility at a scale of 1"=200'. The Petro-Processors site, a Superfund site, is located within 100-feet of the Baton Rouge smelter. Great Lakes Carbon (formerly Reynolds Metals Corporation), also located within 100-feet of the Baton Rouge smelter, is an industrial facility that process petroleum coke.

There are no schools, hospitals, libraries or public building with 2 miles of the site. The nearest pasture land is located 1.5-mile from the facility. The nearest property zoned residential is situated 1.1 miles from the facility. The closest residential dwelling is located 1.4 miles from the facility boundary.

6. **legal boundaries of the TSD facility site;**

Response
Figures 5A and 5B, (50 Scale Topographic Maps), 7 (1000-Scale Aerial Map) present the legal boundaries for the facility.

7. **access control (fences, gates);**

Response
The facility is fenced on three sides with a main gate and two alternate gates. Prior to entering the facility's main gate, vehicles must check in with the security guard. Any delivery or shipment of waste will be weighed in at the scale prior to entering the site. One of the two alternate gates is used solely for rail car access. Any rail cars that enter the site are first checked in by security. The rail cars are then allowed to enter the facility and are directed to the rail car scale to be weighed in. The third gate is a side access gate that is used primarily for delivery of maintenance supplies and materials. This gate is kept locked except when in use. The security guard has remote access to this gate so that it can be opened and closed from the guard house. Exide presents the access controls on Figure 5A, 50-Scale Topographic Map and Figure 4, Site Operational Areas.

8. **injection and withdrawal wells both on site and off site;**

Response
Exide has two deep wells that are used for potable water and non-contact cooling water for operations at the Baton Rouge smelter. The primary well (No. 3 well, LADOTD No. 967) is 2,447 feet deep and screened from 1,870-feet to 2,434-feet. The backup well (No. 1 well, LADOTD No. 748) is 1278 feet deep and screened from 1,228-feet to 1,278-feet. The locations of water wells are shown on the coverage areas for Figures 2 (Scale 1"=200') and Figure 7 (1"=1,000'). Exide does not have any injection wells. Off-site production (withdrawal) wells are also shown on Figures 2 and 7.

9. **the proposed location of groundwater monitoring wells as required under LAC 33:V.3315.A and B;**

Response

The locations of the groundwater monitoring wells in place for other regulated units at Exide are shown on Figure 5. Exide has seven groundwater monitoring wells (upgradient well MW-1R, and downgradient wells MW-4R, MW-12R, MW-13R, MW-16, MW-17 MW-18) that were placed to monitor the two closed hazardous waste piles located in the north and western section of the facility. Exide has three wells that monitor the closed solid waste landfill to the north of the property (MW-1A, MW-14A and MW-15A). There are also three well sets to monitor the New Landfill, an active solid waste landfill on the western portion of the Exide site. The wells are upgradient well MW-19, and downgradient wells MW-20 and MW-21. All of these wells are screened in the first water-bearing unit encountered at the site. Exide does not have any plans to install additional wells. Groundwater monitoring is not required for the hazardous waste storage and treatment units.

10. the proposed "point of compliance" as defined under LAC 33:V.3311;

Response

As groundwater monitoring is not required for the hazardous waste storage and treatment units, a point of compliance for the hazardous waste storage and treatment units does not apply.

11. buildings, treatment, storage, or disposal operations; or other structures (recreation areas, runoff control systems, access and internal roads, storm sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, utilities, security facilities, etc.);

Response

The general layout of the facility including buildings, treatment and storage operations, the wastewater drainage and collection system, roadways, unloading areas, fencing and the guard house is shown on Figures 5A and 5B. Figure 6 presents a detailed map showing the layout of the Containment Building.

12. barriers for drainage or flood control;

Response

Barriers within the facility are provided to divert rainwater away from process and storage units and into a permitted water treatment unit. The active portion of the facility is not located within a flood zone and no flood control measures are required. The Topographic Map, Figure 5, shows the site drainage.

13. **location of operational units within the TSD facility site, where hazardous waste is (or will be) treated, stored, or disposed of (including equipment cleanup areas). (For large TSD facilities, the administrative authority may allow the use of other scales on a case-by-case basis); and**

Response

Exide has two hazardous waste storage areas, a treatment unit and a containment building. The Truck/Trailer Storage Area is used to hold spent batteries in trailers. It has a permitted capacity of 85,000 batteries. The Whole Battery Storage Area is used to hold batteries on pallets. It has a permitted capacity of 81,000 batteries.

The Containment Building (currently in interim status) is used to hold lead-bearing raw materials prior to recycling. The building has an engineered capacity of 3,333 tons of blast furnace slag that is stored prior to on-site stabilization and disposal. Additionally, the building has the capability to hold 12,080 tons of lead material for recycling, including battery plates, lead oxide paste, reverberatory furnace slag, lead dross, and purchased scrap.

The general layout of the facility is shown on Figure 4, Operational Areas. Figure 6 presents a detailed map showing the layout of the Containment Building including operational units and the permitted storage and treatment areas.

14. **natural features affecting off-site drainage patterns, transportation, utilities, and location of effluent discharges.**

Response

All of the natural features that affect off-site drainage patterns, transportation, utilities and the location of effluent discharges are included on Figure 2 (200-Scale Topographic Map). Discharge locations are also shown on Figures 5A and 5B.

C. **site layout and facility design when phased construction is planned; the plans must indicate each phase and an accompanying schedule of construction;**

Response

No construction is planned as Containment Building floor upgrades were completed in November 2003. The certification document is provided in Appendix 11C.

D. **chemical and physical analyses of the hazardous wastes and the hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information that must be known to treat, store, or dispose of the wastes properly;**

Response
The chemical and physical analyses of the hazardous wastes being handled at this facility are included in the Waste Analysis Plan included as Appendix 4. Prior to approval of hazardous materials for shipment to Exide, analyses for total antimony, arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, tin, zinc, fluoride, chloride, sulfide, aluminum, and magnesium and TCLP arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver are submitted by the generator for review by Exide. Prior to approval of coproduct materials for shipment to Exide, analyses for total antimony, arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, tin, zinc, fluoride, chloride, sulfide, aluminum, and magnesium are submitted by the generator for review by Exide. Upon arrival at the facility, wastes are visually inspected during unloading and are analyzed for total lead to confirm the profile and determine the proper recycling method. Samples of untreated slag are analyzed for lead, calcium, iron, antimony and salt content to determine if the slag should be recycled or disposed. Treated slag is sampled once per quarter for TCLP toxicity analysis.

E. a copy of the waste analysis plan required by LAC 33:V.1519.B;

Response
The Waste Analysis Plan is included as Appendix 4.

F. a description of the security procedures (including entry control, hours manned, lighting, monitoring, and other procedures to prevent unauthorized entry) and equipment required by LAC 33:V.1507 or a justification demonstrating the reasons for requesting a waiver of this requirement;

Response
The Exide facility has been secured as required by LAC 33:V.1507. This includes fence on three sides of the facility with a natural barrier, Baton Rouge Bayou on the fourth side. The facility's main gate has a guard house with 24-hour security that control ingress/egress by the public. Guards periodically patrol the site. Two other facility gates (a railroad entrance and a side parking lot entrance) are kept locked and are used only temporarily. When opened the gates are attended by Exide personnel. All facility gates are lighted and monitoring is provided by remote video cameras. Light posts are present at the main gate entrance, off of Brooklawn Avenue, the center and west side of the parking lot. The administration building, the railroad spurs and the north-west portion of the facility. Light post locations are provided on Figure 5. Other entry controls include signs at the facility entrance and at each hazardous waste unit.

G. a copy of the general inspection schedule required by LAC 33:V.1509.B. Include, where applicable, as part of the inspection schedule, specific requirements in LAC 33:V.1709, 1719, 1721, 1731,

1755-1759, 1763, 1907.I, 1911, 2109, 2309, 2507, 2703.A-G, 2907, 3119.B and C, and 3205;

Response
The general inspection schedule for the Baton Rouge smelter is included in the inspection plan included as Appendix 5. Inspections are conducted daily, weekly, monthly, and quarterly. The inspections are documented on the inspection forms and are placed in the facility's files.

H. **a justification of any request for a waiver(s) of the preparedness and prevention requirements of LAC 33:V.1511;**

Response
Exide is not requesting a waiver of the preparedness and prevention requirements of LAC 33:V.1511.

I. **a copy of the contingency plan required by LAC 33:V.1513 [Note: Include, where applicable, as part of the contingency plan, specific requirements in LAC 33:V.2909];**

Response
A copy of the most current RCRA Contingency Plan and Emergency Response Plan is included as Appendix 6. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment.

J. **a description of procedures, structures, or equipment used at the facility to:**

1. **prevent hazards in unloading operations (for example, ramps, special forklifts);**

   Response
   The lead-bearing materials are received in containers (i.e., drums or batteries on pallets) and off loaded directly into the process units or stored in one of two container storage areas. Forklifts are used to handle the pallets of lead-bearing materials. The dock is equipped with guard rails to prevent a forklift from sliding off of the dock. The operator and other facility personnel are trained in the use of forklifts and associated safety procedures. Front-end loaders are used to transport the lead bearing raw material, prior to recycling.

2. **prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);**

Response
The permitted container storage areas are bermed to prevent runoff and runon and slope to collection points for transfer to the wastewater drainage and collection system. Exide does not accept any waste that has free liquids, so that all of the materials handled by the Baton Rouge smelter are dry. The Whole Battery Storage Area is located under a roof to prevent rainwater from accumulating with the waste. The wastes are stored on pallets to elevate them above any spills. The third storage area (the Truck/Trailer Storage Area) has spent batteries that are stored in closed trailers. The trailers prevent rainfall from mixing with the batteries and elevate the waste away from stormwater. Berms and grading are shown on Figures 12 (Truck/Trailer Storage Area) and 13 (Whole Battery Storage Area).

The Slag Stabilization unit is located under a roof, and is sloped to floor sumps that transmit wash-down water and any accumulated liquids to the plant's wastewater treatment unit. Figure 6 shows the grading of the Slag Stabilization unit.

The Containment Building is totally enclosed with walls and a roof. Any water generated from wash-down activities drains to floor sumps and is pumped to the wastewater treatment unit. Dust suppression is used on feed piles of material as needed in Area 1 of the Containment Building (see Figure 6, Containment Building Map). The suppression is designed to keep the feed piles moist to control dust but not wet so that free liquids will be generated. Application of water for dust control is also presented in Appendix 12, Dust Suppression Operational Procedure. Area 2 of the Containment Building (Figure 6) is used for the initial staging of desulfurized lead paste from the Battery Breaker unit prior to recycling. The paste stored in this area is visibly moist and may contain free liquids. Lead oxide paste is a red-brown, high density solid material with a moisture content less than 5%. The liquids generated in this area are drained to a sump and pumped to the Battery Breaker unit where the water is treated and reused in the process.

3. **monitoring leachate control;**

Response
The Slag Stabilization unit does not process waste that contains free liquids and leachate control does not apply.

The two container storage areas that contain spent lead-acid batteries have impervious floors (concrete overlain by asphalt) as shown in Figures 12 (Truck/Trailer Storage Area) and 13 (Whole Battery Storage Area) are inspected daily to ensure that none of the

batteries are broken or leaking. Any liquid within the areas drains to a collection point for transfer to the wastewater treatment system.

The Containment Building (Figure 6) stores dry material in Area 1. Any ponded liquid generated during application of water for dust control is pumped to the wastewater treatment system. Area 2 of the building is used for storage of desulfurized battery paste, which is moist and typically contains free liquids. Liquid within the lead oxide paste is introduced during the battery breaking process. Lead oxide paste is a red-brown, high density solid material. The floors in Area 2 are sloped towards a sump situated along the west wall of Area 2. The liquid is removed from the sump by pump and sent to the wastewater treatment facility. During construction, drainage was confirmed by pouring water on all concrete surfaces at a rate of 25 gallons per minute. No puddling was observed. As-built drawings of the Area 2 floor system, including sump, are provided in Appendix 11. Figure 6 has been revised to show the sump location.

4. prevent contamination of water supplies;

Response

Exide maintains all waste storage and treatment facilities to prevent the generation of runoff from these areas into the environment. Waste materials are stored only in permitted container storage areas and Containment Building. Any water generated from washdown of the operational parts of the facility is transmitted to the facilities Waste Water Treatment Unit via concrete drainage trenches and pipes, where it is treated prior to discharge. Water treatment includes an initial filtration, chemical treatment and flocculation and a final filtration to remove any excess particles.

The Containment Building has an efficient primary barrier designed and constructed to prevent the migration of any hazardous constituents through the barrier or into water supplies. Area 1 manages wastes without free liquids; but will utilize small amounts of water for the purpose of dust suppression. However, this activity should not generate any free standing liquids. Area 1 is not required to have a liquid collection system as liquids are not managed in the area. The floor system at Area 1 is constructed of, from top to bottom, 6 inches reinforced concrete, Amoco 4516 geotextile, 40 mil HDPE geomembrane, and 1 inch sand over existing concrete and is sloped to collection points to facilitate removal of wastes from the primary barrier and prevent migration of hazardous constituents into the barrier.

Area 2 is used to manage lead oxide paste which may have free liquids. The Area 2 floor system consists of, from top to bottom, acid brick, minimum 6 inches of 4,000 psi reinforced concrete, 12 ounce geotextile, 80 mil HDPE liner and geonet drainage layer. Drainage is directed to a sump to minimize the accumulation of free liquids on the primary barrier. Sloped floors facilitate the collection of liquids for removal. The liquids collected at the sump are pumped from the sump and transferred to the facility wastewater treatment plant. As-built drawings of the Area 2 floor system, including sump, are provided in Appendix 11. Figure 6 has been revised to show the sump location.

5. **monitor water and air pollution affecting area outside site;**

Response

Exide discharges all water from Outfall 001 under the provisions of Water Discharge permit LA0004464. Exide maintains a Stormwater Pollution Prevention Plan (Appendix 24) that details efforts at the Baton Rouge smelter to reduce and control water pollution. Weekly samples of treated process water from Outfall 001 are analyzed for lead, arsenic, antimony, zinc, total suspended solids, oil and grease and TOC. Stormwater runoff samples are also collected from Outfalls 002 and 003. The locations of the three outfalls are shown on Figure 5. All air emissions are regulated by Exide's Air Permit 0840-00004-00. All emission points are vented to control devices to filter particulate and lead emissions. The control devices, fabric filter baghouse, are tested regularly to insure compliance. A schematic of the air handling system is provided as Figure 10.

6. **mitigate effects of equipment failure, power outages, inclement weather, or other abnormal conditions;**

Response

The facility is manned 24-hours per day 7 day per week. If there is a power outage or equipment failure, personnel will be available to respond and control the situation. The Battery Breaker Unit is equipped with a backup power generator so that if the power is lost the unit will have enough power to process the batteries that are already in the system. If the power is lost to the furnace area, the operations will be stopped immediately since the air system will be shut down. The furnace feed systems will be shutdown in the event of a power outage and the material in the furnaces currently will be either be allowed to flow out via gravity or left in the furnace to be pumped out once the power is restored.

7. **prevent undue exposure of personnel to hazardous waste (for example, protective clothing);**

Response

As a part of Exide's corporate employee exposure prevention program, all personnel that enter the facility must wear respiratory protection to reduce exposure to lead. The facility issues all employees personal work clothing, hard hats, safety glasses and steel-toed work boots. Work clothing and respirators are washed at Exide's onsite laundry facility at the end of each shift. Special protective equipment is provided to employees depending on the job or task, such as powered air supply respirators, tyvek suits, heat resistant and chemical resistant gloves and splash guard face shields. All protective equipment is removed during decontamination prior to exiting hazardous waste areas.

8. **prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with LAC 33:V.1517; and**

Response

Exide only receives wastes that are non-reactive and compatible with the lead recycling process. The facility has a strict screening process that begins before the waste is received at the facility. Generators must complete a detailed waste profile that is reviewed by the Baton Rouge environmental group and production manager prior to acceptance. The waste profile is provided in the Waste Analysis Plan in Appendix 4. After the waste arrives, it is weighed in at the front gate scale and unloaded. During the unloading, waste is visually inspected to insure that it matches the profile. Waste may also be tested in Exide's onsite laboratory for total lead to confirm the profile and determine the proper recycling method.

9. **prevent nonpermitted releases to the atmosphere.**

Response

The materials handled by the facility do not produce organic vapors. The main source of possible releases to the atmosphere is in the form of dust and smoke produced during the recycling process. All emission points are vented to control devices that control releases to the atmosphere. The Containment Building operates under negative pressure to control dust emissions and utilizes water spray to suppress dust in Area 1. A road sweeper is used to clean the facility's pavement.

Exide operates the facility in accordance with all appropriate air permitting requirements.

K. traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes, if appropriate; describe access road surfacing and load bearing capacity; show traffic control signals);

Response

The Exide facility is located at the end of Brooklawn Drive, off LA Hwy 61. Brooklawn Drive is a Parish maintained road which provides access to several industrial facilities including Union Tank Cars, Great Lakes Carbon and NPC. Both sides of Brooklawn drive are sparsely developed and essentially all traffic on Brooklawn Drive is related to these industries.

Exide will have on a typical day up to 30 trucks (tractor trailers) onsite to unload spent lead acid batteries and pickup recycled lead blocks or bars. Approximately 120 autos will use Brooklawn for access to the industrial facilities. On-site traffic patterns are provided in Figure 17.

Road surfaces in and around the facility are constructed of 6 to 8-inch concrete with a load bearing capacity of 3,000 pounds per square inch.

L. an outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the TSD facility in a safe manner as required to demonstrate compliance with LAC 33:V.1515. A list of general qualifications of key operating positions and a brief description of how training will be designed to meet actual job tasks in accordance with these requirements;

Response

Exide has a comprehensive training program at the Baton Rouge smelter. The Training Manual is included as Appendix 13. The program addresses OSHA regulations, LDEQ regulations and Corporate Health, Safety and Environmental policies. The manual lists the training topics and provides an outline of the training given for each topic. Training topics include medical surveillance, lockout/tagout, confined space entry, hearing conservation, respiratory protection, powered industrial truck safety, hazard communication, HAZWOPER, the facility contingency plan, environmental regulations, spill response, work practice training, and DOT hazardous material training. All new employees will undergo initial employee orientation training. Initial employee training includes:

- Medical Surveillance Program
- Lockout Tagout Program
- Confined Space Entry Program
- Hearing Conservation Program
- Respiratory Protection Program
- Powered Industrial Truck Safety
- Hazard Communication
- HAZWOPER Training

- Contingency Plan
- Environmental Regulations
- Spill Response
- Work Practice Training Program
- DOT Hazardous Material Training
- Sexual Harassment
- Bloodborne Pathogens
- Heat Stress
- Fire Extinguisher Use and Incipient Five Control
- Fall Protection
- Slip, Trip and Fall Hazard Avoidance
- Proper Lifting Techniques and Back Protection

These topics are also addressed at least annually as part of continuing training programs, with the exception of Powered Industrial Truck Safety which is conducted once every three years and DOT Hazardous Material Training which is conducted periodically.

All new employees will go through at least 6-months of on-the-job training with experienced personnel after to beginning work. All training is documented with records maintained in the facility operating record. Annual refresher training is also conducted and documented. The manual also presents job descriptions with employee qualifications.

The general qualifications and the associated training program elements for key operating positions are provided in the Training Manual (Appendix 13) and are summarized as follows:

Job Description	Qualifications	Training
Refinery Supervisor	Several years experience as a refinery operator, know refinery operations completely and have a high degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Refinery Operator	Several years experience in the refining of lead and lead alloys, must be knowledgeable of chemical additives required to produce quality lead and lead alloy.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Caster	On the job training, mobile	Basic environmental

Job Description	Qualifications	Training
	equipment operations and some basic mechanical aptitude.	regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Laboratory Technician	Basic understanding of chemistry, lead smelting, refining, and instrumentation.	Basic environmental regulations, chemical handling, contingency plan, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Furnace Supervisor	Several years experience in furnace operations, know furnace operations completely and have a high degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Furnace Operator	Experience in furnace operations, metallurgy, charging and have a high degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Furnace Helper	Experience in furnace operations, and have a high degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, lead smelting and recycling, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Wastewater Treatment Plant Operator	Several years experience in treatment plant operations, water and acid chemistry, and equipment maintenance.	Basic environmental regulations, chemical handling, contingency plan, pH calibration and monitoring,

Job Description	Qualifications	Training
		proper clean up procedures, and all Exide safety procedures including lockout tagout, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Wastewater Treatment Plant Supervisor	Several years experience as a treatment plant operator, high degree of technical aptitude, perform maintenance on all equipment in treatment plant, able to treat water to acceptable standards.	Basic environmental regulations, chemical handling, contingency plan, pH calibration and monitoring, proper clean up procedures, and all Exide safety procedures including lockout tagout, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Baghouse Operator	Several years experience in baghouse operations and equipment maintenance.	Basic environmental regulations, bag handling, baghouse cleanup procedures, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Baghouse Supervisor	Several years experience as a baghouse operator, high degree of technical aptitude, know baghouse operations completely.	Basic environmental regulations, bag handling, baghouse cleanup procedures, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Dust Reverbatory Furnace Operator	Several years experience as an operator, high degree of technical aptitude, know basic elements of baghouse operations.	Basic environmental regulations, contingency plan, furnace operations, clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Slag Stabilization Operator	Several years experience operating the slag stabilization unit, a mobile equipment operator, experience with equipment maintenance.	Basic environmental regulations, contingency plan, slag handling, clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Slag Stabilization Supervisor	Several years experience as a slag stabilization operator, high degree of technical aptitude, know stabilization operations	Basic environmental regulations, contingency plan, hazardous material handling, landfill operations, and all

Job Description	Qualifications	Training
	completely.	Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Yard Man	Mobile equipment operator, experience handling, shipping and receiving products.	Basic environmental regulations, contingency plan, incoming hazardous materials handling, clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Yard Foreman	Several years experience working in the yard, high degree of mechanical aptitude.	Basic environmental regulations, contingency plan, hazardous material handling, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Supervisor	Experience working in the battery breaker unit, high degree of mechanical aptitude and chemical knowledge.	Basic environmental regulations, contingency plan, chemical handling, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Operator	Complete operator training at Battery Breaker Unit, high degree of mechanical aptitude and chemical knowledge.	Basic environmental regulations, contingency plan, chemical handling, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Dock Leader	Experience working at the battery breaker dock, mobile equipment operator.	Basic environmental regulations, chemical (battery) handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
CX Battery Breaker Dock Crew	Mobile equipment operator, high degree of mechanical aptitude.	Basic environmental regulations, chemical (battery) handling, contingency plan, and all Exide safety

Job Description	Qualifications	Training
		procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Mechanic	High degree of mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Electrician	High degree of electrical knowledge and mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Welder	Welding experience and mechanical aptitude.	Basic environmental regulations, chemical handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Change House, Lunchroom and Respirator Maintenance Operator	Be able to follow specific procedures and cleaning instructions.	Basic environmental regulations, chemical handling, contingency plan, proper clean up procedures, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.
Yard Supervisor	Several years of experience working in the yard, high degree of mechanical aptitude	Basic environmental regulations, hazardous material handling, contingency plan, and all Exide safety procedures including lockout tagout, confined space entry, right-to-know, blood lead monitoring, respiratory protection and MSDS.

M. a copy of the closure plan and, where applicable, the post-closure plan required by LAC 33:V.3511, 3523, and 1915. Include, where applicable, as part of the plans, specific requirements in LAC 33:V.1915, 2117, 2315, 2521, 2719, 2911, 3121, 3203 and 3207;

Response

Exide has developed a Closure and Post-Closure Plan that details the procedures that will be followed for closing all of the permitted hazardous waste units at the Baton Rouge smelter. Appendix 8 is Exide's Closure and Post-Closure Plan. The plan describes the closure procedures that will be used for the Slag Stabilization area, Containment Building, Truck/Trailer Storage Area and Whole Battery Storage Area including removing any existing waste, decontamination, sampling and analysis and documentation. The plan also includes cost estimates for the closure procedures. The cost estimates take into account the additional cost for closure of the Containment Building resulting from the upgrades in the floor construction at Area 2. Post-closure care activities are not required for the hazardous waste units as they will be clean closed. The plan also includes post-closure care procedures and cost estimates for the two closed hazardous waste piles. The post-closure care procedures include cap integrity inspections, maintenance of the cap, and groundwater monitoring.

N. for hazardous waste disposal units that have been closed, documentation that notices required in LAC 33:V.3517 have been filed;

Response

The required notice for two closed hazardous waste cells located at the Baton Rouge smelter was filed on July 8, 1988. Any additional closures will be accompanied by the notices required in LAC 33:V.3517.

O. the most recent closure cost estimate for the facility prepared in accordance with LAC 33:V.3705 and a copy of the documentation required to demonstrate financial assurance under LAC 33:V.3707. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part II;

Response

Appendix 8, Closure and Post-Closure Plan, includes Exide's most recent closure and post-closure cost estimates. Documentation regarding Exide's surety bond is provided in Appendix 9.

P. where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with LAC 33:V.3709 plus a copy of the documentation required to demonstrate financial assurance under LAC 33:V.3711. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part II;

Response
Appendix 8, Closure and Post-Closure Plan, includes Exide's most recent closure and post-closure cost estimates. Documentation regarding Exide's surety bond is provided in Appendix 9.

Q. **where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of LAC 33:V.Chapter 37. For a new facility, documentation showing the amount of insurance meeting the specification of LAC 33:V.Chapter 37 that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal;**

Response
A copy of Exide's insurance documentation is included in Appendix 9 with Exide's surety bond. The documentation has been revised to reflect the current cost estimates.

R. **where appropriate, proof of coverage by a state financial mechanism in compliance with LAC 33:V.Chapter 37;**

Response
Appendix 9 provides a copy of Exide's Surety Bond for financial assurance requirements.

S. **a wind rose (i.e., prevailing wind speed and direction) and the source of the information;**

Response
Figure 18 presents a wind rose for the area surrounding the Baton Rouge smelter.

T. **facility location information:**

1. **Seismic Standard. In order to determine the applicability of the seismic standard, LAC 33:V.1503.A.3, the owner or operator of the facility must identify the political jurisdiction (e.g., parish, township, or election district) in which the facility is proposed to be located.**

Response
The Baton Rouge Smelter is located in East Baton Rouge Parish, Louisiana approximately 2 miles west of Highway 61.

a. **The owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data (including federal hazardous waste regulations) or data obtained**

from field investigations carried out by the applicant. The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted must show that either:

Response

A review has been performed of the following publications and documents:

- Fault and Salt Map of Southern Louisiana (W.E. Wallace, 1982)
- Active Faults in East Baton Rouge Parish Louisiana (Richard P. McCulloh, 2001)
- Partial Report for Gulf-Margin Normal Faults, Louisiana and Arkansas (USGS Publication No. 1022)
- Geohydrology of the Shallow Aquifers of Baton Rouge, Louisiana (C.G. Smith 1969)
- USGS Quadrangle Map
- Project Specific Aerial Photographs
- July 2005 e-CFR Listing of Political Jurisdictions that require a demonstration of compliance with 40 CFR 264.186)

Based on that review a belt of normal faults exists between Florida and Texas that includes a series of south facing, east-west oriented normal faults in East Baton Rouge Parish. The Fault and Salt Map of Southern Louisiana (W.E. Wallac, 1982) depicts these faults and distinguishes between "Tuscaloosa Faults" and "Tertiary Faults."

The USGS information indicates that a significant period of faulting occurred in the early to mid-Mesozoic (Triassic/Jurassic) and it is inferred that the Tuscaloosa Faults are the result of growth faulting and salt tectonism at this time. The USGS Publication, states that the Tertiary Faults are the result of rapid Quaternary sedimentation. The closest mapped Tertiary Faults are the Denham Springs Fault located approximately 3 miles south of the Site and the Alsen Fault located approximately 6 miles north of the Site.

The review of the aerial photographs and topographic maps did not reveal the presence of pronounced scarps or other linear features within 3000 ft of the Site that are indicative of recent fault activity. A certification for this review is provided in Appendix 27 as Response Attachment A27. The e-CFR listing did not include any Political Jurisdictions in Louisiana.

i. **no faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:**

   (a) **published geologic studies, including cites from federal regulations which demonstrate that the requirements of this Section do not apply,**

   (b) **aerial reconnaissance of the area within a five-mile radius from the facility,**

   (c) **an analysis of aerial photographs covering a 3,000-foot radius of the facility, and**

   (d) **if needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or**

ii. **no faults may pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility, data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of any faults found, and shall be certified by an independent Louisiana registered professional engineer or geologist.**

<u>Response</u>

The determination has been made as part of T.1.a.i that no active faults occur within 3,000 ft of the facility.

Therefore, a site-specific field investigation was not required.

2. **100-year floodplain**

a. **Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain.**

Response

Based on the most recent Flood Insurance Rate Map (Figure 9, May 17, 1993), Exide is an existing facility located in Zone X, an area of minimal flooding. The developed site is above the 100-year flood plain. The elevation of the active portion of the site is between 85- and 75-feet above mean sea level (MSL). Site records indicate that there have been no flooding incidents in the active portion of the facility, including during major storm events such as Tropical Storm Isidore and Hurricane Lili in 2002.

b. **Owners and operators of facilities located in the 100-year floodplain must provide the following information:**

i. **the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood;**

ii. **engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as a consequence of a 100-year flood;**

iii. **structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout;**

iv. **if applicable, and in lieu of the above two provisions, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:**

v. **timing of such movement relative to flood levels, including estimated time to move the waste,**

showing that such movement can be completed before floodwaters reach the facility;

vi. **a description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with LAC 33:V.Subpart 1;**

vii. **the planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and**

viii. **the potential for accidental discharges of the waste during movement.**

Response
This section is not applicable since Exide is not located within the 100-year flood plain.

c. **existing facilities *not* in compliance with LAC 33:V.1503.B.3 shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.**

Response
This section is not applicable since Exide is not located within the 100-year flood plain.

3. **site geology, including:**

a. **certification by a geologist or independent Louisiana registered professional engineer specializing in geotechnical engineering that the ground and subsurface conditions at the site are acceptable for the planned purposes of the facility;**

Response
Exide is an existing facility. Prior to the initial Part B permit application the facility contracted a certified geotechnical engineer to perform a subsurface characterization and certify the facility as specified in LAC 33:V.517.T.3.a. A copy of the geology report and associated boring logs is included in Appendix 10.

Review of the boring logs indicates that approximately the upper 30 feet consists of a bedded stiff brown to light gray silty clay and reddish-brown clay (CH-CL). Between 25 and

35 feet bgs are tan silty sand layers with interfingered trace clay layers. The geotechnical engineer indicated that these layers of silty clay, clayey silt, sandy silt and silty sand did not appear to be continuous across the site. The borings were generally completed at a depth of 50 feet bgs with little moisture observed (18 to 33%). In one boring, EB-5, water was observed to enter the borehole at 10 feet bgs. Some trace organic pockets and ferrous and calcareous nodules were observed in various layers and boring across the site.

b. identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area);

Response

Subsurface geologic and hydrogeologic information included in this permit renewal application was taken from subsurface investigations performed at the facility since 1980. Summary information for subsurface conditions is reproduced from the original RCRA Part B permit application and supplemental information from the 1993 RCRA Part III Permit modification and the 1997 permit application for the solid waste landfill. Based on that information, the Baton Rouge smelter is underlain by natural soils of low permeability with some interbedded units of clayey sands, sandy clays, and sands. The top of the uppermost aquifer (first competent permeable zone) is encountered at elevations of approximately 28 to 32 feet msl, and the base of the aquifer is encountered at elevations of approximately 20 to 25 feet msl. The thickness of this zone ranges from approximately 3 to 25 feet. The uppermost aquifer zone consists of interbedded fine-grained sand, sandy-clay, clayey-sand and silty sand. The soil boring logs are provided in Appendix 10.

Based on information obtained from the existing groundwater monitoring wells at the Site, the depth to groundwater ranges from approximately 2.5 ft at the western end of the site to 29 feet at the eastern end of the site. Groundwater within the uppermost water table aquifer flows toward and is hydraulically connected with the Baton Rouge Bayou and the Mississippi River. Flow rates within the uppermost aquifer zone vary based on the permeability and gradient.

Hydraulic testing conducted by Exide at closed hazardous waste cell monitoring wells indicates that the uppermost water bearing zone at the site has an average hydraulic conductivity of 1.257 feet per day and an average transmissivity of 17.52 square feet per day. Groundwater flow at the site is primarily to the northwest with a typical groundwater velocity of 20 feet per year. This flow rate and direction of groundwater flow have been consistent for approximately 15 years.

c. **soil types, textures, and conditions to depth of thirty feet below lowest elevation of planned disposal cells for impoundments, landfill and land treatment facility based on test holes at 200-foot intervals (or greater or less intervals if acceptable to the administrative authority);**

Response
No hazardous waste disposal cells, impoundments, landfills, or land treatment facilities are planned. Solid waste disposal facilities may be required as part of future facility operations; however, no specific plans have been set at this time. Approvals will be applied for when appropriate.

d. **logs of test holes and wells, including soil samples for each pertinent strata analyzed for soil type, texture, permeability, and other pertinent characteristics;**

Response
Soil boring logs and a site geology report from the facility are included in Appendix 10.

e. **general area map and cross sections indicating the extent of freshwater sands, and the degree of isolation of these aquifers to a depth of 1,000 feet from waste sources by confining layers of clay;**

Response
The relationship of the facility hazardous waste management units and the fresh water sands within a depth of 1,000 feet has not been determined through site specific borings or geophysical data. It is known that the backup well that the facility uses to withdraw groundwater (LADOTD No. 748) is 1,278 feet deep with a 50-ft screen from 1,228 feet to 1,278 feet. The October 1969 Bulletin for the Louisiana Water Resources Institute (include as part of Appendix 10) shows that the 400 ft sand and 600 ft sand are combined in the vicinity of the Site. When the site location is superimposed onto a north-south cross-section (Figure 3 in the 1969 Bulletin) the top and bottom of the combined sands are approximately -125 MSL and -425 MSL respectively. No deeper

information can be drawn from the documents reviewed during preparation of this permit renewal application.

Although not depicted on the October 1969 cross-section, the original RCRA permit application states that additional sands beneath the Site are the 1,200-foot aquifer, 1,500-foot aquifer and the 2,000-foot aquifer. The names identify the individual sand units, but do not necessarily represent the actual depth to the aquifer. Based on a US Geological Survey Water Resources Bulletin (Technical Report 48, Plate 4). The 1,200 ft sand is encountered at approximately elevation -870 MSL (950 feet below the permitted units). The 1,500 ft and 2,000 ft aquifers are deeper than 1,000 ft. According to Map No. 13 of the Aquifer Recharge Atlas ("Aquifer Recharge Potential for the Baton Rouge Quadrangle, 1988), the facility is mapped as a low to moderate recharge potential.

f. **on a topographic map, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under LAC 33:V.3311, the proposed location of groundwater monitoring wells as required under LAC 33:V.3315.A and B; and**

Response

The topographic map in Figure 5 shows the waste management area of the facility, the property boundaries and the location of the groundwater monitoring wells. A point of compliance is not required as Exide is not required to have a groundwater monitoring system for the hazardous waste management units. A groundwater detection monitoring system is maintained for the two closed hazardous waste piles.

g. **detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of LAC 33:V.3315.A-H.**

Response

Although Exide is not required to have a groundwater monitoring system in place for the container storage areas, the containment building, or the slag treatment unit, the details of the existing detection monitoring program required for the closed hazardous waste piles are outlined in the comprehensive Groundwater Sampling and Analysis Plan included as Appendix 7. The Groundwater Sampling and Analysis Plan includes the well network, groundwater sampling procedures, documentation, decontamination, cross-contamination control, analytical parameters, field and laboratory QA/QC procedures, well maintenance and reporting.

4. **site hydrology, including:**

a. **travel times in feet/day for normal drainage of each natural surface drainage system within 1,000 feet of the property;**

Response

As shown on Figure 2, the Baton Rouge Bayou flows within 1,000 ft of the Exide facility to the north and west of the area containing the RCRA permitted units. The bayou flows into Devil's Swamp and then into the Mississippi River. Baton Rouge Bayou has been estimated to receive drainage from 83 square miles. Data from Baton Rouge Bayou suggests that the flow is approximately 10 cubic feet per second (CFS) in low flow to 150 CFS during times of high flow. This is approximately 200 to 6,000 feet per day.

b. **climate factors:**

i. **the 24-hour/25-year storm rainfall;**

Response

The U.S. Department of Commerce's Rainfall Frequency Atlas (Technical Paper 40) as reported in 1997 indicates that the 24-hour/25-year rainfall is approximately 12 inches in the vicinity of the facility.

ii. **maximum, minimum, and average temperature/month for past 10 years;**

Response

Climatalogical data for 1995 to 2004 is provided as Appendix 28. During that period the monthly average temperature was a maximum of 78.3 degrees F and a minimum of 57.2 degrees F with a monthly average temperature of 67.8 degrees F. August is the month with the highest average (92.2 degrees F) and January is the month with the lowest average (40.9 degrees F).

iii. **impact of previous hurricanes on area;**

Response

Although the facility is located in an area subject to hurricanes, they are infrequent and have resulted in minimal damage. Exide facilities have been designed and constructed to withstand storms and hurricanes. The facility, in its current form, has withstood several hurricane and tropical storm events with little or no

damage including Tropical Storm Isidore and Hurricane Lili in 2002. A hurricane isoline map is provided in Appendix 19.

iv. **comparison of rainfall and evapotranspiration rates; and**

Response
The Baton Rouge Smelter is located in a region that is characterized by a humid, subtropical climate with relatively high rainfall. According to information obtained from the National Climate Data Center, the average annual rainfall for the period of 1995 to 2004 is approximately 58.2 inches. Heavy, short duration rainfall occurs during hurricanes and tropical depressions. Climatology information is provided as Appendix 28. According to Evaporation Maps for the United States (Technical Paper No. 37) by the US Weather Bureau dated 1959, the mean evapotranspiration rate for the area is 44.7 inches annually.

v. **prevailing wind direction (provide wind rose);**

Response
The prevailing wind (42.7%) comes from the south, southeast and east. A wind rose is included as Figure 18.

c. **a description of any plume of contamination that has entered the groundwater from a regulated unit at the time that the application is submitted that:**

i. **delineates the extent of the plume on the topographic map such as required under LAC 33:V.521.B.4; and**

ii. **identifies the concentration of each Table 4, LAC 33:V.Chapter 33, constituent throughout the plume or identifies the maximum concentrations of each such constituent in the plume;**

Response
No plume of contamination is known to have entered the groundwater from the Exide facility.

d. **if the presence of hazardous constituents have not been detected in the groundwater at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of LAC 33:V.3317. This submission must address the following items specified under LAC 33:V.3317:**

   i. **a proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the groundwater;**

   ii. **a proposed groundwater monitoring system;**

   iii. **background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and**

   iv. **a description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.**

   Response

   It is not a requirement of the current Hazardous Waste Permit to have a groundwater monitoring system in place for the Containment Building or storage units. The details of the existing detection monitoring program required for the two closed hazardous waste piles are outlined in the comprehensive Groundwater Sampling and Analysis Plan included as Appendix 7. The Plan includes the monitoring well network, sampling procedures, documentation, decontamination, cross-contamination control, analytical parameters, field and laboratory QA/QC, well maintenance and reporting.

e. **if the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of LAC 33:V.3319. The owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of LAC 33:V.3321.**

To demonstrate compliance with LAC 33:V.3319, the owner or operator must address the following items:

i. a description of the wastes previously handled at the facility;

ii. a characterization of the contaminated groundwater, including concentrations of hazardous constituents;

iii. a list of hazardous constituents for which compliance monitoring will be undertaken in accordance with LAC 33:V.3315 and 3317;

iv. proposed concentration limits for each hazardous

v. constituent, based on the criteria set forth in LAC 33:V.3309.A, including a justification for establishing any alternate concentration limits;

vi. detailed plans and an engineering report describing the proposed groundwater monitoring system, in accordance with the requirements of LAC 33:V.3315; and

vii. a description of proposed sampling, analysis, and

viii. statistical comparison procedures to be utilized in evaluating groundwater monitoring data;

<u>Response</u>
Exide has not detected hazardous constituents in the groundwater above historical ranges. Exide submitted a Phase I RFI Work Plan on November 16, 2001 to investigate the extent of soil contamination associated with the four SWMUs at the Baton Rouge smelter. As comments or approval have not yet been received from LDEQ, RFI activities have not yet begun.

f. if hazardous constituents have been measured in the groundwater which exceed the concentration limits established under LAC 33:V.3309, Table 1, or if groundwater monitoring conducted at the time of permit application under LAC 33:V.3301-3309 at the waste boundary indicates the presence of hazardous constituents from the facility in groundwater over background concentrations, the owner or operator must

submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of LAC 33:V.3321. To demonstrate compliance with LAC 33:V.3321, the owner or operator must address, at a minimum, the following items:

i. a characterization of the contaminated groundwater, including concentrations of hazardous constituents;

ii. the concentration limit for each hazardous constituent found in the groundwater as set forth in LAC 33:v.3309;

iii. detailed plans and an engineering report describing the corrective action to be taken; and

iv. a description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.

Response
Exide has not detected hazardous constituents in the groundwater above historic ranges.

5. Environmental factors, including:

a. list all known historical sites, recreational areas, archaeological sites, wildlife areas, swamps and marshes, habitats for endangered species, and other sensitive ecological areas within 1000 feet of the site; and

Response
There are no known historical sites, recreational areas, archaeological sites, designated wildlife-management areas, swamps and marshes, or other sensitive ecological areas within 1,000 feet of the site. Information has been received that the pallid sturgeon and its habitat in the Mississippi River may be affected by the facility. However, impacts are due to loss of habitat caused by construction of dams that have modified flows, reduced turbidity and lowered water temperatures. As Exide does not plan to construct any dams or otherwise impede flow through Baton Rouge Bayou, the proposed permit renewal should not impact the pallid sturgeon. Exide will continue to avoid any degredation of water quality in the Mississippi River. No other potential

impacts to rear, threatened or endangered species or critical habitats were identified. Wetlands have been identified within 1,000 feet of the site; however, they are isolated from the active portion of the facility. Documentation from July 2005, the 1993 RCRA Part II Permit Application, and the 1997 Solid Waste Permit Application for New Landfill are included in Appendix 21.

b. indicate measures planned to protect such areas listed from detrimental impact from the operation of the proposed facility.

Response

There are no known historical sites, recreational areas, archaeological sites, designated wildlife-management areas, swamps and marshes, or other sensitive ecological areas within 1,000 feet of the site. Information has been received that the pallid sturgeon and its habitat in the Mississippi River may be affected by the facility. However, impacts are due to loss of habitat caused by construction of dams that have modified flows, reduced turbidity and lowered water temperatures. As Exide does not plan to construct any dams, therefore, the proposed permit renewal should not impact the pallid sturgeon. Exide will continue to avoid any degradation of water quality in the Mississippi River. No other potential impacts to rare, threatened or endangered species or critical habitats were identified. Wetlands have been identified within 1,000 feet of the site; however, they are isolated from the active portion of the facility. Isolation is the method used to protect these areas for detrimental impact from operations. Documentation from July 2005, the 1993 RCRA Part II Permit Application, and the 1997 Solid Waste Permit Application for new landfill are included in Appendix 21.

6. Geographical Factors. For an area within two miles of the proposed site, provide the following:

a. map or aerial photograph showing all buildings identified as residential, commercial, industrial, or public (schools, hospitals, libraries, etc.);

Response

Exide has included a 1000-Scale Aerial Map (Figure 7) showing all of the onsite features and the surrounding land use for 2-miles of the site.

b. **population;**

Response
There are less than 100 people living within a 2-mile radius of the site and approximately 23,456 people living within a 3 mile radius of the site.

c. **principal livelihood of residents for facilities located in rural areas;**

Response
The principal livelihood of residents in the area is working at the industrial facilities in the vicinity of North Baton Rouge.

d. **land use; and**

Response
Surrounding land use is shown in Figure 7. The area to the east of the facility is industrial, the land use to the north and west is primarily undeveloped wooded or swamp lands. Immediately south of the facility is the NPC superfund site. In 1997, the surrounding land use within a 3 mile radius was determined using USGS 7.5 minute quadrangle maps as follows: residential, 15%; health care facilities and schools, 1%; agricultural, 15%; industrial and manufacturing, 12%; other commercial, 8%; recreational, 2% and undeveloped, 47%.

e. **road network, with average daily traffic count and route of trucks which will transport waste to the facility.**

Response
The Exide facility is located at the end of Brooklawn Drive, off LA Hwy 61. Brooklawn Drive is a Parish maintained road which provides access to several industrial facilities including Union Tank Cars, Great Lakes Carbon and NPC. Both sides of Brooklawn Drive are sparely developed and essentially all traffic on Brooklawn Drive is related to these industries.

Exide will have on a typical day up to 30 trucks (tractor trailers) onsite to unload spent lead acid batteries and pickup recycled lead blocks or bars. Approximately 120 autos will use Brooklawn Drive for access to the industrial facilities.

7. **Operations plan, including:**

a. **classification and estimated quantities of wastes to be handled;**

Response
Please see the table below for the classification and estimated quantities of wastes handled at the facility.

Hazardous Waste Materials

Type Material	Code	Estimated Annual Quantity Handled
Spent Lead Acid Batteries	D002, D008	250,000 tons
Lead residues, sludges, plant scraps & other Group I lead bearing hazardous waste	D008	24,000 tons
Lead residues, sludges, slags, and other Group I lead bearing hazardous waste with impurity-level other metal content	D008 (D004, D006, D007, D010, D011)	1,000 tons
Emission control dust from facility baghouses	K069	1,000 tons
Group II Recyclable lead bearing materials	D008	30,000 tons
Refractory Brick	D006, D008	200 tons
Spent nickel-cadmium batteries	D006	250 tons
Battery Components	D008	125,000 tons
Blast Furnace Slag	D008	20,000 tons

b. methods and processes utilized:

i. facility capacity for each disposal method;

Response
Exide is not a hazardous waste disposal facility; therefore, this section is not applicable.

ii. detailed description of each process or method:

Response
The Baton Rouge smelter recycles spent lead-acid batteries and other lead bearing materials. The recycling process begins with the receipt of materials. Batteries and other lead-bearing materials are received in tractor-trailers. The trailers are weighted in at the guard house scale, inspected and logged in before they enter the gate. The materials are then directed to the Battery Breaker Unit to be unloaded. Batteries are received on pallets secured with shrink wrap. The pallets are unloaded using forklifts. The batteries are loaded into a stainless-steel vibrating screen and then dumped into an inclined belt. Batteries are processed in the Battery Breaker Unit by crushing them in a hammer mill and hydraulically

separating the component parts. The sulfuric acid is neutralized and crystallized to form a sodium sulfate salt that is sold a product. The plastic from the battery casings is washed and shipped off-site to make new batteries. The lead paste is recycled on-site to produce metallic lead for making new batteries. Lead oxide paste is a red-brown, high density solid material with a moisture content less than 5%.

If the batteries are not immediately recycled, they are stored in two permitted storage areas. The Whole Battery Storage Area is located directly north of the Battery Breaker Area. When the breaker unit is down for repairs or maintenance, the batteries are unloaded onto this storage unit. Batteries are stored on pallets at the Whole Battery Storage Area.

The Truck/Trailer Storage Area is a parking area located between the guard house and the Battery Breaker Area. The Truck/Trailer Storage Area is designed to hold batteries and other lead-bearing materials in tractor trailers. This unit allows Exide the flexibility of leaving a trailer in to the permitted storage area and processing the batteries at a later date.

The majority of other recyclable materials such as battery plates, lead oxide, metallic lead, drosses, baghouse dust, metallic lead waste and scrap are received in either in steel drums or Gaylord boxes. The material is weighed in at the Exide scale and sent to the loading dock to be unloaded. Drums are taken to the feed pile area where they are dumped and the contents inspected. The empty drums are washed, crushed and sent off-site to be recycled. The lead-bearing material is processed in the blast furnace or the reverberatory furnace. Slag generated by the reverb furnace is then refined to further recover lead.

iii. storage and disposal procedures:

(a) plans for receipt, checking, processing, segregation of incompatible wastes, and odor control; and

<u>Response</u>

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of materials. Batteries and other lead-bearing materials are received in tractor-trailers. The trailers are weighted in at the guard house scale, inspected and logged in before they enter the gate. The materials are then directed to the Battery Breaker Unit to be unloaded. Batteries are received on pallets secured with shrink wrap. The pallets are unloaded using forklifts. The batteries are loaded into a stainless-steel vibrating screen and then dumped into an inclined belt. Batteries are processed in the Battery Breaker Unit by crushing them in a hammer mill and hydraulically separating the component parts. The sulfuric acid is neutralized and crystallized to form a sodium sulfate salt that is sold a product. The plastic from the battery casings is washed and shipped off-site to make new batteries. The lead paste is recycled on-site to produce metallic lead for making new batteries. Lead oxide paste is a red-brown, high density solid material with a moisture content less than 5%.

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to be unloaded. Drums are taken to the feed pile area where they are dumped and the contents inspected. The empty drums are washed, crushed and sent off-site to be recycled. The lead-bearing material is processed in the blast furnace or the reverberatory furnace. Slag generated by the reverb furnace is then refined to further recover lead.

The Containment Building (Figure 6) is comprised of three main areas. Area 1 is the Raw Material Storage Area. This area is utilized for the storage and mixing of dry hazardous wastes, scrap metals, drosses, slag, pastes, and battery components. Area 2 is the Paste Storage Area which is used for the initial staging of desulfurized lead pastes from the battery breaking/desulfurization process prior to moving the paste to the Raw Material Storage Areas for mixing and staging. The paste stored in this area is visibly moist and may contain free liquids. Areas 1 and 2 store hazardous waste prior to processing through the furnaces in the Production Area of the plant (Area 3).

Most of the spent lead acid storage batteries received are fed directly into battery breaker units. During peak operational periods, the batteries may be stored in either the Truck/Trailer storage areas or the Whole Battery Storage Area.

As discussed in Chapter 21, the Truck/Trailer container area has an impervious base which is sloped to a collection sump and is bermed to contain the liquid from 10 percent of the stored batteries plus a 25 year-24 hour rain event. Collected water from the sump is pumped to the wastewater treatment plant for treatment.

The Whole Battery Container Storage Area has an impervious base which is sloped to a collection sump. The area is bermed to collect 10 percent of the liquid in the batteries and is under roof to preclude run on or run off. Any liquid collected in the sump is pumped to the

battery breaker unit for neutralization prior to pumping to the wastewater treatment plant. Spent batteries are neither ignitable, reactive, or incompatible.

During normal operations, battery plates/oxides/lugs are drained at the battery breaking operation and transported to the Paste Storage Area (Area 2) of the Containment Building. Area 2 is used for the initial staging of neutralized lead paste (paste) from the battery breaking/desulfurization process prior to moving the paste to the Raw Material Storage Areas (Area 1) for mixing and staging prior to processing through the furnaces in the Production Area (Area 3) of the plant. The paste stored in this area may contain free liquids. The materials stored in the Containment Building are not ignitable, reactive, or incompatible.

Proposed upgrades for Area 2 presented in the October 17, 2001 permit modification include a sloped primary barrier consisting of 6 inches of concrete, an HDPE liner and acid brick to prevent migration of hazardous constituents. Drainage from this primary barrier system is directed to sumps to minimize the accumulation of free liquids on the primary barrier. Beneath the primary barrier is a secondary barrier and leak detection system which consists of a granular drainage layer with perforated PVC collection lines that is constructed to interrupt any liquids that may penetrate the primary liner systems. Beneath the granular drainage layer is a 1.5-inch layer of asphalt and a 6-inch layer of concrete that acts as a secondary barrier layer to prevent migration of hazardous constituents. Drawings of this design are included as Appendix 25. The upgrades were completed in November 2003 and the certification report is provided in Appendix 11C.

Area 1 is utilized for the storage of lead materials containing no free liquids such as battery components, indigenous wastes, and slag. These materials are not ignitable,

reactive, or incompatible. This area is constructed of an impermeable concrete primary barrier. The floors and walls of Area 1 are the primary barrier system. The primary barrier system is constructed of man-made materials designed to withstand the movement of and contact with personnel, waste, and handling equipment during the operating life of the unit and are appropriate for the physical and chemical characteristics of the lead bearing materials to be managed. Sketches of the floor constructions in the storage area (Area 1) are included with the professional engineer's certification documents in Appendix 11. These sketches depict the area's barrier system.

Battery plates/oxide/lugs received from off-site are also stored in the dry Containment Building storage area. These materials are not ignitable, reactive, or incompatible. These lead bearing materials do not contain free liquids but do contain some moisture which inherently prevents/controls fugitive emissions. However Exide does use wetting to control dust on the roadway/traffic areas in compliance with OSHA lead standard and the secondary lead smelter NESHAP standard.

Exide will conduct weekly inspections of the Containment Building and the storage units as detailed in the Inspection Plan and Schedule in Appendix 5 to insure that the units are being operated properly and that no leaks/releases have occurred to the air, ground, or water. The Inspection Plan includes daily, weekly, monthly and quarterly inspections and the associated documentation procedures.

Finally, Exide has a Dust Suppression procedure, the details of which are included in Appendix 12. Fresh water sprays are used as needed to control dust in Area 1 of the Containment Building. Incompatible wastes are not received at the Containment Building and odor control is not necessary as lead bearing wastes typically do not generate odors.

(b) life of each facility based on projected use;

Response

Exide is an ongoing entity. Storage of recyclable material will continue as long as the facility is operational. Operation of the facility and associated waste management units is expected to continue for a minimum of thirty years. For permitting purposes, the approximate timeframe that the facility is expected to continue operation is until the year 2021; however this date may be extended.

(c) describe recordkeeping procedures, types of records to be kept, and use of the records by management to control the operation; and

Response

Exide maintains all required environmental records in the facilities' Environmental Office. Records include manifests of both incoming and outgoing hazardous waste, Annual Hazardous Waste Reports, Waste Acceptance information, training records, copies of all permits, permit modifications and correspondence from the regulatory agencies, inspection records, NOD and Compliance Orders, groundwater monitoring data and reports, closure cost estimates, financial assurance documents, certificates of insurance, operating records, current WH-1 form and change of ownership records.

(d) monitoring and recording of incoming wastes;

Response

Exide has a strict screening process that lead bearing material generators must comply with prior to the material being accepted by the Baton Rouge smelter. This screening process includes the analysis and review of new waste streams prior to receipt, to verify chemical and physical characteristics, and the completion of waste profiles. The waste screening process is discussed in detail in the Waste Analysis Plan

in Appendix 4. Exide documents the weight of each shipment of spent lead-acid batteries and other lead-bearing materials received. Loads are visually inspected and analyzed for total lead at arrival to confirm the material matches the manifest.

U. **Special Requirements. Administrative authority may require additional provisions for special procedures or processes, for specific information for a supplementary environmental analysis, or for such information as may be necessary to enable the administrative authority to carry out his duties under other state laws;**

Response
Exide acknowledges, understands and will comply with the above and will provide to the Administrative Authority any additional information requested for a supplementary environmental analysis or for any other purpose that may be necessary to enable the Administrative Authority to carry out his duties under other state laws.

V. **for land disposal facilities, if an approval has been granted under LAC 33:V.2239, a petition has been approved under LAC 33:V.2241or 2271, or a determination made under LAC 33:V.2273, a copy of the notice of approval or a determination is required; and**

Response
Exide does not have active land disposal facilities for hazardous waste; therefore, this citation does not apply.

W. **a summary of the pre-application meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under LAC 33:V.708.A.3.**

Response
The Pre-application Meeting Minutes will be presented if a pre-application meeting is conducted.

Subchapter E. Specific Information Requirements

§519. Contents of Part II: General Requirements

Part II of the permit application consists of the general information requirements of this Section, and the specific information requirements in LAC 33:V:519-549 applicable to the facility. The Part II information requirements presented in LAC 33:V.519-549 reflect the standards promulgated in LAC 33:V.Chapters 15-37. These information requirements

are necessary in order for the administrative authority to determine compliance with LAC 33:V.Chapters 15-37. If owners and operators of Hazardous Waste Management facilities can demonstrate that the information prescribed in Part II cannot be provided to the extent required, the administrative authority may make allowance for submission of such information on a case-by-case basis. Information required in Part II shall be submitted to the administrative authority and signed in accordance with requirements in Subchapter B of this Chapter. Certain technical data, such as design drawings and specifications and engineering studies, shall be certified by a Louisiana registered professional engineer. For post-closure permits, only the information specified in LAC 33:V.528 is required in Part II of the permit application.

Response
Included in this document are the general information requirements and the applicable specific information requirements.

§520. Specific Part II Information Requirements for Groundwater Protection

The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in LAC 33:V.3301.B and C:

In accordance with LAC 33:V.3301.C, Exide's storage and treatment units are not subject to regulation for releases into the uppermost aquifer under Chapter 33. Please see the response to LAC 33:V.3301.C. The current groundwater monitoring system is intended to specifically monitor closed hazardous waste disposal areas and the residual waste landfill. The current groundwater wells do not monitor for potential contamination from the Containment Building container storage areas or other active operating areas. Section VI B. of the 1993 permit specifically states that the hazardous waste activities conducted at the facility do not require groundwater monitoring.

A. a summary of the groundwater monitoring data obtained during the interim status period under LAC 33:V.4367, 4369, 4371, 4373, and 4375, where applicable;

Response
As groundwater monitoring is not required for the storage and treatment units, groundwater monitoring data is not included in this permit renewal application. The most recent groundwater data associated with the detection monitoring program for the two closed hazardous waste piles can be found in the annual report for 2004 submitted by Providence Engineering and Environmental Group.

B. identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater

flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area);

Response

The uppermost aquifer zone consists of interbedded fine-grained sand, sandy-clay, clayey-sand and silty sand. The top of the uppermost aquifer (first competent permeable zone) is encountered at elevations of approximately 28 to 32 feet msl, and the base of the aquifer is encountered at elevations of approximately 20 to 25 feet msl. The thickness of this zone ranges from approximately 3 to 25 feet.The uppermost aquifer is underlain by a hard gray to tan clay confining layer that is between 15 and 43 feet in thickness. Soil Boring Logs and the Site Geology Report are provided in Appendix 10.

Depth to groundwater ranges from approximately 2.5 ft at the western end of the site to 29 feet at the eastern end of the site. Groundwater within the uppermost water table aquifer flow toward and is hydraulically connected with the Baton Rouge Bayou and the Mississippi River. The groundwater level fluctuates in response to the bayou's and river's stages. Water table elevation contours slope from 57 ft MSL at the eastern end of the site to 37 ft MSL at the Baton Rouge Bayou. Localized perched water tables have also been observed in some areas of the site during well drilling activities.

Hydraulic testing indicates that the uppermost water bearing zone at the site has an average hydraulic conductivity of 1.257 feet per day and an average transmissivity of 17.52 square feet per day. Groundwater flow at the site is primarily to the northwest with a typical groundwater velocity of 20 feet per year. This flow rate and direction of groundwater flow have been consistent for approximately 15 years.

C. **on the topographic map required under LAC 33:V.517.B, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under LAC 33:V.3311, the proposed location of groundwater monitoring wells as required under LAC 33:V.3315, and, to the extent possible, the information required in LAC 33:V.520.B;**

Response

Figure 5 presents the above information except for the proposed point of compliance, which is not required for the storage and treatment areas and the Containment Building.

D. **a description of any known plume of contamination that has entered the groundwater from a regulated unit at the time that the application was submitted that:**

1. **delineates the extent of the plume on the topographic map required under LAC 33:V.517.B; and**

   Response
   Exide has not detected any plumes from any regulated units.

2. **identifies the concentration of each constituent listed in LAC 33:V.3325 throughout the plume or identifies the maximum concentrations of each LAC 33:V.3325 constituent in the plume;**

   Response
   Exide has not detected any plumes from any regulated units.

E. **detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of LAC 33:V.3315;**

Response
Exide maintains a Groundwater Detection Monitoring Program for the two closed hazardous waste piles discussed in the Groundwater Sampling and Analysis Plan, Appendix 7. Sampling of the 7 wells monitoring the two closed hazardous waste piles is conducted on a semiannual basis. The samples are analyzed for metals (dissolved lead, dissolved cadmium, total iron, total manganese and total sodium), pH, specific conductance, chloride and sulfate.

F. **if the presence of hazardous constituents has not been detected in the groundwater at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program that meets the requirements of LAC 33:V.3317. This submission must address the following items specified under LAC 33:V.3317:**

1. **a proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the groundwater;**

   Response
   A detection monitoring program is in-place for the two closed hazardous waste piles. The sampling parameters were selected as a part of the Post-Closure Permit issued on April 20, 2001 for the two closed hazardous waste piles at the Exide facility. The parameters are metals (dissolved lead, dissolved cadmium, total iron, total manganese and total sodium), pH, specific conductance, chloride and sulfate.

2. **a proposed groundwater monitoring system;**

Response
The groundwater detection monitoring system is comprised of three downgradient wells for each closed pile (MW-4R, MW-12R and MW-16 for waste pile #1 and MW-13R, MW-17 and MW-18 for waste pile #2) and one upgradient well (MW-1R). This system was specified in the Post-Closure permit for the closed piles. Well locations are shown on Figure 5.

3. **background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and**

Response
In accordance with the Post-Closure Permit for the closed waste piles and the Groundwater Sampling and Analysis Plan (Appendix 7), the background values for the monitoring parameters will be developed after a minimum of four sampling events have been conducted. The development of background standards will be submitted to the LDEQ for approval.

4. **a description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data;**

Response
The proposed sampling and analysis methods are presented in the Groundwater Sampling and Analysis Plan, Appendix 7. Statistical comparison procedures will be selected and submitted to LDEQ for approval after sufficient background monitoring data has been selected.

G. **if the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of the permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program that meets the requirements of LAC 33:V.3319. Except as provided in LAC 33:V.3317.H, the owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of LAC 33:V.3321, unless the owner or operator obtains written authorization in advance from the administrative authority to submit a proposed permit schedule for submittal of such a plan. To demonstrate compliance with LAC 33:V.3319, the owner or operator must address the following items:**

1. **a description of the hazardous waste code specified in LAC 33:V.Chapter 49 for the wastes previously handled at the facility;**

Response
Exide has not determined the presence of hazardous constituents in the groundwater above historic levels; therefore, this section does not apply.

2. **a characterization of the contaminated groundwater, including concentrations of hazardous constituents;**

Response
Exide has not determined the presence of hazardous constituents in the groundwater above historic levels; therefore, this section does not apply.

3. **a list of hazardous constituents for which compliance monitoring will be undertaken in accordance with LAC 33:V.3315 and 3319;**

Response
Exide has not determined the presence of hazardous constituents in the groundwater above historic levels; therefore, this section does not apply.

4. **proposed concentration limits for each hazardous constituent, based on the criteria set forth in LAC 33:V.3309.A, including a justification for establishing any alternate concentration limits;**

Response
Exide has not determined the presence of hazardous constituents in the groundwater above historic levels; therefore, this section does not apply.

5. **detailed plans and an engineering report describing the proposed groundwater monitoring system, in accordance with the requirements of LAC 33:V.3315; and**

Response
Exide has not determined the presence of hazardous constituents in the groundwater above historic levels; therefore, this section does not apply.

6. **a description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data;**

Response
Exide has not determined the presence of hazardous constituents in the groundwater above historic levels; therefore, this section does not apply.

H. if hazardous constituents have been measured in the groundwater that exceed the concentration limits established under LAC 33:V.3309. Table 1, or if groundwater monitoring conducted at the time of permit application under LAC 33:V.4367, 4369, 4371, 4373, and 4375 at the waste boundary indicates the presence of hazardous constituents from the facility in groundwater over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program that meets the requirements of LAC 33:V.3321. However, an owner or operator is not required to submit information to establish a corrective action program if he or she demonstrates to the administrative authority that alternate concentration limits will protect human health and the environment after considering the criteria listed in LAC 33:V.3309.B. An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program that meets the requirements of LAC 33:V.3319 and LAC 33:V.520.F. To demonstrate compliance with LAC 33:V.3321, the owner or operator must address, at a minimum, the items listed in LAC 33:V.520.H.1-4 below (the permit may contain a schedule for submittal of the information required in LAC 33:V.520.H.3 and 4 provided the owner or operator obtains written authorization from the administrative authority prior to submittal of the complete permit application):

1. a characterization of the contaminated groundwater, including concentrations of hazardous constituents;

2. the concentration limit for each hazardous constituent found in the groundwater as set forth in LAC 33:V.3309;

3. detailed plans and an engineering report describing the corrective action to be taken; and

4. a description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.

5. the permit may contain a schedule for submittal of the information required in LAC 33:V.520.H.3 and 4 provided the owner or operator obtains written authorization from the administrative authority prior to submittal of the complete permit application.

<u>Response</u>
Exide has not identified hazardous constituents with its Groundwater Detection Monitoring Program above historic levels; therefore, this section does not apply.

§521. Specific Part II Information Requirements for Containers

Except as otherwise provided in LAC 33:V.2101 owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

A. a description of the containment system to demonstrate compliance with LAC 33:V.2111; show at least the following:

1. basic design parameters, dimensions, and materials of construction;

Response
Truck/Trailer Storage Area

The Truck/Trailer Storage Area has a maximum storage capacity of 85,000 batteries (85,000 gallons) calculated as follows. The maximum height of pallets and batteries is 8 feet.

Area = 120 ft by 120 ft
36 trailers x 2,361 batteries per trailer = 85,000 batteries
85,000 batteries x 1 gallon per battery = 85,000 gallons

The Truck/Trailer Storage area has an asphalt and concrete floor with a 2.5 foot high asphalt berm for containment. The base of the Truck/Trailer Storage area is, from top to bottom, 3 inches asphalt and 6 inches concrete, with the exception of the dolly pad (12 inches concrete) and a concrete area (6 inches concrete) as shown on Figure 12.

As the Truck/Trailer Storage Area stores batteries which contain free liquids, the containment system (i.e., floor and asphalt perimeter berm) was designed to have sufficient capacity to contain a 12 inch (25-year, 24-hour) rainfall event and 10% of the total battery acid stored. Calculations are provided as follows:

Available Containment Volume = 120 ft x 120 ft x 2.5 ft
= 36,000 cf
= 269,280 gal

Stormwater to be stored = 120 ft x 120 ft x 1 ft = 14,400 cf = 107,712 gal

10% of total battery acid to be stored = 85,000 gal x 0.1
= 8,500 gal

Total liquid (stormwater and 10% of acid) to be stored

= 107,712 gal + 8,500 gal = 116,212 gal

As the containment volume of 269,280 gallons is greater than the total liquid volume to be stored (116,212 gallons), the containment at the Truck/Trailer Storage Area is acceptable.

Whole Battery Storage Area

The Whole Battery Storage Area has a maximum storage capacity of 81,000 batteries (81,000 gallons) calculated as follows. The maximum height of pallets and batteries is 8 feet.

Area = 75 ft by 100 ft

18 pallets per row x 3 pallets high x 75 batteries per pallet = 4,050 batteries per row

20 rows (10 ten aisles with no more than 2 rows between aisles) x 4,050 batteries per row = 81,000 batteries

81,000 batteries x 1 gallon per battery = 81,000 gallons.

The Whole Battery Storage Area has an asphalt and concrete floor with a 5-inch high perimeter asphalt berm for containment. The base of the Whole Battery Storage Area is, from top to bottom, 6 inches asphalt and 10 inches of 3,500 psi mesh reinforced concrete as shown on Figure 13.

The Whole Battery Storage Area stores batteries which contain free liquids. The Whole Battery Storage area has a maximum storage capacity of 81,000 batteries (i.e., 81,000 gallons). The containment system (i.e, floor and asphalt perimeter berm) was designed to contain 10% of acid plus 2 inches freeboard. This area is not required to manage a 12 inch rainfall event as the area has a roof and is constructed to prevent run-on. Calculations are provided as follows:

Available containment volume = 75 ft x 100 ft x (5/12) ft
= 3125 cf
= 23,375 gal

Stormwater stored = 0 gal
10% of total battery acid to be stored = 81,000 gal x 0.1 = 8,100 gal
Total liquid to be stored = 8,100 gal

Two inch freeboard	=	75 ft x 100 ft x (2/12) ft
	=	1250 cf
	=	1250 cf
	=	9,350 gal

As the containment volume of 23,375 gallons is greater than the total liquid volume to be stored plus free board (8,100 gallons + 9,350 gallons = 17,450 gallons), the containment at the Whole Battery Storage Area is acceptable.

Concrete and asphalt are sufficiently impervious to contain leaks, spills and accumulated precipitation until the material can be detected and removed.

2. **how the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;**

Response

Exide has designed the drainage system so that any accumulated rain water, process water or wash-down water generated during the operations will be transmitted to the facilities' Waste Water Treatment Unit, where it will be treated as specified in our Water Discharge permit and discharged through Outfall 001. The Containment Building has floor drains that collect wash-down and process water and transmit the water to the Wastewater Treatment Unit. The Slag Stabilization Unit has a water collection drain that transmits stormwater and wash-down to the Wastewater Treatment Unit. The Whole Battery Storage Area is sloped to drain wash-down water into a sump that is pumped to the Wastewater Treatment Unit. The Truck/Trailer Area has a sump that transmits wash-down water and stormwater to the Wastewater Treatment Unit.

As shown on Figure 12, the base of the Truck/Trailer storage area is sloped to collection point for ease of removal. The drums are stored on pallets in truck trailers to provide additional containment and to elevate the drums above accumulated precipitation. As shown on Figure 13, the base of the Whole Battery Storage Area is sloped to a sump for removal and are pumped to the battery breaker unit for neutralization prior to pumping to the wastewater treatment plant. Spent batteries are stored on pallets to elevate the batteries above accumulated liquids.

As shown on Figure 13, the base of the Whole Battery Storage Area is sloped to a collection point for ease of removal. The batteries are stored on pallets a height of 4 inches above the floor. The sloped floor and procedures for removal of liquids within the

sump ensure that liquids will not build up to the berm height of 5 inches and contact the batteries.

3. **capacity of the containment system relative to the number and volume of containers to be stored;**

Response
The design criteria and calculations regarding the capacity of the containment systems are provided in the response to LAC 33.V:521.A.1.

The maximum storage capacity at the Truck/Trailer Storage Area is 85,000 batteries (85,000 gallons). The secondary containment at the Truck/Trailer Storage Area has a capacity of 269,280 gallons, which is sufficient to contain a 12-inch, 25-year, 24-hour storm event and 10% of the battery acid stored.

The Whole Battery Storage Area has a maximum storage capacity of 81,000 batteries (81,000 gallons). The secondary containment at the Whole Battery Storage Area has a capacity of 23,375 gallons, which is sufficient to contain 10% of the battery acid stored. The requirement to contain stormwater does not apply as there is a roof and run-on controls at the Whole Battery Storage Area.

Desulfurized battery paste is stored in Area 2 of the Containment Building. The paste is a moist red-brown, high density solid material with a moisture content less than 5%. The material may contain free liquids. Any free liquids drain to a sump at Area 2 and are pumped to the Battery Breaker Unit for processing. Paste is not stored at the Container Storage Area.

4. **provisions for preventing or managing run-on;**

Response
Run-on into the containment system of the Truck/Trailer storage area and Whole Battery Storage Area is prevented by the asphalt perimeter berm and the slope of the floor systems.

5. **how accumulated liquids can be analyzed and removed to prevent overflow;**

Response
Any wash-down water, process water and stormwater that is generated by the facility is transmitted to the Wastewater Treatment Unit. The water is treated and discharged through process water Outfall 001. Water samples are collected from the outfall and analyzed as specified in Exide's Water Discharge permit. The

sump ensure that liquids will not build up to the berm height of 5 inches and contact the batteries.

3. **capacity of the containment system relative to the number and volume of containers to be stored;**

Response
The design criteria and calculations regarding the capacity of the containment systems are provided in the response to LAC 33.V:521.A.1.

The maximum storage capacity at the Truck/Trailer Storage Area is 85,000 batteries (85,000 gallons). The secondary containment at the Truck/Trailer Storage Area has a capacity of 269,280 gallons, which is sufficient to contain a 12-inch, 25-year, 24-hour storm event and 10% of the battery acid stored.

The Whole Battery Storage Area has a maximum storage capacity of 81,000 batteries (81,000 gallons). The secondary containment at the Whole Battery Storage Area has a capacity of 23,375 gallons, which is sufficient to contain 10% of the battery acid stored. The requirement to contain stormwater does not apply as there is a roof and run-on controls at the Whole Battery Storage Area.

Desulfurized battery paste is stored in Area 2 of the Containment Building. The paste is a moist red-brown, high density solid material with a moisture content less than 5%. The material may contain free liquids. Any free liquids drain to a sump at Area 2 and are pumped to the Battery Breaker Unit for processing. Paste is not stored at the Container Storage Area.

4. **provisions for preventing or managing run-on;**

Response
Run-on into the containment system of the Truck/Trailer storage area and Whole Battery Storage Area is prevented by the asphalt perimeter berm and the slope of the floor systems.

5. **how accumulated liquids can be analyzed and removed to prevent overflow;**

Response
Any wash-down water, process water and stormwater that is generated by the facility is transmitted to the Wastewater Treatment Unit. The water is treated and discharged through process water Outfall 001. Water samples are collected from the outfall and analyzed as specified in Exide's Water Discharge permit. The

sample results are sent to LDEQ in the Monthly Discharge Monitoring Reports.

Exide receives whole lead acid batteries at the facility for recycling. The batteries are stored at the container storage areas. Whole lead acid batteries do contain free liquids. The batteries are broken and separated into three waste streams (lead, liquid, and plastic) as part of the recycling process. The majority of the liquid is immediately separated out and sent to the on-site treatment plant. The plastic is shipped off-site for recycling. The lead, including grids, posts and paste, is sent to the Containment Building. The paste is a moist red-brown high density solid material which may contain free liquid. Any liquid from the paste is drained to a sump and pumped to the Battery Breaker Unit for processing or to the wastewater treatment system for treatment. The sump is inspected as indicated in the Inspection Plan.

B. for storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with LAC 33:V.2111.C including:

1. test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

2. a description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids;

Response

The Truck/Trailer Storage Area and the Whole Battery Storage Area contain whole lead acid batteries which do contain free liquid; therefore, this citation does not apply.

C. sketches, drawings, or data demonstrating compliance with LAC 33:V.2113 (location of buffer zone and containers holding ignitable or reactive wastes) and LAC 33:V.2115.C (location of incompatible wastes), where applicable;

Response

This section is not applicable since the waste stored and generated by the Baton Rouge smelter is not ignitable or reactive.

D. where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with LAC 33:V.2107.A-C, and 1517.B-D; and

Response
Exide does not receive or generate incompatible wastes.

E. **information on air emission control equipment as required in LAC 33:V.526.**

Response
All air emissions are regulated by Exide's Air Permit 0840-00004-00. All emission points are vented to control devices to filter particulate and lead emissions. The control devices, fabric filter baghouse, are tested regularly to insure compliance. A schematic of the air handling system is provided in Figure 10. Plant roadways are swept and washed once per shift. Feed piles (lead-bearing material stored in piles prior to being recycled in the furnaces) are treated with water for dust suppression, as needed in accordance with the Dust Suppression Operational Procedure in Appendix 12. Care is taken in the dust suppression to avoid generating free liquids.

§523. Specific Part II Information Requirements for Tanks

Except as otherwise provided in LAC 33:V.1901, owners and operators of facilities that use tanks to store or treat hazardous waste must provide the following additional information:

A. **a written assessment that is reviewed and certified by an independent, qualified registered professional engineer as to the structural integrity and suitability for handling hazardous waste for each tank system, as required under LAC 33:V.1903 and 1905;**

B. **dimensions and capacity of each tank;**

C. **descriptions of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);**

D. **a diagram of piping, instrumentation, and process flow for each tank system;**

E. **a description of materials and equipment used to provide external corrosion protection, as required under LAC 33:V.1905.A.3.b;**

F. **for new tank systems, a detailed description of how the tank system(s) will be installed in compliance with LAC 33:V.1905.B, C, D, and E;**

G. **detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of LAC 33:V.1907.A, B, C, D and F;**

H. for tank systems for which a variance from the requirements of LAC 33:V.1907 is sought (as provided by LAC 33:V.1907.G):

1. detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the groundwater or surface water during the life of the facility, or

2. a detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment;

I. descriptions of controls and practices to prevent spills and overflows, as required under LAC 33:V.1909.B;

J. for tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of LAC 33:V.1917 and 1919; and

K. information on air emission control equipment as required in LAC 33:V.526.

Response
Exide does not use tanks to store or treat hazardous waste; therefore this section is not applicable.

§525. Specific Part II Information Requirements for Surface Impoundments

Except as otherwise provided in LAC 33:V.1501, owners and operators of facilities that treat, store, or dispose of hazardous waste in surface impoundments must provide the following additional information:

A. a list of the hazardous wastes placed or to be placed in each surface impoundment;

B. detailed plans and an engineering report describing how the surface impoundment is designed and is or will be constructed, operated and maintained to meet the requirements of LAC 33:V.1504, 2903, 2904, and 2906. This submission must address the following items:

1. the liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by LAC 33:V.2903.B, submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating

potential to migrate through soil or to volatilize or escape into the atmosphere;

2. **the attenuative properties of underlying and surrounding soils or other materials;**

3. **the mobilizing properties of other materials codisposed with these wastes; and**

4. **the effectiveness of additional treatment, design, or monitoring techniques.**

<u>Response</u>
Exide does not use waste piles to store or treat hazardous waste; therefore, this section is not applicable.

§528. Part II Information Requirements for Post-Closure Permits

For post-closure permits, the owner or operator is required to submit only the information specified in LAC 33:V.516; 517.A, B, F, G, H, M, N, P, R, and T; and 520, unless the administrative authority determines that additional information from LAC 33:V.516, 517, 520, 523, 525, 527, 531, and 533 is necessary. The owner or operator is required to submit the same information when an alternative authority is used in lieu of a post-closure permit as provided in LAC 33:V.305.H.

<u>Response</u>
Exide acknowledges and understands the above and will submit the specified information unless the administrative authority determines that further information is necessary. Exide anticipates clean-closure of the storage and treatment units; therefore a Post-Closure permit may not be necessary.

§529. Specific Part II Information Requirements for Incinerators

Except as LAC 33:V.Chapter 31 provides otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of Subsection A, B, or C of this Section.

A. **When seeking an exemption under LAC 33:V.3105.B or C of this Part (ignitable, corrosive, or reactive wastes only):**

1. **documentation that the waste is listed as a hazardous waste in LAC 33:V.Chapter 49 of this Part, solely because it is ignitable (Hazard Code I) or corrosive (Hazard Code C) or both; or**

2. **documentation that the waste is listed as a hazardous waste in LAC 33:V.Chapter 49 of this Part, solely because it is reactive (Hazard Code R) for characteristics other than those listed in**

RESPONSE
ATTACHMENT 9

CHAPTER 9

MANIFESTS SYSTEM FOR TSD FACILITIES

Exide acknowledges and will abide by the requirements provided in this chapter.

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality-Hazardous Waste

Chapter 9. Manifest System for TSD Facilities

§901. Applicability

A. The regulations in this Chapter apply to owners and operators of both on-site and off-site TSD facilities, except as LAC 33:V.1501 provides otherwise. LAC 33:V.905, 907, and 909 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources. LAC 33:V.907.B only applies to permitees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated and to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under LAC 33:V.5307.

<u>Response</u>
Exide acknowledges that all regulations in this chapter apply to this TSD facility and will comply.

§905. Use of the Manifest System

A. If a facility receives a hazardous waste accompanied by a manifest, the owner or operator, or his or her agent, must:

1. sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

2. note any significant discrepancies in the manifest (as defined in LAC 33:V.907.A) on each copy of the manifest. The administrative authority does not intend that the owner or operator of a facility whose procedures under LAC 33:V.1519.C include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. LAC 33:V.907.B, however, requires reporting an unreconciled discrepancy discovered during later analysis;

3. immediately give the transporter at least one copy of the signed manifest;

4. within 30 working days after the delivery, send a signed copy of the manifest to the generator; and

5. **retain at the facility a copy of each manifest for at least three years from the date of delivery.**

Response

Exide acknowledges, complies and will continue to comply with the above regulation by signing and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received, noting any significant discrepancies in the manifest (as defined in LAC 33:V.907.A) on each copy of the manifest; immediately give the transporter at least one copy of the signed manifest; within 30 working days after the delivery, send a signed copy of the manifest to the generator; and retain at the facility a copy of each manifest for at least three years from the date of delivery.

B. **If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:**

1. **sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;**

2. **note any significant discrepancies (as defined in LAC 33:V.907.A) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper. The administrative authority does not intend that the owner or operator of a facility whose procedures under LAC 33:V.1519.C include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. LAC 33:V.907.B, however, requires reporting an unreconciled discrepancy discovered during later analysis;**

3. **immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);**

4. **within 30 days after the delivery, send a copy of the signed and dated manifest to the generator, however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator. LAC 33:V.1107.D.3 requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by water (bulk shipment); and**

5. **retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.**

   Response
   Exide does not receive hazardous waste by rail or water; therefore, this requirement does not apply.

C. **Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of LAC 33:V.1107.**

   Response
   Exide will not accept a shipment of hazardous waste from a facility that is not in compliance with the requirements of LAC 33:V.1107, as specified below:

§1107. The Manifest System

A. General Requirements

1. **A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a manifest before transporting the waste off-site, with the exclusions of generators exempt pursuant to provisions of LAC 33:V.105.D.**

2. **A generator must designate on the manifest one facility that is permitted to handle the waste described on the manifest.**

3. **If the transporter is unable to deliver the hazardous waste to the designated facility, the generator must either designate another facility or instruct the transporter to return the waste.**

4. **The requirements of this Section do not apply to hazardous waste produced by generators of greater than 100 kg, but less than 1000 kg, in a calendar month where:**

   a. **the waste is reclaimed under a contractual agreement pursuant to which:**

      i. **the type of waste and frequency of shipments are specified in the agreement;**

      ii. **the vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and**

b. the generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement.

5. In naming a hazardous waste, a generator shall use the proper shipping name prescribed by the Louisiana Department of Public Safety and Corrections or its successor agency and provide specific identification pursuant to LAC 33:V.Chapter 49.

6. If the hazardous waste is to be transported out-of-state, the generator will be responsible for receiving the completed, signed manifest from the out-of-state hazardous waste facility.

7. Generators must get written confirmation of acceptability of the hazardous waste from the operator of the hazardous waste facility before shipping the hazardous waste. The confirmation must be maintained as part of the facility manifest records (see LAC 33:V.1111).

8. Reserved.

9. The manifest form and the continuation sheet used must be obtained from the Office of Environmental Services, Environmental Assistance Division.

10. If additional space is needed on the manifest form, another manifest form or a continuation sheet may be used.

11. The requirements of this Chapter and LAC 33:V.33.1109.C do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding LAC 33:V.1301.A, the generator or transporter must comply with the requirements for transporters set forth in LAC 33:V.1315 and 1317 in the event of a discharge of hazardous waste on a public or private right-of-way.

B. Required Information

1. The manifest must contain all of the following information prior to leaving the generator site:

a. a state manifest document which shall be obtained from this department if the destination point is in Louisiana;

b. the generator's name, mailing address, telephone number, and active EPA identification number;

c. the name, active EPA identification number and telephone number of each transporter;

d. the name, address, telephone number and active EPA identification number of the designated facility;

e. the description of the waste(s) (e.g., proper shipping name, EPA hazardous waste number, etc.) required by Hazardous Materials regulations of the Louisiana Department of Public Safety and Corrections in LAC 33:V.Subpart 2.Chapter 101, and the department's designated handling codes for waste listed; and

f. the total quantity of each hazardous waste by units of weight in tons, cubic yards, pounds, or gallons (liquids only), and the type and number of containers (metal drums, barrels, kegs, fiberboard or plastic drums, cargo tanks, tank trucks, dump trucks, metal boxes, cartons, cases, burlap bags, paper bags, plastic bags, wooden drums, tanks portable, tank cars, cylinders, wooden boxes, and fiber or plastic boxes) as loaded into or onto the transport vehicle. If the weight is unknown, the volume and estimated weight should be provided.

2. The certification that appears on the manifest must be read, signed, and dated by the generator as follows.

"I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me that minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."

C. Number of Copies. The manifest consists of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

D. Use of the Manifest

1. The generator must:

   a. sign and date the manifest certification by hand when the initial transporter accepts the shipment;

   b. obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

   c. retain one copy, in accordance with LAC 33:V.1111.A.

2. The generator must give the transporter the remaining copies of the manifest.

3. For shipments of hazardous waste within the United States solely by water (bulk shipments only), the generator must send three copies of the manifest dated and signed in accordance with this Section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

4. For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator must complete the transporter section of the manifest less signature, retain one copy of the completed manifest, and send at least three copies of the manifest dated and signed in accordance with this Section to:

   a. the next non-rail transporter, if any; or

   b. the designated facility if transported solely by rail; or

   c. the last rail transporter to handle the waste in the United States if exported by rail.
   [NOTE: See LAC 33:V.1307.E and 1307.F for special provisions for rail or water (bulk shipment) transporters.]

5. Reserved.

6. **For shipments of hazardous waste to a designated facility in an authorized state that has not yet obtained authorization to regulate that particular waste as hazardous, the generator must assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.**

   Response
   Exide acknowledges the above regulatory requirements for generators, complies and will comply with all aforementioned regulatory requirements specified in LAC 33:V.1107 above in the capacity as both a generator and TSD facility.

D. **Within three working days of the receipt of a shipment subject to LAC 33:V.Chapter 11.Subchapter B, the owner or operator of the facility must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 1200 Pennsylvania Ave, NW, Washington, DC 20460, and to competent authorities of all other concerned countries. A copy of the tracking document must be maintained at the facility for at least three years from the date of signature.**

   Response
   Exide will comply within three working days of the receipt of a shipment subject to LAC 33:V.Chapter 11.Subchapter B (Transfrontier Shipments of Hazardous Waste) by providing a copy of the tracking document bearing all required signatures of the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 1200 Pennsylvania Ave, NW, Washington, DC 20460, and to competent authorities of all other concerned countries. A copy of the tracking document will be maintained at the Exide facility for at least three years from the date of signature.

§907. Manifest Discrepancies

A. **Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are: (1) for bulk waste, variations greater than 10 percent in weight; and (2) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste**

analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

B. Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Office of Environmental Services, Environmental Assistance Division a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

<u>Response</u>
Exide complies and will comply with the above regulation upon discovering a significant discrepancy. Exide will attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, Exide will immediately submit to the Office of Environmental Services, Environmental Assistance Division a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

§909. Unmanifested Waste Report

A. If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in LAC 33:V.1307.E.2, and if the waste is not excluded from the manifest requirements by LAC 33:V.108, then the owner or operator must prepare and submit a single copy of a report to the administrative authority within 15 days after receiving the waste. The unmanifested waste report must be submitted to the Office of Environmental Services, Environmental Assistance Division. Such report must be designated "Unmanifested Waste Report" and include the following information:

1. the EPA identification number, name, and address of the facility;

2. the date the facility received the waste;

3. the EPA identification number, name, and address of the generator and the transporter, if available;

4. a description and the quantity of each unmanifested hazardous waste and facility received;

5. **the method of treatment, storage, or disposal for each hazardous waste;**

6. **the certification signed by the owner or operator of the facility, or his authorized representative; and**

7. **a brief explanation of why the waste was unmanifested, if known.**

Response

Exide complies and will comply with the above regulatory requirement if Exide accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in LAC 33:V.1307.E.2, and if the waste is not excluded from the manifest requirements by LAC 33:V.108, then Exide will prepare and submit a single copy of a report to the administrative authority within 15 days after receiving the waste.

The unmanifested waste report will be submitted to the Office of Environmental Services, Environmental Assistance Division. Such report must be designated "Unmanifested Waste Report" and include the following information:

1. the EPA identification number, name, and address of the facility;
2. the date the facility received the waste;
3. the EPA identification number, name, and address of the generator and the transporter, if available;
4. a description and the quantity of each unmanifested hazardous waste and facility received;
5. the method of treatment, storage, or disposal for each hazardous waste;
6. the certification signed by the owner or operator of the facility, or his authorized representative; and
7. a brief explanation of why the waste was unmanifested, if known.

§911. Manifest Forms

A. **A manifest form containing the information required by these regulations shall be used for all shipments of hazardous waste under this regulation and shall be completed in full by the proper parties.**

B. **Sample manifest forms will be available upon request from the Office of Environmental Services, Environmental Assistance Division.**

C. **The manifest form shall contain a valid and active EPA identification number for the generator, transporter, and disposer and the valid EPA waste identification number(s).**

Response
Exide complies and will comply with by using manifest forms containing the information required by these regulations for all shipments of hazardous waste under this regulation and shall be completed in full by the responsible persons.

§921. TSD Operator Responsibility

A. **The operator of any treatment, storage, and disposal facility will assume all the responsibilities of a generator established by these regulations for any hazardous waste transported from his facility to another permitted facility, except for waste rejected under LAC 33:V.919.**

Response
Exide will assume all the responsibilities of a generator established by these regulations for any hazardous waste transported from his facility to another permitted facility, except for waste rejected under LAC 33:V.919. (**.919 does not currently exist in LAC 33:V)

§923. Special Manifest Provisions

A. **Scope. These provisions will apply to material in containers meeting the provisions of lab packs except that the outer container, excluding overpacking, shall not exceed 5 gallons (20 liters) in total liquid capacity prior to addition of the absorbent. The container and overpacking shall comply with applicable requirements of the Louisiana Department of Public Safety and Corrections or its successor agency. Except as otherwise provided herein, the requirements of LAC 33:V.2519 shall be met.**

B. **Reporting and Recordkeeping. Both the generator and disposer shall maintain copies of the manifests and other records as required elsewhere in LAC 33:V.Subpart 1. The generator and disposer shall include all such wastes in the annual report as provided in LAC 33:V.913.F and 1111.B.**

Response
Exide will not accept, does not receive or have plans to receive lab packs.

RESPONSE
ATTACHMENT 11

CHAPTER 11

GENERATORS

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality – Hazardous Waste

Chapter 11. Generators
Subchapter A. General

§1101. Applicability

A. **A generator who treats, stores, or disposes of hazardous waste on-site is not required to comply with the requirements of this Chapter except for the following with respect to that waste: LAC 33:V.1101.C, 1103, 1105, 1109.E, 1111.A.3 and 4, 1111.D, 1115, 1117, 1119 and 1121.**

Response

Exide acknowledges, understands and will comply with the above citation.

B. **Any person who exports or imports hazardous waste subject to the manifesting requirements of this Chapter, or subject to the universal waste management standards of LAC 33:V.Chapter 38, to or from the countries listed in LAC 33:V.1113.I.1.a for recovery must comply with Subchapter B of this Chapter.**

Response

Exide understands, acknowledges and will comply with the above citation.

C. **Any person who imports hazardous waste from a foreign country into the state of Louisiana must comply with the standards applicable to generators established in this Chapter.**

Response

Exide acknowledges, understands and will comply with the above citations; however does not import hazardous waste from a foreign country.

D. **A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in this Chapter or other standards in the LAC 33:V.Chapters 3, 5, 7, 9, 15, 17, 19, 21, 23, 25, 27, 28, 29, 31, 32, 33, 35, 37, and 43 for those wastes, provided he triple rinses each emptied pesticide container in accordance with the provisions of LAC 33:V.109.Empty Container.3**

and disposes of the pesticide residues in a manner consistent with the disposal instructions on the pesticide label.

Response

Exide acknowledges, understands and will comply with the above citations; however, Exide is not a farmer disposing of pesticides from his own use and this citation is not applicable.

E. **A person who generates a hazardous waste as defined in LAC 33:V.109 and further specified in LAC 33:V.Chapter 49 is subject to the requirements of this Chapter and penalties prescribed in the Act for noncompliance.**

Response

Exide acknowledges, understands and will comply with the above citations.

F. **An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility must comply with the generator standards established in this Chapter. The provisions of LAC 33:V.1109.E are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of LAC 33:V.1109.E only apply to owners or operators who are shipping hazardous waste which they generated at that facility. A generator who treats, stores, or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in LAC 33:V.Subpart 1.**

Response

Exide acknowledges, understands and will comply with the above citations.

G. **A person who generates a hazardous waste as defined in LAC 33:V.109 and further specified in LAC 33:V.Chapter 49 is subject to the requirements of these chapters and shall register with the department in accordance with the applicable provisions of LAC 33:V.303.**

Response

Exide acknowledges, understands and will comply with the above citation.

H. Persons responding to an explosives or munitions emergency in accordance with LAC 33:V.1501.C.7.a.iv or d or 4307 and 305.C.12 or 13 are not required to comply with the standards of this Chapter.

Response

Exide acknowledges, understands and will comply with the above; however, Exide does not respond to explosive or munitions emergencies and this citation is not applicable.

§1103. Hazardous Waste Determination

A person who generates a solid waste, as defined in LAC 33:V.109, must determine if that waste is a hazard.

A. First, the generator must determine if the waste is exempted from regulation under LAC 33:V.105.D.

B. For the purposes of compliance with LAC 33:V.Chapter 22, or if the waste is not listed as a hazardous waste in LAC 33:V.4901, the generator must determine whether the waste is identified in LAC 33:V.4903 by either:

1. Testing the waste according to the methods set forth in the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, or according to an equivalent method approved by the administrative authority; or

2. Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

C. If the waste is determined to be hazardous, the generator must refer to other parts of LAC 33:V.Subpart 1 for possible exclusions or prohibitions pertaining to management of his or her specific wastes.

Response

Exide acknowledges, understands and will comply with the above citation. As indicated in the Part A Application the following hazardous waste codes are treated and stored at the Baton Rouge smelter: K069, D002, D004, D006, D007, D008, D010, and D011. The hazardous wastes managed at

the facility include spent lead-acid batteries; lead residues, sludges, plant scraps and other lead bearing materials; lead bearing materials with impurity-levels of other metals; refractory brick; spent nickel-cadmum batteries; battery components and blast furnace slag.

Lead residues and sludges are lead-bearing raw materials received in labeled containers from off-site sources. The residues and sludges from off-site sources do not contain free liquids and are stored in the Containment Building until they are added to the furnace feed piles. Lead residues and sludges generated off-site are also stored in the Containment Building until they are added to the furnace feed piles. The facility operates one blast furnace and one reverbatory furnace to smelt the lead-bearing raw materials.

§1105. EPA Identification Numbers

A generator must not treat, store, dispose of, transport or offer for transportation hazardous waste without having received an active EPA identification number.

A. **A generator who has not received an active EPA identification number must obtain one by applying to the administrative authority using the form provided within 14 days after first generating any hazardous waste.**

Response

Exide has an EPA identification number, LAD008184137.

B. **A generator must notify the administrative authority within seven days if any of the information submitted in the application for the identification number changes. Because EPA identification numbers are site-specific, if a facility moves to another location, the owner/operator must obtain a new EPA identification number for the facility.**

Response

Exide acknowledges, understands and will comply with this citation.

C. **A generator must not offer his or her hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an active EPA identification number and the required**

permits (or interim status) necessary to receive and manage the generator's waste.

Response

Exide acknowledges, understands and will comply with this citation.

§1107. The Manifest System

A. General Requirements

1. A generator who transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal must prepare a manifest before transporting the waste off-site, with the exclusions of generators exempt pursuant to provisions of LAC 33:V.105.D.

Response

Exide acknowledges, understands and will comply with this citation. Exide will prepare a manifest before transporting any hazardous waste generated by the Baton Rouge smelter offsite.

2. A generator must designate on the manifest one facility which is permitted to handle the waste described on the manifest.

Response

Exide acknowledges, understands and will comply with this citation. All manifest forms include a designation of the facility permitted to handle the waste described on the manifest.

3. If the transporter is unable to deliver the hazardous waste to the designated facility, the generator must either designate another facility or instruct the transporter to return the waste.

Response

Exide acknowledges, understands and will comply with this citation. All manifest forms include instructions to return the waste to the BatonRouge smelter if unable to deliver to the designated facility.

4. **Reserved**

5. **In naming a hazardous waste, a generator shall use the proper shipping name prescribed by the Louisiana Department of Public Safety and Corrections or its successor agency and provide specific identification pursuant to LAC 33:V.Chapter 49.**

Response

Exide acknowledges, understands and will comply with this citation. Exide will name any hazardous waste using the proper shipping name prescribed by Louisiana Department of Public Safety and Corrections or its successor agency and provide specific identification pursuant to LAC 33:V.Chapter 49.

6. **If the hazardous waste is to be transported out-of-state, the generator will be responsible for receiving the completed, signed manifest from the out-of-state hazardous waste facility.**

Response

Exide acknowledges, understands and will comply with this citation. Exide will insure that we receive the completed, signed manifest from any out-of-state facility.

7. **Generators must get written confirmation of acceptability of the hazardous waste from the operator of the hazardous waste facility before shipping the hazardous waste. The confirmation must be maintained as part of the facility manifest records (See LAC 33:V.1111).**

Response

Exide acknowledges, understands and will comply with this citation. Exide will get written confirmation of acceptability of the hazardous waste from the operator of the hazardous waste facility before shipping the hazardous waste. The confirmation will be maintained in the Environmental Files with the manifest records.

8. **Except as otherwise provided in LAC 33:V.919 and 1309.F, generators are required to report to the department any**

irregularities between the wastes actually received and the waste described on the manifest, or any other irregularities, within 15 days.

Response

Exide acknowledges, understands and will comply with this citation. Exide will report any irregularities between the wastes actually received and the waste described on the manifest within 15 days.

9. **The manifest form and the continuation sheet used must be obtained from the department.**

Response

Exide acknowledges, understands and will comply with this citation. Exide will use the proper manifest forms obtained from LDEQ.

10. **If additional space is needed on the manifest form, another manifest form or a continuation sheet may be used.**

Response

Exide acknowledges, understands and will comply with this citation and will comply.

11. **The requirements of this Chapter and LAC 33:V.33.1109.C do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding LAC 33:V.1301.A, the generator or transporter must comply with the requirements for transporters set forth in LAC 33:V.1315 and 1317 in the event of a discharge of hazardous waste on a public or private right-of-way.**

Response

Exide acknowledges, understands and will comply with this citation.

B. Required Information

1. The manifest must contain all of the following information prior to leaving the generator site:

   a. a state manifest document which shall be obtained from this department if the destination point is in Louisiana;

   b. the generator's name, mailing address, telephone number, and active EPA identification number;

   c. the name, active EPA identification number and telephone number of each transporter;

   d. the name, address, telephone number and active EPA identification number of the designated facility;

   e. the description of the waste(s) (e.g., proper shipping name, EPA hazardous waste number, etc.) required by Hazardous Materials regulations of the Louisiana Department of Public Safety and Corrections in LAC 33:V.Subpart 2.Chapter 101, and the department's designated handling codes for waste listed; and

   f. the total quantity of each hazardous waste by units of weight in tons, cubic yards, pounds, or gallons (liquids only), and the type and number of containers (metal drums, barrels, kegs, fiberboard or plastic drums, cargo tanks, tank trucks, dump trucks, metal boxes, cartons, cases, burlap bags, paper bags, plastic bags, wooden drums, tanks portable, tank cars, cylinders, wooden boxes, and fiber or plastic boxes) as loaded into or onto the transport vehicle. If the weight is unknown, the volume and estimated weight should be provided.

   Response
   Exide acknowledges, understands and will comply with this citation. Mainfests completed will include all of the required information referenced above.

2. The certification that appears on the manifest must be read, signed, and dated by the generator as follows: "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are

classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me that minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."

Response
Exide acknowledges, understands and will comply with this citation.

C. **Number of Copies. The manifest consists of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and remaining copies to be returned to the generator and other appropriate parties.**

Response

Exide acknowledges, understands and will comply with this citation.

D. **Use of the Manifest**

1. **The generator must:**

   a. **sign and date the manifest certification by hand when the initial transporter accepts the shipment;**

   b. **obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and**

   c. **retain one copy, in accordance with LAC 33:V.1111.A.**

Response

This citation is not applicable since Exide does not ship hazardous waste by rail.

5. **Reserved**

6. **For shipments of hazardous waste to a designated facility in an authorized state that has not yet obtained authorization to regulate that particular waste as hazardous, the generator must assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.**

Response

Exide acknowledges, understands and will comply with this citation.

§1108. Manifest System Emergency Response Information

A. **Generators must provide a Chem-Card or similar emergency card, or a statement concerning the hazardous nature of the material and general guidelines for an emergency situation involving this hazardous waste to accompany the manifest on shipments and loads.**

Response

A statement concerning the hazardous nature of the waste and guidelines for an emergency situation is included with the manifest.

B. **The generator will supply the railroad company with the necessary emergency response information and the manifest document number, which are to be included on the waybill.**

Response

This section is not applicable as Exide does not ship hazardous waste by rail. The rail spur is only used to ship non-hazardous sodium sulfate and recycled lead and to receive non-hazardous coke. Occasionally, whole unbroken batteries are received by rail. Whole unbroken batteries are not a hazardous waste.

§1109. Pre-Transport Requirements

A. **Packaging. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Public Safety regulations and packaging under LAC 33:V.Subpart 2.Chapter 101.**

1. **Hazardous waste, liquid, or solid not otherwise specified must meet the requirement of Subchapter C of 49 CFR, and/or the Louisiana Hazardous Material Regulations Subchapter C. Special attention must be directed towards LAC 33:V.Subpart 2.Chapter 101.**

   Response

   Exide acknowledges, understands and will comply with this citation. Any hazardous waste will be packaged in accordance with all applicable regulations.

2. **Dump type transport vehicles in addition to LAC 33:V.1109.A.1 must have a continuous plastic lining with a minimum thickness of 6 mil, be bindered or bolted in order to prevent accidental leakage or escape of the material (Trip binders are not acceptable), must be completely covered by a tarpaulin that is secured to insure no leakage during normal transportation, and the material transported must be solidified with a medium to such consistency that insures the material will not shift, creep, crawl or splash during emergency braking from 20 mph, or accomplish these requirements by other means acceptable to the administrative authority.**

   Response

   Exide acknowledges, understands and will comply with this citation. Exide will be sure that any dump type transport vehicles used will have the proper lining and cover as specified above. The waste will be loaded and blocked to protect against shifting, creeping or movement during transport.

3. **Portable tank or "sludge" containers in addition to LAC 33:V.1109.A.1 must have fill, discharge, and similar openings of the container bindered or bolted to prevent discharge**

during transport, be secured to the transport vehicle to insure that the container will not shift laterally or longitudinally during transportation, or accomplish these requirements by other means acceptable to the administrative authority.

Response

Exide acknowledges, understands and will comply with this citation and will comply if we use this type of container.

B. **Labeling. Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable transportation regulations on hazardous materials of the Louisiana Department of Public Safety and Corrections or its successor agency under LAC 33:V.Subpart 2.Chapter 101.**

Response

Exide acknowledges, understands and will comply with all of the required labeling requirements. All hazardous waste leaving the Baton Rouge smelter will be properly labeled.

C. **Marking. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the Department of Public Safety regulations (see Department of Public Safety regulation LAC 33:V.Subpart 2.Chapter 101.**

Hazardous waste: Federal and state law prohibits improper disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address _____

Manifest Document Number _____

Response

Exide acknowledges, understands and will comply with all of the required marking requirements.

D. **Placarding. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to**

f. **the certification signed by the generator or his authorized representative;**

g. **a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;**

h. **a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available.**

Response

Exide acknowledges, understands and will comply with this citation. Annual reports for off-site shipments of hazardous waste are prepared and submitted to LDEQ by March 1 of each year. The annual report includes all of the information required by the above citations.

2. **Generators who also dispose, treat, or store hazardous waste on-site shall also submit annual reports to the department, reporting total quantity, by type, of waste handled, and how that waste was disposed, treated, or stored. Generators must maintain on site a copy of each report submitted to the department for a period of at least three years from the date of the report. Reporting for exports of hazardous waste is not required on the annual report form. A separate annual report requirement is set forth in LAC 33:V.1113.G.**

Response

Exide submits the required annual reports each year for hazardous waste treated and stored on-site. However, Exide does not dispose of any hazardous waste on-site.

C. **Exception Reporting**

1. **A generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 15 days of the date the waste was accepted by the initial transporter must contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste.**

Response

Exide acknowledges and understands this citation and will comply.

2. **A generator must submit an Exception Report to the administrative authority if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report must include:**

   a. **a legible copy of the manifest for which the generator does not have confirmation of delivery; and**

   b. **a cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.**

Response

Exide will submit any Exception Reports necessary, as required by the above citation.

D. **Additional Reporting. The administrative authority, as it deems necessary under the Act, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in LAC 33:V Chapter 49.**

Response

Exide acknowledges, understands and will comply with this citation.

E. **Quarterly Reports. Generators who dispose of hazardous waste on-site shall submit a quarterly report (form approved by the administrative authority) no later than 15 days after the beginning of the quarter to the department reporting total quantities (calculated on a daily basis), by type of waste handled, and how that waste was disposed of during the previous calendar quarter, and shall retain on-site a copy of the report for at least three years from the date of disposal.**

Response

This section is not applicable since Exide does not dispose of hazardous waste on-site.

Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.

b. For the purposes of these regulations, Canada and Mexico are considered OECD member countries only for the purpose of transit.

2. Any person who exports hazardous waste to or imports hazardous waste from a designated OECD member country for purposes other than recovery (e.g., incineration, disposal), Mexico (for any purpose), or Canada (for any purpose) remains subject to the requirements of this Section and LAC 33:V.1123.

Response

This section is not applicable since Exide does not import or export hazardous waste to a foreign country.

§1115. Preparedness and Prevention

All generators shall comply with the requirements of LAC 33:V.1511.

Response

Exide acknowledges, understands and will comply with LAC 33:V.1511.

§1117. Contingency Plan

Each generator shall prepare a contingency plan. The contingency plan must include the information as specified in LAC 33:V.1513.A, B, C, D.2, and F. The contingency plan shall include a section describing emergency response procedure as specified in LAC 33:V.1513.F.

Response

The RCRA Contingency Plan and Emergency Response Plan is included as Appendix 6. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment.

RESPONSE
ATTACHMENT 13

CHAPTER 13

TRANSPORTERS

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials

Chapter 13. Transporters

§1301. Applicability

A. **LAC 33:V.Chapter 13 establishes standards which apply to persons transporting hazardous waste within the state of Louisiana if the transportation requires a manifest under LAC 33:V.Chapter 9.**

Response
Exide acknowledges, understands and will comply with this citation. Exide uses a permitted transporter to transport hazardous wastes under a manifest.

B. **The regulations set forth in LAC 33:V.Chapters 11 and 13 establish the responsibilities of generators and transporters in the handling, transportation and management of hazardous waste. In these regulations, Louisiana has expressly adopted certain regulations of the Department of Public Safety (DPS). These regulations concern, among other things, labeling, marking, placarding, using proper containers and reporting discharges. The department has adopted these regulations in order to satisfy its statutory obligation to promulgate regulations which are necessary to protect human health and the environment in the transportation of hazardous waste. The department adoption of these DPS regulations ensures consistency with the requirements of DPS and thus avoids the establishment of duplicative or conflicting requirements with respect to these matters.**

Response
Exide acknowledges that LAC 33:V.Chapters 11 and 13 apply to generators in the handling, transportation and management of hazardous waste and will comply. Exide will also comply with the regulations of the Department of Public Safety that have been adopted by the Department.

C. **Transporters of hazardous waste are cautioned that DPS's regulations are fully applicable to their activities and enforceable by DPS. The department and DPS worked together to develop standards for transporters of hazardous waste in order to avoid conflicting requirements. Regardless of DPS's action, the department retains its authority to enforce these regulations.**

Response
Exide acknowledges and understands this citation and will comply.

D. **This Chapter does not apply to:**

1. **on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities; and**

2. **any person who offers for transportation or who transports household refuse or household septic tank pumping from the site where it was generated, if those materials are not transported with any other hazardous waste.**

Response
Exide acknowledges that this chapter does not apply to on-site transportation of hazardous waste by generators or owners or operators of permitted hazardous waste management facilities. Exide does not transport household refuse or septic tank pumping, so this exemption does not apply.

E. **A transporter of hazardous waste must also comply with LAC 33:V.Chapter 11 if he transports hazardous waste into Louisiana from abroad or mixes hazardous wastes of different United States Department of Transportation shipping descriptions by placing them into a single container.**

Response
Exide acknowledges, understands and will comply with this citation; however, Exide does not transport hazardous waste into Louisiana from abroad or mix hazardous wastes of different USDOT shipping descriptions by placing them into a single container.

F. **A transporter of hazardous waste subject to the manifesting requirements of LAC 33:V.Chapter 11 or subject to the waste management standards of LAC 33:V.Chapter 38 that is being imported from or exported to any of the countries listed in LAC 33:V.1113.I.1.a for purposes of recovery is subject to this Chapter and to all other relevant requirements of LAC 33:V.Chapter 11.Subchapter B including, but not limited to, LAC 33:V.1127.D for tracking documents.**

Response
Exide acknowledges, understands and will comply with this citation; however, Exide does not import or export hazardous wastes for recovery.

G. **The regulations in this Chapter do not apply to transportation during an explosives or munitions emergency response conducted in accordance with LAC 33:V.1501.C.7.a.iv or d or 4307 and 305.C.12 or 13.**

Response
Exide acknowledges, understands and will comply with this citation; however, Exide does not transport explosives or munitions.

H. **LAC 33:V.5305 identifies how the requirements of this Chapter apply to military munitions classified as solid waste under LAC 33:V.5303.**

Response
Exide acknowledges, understands and will comply with this citation; however, Exide does not transport military munitions.

§1303. EPA Identification Number

A. **A transporter must not transport hazardous wastes without having received an EPA identification number.**

Response
Exide acknowledges and understands this citation and will comply by using a transporter with an EPA identification number.

§1305. Transfer Facility Requirements

A. **A transporter who stores manifested shipments of hazardous waste at a transfer facility for more than 10 days is considered a storage facility and is required to obtain a permit in compliance with the conditions of these regulations.**

Response
Exide is not a transfer facility and the requirements of this Subchapter do not apply.

B. **If hazardous wastes from different generators or separate wastes from the same generator become mixed after being accepted by the transporter, the transporter shall also comply with applicable federal or state generator standards unless the transporter shows that the information on the manifests still identifies the hazardous waste.**

C. **A transporter storing manifested shipments of hazardous waste in containers meeting the requirements applicable to the LDPS regulations on packaging under LAC 33:V.Subpart 2.Chapter 101 at a transfer facility for a period of 10 days or less is not subject to**

regulation under LAC 33:V.Chapters 1-7, 15-29, 31-38, and 43 with respect to the storage of those wastes, except as required to obtain approval by the administrative authority.

§1307. The Manifest System

A. A transporter may not accept hazardous waste from a generator or another transporter unless it is accompanied by a manifest, signed by the generator in accordance with the provisions of LAC 33:V.1107. The transportation of any hazardous wastes without a manifest shall be deemed a violation of these regulations and the Act. In the case of exports other than those subject to LAC 33:V.Chapter 11.Subchapter B, a transporter may not accept such waste from a primary exporter or other person:

1. if he knows the shipment does not conform to the EPA Acknowledgment of Consent; and

2. unless, in addition to a manifest signed in accordance with LAC 33:V.1107, such waste is also accompanied by an EPA Acknowledgment of Consent which, except for shipment by rail, is attached to the manifest (or shipping paper for exports by water [bulk shipment]). For exports of hazardous waste subject to the requirements of LAC 33:V.Chapter 11.Subchapter B, a transporter may not accept hazardous waste without a tracking document that includes all information required by LAC 33:V.1127.D.

<u>Response</u>
Exide acknowledges, understands and will comply with the requirements of this citation and all shipments of hazardous waste will be accompanied by a manifest signed by Exide in accordance with LAC 33:V.1107.

B. Before transporting the hazardous waste, the transporter must sign and date the manifest acknowledging acceptance of the hazardous waste from the generator or other transporter. The transporter must return a signed copy to the generator or other transporter before leaving the generator's property or other transporter's facility.

<u>Response</u>
Exide acknowledges the requirements of this citation and will comply by ensuring that the transporter signs and dates the manifest and returns a signed copy to Exide prior to leaving the facility.

C. **The transporter must ensure that the manifest accompanies the hazardous waste, except as provided for bulk water or rail transport in LAC 33:V.1307.E and F. In the case of exports, the transporter must ensure that a copy of the EPA Acknowledgment of Consent also accompanies the hazardous waste.**

Response
Exide acknowledges, understands and will comply with the requirements of this citation; however Exide is not a transporter. Exide does not export hazardous waste; therefore, the EPA Acknowledgement of Consent does not apply.

D. **A transporter who delivers a hazardous waste to another transporter or to the designated facility must:**

1. **obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest;**

2. **retain one copy of the manifest in accordance with LAC 33:V.1311; and**

3. **give the remaining copies of the manifest to the accepting transporter or designated facility.**

Response
Exide acknowledges, understands and will comply with the requirements of this citation; however Exide is not a transporter.

E. **The requirements of LAC 33:V.1307.C, D and F do not apply to water (bulk shipment) transporters if:**

1. **the hazardous waste is delivered by water (bulk shipment) to the designated facility;**

2. **a shipping paper containing all the information required on the manifest (excluding the EPA identification number, generator certification and signature) and, for exports, an EPA Acknowledgment of Consent accompanies the hazardous waste;**

3. **the delivering transporter obtains the date of delivery and handwritten signature of the owner and operator of the designated facility on either the manifest or the shipping paper;**

4. **the person delivering the hazardous waste to the initial water (bulk shipment) transporter obtains the date of delivery and signature of the water (bulk shipment) transporter on the manifest and forwards it to the designated facility; and**

5. **a copy of the shipping paper or manifest is retained by each water (bulk shipment) transporter in accordance with LAC 33:V.1311.B.**

   Response
   Exide acknowledges, understands and will comply with this citation; however this citation does not apply as Exide does not transport waste by water.

F. **For shipments involving rail transportation, the requirements of LAC 33:V.1307.C, D and E do not apply and the following requirements do apply.**

Response

Exide acknowledges, understands and will comply with this citation; however this citation does not apply as Exide does not transport waste by rail.

1. **When accepting hazardous waste from a non-rail transporter, the initial rail transporter must:**

   a. **sign and date the manifest acknowledging acceptance of the hazardous waste;**

   b. **return a signed copy of the manifest to the non-rail transporter;**

   c. **forward at least three copies of the manifest to:**

      i. **the next non-rail transporter, if any;**

      ii. **the designated facility, if the shipment is delivered to that facility by rail; or**

      iii. **the last rail transporter designated to handle the waste in the United States;**

   d. **retain one copy of the manifest and rail shipping paper in accordance with LAC 33:V.1311;**

4. give a copy of the manifest to a United States Customs official at the point of departure from the United States.

H. A transporter transporting hazardous waste from a generator who generates greater than 100 kg, but less than 1000 kg, of hazardous waste in a calendar month need not comply with the requirements of this Section or those of LAC 33:V.1311 provided that:

Response
Exide acknowledges, understands and will comply with this citation; however Exide is not a waste transporter and this citation does not apply. This citation also does not apply as Exide generates greater than 1,000 kg of hazardous waste per month.

1. the waste is being transported in accordance with a reclamation agreement as provided for in LAC 33:V.1107.A.4;

2. the transporter records, on a log or shipping paper, the following information for each shipment:

   a. the name, address, and EPA identification number of the generator of the waste;

   b. the quantity of waste accepted;

   c. all DOT-required shipping information; and

   d. the date the waste is accepted;

3. the transporter carries this record when transporting waste to the reclamation facility; and

4. the transporter retains these records for a period of at least three years after termination or expiration of the agreement.

§1309. Compliance with the Manifest

A. The transporter must deliver the entire quantity of hazardous waste which he has accepted from a generator or a transporter to:

1. the designated facility listed on the manifest;

2. the alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery, and such action is approved by the administrative authority;

3. **the next designated transporter; or**

4. **the place outside the United States designated by the generator.**
[NOTE: No person may deliver a hazardous waste to a place other than the permitted facility shown on the manifest.]

Response
Exide acknowledges, understands and will comply with this citation; however Exide is not a transporter. Exide will monitor its transporters to ensure that hazardous wastes are delivered to the designated facility or an alternate designate facility.

B. **If the hazardous waste cannot be delivered in accordance with LAC 33:V.1309.A, the transporter must contact the generator for further directions and must revise the manifest according to the generator's instructions.**

Response
Exide acknowledges, understands and will comply with the requirements of this citation. If the hazardous waste cannot be delivered in accordance with LAC 33:V.1309.A, Exide will provide further direction to the transporter regarding hazardous waste delivery.

C. **A transporter shall not transport a shipment of hazardous waste in containers unless each hazardous waste container is marked and labeled as required in LAC 33:V.1109.B and C. If the label is lost or detached, the transporter shall replace it based on the information taken from the manifest for the shipment.**

Response
Exide acknowledges, understands and will comply with the requirements of this citation. Exide will mark and label each hazardous waste container as required in LAC 33:V.1109.B and C. Exide will assist the transporter as needed if labels need to be replaced.

D. **A transporter shall not transport a container that is leaking or appears to be damaged, except to the nearest place where the transport vehicle can be safely positioned without unnecessarily endangering other transport vehicles or the environment. The transporter will then make the repairs necessary to remedy the unsafe condition.**

Response
Exide acknowledges, understands and will comply with the requirements of this citation; however, Exide is not a transporter. As the generator, Exide will assist the transporter as needed to correct leaking or damaged containers.

E. **A transporter shall not accept hazardous wastes consisting of a material or mixtures of materials prohibited under DPS regulations.**

Response
Exide acknowledges, understands and will comply with the requirements of this citation; however, Exide is not a transporter. Exide does not generate materials or mixtures of materials prohibited under DPS regulations.

§1311. Recordkeeping

A. **A transporter of hazardous waste must keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.**

Response
Exide acknowledges, understands and will comply with this citation; however this citation does not apply as Exide is not a transporter.

B. **For shipments delivered to the designated facility by water (bulk shipment), each water (bulk shipment) transporter must retain a copy of the shipping paper containing all the information required in LAC 33:V.1307.E.2 for a period of three years from the date the hazardous waste was accepted by the initial transporter.**

Response
This citation does not apply as Exide does not ship waste by water.

C. **For shipments of hazardous waste by rail:**

1. **the initial rail transporter must keep a copy of the manifest and shipping paper with all the information required in LAC 33:V.1307.F.2 for a period of three years from the date the hazardous waste was accepted by the initial transporter; and**

2. **the final rail transporter must keep a copy of the signed manifest (or the shipping paper if signed by the designated facility in lieu of the manifest) for a period of three years from**

Response
Exide acknowledges this citation and will use a transporter that will comply. Exide will assist the transporter as needed during a discharge while transporting.

D. **If a discharge of hazardous waste occurs during transportation and an official acting within the scope of his official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, that official may authorize the removal of the waste by transporters who do not have EPA identification numbers.**

Response
Exide acknowledges, understands and will comply with this citation; however, Exide only uses transporters with EPA identification numbers.

E. **An air, rail, highway, or water transporter who has discharged hazardous waste must:**

Response
The requirements of this citation do not apply as Exide is not a transporter. Exide will use a transporter than will comply with the requirements of this citation.

1. **give notice, if required by 49 CFR 171.15, to the National Response Center (800-424-8802 or 202-426-2675); and**

2. **report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.**

F. **A water (bulk shipment) transporter who has discharged hazardous waste must give the same notice as required by 33 CFR 153.203 for oil and hazardous substance.**

Response
This citation does not apply as Exide is not a transporter.

§1317. Discharge Cleanup

A. **A transporter must clean up any hazardous waste discharge that occurs during transportation and take such action as may be required by the administrative authority so that the hazardous waste discharge no longer presents a hazard to human health or the environment. The transporter becomes the generator of the waste**

Response
Exide acknowledges this citation and will comply; however Exide is not a transporter or disposal site.

§1321. Hazardous Waste that is also a Hazardous Material

A. If a hazardous waste, as defined in these rules and regulations, also meets the definition of hazardous material, the regulations of the Department of Public Safety also apply.

Response
Exide acknowledges this citation and will comply.

§1323. Vehicle Markings and Placards

A. Markings. No person may transport a hazardous waste unless the transport vehicle is marked to display:

1. the name or trademark of the carrier operating the vehicle;

2. the city or place in which the carrier has its principal office or in which the vehicle is customarily based; and

3. the name of the person operating the vehicle. The name of a person other than the operating carrier may appear on the vehicle as long as the words "operated by" immediately precedes the information required by LAC 33:V.1323.A.1 and A.2. (Other identifying information may be displayed on the vehicle if it is not inconsistent with the information required by this Paragraph.)

Response
This citation does not apply as Exide is not a transporter. However Exide will ensure that each vehicle is marked as required by this citation prior to leaving the facility.

B. The marking required by LAC 33:V.1323.A must:

1. appear on both sides of the vehicle;

2. be in letters that contrast sharply in color with the background;

3. be readily legible during daylight hours from a distance of at least 50 feet while the vehicle is stationary; and

RESPONSE
ATTACHMENT 15

CHAPTER 15

TREATMENT, STORAGE, AND DISPOSAL FACILITIES

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials

Chapter 15. Treatment, Storage, and Disposal Facilities

§1501. Applicability

A. **The regulations in this Chapter apply to owners and operators of all hazardous waste facilities, except as provided in LAC 33:V.1501.C. LAC 33:V.1503.B.3 applies only to facilities subject to regulations under LAC 33:V. Chapters 19, 21, 23, 25, 27, 29, 31, or 32.**

Response

Exide stores lead-bearing materials for recycling within two permitted hazardous waste storage areas (the Truck/Trailer Storage Area and the Whole Battery Storage Area). Exide also operates a Containment Building currently on interim status and a permitted hazardous waste treatment unit (the Slag Stabilization Unit). Additional details regarding the storage areas, including calculations, are provided in Chapter 21. A permit modification was previously submitted to include the Containment Building as required by Appendix 1. Approval of the modification has not yet been received as Exide is responding to comments received from LDEQ on March 18, 2003. Exide is therefore subject to the regulations in Chapter 15 of the LHWR (Louisiana Hazardous Waste Regulations).

The Containment Building (currently in interim status) is used to hold lead-bearing raw materials prior to recycling. The building has an engineered capacity of 3,333 tons of blast furnace slag that is stored prior to on-site stabilization and disposal. Additionally, the building has the capability to hold 12,080 tons of lead material for recycling, including battery plates, lead oxide paste, reverberatory furnace slag, lead dross, and purchased scrap. Additional information, including calculations, regarding the Containment Building is provided in Chapter 18.

The Slag Stabilization Unit is a hazardous waste treatment unit that treats blast furnace slag by mixing it with Portland cement and sodium silicate. The Slag is crushed and screened to 3/8 inch maximum and is fed into a pugmill. The pugmill was manufactured by Cedar Rapids, Model No. 400. Portland cement, sodium silicate and water are added in fixed volumes to the Slag in the pugmill and are mixed to form a thick pasty mixture which cures to a soil-like solid. The use of a pugmill for mixing allows for control of reagent addition and uniform mixing to create a consistent stabilized product. The treated product is dumped into a dump truck for transportation to the on-site disposal facility. Foaming and misting do not

transportation to the on-site disposal facility. Foaming and misting do not occur during the treatment process. A water mist is used for dust suppression. The sodium silicate is delivered in 300 gallon totes and is stored in a tank and diluted with water. Portland cement is stored in a silo above the pugmill. Treatment is conducted on a batch basis. The Slag Stabilization unit is located under a roof, and is bermed with drainage control in the form of floor sumps that transmit wash-down water and any accumulated liquids to the plant's wastewater treatment unit. Materials containing free-liquid are not processed in the Slag Stabilization Unit. Figure 16 shows the berms and grading of the Slag Stabilization unit.

The Slag Stabilization Unit has a maximum capacity of 144.4 tons. Calculations from the Closure Cost Estimate (Appendix 8) are as follows:

20 ft x 15 ft x 10 ft = 3,000 cf = 111.1 cy
111.1 cy x 1.3 tons/cy = 144.4 ton

As shown on Figure 16, the floor system is, from top to bottom, 8 inches of concrete, 4 inches of asphalt and 6 inches of concrete. Calculations for floor strength assuming the maximum load on the floor are as follows:

Floor area: 20 ft x 15 ft = 300 sf x 144 = 43,200 si
Maximum Waste Weight = 144.4 tons = 288,800 lbs
Weight of front end loader = 24,000 lbs
Maximum weight on floor = 288,800 lbs + 24,000 lbs = 312,800 lbs
Maximum load on floor = 312,800 lbs/ 43,200 si = 7.24 psi

In order to support operations, the concrete strength at the Slag Stabilization Unit would need to be a minimum of 7.24 psi. As concrete has a typical strength of 3,000 to 4,000 psi, the concrete floor is capable of supporting the anticipated loads when properly reinforced and constructed on an adequately prepared subgrade.

Design calculations for the Slag Stabilization Unit walls and information regarding the size and quantity of reinforcing steel could not be located as part of the Part B Permit renewal process. Qualitatively it is obvious that the reinforced concrete walls for the structure provide adequate strength based on the observation that the walls have been functioning since their construction over 10 years ago. The ultimate limit state of the Slag Stabilization Unit walls would be failure by flexure (moment) and shear. No movement or cracking has been observed that would suggest either failure mechanism is occurring.

To substantiate the qualitative observation that the strength of the walls is adequate, a simplified quantitative evaluation for shear stress was performed. For evaluation purposes, the exterior walls are considered as

unit lengths with a fixed end at the ground surface and unsupported at the top of the wall, relying on the inherent strength of the walls to resist shear from the applied loads. As shown in the attached calculations, shear forces imposed by the lateral loads from the materials contained in the building are easily handled (F.S.= 2.4) by the resistance developed in the reinforced wall. Calculations are provided in Appendix 22.

For moment, the building relies on a combination of the inherent strength of the reinforced wall and frame action provided by the building columns. Approximately half of the stress is accommodated by the wall strength with the remainder of the stress being transferred to the building frame. Unlike shear, a simplified quantitative evaluation for flexure could not be completed utilizing the information available, although as stated earlier, no visual observations were made that indicate that the building has not been adequate for the services loads experienced during the last 10 years of operation.

B. Except as specifically authorized by the terms and conditions of a permit issued under these rules and regulations, the construction and operation of a facility to treat, store, or dispose of hazardous wastes in violation of the standards established by this Section shall be a violation of the Act enforceable pursuant to LAC 33:V.107 of these regulations and R.S. 30:1073.

Response
Exide acknowledges and understands this citation and will comply.

C. The requirements of this Chapter do not apply to:

1. the owner or operator of a facility permitted, licensed, or registered to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation by LAC 33:V. Subpart 1;

2. the owner or operator of a facility which treats or stores material which would otherwise be a hazardous waste which is being beneficially used or reused, legitimately recycled, or reclaimed as defined in LAC 33:V.Chapter 41 (except to the extent they are referred to in LAC 33:V.Chapter 40 or Sections 4139, 4143, or 4145;

3. reserved;

4. a farmer disposing of waste pesticides from his own use as provided in LAC 33:V.1101.D;

Response
Exide acknowledges these provisions for applicability and will comply. However, in accordance with LAC 33:V:4145.B, owners or operators of facilities that store lead acid batteries prior to reclamation are subject to the provisions of this chapter.

12. **LAC 33:V.5309 identifies when the requirements of this Chapter apply to the storage of military munitions classified as solid waste under LAC 33:V.5303. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in LAC 33:V.Subpart 1.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not store military munitions.

D. **The requirements of this Chapter apply to owners or operators of all facilities which treat, store, or dispose of hazardous wastes referred to in LAC 33:V.Chapter 22.**

Response
Exide acknowledges, understands and will comply with this provision.

E. **The requirements of this Chapter apply to a person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act only to the extent they are included in a RCRA permit by rule granted to such a person under LAC 33:V.305.D.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not conduct ocean disposal.

F. **The requirements of this Chapter apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by 40 CFR 144.14.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not conduct underground injection.

G. **The requirements of this Chapter apply to the owner or operator of a POTW which treats, stores, or disposes of hazardous waste only to the extent they are included in a RCRA permit by rule granted to such a person under LAC 33:V.305.D.**

Response

Exide acknowledges, understands and will comply with this provision; however, Exide does not own or operate a POTW.

H. **The requirements of LAC 33:V.1105, 1503, 1504, 1507, 1509, 1511, 1513, 1515, 1517, 1519, and 3322 do not apply to remediation waste management sites. (However, some remediation waste management sites may be a part of a facility that is subject to a traditional RCRA permit because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes. In these cases, LAC 33:V.1509, 1511, 1513, and 3322 do apply to the facility subject to the traditional RCRA permit.) Instead of the requirements of LAC 33:V.1509, 1511, and 1513, owners or operators of remediation waste management sites must:**

1. **obtain an EPA identification number by applying to the administrative authority using the department's Form HW - 1;**

2. **obtain a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis must contain all of the information which must be known to treat, store, or dispose of the waste according to LAC 33:V.Chapters 9 - 11, 15 - 29, and 31-37, and must be kept accurate and up to date;**

3. **prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the administrative authority that:**

    a. **physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site will not injure people or livestock who may enter the active**

Response
Exide acknowledges, understands and will comply with these provisions; however, Exide is not a remediation waste management site and therefore this section does not apply.

§1503. Site Requirements

A. Geology

1. **Topographic Relief. The site should not have any abrupt topographic changes or means should be provided to guard against slides, slumping, or erosion.**

   Response
   Exide is located in the northwestern portion of East Baton Rouge Parish. The site topography is relatively flat with a slope toward the Baton Rouge Bayou on the northwest side of the property. The active portion of the site does not slope toward the bayou. The elevation of the active portion of the site is between 85- and 75-feet above mean sea level (MSL). The western and northern sections of the property slope down to an elevation of 35 ft MSL. A topographic map of the facility is provided in Figure 5.

2. **Soils. The area should be covered with natural stable soils of low permeability or a means should be provided, acceptable to administrative authority, which provide a barrier to penetration of surface spills or accumulations of hazardous wastes into a subsurface strata which would have a potential effect on a fresh-water aquifer.**

   Response
   The Baton Rouge smelter is underlain by natural soils of low permeability with some interbedded units of clayey sands, sandy clays, and sands. During recent soil borings associated with the active solid waste landfill west of the facility, the top of the uppermost aquifer (first competent permeable zone) was encountered at elevations of approximately 28 to 32 feet MSL. The base of the uppermost aquifer was encountered at elevations of approximately 20 to 25 feet MSL. The upper aquifer is assumed to be laterally continuous throughout the facility. Additional information regarding site geology is provided in Appendix 10. The two permitted container storage areas and the permitted treatment unit are all underlain with impervious concrete and asphalt layers with proper containment to prevent any spills from penetrating the subsurface strata. The Containment Building has an existing floor of concrete and asphalt to prevent the penetration of hazardous waste

materials into the subsurface strata. A portion of the floor was upgraded to include a HDPE liner and acid brick in November 2003. The certification document for the floor upgrade is provided in Appendix 11C. This upgrade will be more protective to the environment. The floors of all hazardous waste units are inspected at least weekly and the records are kept onsite. If any problems with the floors are encountered, they will be corrected immediately.

The protective measures and Containment Building design are discussed in detail in Chapter 5 and Chapter 18.

3. **Seismic Conditions. Portions of new facilities where treatment, storage, or disposal of hazardous waste will be conducted must not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time.**

Response

According to published data ("Fault and Salt Map of South Louisiana", 1982, by R.E. Wallace), faults that have had displacement in the Holocene time are not located within 200 feet of the Baton Rouge smelter. A map showing the locations of recorded faults is included as Figure 8.

B. Hydrology

1. **General Requirement. Sites utilized shall be isolated by means of natural or created boundaries from adjoining land and from subsurface and surface waters.**

Response

The Containment Building, Whole Battery Storage Area, and Slag Stabilization Area are completely enclosed in order to isolate them from the adjoining land and subsurface/surface waters. Runoff from these buildings is prevented by inward-sloping floors and curbing systems. In addition, areas that have free liquids utilize a secondary containment system and/or roofing so that any liquids collected will be contained and subsequently discharged to the wastewater treatment (WWT) system. The containment building and all other areas managed in accordance with the LHWRs are located on concrete and/or asphalt floors to prevent subsurface penetration of liquid.

To manage stormwater and prevent runoff, the facility is graded for drainage to the Wastewater Drainage and Collection System shown on Figure 5 (Topographic Map). Collected water is sent to the facility WWT system. The Truck/Trailer Storage Area also has a

perimeter berm to prevent runoff and is graded to drain to the Wastewater Drainage and Collection System.

2. **Drainage. The site must have the capability to control and/or contain run-off from the maximum rainfall in 24 hours from a 25-year storm (when maximum rain fall records are not available, the design standard shall be 12 inches below 31 degrees North latitude and nine inches above 31 degrees North latitude) and must have the capability to divert run-on from adjoining land (outside limits of hazardous waste site or if part of an industrial complex, outside limits of company property) from such a storm from the site (surface and subsurface).**

Response

To prevent runoff, the ground surface of the active areas of the facility is graded to drain inward with an asphalt swale. Grading and the swale directs stormwater to the Wastewater Drainage and Collection System which was designed to manage a twenty-four hour, twenty-five year storm event. Run-on from the north and west is prevented by a 40-ft. difference in topographic relief that falls from a nominal elevation 80-ft. MSL onsite to a nominal elevation below 39 ft MSL at Baton Rouge Bayou. The NPC Services, Inc access road that represents a high point between the Exide facility and the adjacent Great Lakes Carbon facility controls drainage along the eastern boundary of the Site. Precipitation falling on the access road is shed either to the east or west as roughly defined by the centerline of the road. The edge of the access road defines the eastern property boundary for the Exide facility. Run-on from areas south of the Site is prevented by a swale that drains from the main gate along the property boundary towards Baton Rouge Bayou. The swale intercepts surface water draining towards the Site and redirects it from away from the facility. The limited amount of surface water run-on and effectiveness of the surface controls (i.e., swales) preclude the need for subsurface controls such as pipes or culverts.

Exide's stormwater management system, and run-on and run-off controls have successfully managed Tropical Storm Isidore and Hurricane Lili, Katrina and Rita.

3. **Floodplains**

   a. **A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year**

units, active hazardous waste landfills, or miscellaneous units. The two closed hazardous waste piles are permitted under a separate permit and do not have the potential to release contaminants to surrounding water ways.

4. **Hurricane-Prone-Areas**

Sites located in an area which is historically subject to hurricanes shall be protected from the entry of water by natural or created barriers certified by a professional engineer.

Response

Although the Exide facility is located in an area subject to hurricanes, they are infrequent and have resulted in minimal damage. Exide facilities have been designed and constructed to withstand storms and hurricanes. The land between the site location and the Louisiana Gulf Coast provides a natural barrier from the full impact of a hurricane. This distance provides adequate warning to shut down the site and prepare for the storm.

The facility is elevated approximately 40 feet above Baton Rouge Bayou and the Mississippi River. The elevation of the Bayou is approximately 40 ft. MSL. The nominal elevation of the operating areas of the facility is elevation 80 ft. MSL. The difference in elevation provides a natural barrier to protect from entry of water. In addition, the facility is located outside of the limits of the 100 year flood plain as shown on Figure 9. A certification statement indicating that the natural barrier provides protection from entry of water is provided in Appendix 29.

In the event of a hurricane threat to the surrounding area, Exide has a RCRA Contingency Plan and Emergency Response Plan that details hurricane response and preparedness. This plan is included as Appendix 6. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment. A hurricane isoline map is presented in Appendix 19.

5. **Conformity with Existing Restrictions and Permits**

Sites located in floodways or wetlands under control of the U.S. Army Corps of Engineers and/or the Coastal Zone Management Office must apply for applicable permits.

However, to avoid unnecessarily long licensing periods, the department may accept and process the application with its final approval dependent upon a similar approval. Final department action on such a state permit will be taken after final action on wetlands and coastal zone permits.

Response

The site is not under the control of the U.S. Army Corps of Engineers or the Coastal Zone Management Office nor are any coastal zone or wetlands permits required for operation of the treatment and storage units.

6. **Areas of Critical Environmental Concern. Sites located in, or adjacent to, swamps, marshes, floodplains, estuaries, designated wildlife hatchery areas, habitats of endangered species, and similar critical environmental areas shall be isolated from such areas by effective barriers which eliminate possible adverse impacts on such areas due to the operation of the facility.**

Response

Exide is not located in or adjacent to marshes, floodplains, estuaries, designated wildlife hatchery areas, or other environmentally sensitive areas. Documentation from July 2005, the 1993 Hazardous Waste Permit Application and the 1997 Solid Waste Landfill Permit Application are provided in Appendix 21.

Information has been received that the pallid sturgeon and its habitat in the Mississippi River may be affected by the facility. However, impacts are due to the loss of habitat caused by construction of dams that have modified flows, reduced turbidity, and lowered water temperatures. Exide does not plan to construct any dams, therefore the proposed permit renewal should not impact the pallid sturgeon. Exide will continue to avoid any degredation of the water quality in the Mississippi River. No other impacts to rare, threatened or endangered species or critical habitats were identified.

Devil's Swamp, the area between Baton Rouge Bayou and the Mississippi River is southwest of the facility but is separated from the treatment and storage areas by containment berms and concrete and asphalt perimeter stormwater collection ditches.

7. **Salt Dome Formations, Salt Bed Formations, Underground Mines, and Caves. The placement of any noncontainerized or**

bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited.

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not place hazardous waste in any salt formation, underground mine or cave.

C. **Facilities**

1. **Transportation. Access to sites by surface and water transportation modes shall be by roads and waterways with the capacity to accept the demands created by the facility and designed to avoid, to the extent practical, congestion, sharp turns, obstructions, or other hazards which are conducive to accidents.**

Response
The Exide facility is located in East Baton Rouge Parish Road at the west end of Brooklawn Drive which provides access from Highway 61. The roadway has been used since the facility was constructed in 1969 with little or no problems with congestion or obstructions. A diagram of on-site traffic patterns is provided as Figure 17.

2. **Services. Sites shall have convenient access to required services, including: utilities, medical care, police, fire protection, and similar services, or provide these services internally in a manner acceptable to the administrative authority.**

Response
Exide acknowledges, understands and will comply with this provision. Exide has provided for access to utilities, medical care, police, fire protection and other required services. Utilities are provided to maintain daily operations. Emergency response services including medical care, police and fire protection are detailed in Appendix 6, RCRA Contingency Plan and Emergency Response Plan. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment.

3. **Buffer Zone**
   a. **General Requirement. Sites shall be shielded from adjoining noncompatible land uses by space, natural**

separation, or other means acceptable to the administrative authority.

b. Minimum Requirements. In no event shall the buffer be less than that stated for the following sites:

i. Sites zoned industrially—Sufficient space for security and drainage control facilities; or

ii. All other locations—200 feet between any facility (treatment pond, incinerator, tank, etc.) and property line unless a proper buffer is installed which is acceptable to the administrative authority (see LAC 33:V.2113 for container requirements).

<u>Response</u>
Exide is zoned industrial and provides sufficient space for security and drainage control between the treatment and storage areas and the adjacent property. The site is fenced to control access and has 24-hour security.

§1504. Construction Quality Assurance Program

A. CQA Program

1. A construction quality assurance (CQA) program is required for all surface impoundment, waste pile, and landfill units that are required to comply with LAC 33:V.2903.J and K, 2303.C and D, and 2503.L and M. The program must ensure that the constructed units meet or exceed all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

<u>Response</u>
Exide acknowledges, understands and will comply with this provision; however, Exide does not require the construction of surface impoundments, waste piles or landfill units in this permit renewal.

2. The CQA program must address the following physical components, where applicable:

a. foundations;

b. **dikes;**

c. **low-permeability soil liners;**

d. **geomembranes (flexible membrane liners);**

e. **leachate collection and removal systems and leak detection systems; and**

f. **final cover systems.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not require the construction of surface impoundments, waste piles or landfill units in this permit renewal.

B. **Written CQA Plan. The owner or operator of units subject to the CQA program under LAC 33:V.1504.A must develop and implement a written CQA plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan must include:**

1. **identification of applicable units and a description of how they will be constructed;**

2. **identification of key personnel in the development and implementation of the CQA plan and CQA officer qualifications;**

3. **a description of inspection and sampling activities for all unit components identified in LAC 33:V.1504.A.2, including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover:**

   a. **sampling size and locations;**

   b. **frequency of testing;**

   c. **data evaluation procedures;**

   d. **acceptance and rejection criteria for construction materials;**

e. **plans for implementing corrective measures; and**

f. **data or other information to be recorded and retained in the operating record under LAC 33:V.1529.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not require the construction of surface impoundments, waste piles or landfill units in this permit renewal.

C. **Contents of Program**

1. **The CQA program must include observations, inspections, tests, and measurements sufficient to ensure:**

   a. **structural stability and integrity of all components of the unit identified in LAC 33:V.1504.A.2;**

   b. **proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components (e.g., pipes) according to design specifications; and**

   c. **conformity of all materials used with design and other material specifications under LAC 33:V.2303, 2503, and 2903.**

2. **The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full-scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of LAC 33:V.2303.C.1.b, 2503.L.1.b, and 2903.J.1.b in the field. Compliance with the hydraulic conductivity requirements must be verified by using *in situ* testing on the constructed test fill. The administrative authority may accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of LAC 33:V.2303.C.1.b, 2503.L.1.b, and 2903.J.1.b in the field.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not require the construction of

surface impoundments, waste piles or landfill units in this permit renewal.

D. **Certification. Waste shall not be received in a unit subject to LAC 33:V.1504 until the owner or operator has submitted to the administrative authority by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out, that the unit meets the requirements of LAC 33:V.2903.J or K, 2303.C or D, or 2503.L or M, and the procedure in LAC 33:V.309.L.3.b has been completed. Documentation supporting the CQA officer's certification must be furnished to the administrative authority upon request.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not require the construction of surface impoundments, waste piles or landfill units in this permit renewal.

§1505. Discharges from the Site

A. **General Requirements. All point-source discharges must be controlled and reported as follows:**

1. **water discharges, if any, must be in conformity with effluent limitations established by the Clean Water Act operating under an NPDES permit and reported as required by that permit. The NPDES Permit must be applied for prior to the issuance of a hazardous waste permit; or**

Response
Discharges from the Baton Rouge smelter are regulated by NPDES/LPDES permit LA0004464, dated April 1, 2001. Discharges from the Baton Rouge smelter are maintained within the effluent limitations specified in the NPDES permit. Monthly DMR reports are submitted as required by the Clean Water Act and the NPDES permit.

2. **air emissions, if any, must be in conformity with air limitations of the Clean Air Act administered by the Air Quality Division of the department, operating under an Air Quality Permit as required, and reported as required by that permit. The air permit must be applied for prior to the issuance of a hazardous waste permit.**

Response
Exide operates under state operating permit 0840-00004-00, dated July 12, 1995 for all of its emissions. Exide emissions are in conformity with air limitations of the Clean Air Act and the operating permit. A Title V Air Permit Application was submitted to LDEQ in 1996 and updated in July 2002. A schematic of the air handling system at the Containment Building is provided as Figure 10.

B. **Surface. Offsite shipments of any hazardous waste material, containers, packaging, or similar material must be reported on a manifest and must be delivered to a permitted facility.**

Response
All offsite shipments of hazardous waste material, containers, packaging, or similar material will be reported on a manifest and delivered to a permitted facility.

C. **Spills**

1. **Any spill of hazardous waste which could possibly endanger health or adversely affect the environment off-site shall be reported to the department immediately as provided in the "Notification Regulations and Procedures for Unauthorized Discharges and Spills." (See LAC 33:I.Chapter 39).**

Response
Exide acknowledges, understands and will comply with this citation. Any spills shall be reported in accordance with LAC 33:I.Chapter 39, "Notification Regulations and Procedures for Unauthorized Discharges and Spills." Exide maintains a Spill Prevention, Control and Counter Measures Plan (Appendix 14) that outlines procedures that will be followed in the event of a spill. Depending on the nature of the spill or emergency, the Environmental Manager will notify the appropriate state and local agencies including EPA, LDEQ, US Coast Guard, National Response Center, the fire department, State Police, Sheriff's office and/or HAZMATT/TESS. In the event of a spill of any material on which maintenance of an MSDS is required and the spill exceeds the reportable quantity, or if the spill causes emergency conditions (irrespective of quantity), the Environmental Manager will notify the Department of Public Safety hotline within one hour after learning of the discharge.

2. **If a spill occurs on the site of a generator or TSD facility, and if that spill could endanger the public health or affect the environment off-site, the department and the Department of**

Public Safety have the authority to enter the site and investigate the spill. It is the responsibility of the operator to report spills of this nature to the department and the Department of Public Safety as soon as possible, as provided in LAC 33:V.1505.C.1.

Response
Exide acknowledges, understands and will comply with this citation. In the event of a spill that could potentially endanger public health or affect the surrounding environment, Exide understands that the LDEQ and the Department of Public Safety have the authority to enter the site and investigate the spill. In the event of a spill of this magnitude, the operator will report it to the LDEQ and to the Department of Public Safety as soon as possible as specified in Exide's the SPCC plan (Appendix 14), in accordance with LAC 33:V.1505.C.1.

3. **Any spilled material or material trapped in sumps that is a hazardous waste or that will be disposed of as a hazardous waste must be cleaned up in a timely manner.**

Response
Exide acknowledges, understands and will comply with this citation. Any spilled material or material trapped in sumps that is a hazardous waste will be disposed of as a hazardous waste in a timely manner. If the material can be reclaimed, the spilled material or material trapped in sumps will be containerized for storage and recycled in the furnaces. If the material cannot be reclaimed, the spilled material or material trapped in sumps will be containerized and disposed off-site at a facility permitted to dispose of the hazardous waste.

§1507. Security

A. **General Requirements. The security system shall insure that site ingress and egress by the public is controlled and that employees are protected from hazards to health resulting from contact with extremely hazardous operations.**

Response
Exide acknowledges and understands this citation and will comply. The security system at the site is designed to control ingress and egress. The security system includes perimeter fencing, and controlled site access at entry points monitored by guards. Visitors must sign in upon arrival at the site. Access to the operating area of the facility is strictly controlled.

B. **Perimeter Control. The natural or created barrier to site ingress or egress around the entire perimeter of the hazardous waste area shall be continuously patrolled or monitored. Equipment will be installed, as necessary, to keep birds and wildlife off the site.**

Response

The facility is fenced on three of its four sides and has a natural barrier to prevent entry. Gates and security guards are also used to control each entry point.

The natural barrier is provided by the Baton Rouge Bayou as the Bayou physically separates the facility from surrounding land. The slope between the Bayou and the facility is very steep, heavily vegetated and not easily negotiated by foot. Boat traffic is not allowed on the Bayou for national security reasons related to surrounding industries. In addition, wildlife such as alligators provide a natural determent to trespassers.

A gate is positioned at each of Exide's entry points equipped with secure locking devices. A gatehouse containing electronically controlled devices for gate operations is positioned at the main entrance. The guards periodically patrol the site and document their patrol in a log book.

These barriers insure that site ingress/egress by the public and/or wildlife is controlled and that public safety from operations at the site are protected.

Physical or other barriers are not needed to further protect employees from health hazards associated with the operations at this facility.

C. **Entry. Each entry through the perimeter barrier shall be manned at all hours. The entry should be opened by security personnel or by an electronic system (card, code, handprint, etc. or television monitor) acceptable to the administrative authority.**

Response

The main gate is patrolled 24 hours a day for 365 days per year by security guard(s). The other two gates are kept locked and temporarily opened when needed. When open, these gates are attended by security guard(s).

D. **Alternate Means of Meeting Security Requirements. Any operator may petition the administrative authority for acceptance of equivalent alternative means of meeting the requirements of LAC 33:V.1507 in whole or in part. This shall be done through submission of proof that necessary procedures for the protection of health and property are**

provided by other means and that representatives of local fire and police departments, if any, are adequately informed of such means.

Response
Exide does not need to petition for an alternate means of meeting security requirements.

E. **Perimeter Barrier. A constructed barrier shall enclose the entire hazardous waste site and shall have the capability to deny unauthorized or unknowing ingress or egress and to prevent entry by domestic livestock.**

Response
A perimeter fence is constructed around three sides of the facility. The fourth side is bound by Baton Rouge Bayou which prevents entry from that side. These barriers will prevent entry by domestic livestock and denies unauthorized ingress or egress by the public.

F. **Perimeter Clear Zone. A clear, lighted path shall be constructed and maintained inside the perimeter barrier to permit patrol by vehicle or foot.**

Response
Exide acknowledges, understands and will comply with this citation.

G. **Required entry facilities include the following:**

1. **gate at each entry point equipped with secure locking device;**

   Response
   All entrances are equipped with a locking device.

2. **gate house for guard, or electromechanical equipment permitting controlled access; and**

   Response
   The main gate is equipped with a guard house where guards are on duty on a continual basis.

3. **floodlighting at each entry to insure a well-lighted, safe, and secure area at night.**

   Response
   The gates at each entry have floodlights to provide for a well-lighted, safe and secure area at night.

H. Emergency Response Facilities

a. **Communications. An alarm system with controls accessible to each area of potential spill, explosion, or fire; telephone contact to each facility location; two-way radios for key personnel; and**

Response
The facility has an alarm system with controls accessible to each area of potential spill explosion or fire. Telephone contact numbers are posted in all area control rooms. Two-way radios are issued to all key personnel for emergency communication. A copy of the RCRA Contingency Plan and Emergency Response Plan is included in Appendix 6. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment.

Fire Control. Portable fire extinguishers, decontamination facilities, fire control equipment at incinerators, mixing and treatment vats; and other fire-hazard facilities and fire hydrants (with capacity as required by state fire code) located not more than 200 feet from each fire-hazard facility.

Response
Portable fire extinguishers are located in all areas of the facility, no less than 200 feet from each potential fire hazard. The RCRA Contingency Plan and Emergency Response Plan, included in Appendix 6 outlines the fire extinguisher program and has a map showing the location of all fire extinguishers.

I. Safety Control Devices

1. **Moving Equipment Barriers. Steel or concrete posts or barriers capable of stopping trucks or other equipment used on the site (at maximum expected speed) shall be installed to protect all hazardous waste above-ground pipelines, valves, or other containers located adjacent to roadways.**

Response
Exide acknowledges, understands and will comply with this citation, all hazardous waste above-ground pipelines, valves, or other containers that are located adjacent to roadways have posts or barriers capable of stopping trucks or other equipment.

2. **Personnel Barriers. Barriers shall be installed at all locations where employees or visitors normally come in contact with**

ponds, lagoons, incinerators, treatment facilities, and other high-hazard locations.

Response
Exide does not have any ponds, lagoons, or incinerators at the Baton Rouge smelter. The active process area has barriers in-place to prevent employees from contacting hazards. Visitors are not permitted in the process area without an escort.

J. Exterior Lighting

1. All personnel barriers shall be lighted; all vehicle barriers shall have reflectors.

Response
Exide acknowledges, understands and will comply with this citation. All personnel barriers are lighted and all vehicle barriers at the facility have reflectors.

2. Entry gates shall be lighted (see LAC 33:V.1507.G.3).

Response
Exide acknowledges, understands and will comply with this citation. The entry gate to the facility is lighted and manned continuously.

3. Perimeter barriers shall be lighted (see LAC 33:V.1507.B).

Response
Exide acknowledges, understands and will comply with this citation. All perimeter barriers are lighted. A facility employee performs regular inspections of the lighting and performs any necessary corrective action. Light posts are present at the main gate, the center and west side of the parking lot, the administration building, the railroad spurs and the northwestern portion of the facility. Light post locations are provided on Figure 5A.

K. Signs. A sign with the legend "Danger - Unauthorized Personnel Keep Out" must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion but in no case shall the spacing be greater than 200-foot intervals. The legend must be written in English and in any other language predominant in the area surrounding the facility, and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger - Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the

active portion, and that entry onto the active portion can be dangerous.

Response

Signs are posted at 200 foot intervals or less around the three container storage areas, the waste stabilization unit and the containment building. The signs read: "DANGER – HAZARDOUS WASTE AREA – UNAUTHORIZED PERSONNEL KEEP OUT." Signs are also posted at each entrance to the active portion of the facility. The signs read: "DANGER – UNAUTHORIZED PERSONNEL KEEP OUT."

§1509. General Inspection Requirements

A. The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to:

1. a release of hazardous waste; or

2. a threat to human health.

The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

Response

Exide will inspect the facility on a regular basis. The Inspection Plan is included as Appendix 5 and includes the schedule for facility inspections that are designed to detect any malfunction, deterioration, operator errors or discharges that may lead to a release of hazardous waste or a threat to human health or the environment. Problems are identified visually by the inspector and are documented on the inspection forms provided in Appendix 5. If any problems or malfunctions are noted during the inspection, Exide will immediately correct the problem and remedy the situation. Operator errors will be corrected immediately by discussing the situation with the operator and identifying the appropriate methods to conduct the work. Exide will document the repairs and corrective action on the inspection forms. The type of repair or correction depends on the problem or malfunction. Information regarding the error and its correction is shared with other operators at pre-shift meetings to ensure errors are not repeated. For serious errors, a formal incident investigation is also conducted and a report generated, including root cause determination and action taken to prevent recurrence. Spills and discharges will be managed in accordance with the Spill Prevention, Control and Countermeasures Plan provided in Appendix 14. Container deterioration would be corrected by transferring materials to the furnace for recycling or transferring the materials an intact container for additional storage.

B. **Schedule. LAC 33:V.517.G requires the inspection schedule to be submitted with Part II of the permit application. The administrative authority will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment.**

1. **The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.**

   Response
   Exide acknowledges, understands and will comply with this provision. A written inspection schedule has been developed and is followed on a daily basis. Please refer to the Inspection Plan in Appendix 5 for the Inspection Schedule. The Inspection Plan includes the schedule for facility inspections that are designed to detect any malfunction, deterioration, operator errors or discharges that may lead to a release of hazardous waste or a threat to human health or the environment.

2. **He must keep this schedule at the facility.**

   Response
   Exide acknowledges and understands this provision. The inspection schedule is kept at the facility as a part of the Inspection Plan. A copy of the Inspection Plan is included in Appendix 5.

3. **The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).**

   Response
   Exide acknowledges, understands and will comply with this provision. The schedule in the Inspection Plan (Appendix 5) identifies types of problems that will be looked for during the inspection.

4. **The frequency of inspection may vary for the items on the schedule. However, inspections should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the**

deterioration or malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the terms and frequencies called for in LAC 33:V.1709, 1719, 1721, 1731, 1753-1765, 1907, 1911, 2109, 2309, 2507, 2711, 2907, 3119, and 3205, where applicable.

[Comment: LAC 33:V.517.G requires the inspection schedule to be submitted with Part II of the permit application. The department will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the department may modify or amend the schedule as may be necessary.]

<u>Response</u>
Exide acknowledges, understands and will comply with this provision. Please refer to the Inspection Plan (Appendix 5) for the Inspection Schedule. Depending on the item to be inspected, inspections are conducted on a daily, weekly, monthly or quarterly basis.

C. **The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals; a schedule must be set up to ensure that the problem does not lead to an environmental or human health hazard. When a hazard is imminent or has already occurred, remedial action must be taken immediately.**

<u>Response</u>
Exide will remedy any deterioration or malfunction of equipment or structures revealed in the inspection. If a hazard is imminent or has already occurred immediate remedial action will be taken. Otherwise, schedules to remedy the problem will be put into place to ensure that it does not become an environmental or human health hazard.

D. **The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.**

<u>Response</u>
Exide will record inspections in an inspection log and will retain these records for at least three years from the date of the inspection. The

records will include the date and time of inspection, the inspector's name, any observations made and any repairs or remedial actions taken.

§1511. Preparedness and Prevention

A. **Applicability. The regulations in this Section apply to owners and operators of all hazardous waste facilities.**

Response
Exide understands, acknowledges and will comply with these regulations are applicable to this site.

B. **Design and Operation of a Facility. Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.**

Response
Exide understands, acknowledges and will comply with this provision. The three container storage areas, the treatment unit and the Containment Building at Exide have all been designed, maintained and operated to maximize safety of personnel, minimize threats to public health and the environment and to preserve the value of the facilities and promote efficiency and effectiveness of their operation. Exide utilizes the best engineering designs and practices available, conforms to regulatory requirements and pays strict attention to employees' health and safety.

Fires and explosions are initially minimized by not accepting flammable or explosive materials and by not storing incompatible wastes in the same storage area. Materials not acceptable to the facility are returned to the generator. Fires and explosions are also minimized by maintaining a clean facility including daily floor sweeping and decontamination of equipment at the building exits. Releases of materials are minimized by the walls and floors of the Truck/Trailer Storage Area, the Whole Battery Storage Area and the Containment Building. Release of emissions are controlled in the Containment Building through an air handling system such that the building operates under negative pressure. In the event that a fire, explosion or release occurs, the measures indicated in the RCRA Contingency and Emergency Response Plan (Appendix 6) and the Spill Prevention, Control and Countermeasures Plan (Appendix 14) will be followed. Response procedures include contacting the On-Site Coordinator; assessing the situation; notifying the appropriate local and state agencies; taking measures to prevent recurrence including stopping operations, collecting and containing released substances and isolating

tanks; and submitting required reports. The RCRA Contingency and Emergency Response Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment.

Changes have not occurred to the facility's overall recycling procedures; however, the plans associated with operation of the facility have been modified since the original permit submission to maintain regulatory compliance and safe operations. These plans include the Waste Analysis Plan (Appendix 4), the Inspection Plan and Schedule (Appendix 5), the RCRA Contingency and Emergency Response Plan (Appendix 6), the Dust Suppression Operational Procedure (Appendix 12), the Training Manual (Appendix 13), and the Spill Prevention, Control and Countermeasures Plan (Appendix 14). Historic modifications to these plans are not summarized here as only the most current versions of each of these plans is used at the facility. These plans are included as Appendices to this permit renewal.

C. **Required Equipment. All facilities must be equipped with the following, unless it can be demonstrated to the administrative authority that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:**

1. **an internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;**

   Response
   Exide understands, acknowledges and will comply with this provision. Exide has an established internal communications system that includes a facility alarm system, two-way radio communications and a telephone pager system that will all be utilized to provide emergency instructions to facility personnel.

2. **a device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;**

   Response
   Exide understands, acknowledges and will comply with this provision. All supervisors and many of the operators at the facility carry two-way radios to maintain immediate communications. In

the event of an emergency, Exide will utilize the two-way radios to call for assistance.

3. **portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and**

   Response
   Exide understands, acknowledges and will comply with this provision. Portable fire extinguishers are located near all possible combustion sources. Exide has Class-D fire extinguishers located in areas where molten metal is handled and also in the Chemical Warehouse where refining chemicals are stored. All of the control room and electrical panels have CO_2 extinguishers. The RCRA Contingency Plan and Emergency Response Plan, included in Appendix 6, outlines the fire extinguisher program and has a map showing the location of all fire extinguishers.

4. **water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.**

   Response
   Exide understands, acknowledges and will comply with this provision. Adequate volume and pressure to supply water hoses is provided. Exide maintains two on site water wells, a primary and backup. The water is pumped to a water tower with a capacity of 10,000 gallons. The facility does not maintain a facility-wide sprinkler system. A sprinkler system is maintained at the baghouses.

D. **Testing and Maintenance of Equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.**

Response
Exide's emergency response system is tested on a regular basis. All of the fire extinguishers at the facility are inspected at least quarterly, by a certified inspector. A boot wash is provided for personnel decontamination at the main employee entrance and exit to the Containment Building. Wheel washes are provided for decontamination of equipment cleaning the feed storage portion of the Containment Building. Wheel washes are a automated high-pressure water-spray containment bay. In the unlikely event of an emergency within the Containment Building that would require

evacuation of personnel and equipment, the vehicles would be staged in the RCRA permitted truck/trailer storage area until the emergency is controlled. At that time, the vehicles will return to the containment Building if rendered operable, or will proceed to the truck wash-down area for decontamination. All wastewater generated at the personnel and equipment decontamination areas is contained and routed to the wastewater treatment plant. Decontamination equipment, spill control equipment, emergency communications equipment and alarm systems are inspected monthly, as specified in the Inspection Plan (Appendix 5). A checklist of the inspections is kept on file in the Environmental Office. All equipment is maintained in good working condition following the manufacture's specifications. If repairs are needed they are performed immediately.

E. Access to Communications or Alarm System

1. **Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless it can be demonstrated to the administrative authority that such a device is not required.**

   Response
   Exide understands, acknowledges and will comply with this provision. Any Exide personnel involved in handling hazardous waste will have access to emergency communications, typically in the form of two-way radios.

2. **Anytime there is at least one employee on the premises while the facility is operating, he must have immediate access to a device such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless it can be demonstrated to the administrative authority that such a device is not required.**

   Response
   Exide understands, acknowledges and will comply with this provision. Any Exide personnel on the premises will have access to emergency communications, either in the form of two-way radios, intercom system, or telephone access. These systems will be used to alert employees of the emergency and to give instructions on what action is to be taken. If an emergency occurs during weekday hours, notification will follow the organizational

chart provided as Table 1 of the Contingency Plan (Appendix 6). If an emergency occurs during weekends, nights or holidays, the Shift Foreman or Supervisor will notify the Chief Officer and the Communications officers. The Communication Office will than proceed to contact all necessary personnel. Should the telephone and portable 2-way radios become inoperable, selected personnel (runners) will be sent to the effected departments. The telephone system has a battery back-up in the event of a power failure. If the battery back-up unit also fails, the telephone jack located by the front door of the mail office may be used since it is not connected to the plant electricity. The plant alarm siren will also be used to alert employees to the emergency. If the plant alarm siren is to be used the Chief Officer or his designate will instruct one of the Contingency Plan officers to go to the laboratory and sound the alarm. Each employee should respond to instructions being given by the telephone page system. If the page system is inoperative or no instructions are given, employees are to check with their immediate supervisor for further instructions.

The plant alarm siren will also be used to alert employees to the emergency. If the plant alarm siren is to be used the Chief Officer or his designate will instruct one of the Contingency Plan officers to go the laboratory and sound the alarm. Each employee should respond to instructions being given by the telephone page system. If the page system is inoperative or no instructions are given, employees are to check with their immediate supervisor for further instructions.

Siren Alarm System

BLAST	FREQUENCY	DESCRIPTION
1 LONG	CONTINUOUS	Low water alarm. Signal to supervision to check and take necessary corrective action to bring the water level in the water tower back up to operating levels.
1 SHORT	SCHEDULED BY TIMER	Notification to employees of work and break schedule.
2 SHORT	INTERMITTENT	**Emergency in office or changehouse areas.**
3 SHORT	INTERMITTENT	**Emergency in the Shop, Lunchroom, Lab or Yard areas.**
4 SHORT	INTERMITTENT	**Emergency at the Production, Baghouse or Warehouse areas.**
5 SHORT	INTERMITTENT	**Emergency at the Battery Breaker, Dust Reverb or Water Treatment areas.**
SHORT, LONG, SHORT, LONG	INTERMITTENT	Alarm signal to an emergency involving the **total plant** and calls for immediate evacuation of the plant. Employees are to follow supervisory instructions or report to front parking lot if no other instructions are given. The short/long blast are to be repeated several times to give notice to all employees.

Note: Alarm panel is located in the laboratory.

F. **Required Aisle Space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the administrative authority that aisle space is not needed for any of these purposes.**

Response
Exide understands, acknowledges and will comply with this provision. Exide will maintain sufficient aisle space in every area of the plant to allow for unobstructed movement of personnel and equipment in case of emergency.

G. **Arrangements with Local Authorities**

1. **The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:**

   a. **arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;**

   Response
   Exide understands, acknowledges and will comply with this provision. In April 2003, Exide delivered copies and received acknowledgement of the RCRA Contingency Plan and Emergency Response Plan from the State Police, the Baker Fire Department and the Alsen Fire Department. The plan documents the layout of the facility, the facility hazards, evacuation routes and location of emergency equipment. The telephone contact numbers for each of these agencies is listed in the plan and posted in control rooms at the Exide facility. In addition, Exide will offer to conduct a tour of the facility for key representatives of the State Police and both fire departments when the revised Contingency Plan is distributed.

   b. **where more than one police and fire department might respond to an emergency, agreements designating**

primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

Response

Exide understands, acknowledges and will comply with this provision. Exide has arranged that the Alsen Fire Department be designated as the primary emergency authority and that the Baker Fire Department shall provide support. The telephone contact numbers for each of these agencies is listed in the plan and posted in control rooms at the Exide facility.

c. **agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and**

Response

Exide understands, acknowledges and will comply with this provision. Exide has provided a copy of the RCRA Contingency Plan and Emergency Response Plan to the Louisiana State Police – Right-to-Know Unit. Additionally, Exide has an arrangement with the Louisiana State Police – Hazmat Response Unit. Exide also has contracted CHEMTREC, as a first responder for any over the road spills or emergencies that may occur. The telephone contact numbers for each of these agencies is listed in the plan and posted in control rooms at the Exide facility. It is not anticipated that local law enforcement (i.e. Sheriffs Department) will be contacted during an emergency.

d. **arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.**

Exide understands, acknowledges and will comply with this provision. In April 2003 Exide provided a copy to and received acknowledgement of the RCRA Contingency Plan and Emergency Response Plan from Lane Memorial Hospital in Zachery, LA., Baton Rouge General Hospital (Florida Boulevard and Picardy Avenue locations) and our Lady of the Lake Hospital. Exide will provide updated copies of the Contingency Plan when the plan is revised and request written documentation to confirm receipt. Exide will offer to conduct a tour of the facility when the Contingency Plan is

distributed. Additionally, Exide has contracted Hill Medical Associates to provide medical assistance in non-critical situations.

2. **Where state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.**

   Response
   Exide understands, acknowledges and will comply with this provision. If a state or local authority should decline to enter into an arrangement or decline to continue an agreement, Exide will document the refusal in the operating records.

§1513. Contingency Plan and Emergency Procedures

A. Purpose and Implementation of Contingency Plan

1. **Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.**

   Response
   Please refer to the RCRA Contingency Plan and Emergency Response Plan, Appendix 6. The plan was developed to help the facility minimize hazards to human health and the environment from fires, explosions, or unplanned sudden and non-sudden releases of hazardous materials to the environment. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment.

2. **A contingency plan to be implemented in the event of an emergency shall be filed with the administrative authority and, after approval, with the local fire and police departments (if any operate in the area), hospitals and emergency response teams operating in the area which are subject to call by the operator or the department.**

   Response
   The RCRA Contingency Plan and Emergency Response Plan, is included as Appendix 6. The Plan includes assignment of duties to

personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment. The plan is currently on file with local fire, police departments, hospitals and emergency response teams.

3. **The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.**

   Response
   The provisions of the contingency plan will be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

4. **The plan shall be revised each time the facility operations are changed due to expansion, change in type or quantity of waste handled, or other changes which affect the degree or type of possible emergency situation.**

   Response
   Exide understands, acknowledges and will comply with this provision. The plan shall be revised each time the facility operations are changed due to expansion, change in type or quantity of waste handled, or other changes that may affect the degree or type of possible emergency situation.

B. **Content of Contingency Plan**

1. **The contingency plan must describe the actions facility personnel must take to comply with LAC 33:V.1513.B and F in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.**

   Response
   Exide understands, acknowledges and will comply with this provision. Exide's RCRA Contingency Plan and Emergency Response Plan describe the actions facility personnel must take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to the environment. The plan is included in Appendix 6. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations,

Please refer to the RCRA Contingency Plan and Emergency Response Plan (Appendix 6). The plan lists the name, addresses, and phone numbers (office and home) of the emergency coordinator and outlines the responsibilities for alternate emergency coordinators in the event that the primary emergency coordinator is not present.

5. **The plan must include a list of all emergency equipment (where required) at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list and a brief outline of its capabilities.**

   Response
   The RCRA Contingency Plan and Emergency Response Plan contains a list of all emergency equipment maintained at the facility, including fire extinguishers, sprinkler systems, spill control equipment, communications and alarm systems, and decontamination equipment. This list is kept up to date by Exide's EHS staff. The plan includes the location and a physical description of each item on the list and a brief outline of its capabilities.

6. **The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. The plan must describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes.**

   Response
   Please refer to the RCRA Contingency Plan and Emergency Response Plan (Appendix 6) for the evacuation plan. The evacuation plan includes the routes for evacuation, assembly points and alarm signals to be used for beginning an evacuation.

C. **Copies of Contingency Plan**

1. **The contingency plan must be submitted to the administrative authority with the permit application and, after modification or approval, will become a condition of any permit issued.**

   Response
   Exide understands, acknowledges and will comply with this provision. The contingency plan is included as a part of this

6. **If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.**

   Response
   In the event that the facility stops operation due to a fire, explosion, or release, the emergency coordinator and his staff will monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

7. **Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the owner or operator can demonstrate that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements.**

   Response
   Immediately after an emergency, the emergency coordinator and his staff will provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire, or explosion at the facility. Exide understands that unless the owner or operator can demonstrate that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements.

8. **The emergency coordinator must ensure that in the affected area(s) of the facility:**

   a. **no waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and**

   b. **all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.**

   Response
   Exide understands and will abide by the above provisions. Any equipment used to respond to an on-site emergency will be cleaned by scrapping and water spray, and if necessary, hand scrubbing to remove visual waste or sediment material.

Decontamination activities will occur in a paved area of the facility. Decontamination water will be collected by the facility Wastewater Drainage and Collection System and processed in the on-site treatment system. Please refer to Appendix 6 for further details. The Plan includes assignment of duties to personnel, emergency response procedures, types of emergency situations, procedures for plan or unit shutdowns, the alarm system and types and locations of emergency equipment.

9. **The owner or operator must notify the administrative authority and appropriate state and local authorities that the facility is in compliance with LAC 33:V.1513.F.8 before operations are resumed in the affected area(s) of the facility.**

   Response
   Exide understands and will abide by the above provisions. Exide will notify the administrative authority and appropriate state and local authorities that the facility is in compliance with LAC 33:V.1513.F.8 before operations are resumed in the affected area(s) of the facility.

10. **The owner or operator must note in the operating record the time, date, and details of any incident that requires implementation of the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the administrative authority which includes:**

    a. **name, address, and telephone number of the owner or operator;**

    b. **name, address, and telephone number of the facility;**

    c. **date, time, and type of incident (e.g., fire, explosion);**

    d. **name and quantity of material(s) involved;**

    e. **the extent of injuries, if any;**

    f. **an assessment of actual or potential hazards to human health or the environment, where this is applicable; and**

    g. **estimated quantity and disposition of recovered material that resulted from the incident.**

procedures. The training program, outlined in Appendix 13, instructs facility personnel in proper hazardous waste management procedures (including contingency plan implementation, spill control and environmental regulations) relevant to the positions in which they are employed.

3. **At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:**

   a. **procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;**

   Response
   Exide understands and will abide by the above provisions. The training program provides training to employees on emergency response including procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment. See Appendix 13 for a copy of the Training Manual.

   b. **key parameters for automatic waste feed cut-off systems;**

   Response
   Exide understands and will abide by the above provisions; however, the facility does not have an automatic waste feed system. Each furnace is individually charged with a pre-determined ratio of lead feedstock materials and other alloys depending on production specifications. Coke fuel may be added to the furnace crucible. Molten lead is poured into ingot molds by locally controlled lead pumps. Should a spill of molten lead occur, the Shift Foreman will immediately shut off the pump, stopping the spill. If the spill is due to a catastrophic crucible failure, personnel will communicate by 2-way radio to the furnace/utilities operators and the Assistant Chief Officer to shut off the oxygen feed, secure charging and drain the crucible, to the extent possible, into the receiving kettle. All other operators will become alerted to the emergency during this communication. The Shift Supervisor and Assistant Chief Officer will then communicate by 2-way radio or telephone the incident to the Chief Officer to implement the required degree of response required.

   c. **communications or alarm systems;**

Response
Exide understands and will abide by the above provisions. The training program provides employees training in emergency communication and alarm systems. See Appendix 13 for a copy of the Training Manual. Emergency communications will be conducted using two-way radios, intercom system or telephone system. If an emergency occurs during a workday, notification will follow the organizational chart provided as Table 1 of the Contingency Plan (Appendix 6). If any emergency occurs during weekends, nights or holidays, the Shift Foreman or Supervisor will notify the Chief Officer and the Communications Officer will then proceed to contact all necessary personnel.

d. response to fires or explosions;

Response
Exide understands and will abide by the above provisions. The training program provides training to employees on response to fires or explosions. See Appendix 13 for a copy of the Training Manual. Employees will be restricted from areas where fire is occurring. The Fire Officer will work with the Utilities Officer to see that plant utilities such as electricity, natural gas and oxygen are shut off as required. All employees are trained in incipient fire control. If the fire progresses to an uncontrolled stage, local and regional fire departments will be called to respond. Should any of these incidents occur and result in a spill of hazardous material to a uncontained area, after resolving the emergency nature of the incident, the Chief Officer will employ response personnel to immediately clean up, containerize, recycle on-site or dispose of spilled material as specified in LAC33:V.Subpost I.

e. response to groundwater contamination incidents; and

Response
Exide understands and will abide by the above provisions. The training program provides training to employees on groundwater contamination incidents. See Appendix 13 for a copy of the Training Manual. The possibility of groundwater contamination incidents will be evaluated after the emergency is rendered under control and all spilled materials cleaned up as described above. The nature and amount of spilled material (including water used to extinguish a fire) and

length of time that it contacted uncontained areas will evaluated for assessment of potential groundwater contaminants. A report containing the above information will be composed and delivered to LDEQ within the timeframe prescribed in LAC33:I Chapter 39. Exide will commit the resources and take action agreed to with LDEQ should a subsurface investigation be required.

f. shutdown of operations.

Response

Exide understands and will abide by the above provisions. The training provided to employees outlines emergency shut down procedures for operations. See Appendix 13 for a copy of the Training Manual. The Chief Officer or his delegate will decide whether or not a shutdown is required in any or all units. In the event of a unit shutdown, proper lockout/tagout procedures will be followed. Locks and tags will only be removed when the unit has been declared safe. Minimum shutdown procedures for each unit are a follows:

Blast Furnaces: Tap remaining lead and slag; shut off oxygen supply, pull down the air relief valve; shut down the roots blower; lower the crucible and clear shaft.

Reverbatory Furnaces: Tap remaining lead and slag, empty the feed belt, hopper, and dryer; switch the flue dust return; empty and shut down the feed van; shut down the burners; and shut down the blowers for the baghouses.

Baghouses: Close the dampers and shut down baghouse fan; shut down the cleaning cycle and screw conveyors.

Natural Gas: The Utility Officer will determine if shutdown is required. The shutoff valve is at the metering station located by the main gate.

Electrical: The Utility Officer will work with the utility company to restore power. The Maintenance Officer will arrange for motor-generated units to be placed in the most important areas, if it is likely that power outage will be for a considerable time. If electricity needs to be shut off or isolated from a certain portion of the smelter, the Utilities Officer will lockout/tagout the appropriate circuits. Power will not be restored until the affected unit or area is cleared.

Water Supply: The water supply main valve is beneath the water tower. The Utility Officer or his designee will be responsible for shutting off water during an emergency and restoring the water once the all clear has been given.

Mobile Equipment: During an emergency all mobile equipment will be removed from the danger area to a designated location.

4. **The facility operator shall conduct training sessions to be held at regular intervals for personnel in routine plant operation and also to inform and train the plant contingency team, representatives of local fire and police departments, and emergency response teams of plant layout, location of possible hazards, emergency equipment location and operation, the evacuation plan and route, power and waste stream cut-offs, communications equipment and phone numbers of all required contacts, and other critical information and procedures.**

   Response
   Exide conducts training sessions at regular intervals for personnel in routine plant operation and also to inform and train the plant contingency team, representatives of local fire and police departments. The training sessions also inform personnel and emergency response teams of plant layout, location of possible hazards, emergency equipment location and operation, the evacuation plan and route, power and waste stream cut-offs, communications equipment and phone numbers of all required contacts, and other critical information and procedures.

B. **Facility personnel must successfully complete the program required in LAC 33:V.1515.A within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements in LAC 33:V.1515.A.**

   Response
   Facility personnel will complete the program required in LAC 33:V.1515.A within six months of the date of their employment. Employees hired after the effective date of these regulations will not work in unsupervised positions until they have completed the training requirements in LAC 33:V.1515.A.

3. a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed in LAC 33:V.1515.D.1; and

4. records documenting that the training or job experience required under LAC 33:V.1515.A, B, and C have been given to, and completed by, facility personnel.

E. Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

Response
Training records on current personnel are kept until closure of the facility. Training records for former employees will be kept for at least three years from the date the employee last worked at the facility.

§1517. General Requirements for Ignitable, Reactive, or Incompatible Wastes.

A. The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must restrict smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

Response
Exide understands, acknowledges and will comply with this provision. The waste that Exide handles is typically not reactive or flammable, however, Exide will take precautions to prevent accidental ignition or reaction of ignitable, or reactive wastes. The waste will be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting or welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. Exide has "No Smoking" signs at the entry ways to the facility and maintains an No Smoking policy within the plant. If ignitable or reactive waste is handled, Exide will restrict open flames to a specially designated location.

B. **The owner or operator of a facility that treats, stores, or disposes of ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, must take precautions to prevent reactions which:**

1. **generate extreme heat or pressure, fire or explosions, or violent reactions;**

   Response
   Exide understands, acknowledges and will comply with this provision. Exide has a Waste Acceptance program in place that prevents the receipt of ignitable, reactive, or incompatible wastes that would generate toxic fumes, dusts, or gasses in sufficient quantity to threaten human health and the environment.

2. **produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;**

   Response
   Exide understands, acknowledges and will comply with this provision. Exide has a Waste Acceptance program in place that prevents the receipt of materials that would produce uncontrolled toxic mists, fumes, dusts, or gases.

3. **produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;**

Response
Exide understands, acknowledges and will comply with this provision. Exide has a Waste Acceptance program in place that prevents the receipt of materials that would produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions.

4. **damage the structural integrity of the device or facility; and**

Response
Exide understands and acknowledges this provision and will comply.

5. **through other like means threaten human health or the environment.**

Response
Exide's understands and acknowledges this provision and will comply.

C. **In landfills and burial sites, incompatible wastes shall be adequately separated to avoid mixing of the wastes during operation or after closure.**

Response
Incompatible materials are not disposed in the on-site solid waste landfill.

D. **Treatment and storage facilities containing ignitable, reactive, or incompatible wastes shall be sufficiently separated or protected to prevent mixing, ignition, or reaction as a result of a spill, tank failure, or other cause. Protection shall include use of container materials compatible with the wastes contained therein.**

Response
Exide understands, acknowledges and will comply with this provision. The waste materials handled by Exide are not ignitable, reactive or incompatible. However, the facility is setup to separate different types wastes, and uses container materials that are compatible with wastes contained therein. Exide also does not accept any material that contains organic constituents, PCBs, organic lead, metallic aluminum, or free liquids.

The Waste Analysis Plan includes sampling of each shipment for analysis at the on-site laboratory. The Recyclable Material Analysis Record ER-185 is completed for each incoming material and, if applicable, an

Acceptance Approval Certificate is submitted to the generator. If unacceptable wastes are received at the facility, the generator is contacted to resolve the discrepancy or the material is returned to the generator.

E. **Any container, including tank trucks, used to transport waste shall be cleaned before leaving the disposal site. Such cleaning should be by a method or methods necessary to remove the hazardous constituents to a level which will not cause an incompatibility with any subsequent shipment and/or of itself render any future load hazardous. All material resulting from such cleaning shall be considered a hazardous waste unless otherwise approved by the administrative authority.**

<u>Response</u>
Exide understands, acknowledges and will comply with this provision. All containers used to transport waste will be cleaned out before leave the facility. Wash water generated from the washing of containers (tractor trailers or flat-bed trucks) is directed to the facility's waste water treatment unit.

F. **When required to comply with LAC 33:V.1517.A and B, the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.**

<u>Response</u>
Exide understands, acknowledges and will comply with this provision. Results of waste analyses are documented on Form ER-185 and waste acceptance is documented on the Acceptance Approval Certificate.

§1519. General Waste Analysis

A. Hazardous Waste Chemical and Physical Analysis

1. **Before an owner or operator treats, stores, or disposes of any hazardous waste, or non-hazardous wastes if applicable under LAC 33:V.3513.D, he or she must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with all requirements of LAC 33:V.Chapters 15 and 22.**

Response
Exide understands, acknowledges and will comply with this provision. Prior to receiving a new waste stream for recycling Exide will obtain a detailed chemical and physical analysis of a representative sample of the waste as detailed in the Waste Acceptance Program which is submitted in Appendix C of the Waste Analysis Plan included in this application as Appendix 4. The Recyclable Material Analysis Record ER-185 is completed for each incoming material and, if applicable, an Acceptance Approval Certificate is submitted to the generator. If unacceptable wastes are received at the facility, the generator is contacted to resolve the discrepancy or the material is returned to the generator.

2. **The analysis may include data developed under LAC 33:V.Chapter 49 and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.**

   [Comment: For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with Subsection A.1 of this Section. The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part of the information required by Subsection A.1 of this Section, except as otherwise specified in LAC 33:V.2247.A and A.1. If the generator does not supply the information and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this Section.]

   Response
   Exide understands, acknowledges and will comply with this provision. The Waste Analysis Plan (Appendix 4) details the analysis required by Exide for acceptance.

3. **The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:**

   a. **when the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste or nonhazardous waste if applicable under LAC 33:V.3513.D, has changed; and**

b. **for off-site facilities, when the results of the inspection required in LAC 33:V.1519.A.4 indicate that the hazardous waste received at the facility does not match the waste designated in the accompanying manifest or shipping paper.**

Response
Exide understands, acknowledges and will comply with this provision and will comply. Analysis will be repeated if the process or operation generating the waste has changed or if the materials delivered to the facility do not match the waste designated on the accompanying manifest or shipping paper. In addition, Exide's Acceptance Approval Certificates must be renewed annually.

4. **The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.**

Response
Exide understands, acknowledges and will comply with this provision. Each shipment of waste received by the Baton Rouge smelter is inspected and weighted to verify the accompanying manifest or shipping papers. Exide conducts periodic analysis of waste received for recycling to determine if they match the waste profile submitted by the generator.

B. **The owner or operator must develop and follow a written waste analysis plan that describes the procedures that he or she will carry out to comply with LAC 33:V.1519.A. He or she must keep this plan at the facility. At a minimum, the plan must specify:**

1. **the parameters for which each hazardous waste, or non-hazardous waste if applicable under LAC 33:V.3513.D, will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with LAC 33:V.1519.A);**

Response
Exide understands, acknowledges and will comply with this provision. The testing parameters for each waste are listed

in the Waste Analysis Plan in Appendix 4. Prior to acceptance at the facility, hazardous waste and co-products are analyzed for total antimony, arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, tin, zinc, fluoride, chloride, sulfide, aluminum and magnesium. Hazardous wastes are also analyzed for TCLP arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver. The testing is conducted for compliance with LAC33.V.1519 and to determine if a waste is acceptable to the facility. The analysis results are reviewed to ensure the waste materials will not cause equipment or operational problems, air and water management issues, explosions or fires. Lead analyses are used to determine how the material is managed within the facility for recovery of lead content. While not typically needed, additional testing may also be conducted at the discretion of the Environmental Manager as indicated in the Waste Analysis Plan to evaluate other parameters on a case by case basis which could affect waste acceptance.

2. **the test methods as specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 as incorporated by reference at LAC 33:V.110, or an equivalent method approved by the administrative authority, which will be used to test for these parameters; and**

   Response
   Exide understands, acknowledges and will comply with this provision. All testing methods are listed in the Waste Analysis Plan (Appendix 4). The test methods follow SW-846 protocol and are performed by a certified laboratory.

3. **the sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using a method approved by the administrative authority;**

   [Comment: See LAC 33:V.105.I for related discussion.]

   Response
   Exide understands, acknowledges and will comply with this provision. The sampling method is included in the Waste Analysis Plan in Appendix 4 of this document. A composite sample will be taken by observing the various objects

present in the shipment and sampling representative quantities of the shipment.

4. **the plan must further specify the frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date;**

   Response
   Exide understands, acknowledges and will comply with this provision. Exide reviews analysis at least annually as described in the Waste Analysis Plan in Appendix 4 of this document.

5. **the Quality Assurance and Quality Control (QA/QC) procedures used to ensure the waste sampling and analysis are satisfactory.**

   Response
   Exide understands, acknowledges and will comply with this provision. The plan outlines QA/QC procedures for sampling and analysis. On-site laboratory QA procedures are described in Exide's Comprehensive Quality Assurance Manual and the Standard Operating Procedures provided in the Waste Analysis Plan in Appendix 4.

6. **the plan must further specify for off-site facilities the waste analyses that hazardous waste generators have agreed to supply; and**

   Response
   Exide understands, acknowledges and will comply with this provision. Generators are required to provide a completed Exide Recyclable Material Analysis Record ER-185; a complete description of the process which generates the material including the product(s) produced and other by-products and waste streams generated by the process and a process flow diagram; information on the quantity of the material produced and available methods of packaging and transportation; a completed Letter of Certification for exemption for burning of lead-containing materials in industrial furnaces; and a complete letter of exemption for organic air emission standards.

7. **where applicable, the methods which will be used to meet the additional waste analysis requirements for**

specific waste management methods as specified in LAC 33:V.1517, 1711.D, 1741.D, 1753, 2515, 3107, and 2245;

Response
Exide understands, acknowledges and will comply with this provision.

8. **for surface impoundments exempted from land disposal prohibitions under LAC 33:V.2237, the procedures and schedules for:**

   a. **the sampling of impoundment contents,**

   b. **the analysis of test data, and**

   c. **the annual removal of residues which are not delisted under LAC 33:V.105.M or which exhibit a characteristic of hazardous waste and either:**

      i. **do not meet applicable treatment standards of LAC 33:V.Chapter 22.Subchapters A and B, or**

      ii. **where no treatment standards have been established**

         (a) **such residues are prohibited from land disposal under LAC 33:V.2213, or**

         (b). **such residues are prohibited from land disposal under LAC 33:V.2215; and**

         Response
         Exide does not operate a surface impoundment. Therefore, this requirement is not applicable.

9. **for owners and operators seeking an exemption to the air emission standards of LAC 33:V.Chapter 17. Subchapter C in accordance with LAC 33:V.1751:**

   a. **if direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the results of the analysis of test data to verify the exemption; or**

b. **if knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the hazardous waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.**

Response
Exide is not seeking an exemption under LAC 33:V.Chapter 17. Subchapter C; therefore, this provision does not apply.

C. **For off-site facilities, the required waste analysis plan must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:**

1. **the procedures which will be used to determine the identity of each movement of waste managed at the facility; and**

2. **the sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling; (LAC 33:V.517.C requires that the waste analysis plan be submitted with Part II of the permit application.)**

3. **the procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.**

Response
Exide understands, acknowledges and will comply with these provisions. Please reference the Waste Analysis Plan in Appendix 4. Each receipt of lead-bearing raw materials is weighed and visually inspected to verify the purchase contract and shipping papers. The visual inspection will include labels, color, texture, and homogeneity. If any foreign materials (such as trash or aluminum cans) are in the shipment, they will be removed prior to recycling. Incoming material is sampled by qualified laboratory personnel. A 2 to 3 pound composite sample is collected that is representative of the total shipment. The sample is analyzed in the on-site laboratory for total lead. Visual inspection and total lead analysis is typically all that is required to match the incoming material to the approved

profile for the material and to determine the proper recycling method.

Procedures used to determine whether a hazardous waste generator or treated has added a biodegradable sorbent to the waste is not applicable as Exide does not operate a landfill for disposal of hazardous waste.

D. Certification. All waste analysis plans must be certified by a Louisiana licensed professional engineer (PE).

Response
The Waste Analysis Plan (Appendix 4) has been reviewed and certified by a Louisiana licensed professional engineer.

§1521. Chemical, Physical, and Biological Treatment Facilities (Wastes Only)

In addition to the requirements listed below, a permit application shall address the technical requirements in LAC 33:V.Chapters 15, 19, 21, 29, 33, 35, and 37.

A. Below-surface basins are governed by LAC 33:V.2903.A.

Response
Exide does not use below-surface basins, therefore, this regulation does not apply.

B. Above-ground and mixing and other facilities in basins shall be certified by the designing engineer or manufacturer.

Response
Exide operates a chemical and physical hazardous waste treatment process at the Slag Stabilization Unit. Exide does not operate any biological treatment facilities.

As a part of the lead recycling process, a blast furnace slag is generated that does not have a high enough lead content for recycling to occur. This slag contains mostly iron, silica and calcium oxides, with typically less than 1% lead. However, the slag is classified as a hazardous waste due to the lead content, since it typically cannot pass the TCLP analysis for lead. The slag is allowed to cool, crushed to 3/8 inch size maximum, and fed into the Slag Stabilization Unit (i.e., pugmill) where it is treated using a mixture of Portland cement, sodium silicate and water. The pugmill was manufactured by Cedar Rapids, Model No. 400. The Portland cement and sodium silicate are added in fixed volumes based on a full load of slag. The pugmill mixes the slag and reagents until it is treated evenly and

forms a thick pasty mixture which cures to a granular soil-like material. The use of a pugmill allows for control of reagent addition and uniform mixing to create a consistent stabilized product. Treatment occurs on a batch basis. After treatment, the slag is placed in a dump truck for transport to the permitted on-site solid waste landfill. Materials containing free-liquid are not processed in the Slag Stabilization Unit.

The Slag Stabilization Unit is located under a roof, and is bermed with drainage control in the form of a sloped floor and sumps that transmit wash-down water and any accumulated liquids to the plant's wastewater treatment unit. Figure 6 shows the grading of the Slag Stabilization Unit.

The Slag Stabilization Unit has a maximum capacity of 144.4 tons with a storage surface area of 20 ft by 15 ft, or 300 square feet. Calculations are provided in the response to LAC 33:V.1501.A. The Slag Stabilization Unit has a floor system, from top to bottom, of 8 inches concrete, 4 inches asphalt and 6 inches concrete as shown in Figure 16. As indicated in the response to LAC 33:V.1501.A, the concrete floor would need a minimum strength of 7.24 psi to support operations. As concrete has a typical strength of 3,000 to 4,000 psi, the concrete floor is capable of supporting the anticipated loads when properly reinforced and constructed on an adequately prepared subgrade.

Design calculations for the Slag Stabilization Unit walls and information regarding the size and quantity of the reinforcing steel could not be located as part of the Part B Permit renewal process. Qualitatively, it is obvious that the reinforced concrete walls for the structure provide adequate strength based on the observation that the walls have been functioning since their construction over 10 years ago. The ultimate limit state of the Slag Stabilization Unit walls would be failure by flexure (moment) and shear. No movement or cracking has been observed that would suggest either failure mechanism is occurring.

As presented in LAC 33:V.1501.A, a simplified quantitative evaluation for shear stress was performed. Shear forces imposed by the lateral loads from the materials contained in the building are easily handled (FS = 2.4) by the resistance developed in the reinforced wall. Calculations are provided in Appendix 22. Structural information for the Slag Stabilization Unit is included in the structural drawings for the Containment Building provided in Appendix 11B.

C. **Treatment techniques shall include proper chemical analysis or data collecting such as is necessary to determine compatibility with existing treatment facilities, prevention of the release of toxic gases, and provisions for bacterial control and for safety of operating personnel.**

Response

As indicated in Appendix 4, Waste Analysis Plan, the blast slag is typically sampled once per shift for analysis for lead, calcium, iron, antimony and salt content. The analyses are important diagnostic tools in the proper operation of the furnaces and production of lead. This information is used to determine if slag can be recycled, or if the slag must be treated and disposed because the lead content is not high enough.

A representative sample of the stabilized slag is also collected at least once per quarter for TCLP analysis.

The treatment process is compatible with the materials of construction and operating procedures for the Slag Stabilization Unit. The treatment process does not release toxic gases or require bacterial control. The safety of operating personnel is provided by operator training, wearing personal protective equipment and conducting personnel decontamination prior to exiting the unit.

D. **Pilot or bench-scale tests or reliable operating data must be obtained for any new or altered hazardous waste prior to introduction into an existing or new treatment sequence.**

RESPONSE

Exide acknowledges and will comply with this requirement. At this time, no new or altered hazardous wastes are expected to be introduced into the Slag Stabilization Unit.

E. **Storage and handling procedures insuring protection of human health and the environment must be observed for all treatment chemicals or reagents.**

RESPONSE

Blast furnace slag requiring treatment is stored in Area 1 of the Containment Building prior to treatment at the Slag Stabilization Unit. The floor system at Area 1 is, from top to bottom, 6 inches of concrete, Amoco 4516 geotextile and 40 mil HDPE geomembrane and ensures protection of human health and the environment. Portland cement is stored in a silo at the Slag Stabilization Unit. Sodium silicate is received in 300 gallon totes and is stored in a tank and diluted with water. Treated slag is placed in a dump truck for transport to the permitted on-site landfill. These procedures adequately contain the untreated and treated slag and the reagents for protection of human health and the environment.

F. **Proper design and operation of all equipment must be maintained to insure minimum spillage, foaming, or misting.**

RESPONSE

The Slag Stabilization Unit (i.e., pugmill) was manufactured by Cedar Rapids, Model No. 400. The system is designed and operated to minimize spillage as treated materials are discharged directly to the dump truck. Any spills would fall directly into the dump truck. As the system is operated on a batch basis, the system is only operated when the dump truck is present to accept the treated material. Spillage is unlikely as the treated materials would solidify and stop the mixing motor prior to accumulating enough volume for overflow. Foaming and misting do not occur during treatment. A mist of water is applied as needed for dust suppression.

G. **Reserve emergency storage must be maintained for critical process areas to insure against operational mishaps and inadvertent volumetric surges.**

RESPONSE

Emergency storage of untreated slag is located at the Containment Building in the event of operational mishaps and inadvertent volumetric surges. The Containment Building has sufficient storage volume to provide emergency storage of slag. Treated slag is not stored and is transported directly to the permitted off-site disposal area; therefore emergency storage is not needed for treated slag. If the dump truck was temporarily inoperable, treatment would be suspended until the truck was fixed.

H. **Flow safeguards and cut-offs must be included in the flow system to avoid improper operation, overflow, or treatment defects.**

RESPONSE

The pugmill was designed and manufactured to provide control of reagent addition and uniform mixing to create a consistent stabilized product. The system is operated on a batch basis; therefore flow safeguards are not applicable. Treatment defects and overflow are avoided by adding the designated volume of Portland cement and sodium silicate to each batch. Visual observations are used to determine that the material has achieved the desired consistency. If needed, additional amounts of Portland cement or sodium silicate may be added on a case by case basis to achieve the desired consistency. Improper operation is avoided as the pugmill has been manufactured to only conduct mixing operations.

I. **Residual sludges or by-products shall be analyzed before disposition within the treatment sequence.**

RESPONSE

As indicated in Appendix 4, Waste Analysis Plan, the blast slag is typically sampled once per shift for analysis for lead, calcium, iron, antimony and salt content. The analyses are important diagnostic tools in the proper operation of the furnaces and production of lead. This information is used to determine if slag can be recycled, or if the slag must be treated and disposed because the lead content is not high enough.

There are no residual sludges or by-products which required analysis prior to treatment.

J. An air monitoring system is required under LAC 33:V.3305.E.

RESPONSE

Air from the Slag Stabilization Unit is handled by the Air Handling System discussed in Chapters 15 and 17. Exide has measures in place to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions. In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) will be operated and maintained with sound air pollution control practices. Exide maintains a state of no visible emissions at all times during normal operating and maintenance conditions, including when vehicles and personnel are entering and existing the Containment Building. Exide's Containment Building is operated with a ventilation system to permitted point sources as shown on Figure 10. This ventilation system provides inward air flow (negative pressure) on the building.

§1523. Surveillance and Monitoring

A. Primary responsibility for the proper handling of hazardous wastes is assumed by the industry operating under these rules and regulations and cooperating with the department in meeting the purposes of the Act. As part of this responsibility, the owner or operator of any treatment, storage, or disposal facility shall develop a schedule of routine facility inspections and shall keep a log or record of all inspections carried out thereunder. The owner or operator shall likewise develop and adhere to a waste analysis plan to be approved by the department.

Response

Exide will comply with this citation. The Baton Rouge smelter has an Inspection Plan (Appendix 5) in place that contains a schedule of routine facility inspections. The Inspection Plan includes the types of inspections, the inspection schedule, the types of problems and inspection log documentation. The inspections are documented on a log kept in the Environmental Office. Exide also maintains and follows a Waste Analysis

Plan (Appendix 4). The Waste Analysis Plan includes in-house waste sampling and analysis procedures, contract laboratory analysis, certification, standard operating procedures for slag analysis and analysis of incoming materials, waste acceptance approval certifications and contract laboratory QA/QC packages.

B. Department surveillance and monitoring includes the following:

1. **analysis of manifests and manifest reports to determine that all wastes generated are disposed of in permitted sites and that the proper disposal method has been used;**

2. **periodic inspections required by the permit maintenance program to insure that facilities treating, storing, and disposing of hazardous wastes are operated in conformity with the terms of the permit and these rules and regulations;**

3. **spot inspections and sampling by the traveling laboratory and the analytical and inspection team;**

4. **a systematic program to conduct or to require investigations and recording of the groundwater, leachate, and air monitoring systems;**

5. **response to citizen complaints and suggestions concerning operation of the system; and**

6. **such other procedures as may be deemed necessary by the administrative authority.**

Response
Exide understands, acknowledges and will comply with the surveillance and monitoring activities specified in these citations.

C. Violations discovered through such surveillance and monitoring shall be the subject of enforcement actions pursuant to LAC 33:V.107 of these regulations.

Response
Exide understands, acknowledges and will comply with the enforcement action for violations discovered through the LDEQ's surveillance and monitoring activities.

§1525. Emergency Response

A. **Purpose. To provide for control and clean-up of accidental spills and other emergency situations involving hazardous wastes resulting from a violation of a requirement of these regulations or the Act.**

Response
Exide acknowledges the purpose of this chapter and will comply.

B. **Program. The department, working with the Department of Public Safety, will establish the following program:**

1. **emergency response equipment and teams located in strategic locations;**
2. **emergency response plan involving a communication system, cooperation with local police and fire departments, training program based, as a minimum, on the "emergency information card," and an operations plan for each class of emergency situation; and**

3. **the Emergency Response Program will respond to all in-transit accidents and spills, and respond to on-site emergencies when called by the operator or in accordance with provisions of LAC 33:V.1513.F.**

Response
Exide acknowledges, understands and will comply with the purpose for emergency response provisions in LAC 33:V.1525.B.

§1527. Receiving and Monitoring Incoming Waste

A. **Each site which treats, stores, or disposes of hazardous wastes generated off site shall be equipped to accomplish the following:**

1. **provide control of all incoming waste to prevent entry of unrecorded and unanalyzed hazardous waste; and**

Response
Exide acknowledges, understands and will comply with this provision. Exide has controls in place including the Waste Acceptance Program, continuous facility security and monitoring of incoming material, and a waste inspection program of materials upon arrival at the facility to prevent the entry of unrecorded and unanalyzed hazardous waste.

2. **measure quantity and type by taking and analyzing a representative sample of waste received to verify the information on the manifest, and to determine proper method for handling and disposal.**

Response
Exide acknowledges, understands and will comply with this provision. Each delivery is weighed and a representative sample is collected to verify the information in the manifest and to determine the proper method for recycling. Additional detail is provided in the Waste Analysis Plan (Appendix 4).

B. **Each facility within the site which receives hazardous wastes shall be equipped with necessary devices to record quantities, by classification or other identification, of hazardous wastes deposited into the facility system.**

Response
Exide acknowledges, understands and will comply with this provision.

C. **Each site shall be equipped with a central control and recordkeeping system which tabulates information from LAC 33:V.1527.A.2 and B.**

Response
Exide acknowledges, understands and will comply with this provision. Central controls and a recordkeeping system are maintained by the Baton Rouge smelter. The system tracks receipt of waste and tabulates quantities and type.

D. **Onsite Transfer Systems**

1. **All docking, mooring, loading, and unloading facilities for a hazardous waste treatment, storage, or disposal facility are considered part of the facility operation.**

2. **Hose couplings for truck, barge, or pipeline discharge shall be located within a natural or created containment, with an elevation above surface elevation sufficient to contain a 10-minute discharge. Groundwater protection shall be provided.**

3. **Hose couplings on a barge shall be in a containment area on the barge to prevent leakage from entering the waterway.**

4. **Hoses from a barge to the facility shall be supported by a land-based boom so that the low point of the hose is within the barge or site containment area.**

5. **Barge moorings shall be in a slack water area outside the navigation channel.**

Response
Exide does not receive material from barges, and does not use hoses to unload waste; therefore, this section is not applicable.

E. **Receiving Waste from an Offsite Source. The owner or operator of a facility that receives hazardous waste from an off site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.**

Response
Exide acknowledges, understands and will comply with this provision.

F. **Unmanifested Waste Reports. Any wastes presented for disposal that are not accompanied by a properly completed manifest shall be rejected. The TSD operator shall note the name of the driver, hauler, and the vehicle identification numbers. He shall notify the administrative authority by phone immediately and in writing within seven days of the refusal to accept the waste and provide the administrative authority with the required information.**

Response
Exide does not accept waste for disposal. However, if a recyclable material is not properly manifested it will be rejected. Exide will provide the required notification.

§1529. Operating Record and Reporting Requirements

A. **The owner or operator must keep a written operating record at his facility.**

Response
Exide acknowledges, understands and will comply with this provision and will keep written operating records at the Baton Rouge smelter.

B. **Records of each hazardous waste received, treated, stored, or disposed of at the facility must be recorded in the following manner, as they become available, and maintained in the operating record until closure of the facility.**

1. **A description by its common name and the EPA hazardous waste number(s) (LAC 33:V.Chapter 49) which apply to the waste and the quantity of the waste received. The waste description also must include the waste's physical form, i.e.,**

liquid, sludge, solid, or contained gas. If the waste is not listed in LAC 33:V.Chapter 49, the description also must include the process that produced it.

Response
Exide maintains records of each hazardous waste received for recycling. The records include a description of the waste by common name, EPA number and physical form. Whole unbroken lead-acid batteries contain an acidic liquid, but whole unbroken batteries are specifically excluded as a hazardous waste. Exide does not accept any other waste containing free liquids.

2. **Each hazardous waste listed in LAC 33:V.109, and each hazardous waste characteristic defined in LAC 33:V.105.B has a four-digit EPA hazardous waste number assigned to it. This number must be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA hazardous waste numbers.**

Response
Exide uses all applicable EPA Hazardous Waste Numbers for record keeping purposes.

3. **Record the estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1.**

Table 1. Units For Reporting	
Units of Measure	Code[1]
Gallons	G
Gallons per hour	E
Gallons per Day	U
Liters	L
Liters per Hour	H
Liters per Day	V
Short Tons per Hour	D
Metric Tons per Hour	W
Short Tons per Day	N
Metric Tons per Day	S
Pounds per Hour	J

Response
Exide will record the handling codes for treatment and storage of waste. The date of waste receipt at the facility is also recorded. Wastes are placed in the Containment Building the same day they are received.

5. **The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest.**

Response
The location and quantity of each hazardous waste at the Baton Rouge smelter is recorded.

6. **Records and results of waste analyses and waste determinations performed as specified in these regulations and in LAC 33:V.1517, 1519, 1711, 1741, 1753, 2237.A, 2245, 2515, and 3107.**

Response
The records and results of waste analysis and waste determination are kept at the Baton Rouge smelter.

7. **Summary reports and details of all incidents that require implementing the contingency plan.**

Response
Exide maintains reports and details of all incidents that required the implementation of the contingency plan.

8. **Records and results of inspections required by LAC 33:V.1509.D.**

Response
Exide maintains all inspection reports on file at the Baton Rouge smelter.

9. **Monitoring, testing, or analytical data, and corrective action where required by LAC 33:V.1504, 1711.C—F, 1713, 1741.D-I, 1743,1751-1767, 1903, 1907, 1911, 2304, 2306, 2309, 2504, 2507, 2508, 2509, 2709, 2711, 2719, 2904, 2906, 2907, 3119, 3203, 3205, and Chapter 33, as well as corrective action cites.**

13. **For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247.**

Response
Exide disposes of the following wastes at off-site recycling or treatment and disposal facilities: used oil, refractory brick, tin dross, and nickel-cadmium batteries. Exide has submitted the required notice, certification and demonstration for used oil refractory brick and nickel cadmium batteries as required under LAC 33:V.2235, 2245, and 2247. Notice is not required for the tin dross as it is exempted because it is not a solid waste. The notice, certification, and/or demonstration will be resubmitted if changes in the waste occur. A copy of these records is maintained on-site.

14. **For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247.**

Response
Each generator sending materials to Exide for recycling is required to submit an initial notice, certification and demonstration as required by LAC 33:V.2235, 2245, or 2247. A revised notice, certification and demonstration are required if changes in the waste stream occur. A copy of these records is maintained on-site.

15. **For an off-site land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under LAC 33:V.2235, 2245, or 2247, whichever is applicable.**

Response
Exide does not operate off-site land disposal facilities; therefore, this section does not apply.

16. **For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under LAC 33:V.2245 or LAC 33:V.2247, except for the manifest number, and the certification and demonstration, if applicable, required under LAC 33:V.2235, whichever is applicable.**

Response
Exide does not dispose of hazardous waste in an onsite landfill. Exide operates an approved solid waste landfill that accepts only stabilized blast furnace slag and construction debris. Exide maintains all required records for the landfill.

17. **For an off-site storage facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247; and**

Response
Exide does not operate or use an off-site storage facility; therefore, this section does not apply.

18. **For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247.**

Response
Exide maintains all of the required on-site storage records.

19. **A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.**

Response
Exide currently performs an annual certification that demonstrates a program is in place to reduce the volume and toxicity of the hazardous waste that is generated at the facility. This certification states that the method of treatment, storage and disposal serves to minimize the present and future threat to human health and the environment. A copy of this latest certification is included as Appendix 15, Waste Minimization Plan. The Waste Minimization Plan includes a waste minimization assessment, types of waste minimization practices, waste minimization goals and conclusions.

20. **Any records required under LAC 33:V.1501.H.13.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide is not a remediation waste management site and therefore this section does not apply.

C. **Availability, Retention, and Disposition of Records**

1. **All records, including plans, required under this Part must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representatives who are duly designated by the administrative authority.**

Response
Exide acknowledges, understands and will comply with this provision.

2. **The retention period for all records required under this Section is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the administrative authority.**

Response
Exide acknowledges, understands and will comply with this provision.

3. **A copy of records of waste disposal locations and quantities must be submitted to the administrative authority and local land authority upon closure of the facility.**

Response
Exide acknowledges, understands and will comply with this provision.

D. **Annual Report. The owner or operator must prepare and submit a single copy of an annual report to the administrative authority by March 1 of each year. The report form must be used for this report. The annual report must cover facility activities during the previous calendar year. Information submitted on a more frequent basis may be included by reference or in synopsis form where it is not pertinent to reporting under LAC 33:V.Chapter 9 or monitoring reporting under LAC 33:V.3317. It must include the following information:**

E. **Additional Reports. In addition to submitting the annual reports and unmanifested waste reports described in LAC 33:V.1529.D and 909, the owner or operator must also report to the administrative authority:**

1. **releases, fires, and explosions as specified in LAC 33:V.1513.F.10;**

2. **facility closures as specified in LAC 33:V.Chapter 35; and**

3. **as otherwise required by LAC 33:V.Chapters 17, 23, 25, 27, 29, and 33.**

Response
Exide understands, acknowledges and will comply with the above requirement.

§1531. Required Notices

A. **The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the administrative authority in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not receive hazardous waste from foreign sources.

B. **The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to LAC 33:V.Chapter 11.Subchapter B must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the competent authorities of all other concerned countries within three working days of receipt of the shipment. The original of the signed tracking document must be maintained at the facility for at least three years.**

Response
Exide acknowledges, understands and will comply with this provision; however, Exide does not receive hazardous waste from transfrontier shipments.

C. **The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.**

Response
Exide acknowledges and will comply with this provision.

D. **Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of LAC 33:V.Subpart 1.**

Response
The facility was formerly operated by Schuylkill Metals Corporation and is now owned and operated by Exide Technologies. Exide was made aware of the requirements of LAC 33:V.Subpart 1 at the change of ownership. Exide acknowledges these requirements and will adhere to this provision if future transfer of ownership or operation occurs during the facility's operating life or post-closure care period.

E. **An owner's or operator's failure to notify the new owner or operator of the requirements in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.**

Response
Exide has complied with all applicable requirements since the change of ownership. Exide acknowledges this citation and will continue to comply with all applicable requirements.

§1533. Relationship to Interim Status Standards

A facility owner or operator who has fully complied with the requirements for interim status, as defined in section 3005(e) of RCRA and regulations under LAC 33:V.4301, must comply with the regulations specified in LAC 33:V.Chapter 43 in lieu of the regulations in this Chapter, until final administrative disposition of his permit application is made, except as provided under LAC 33:V.Chapter 26.

[Comment: As stated in section 3005(a) of RCRA, after the effective date of regulations under that section, i.e., LAC 33:V.Chapters 3, 5, and 7, the treatment, storage, or disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility which meets certain conditions until final administrative disposition of the owner's or operator's permit application is made.]

Response

Exide acknowledges and will comply with this provision. The operation of the Containment Building complies with interim status in accordance with LAC 33:V.Chapter 43. A permit modification application was submitted to LDEQ on October 17, 2001 to renovate portions of the Containment Building floor and include the Containment Building in the Hazardous Waste Permit. Comments on the application were received from LDEQ on March 18, 2003. The Containment Building will continue to operated under interim status until approval of the October 2001 modification application has been received. Containment Building floor upgrades were completed in November 2003. The certification documents are provided in Appendix 11C.

§1535. Imminent Hazard Action

Notwithstanding any other provisions of these regulations, enforcement actions may be brought in accordance with R.S. 30:2050.8.

Response

Exide acknowledges and will comply with this provision.

RESPONSE
ATTACHMENT 17

CHAPTER 17

AIR EMISSION STANDARDS

of the process vents that would otherwise be subject to this Subchapter are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with, or made readily available with, the facility operating record.

Response

Exide acknowledges these provisions and will comply; however, this subchapter is not applicable. Exide does not utilize process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes. Furthermore, Exide does not store, process, or dispose of any material with organic concentrations above 10 ppm.

§1707. Standards: Process Vents

A. The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw shall either:

1. reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr); or

2. reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

B. If the owner or operator installs a closed-vent system and control device to comply with the provisions of LAC 33:V.1707.A, the closed-vent system and control device must meet the requirements of LAC 33:V.1709.

C. Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations

section does not apply. Exide will comply with the provisions of this section and LAC 33:V.1755-1761 including when containers that meet the specifications of this exemption.

D. **The administrative authority may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of this Section as follows:**

1. **the waste determination for average VO concentration of a hazardous waste at the point of waste origination shall be performed using direct measurement in accordance with the applicable requirements of LAC 33:V.1753.A. The waste determination for a hazardous waste at the point of waste treatment shall be performed in accordance with the applicable requirements of LAC 33:V.1753.B;**

   Response

   Exide acknowledges, understands and will comply with this requirement.

2. **in performing a waste determination in accordance with Subsection D.1 of this Section, the sample preparation and analysis shall be conducted as follows:**

   a. **in accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in Subsection D.2.b of this Section; and**

   b. **if the administrative authority determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the administrative authority may choose an appropriate method;**

   Response

   Exide acknowledges, understands and will comply with this requirement.

3. **in a case when the owner or operator is requested to perform the waste determination, the administrative authority may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis;**

<u>Response</u>
Exide acknowledges, understands and will comply with this requirement.

4. **in a case when the results of the waste determination performed or requested by the administrative authority do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of Subsection D.1 of this Section shall be used to establish compliance with the requirements of this Subchapter;**

<u>Response</u>
Exide acknowledges, understands and will comply with this requirement.

5. **in a case when the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the administrative authority may elect to establish compliance with this Subchapter by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period as follows:**

   a. **the average VO concentration of the hazardous waste at the point of waste origination shall be determined by direct measurement in accordance with the requirements of LAC 33:V.1753.A;**

   <u>Response</u>
   Exide acknowledges, understands and will comply with this requirement.

   b. **results of the waste determination performed or requested by the administrative authority showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than**

500 ppmw shall constitute noncompliance with this Subchapter, except in a case as provided for in Subsection D.5.c of this Section; and

Response
Exide acknowledges, understands and will comply with this requirement.

c. for the case when the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw, but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of LAC 33:V.1753.A and 1765 shall be considered by the administrative authority together with the results of the waste determination performed or requested by the administrative authority in establishing compliance with this Subchapter.

Response
Exide acknowledges, understands and will comply with this requirement.

§1753. Waste Determination Procedures

A. Waste Determination Procedure to Determine Average Volatile Organic (VO) Concentration of a Hazardous Waste at the Point of Waste Origination

1. An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of LAC 33:V.1751.C.1 from using air emission controls in accordance with standards specified in LAC 33:V.4727, as applicable to the waste management unit.

c. **opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container;**

Response

Exide acknowledges, understands and will comply with this requirement.

d. **opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations; and**

Response

Exide acknowledges, understands and will comply with this requirement.

e. **opening of a safety device, as defined in LAC 33:V.4721, is allowed at any time conditions require doing so to avoid an unsafe condition.**

Response

Exide acknowledges, understands and will comply with this requirement.

4. **The owner or operator of containers using Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:**

a. **in the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., does not meet the conditions for an empty container as specified in LAC 33:V.109), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the LAC 33:V.Chapter 17.Subchapter C container is accepted at the facility (i.e., the date the container becomes subject to the container standards of this Section). For purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest (EPA Forms 8700-22 and 8700-22A, DEQ Form HW-3), as required under LAC 33:V.905. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection C.4.c of this Section;**

b. **in the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and, thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position.**

If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection C.4.c of this Section;

c. **when a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible, but no later than five calendar days, after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.**

Response

Exide will comply with these requirements. Weekly inspections of the container storage areas and the 90-day nickel-cadmium batteries in drums are performed. The inspection form (provided in the Inspection Plan, Appendix 5) includes the inspection of specific items at each hazardous waste unit. First efforts to repair any defect noted during the inspection will be made as soon as possible, but no later than one working day afater detection.

5. **The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with a capacity of 0.46 m^3 or greater, which do not meet applicable DOT regulations as specified in Subsection F of this Section, are not managing hazardous waste in light material service.**

Response

Exide does not typically handle containers with a capacity of 0.46 m^3 or greater. Exide will comply with this requirement if such a container is handled.

D. **Container Level 2 Standards**

1. **A container using Container Level 2 controls is one of the following:**

a. **a container that meets the applicable DOT regulations on packaging hazardous materials for transportation, as specified in Subsection F of this Section;**

1. **the container meets the applicable requirements specified in 49 CFR part 178—Specifications for Packaging or 49 CFR part 179—Specifications for Tank Cars;**

   Response

   Exide acknowledges, understands and will comply with this requirement. Only DOT-approved 55-gallon drums are used for waste storage.

2. **hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B—Exemptions; 49 CFR part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173—Shippers—General Requirements for Shipments and Packages; and 49 CFR part 180—Continuing Qualification and Maintenance of Packagings;**

   Response

   Exide acknowledges, understands and will comply with this requirement.

3. **for the purpose of complying with this Subchapter, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in Subsection F.4 of this Section; and**

   Response

   Exide acknowledges, understands and will comply with this requirement.

4. **for a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with this Subchapter, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).**

   Response

   Exide acknowledges, understands, and will comply with this requirement.

incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

Response

Exide does not operate any tanks, surface impoundments, or containers exempted from standards in this chapter; therefore, this section is not currently applicable. If Exide introduces such equipment, these records will be maintained.

G. **An owner or operator designating a cover as "unsafe to inspect and monitor" in accordance with LAC 33:V.1755.L or 1757.G shall record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor"; the explanation for each cover stating why the cover is unsafe to inspect and monitor; and the plan and schedule for inspecting and monitoring each cover.**

Response

LAC 33:V.1755.L regarding tanks and LAC 33:V.1757.G regarding surface impoundments are not applicable; therefore, this section is not applicable.

H. **The owner or operator of a facility that is subject to this Subchapter and to the control device standards in 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V may elect to demonstrate compliance with the applicable sections of this Subchapter by documentation either in accordance with this Subchapter or the provisions of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR part 60 or 61 duplicates the documentation required by this Section.**

Response

Exide acknowledges, understands and will comply with this requirement.

I. **For each tank or container not using air emission controls specified in LAC 33:V.1755 - 1761 in accordance with the conditions specified in LAC 33:V.1747.D, the owner or operator shall record and maintain the following information:**

1. **a list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in LAC 33:V.1747.D.1;**

2. **a description of how the hazardous waste containing the organic peroxide compounds identified in Subsection I.1 of**

RESPONSE
ATTACHMENT 18

CHAPTER 18

CONTAINMENT BUILDINGS

Title 33
ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality – Hazardous Waste

Chapter 18. Containment Buildings

§1801. Applicability

A. The requirements of this Section apply to owners or operators who store or treat hazardous waste in units designed and operated under LAC 33:V.1802. These provisions became effective on February 18, 1993, although an owner or operator may have notified EPA or the administrative authority of his intent to be bound by this Section or its federal equivalent at an earlier time. The owner or operator is not subject to the definition of land disposal in LAC 33:V.2203 or R.S. 30:2193 provided that the unit:

1. is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, uplift, physical contact with the hazardous wastes to which they are exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

<u>Response</u>
The Containment Building is a self-supporting structure, completely enclosed with a floor, a roof, and walls designed to reduce the potential for lead particles to escape the building. The ventilation system for point sources within the Containment Building provides a constant inward air flow at these openings, thereby minimizing the potential for fugitive emissions from the building openings.

<u>Maximum Storage</u>

The Containment Building has a maximum capacity of 3,333 tons of blast furnace slag and 12,080 tons of lead material for recycling, including battery plates, lead oxide paste, reverberatory furnace slag, lead dross and purchased scrap. Pastes stored in Area 1 do not contain free liquids and do not have the potential to contain free liquids. The following calculations were obtained from the Closure Cost Estimate in Appendix 8. The

production/operation area (Area 3) is not used for hazardous waste storage.

Maximum slag quantity

(Area 1) Slag Area 1: 100 ft x 25 ft x 10 ft = 25,000 cf
25,000 cf / 27 = 925.93 cy
925.93 cy x 1.3 tons/cy
= 1,204 tons (assume 1,333 tons)

(Area 1) Slag Area 2: 77 ft x 45 ft x 12 ft = 41,580 cf
41,580 cf / 27 = 1,540 cy
1,540 cy x 1.3 tons/cy = 2,000 tons

Total slag = 1,333 + 2,000 = 3,333 tons

Other Material Quantities

(Area 2) Paste Storage Area 3: 95 ft x 80 ft x 12 ft = 91,200 cf
91,200 cf / 27 = 3,377.8 cy
3,377.8 cy x 1.8 tons/cy = 6,080 tons

(Area 1) Dry Paste Area 4: 50 ft x 50 ft x 12 ft = 30,000 cf
30,000 cf /27 = 1,111.11 cy
1,111.11 cy x 1.7 tons/cy
= 1,888 tons (round to 2,000 tons)

(Area 1) Dry Paste Area 5: 100 ft x 25 ft x 12 ft = 30,000 cf
30,000 cf /27 = 1,111.11 cy
1,111.11 cy x 1.7 tons/cy
= 1,888 tons (round to 2,000 tons)

(Area 1) Dry Paste Area 6: 100 ft x 25 ft x 12 ft = 30,000 cf
30,000 cf /27 = 1,111.11 cy
1,111.11 cy x 1.7 tons/cy
= 1,888 tons (round to 2,000 tons)

Total Other Materials = 12,080 tons

Area 1

The Raw Material Storage Area (Area 1) was constructed in 1991. Area 1 is used for storage of battery plates, dry lead oxide paste, reverberatory furnace slag, lead dross and purchased scrap. In 1992 Woodward-Clyde Consultants (WCC) submitted a professional engineer's certification document demonstrating that the design and construction of the building base in the Raw Material Storage Area/Dross Bin was in "substantial conformance with the plans developed for this project". The Containment

Building Certification Document and available structural information are included as Appendix 11. LDEQ has not yet approved the certification. Additionally, this building has adequately handled operations similar to its current operation for over ten years.

The floors, walls, and roof of Area 1 are the primary barrier system. The primary barrier system is constructed of man-made materials designed to withstand the movement of and contact with personnel, waste, and handling equipment during the operating life of the unit and are appropriate for the physical and chemical characteristics of the lead bearing materials to be managed. Sketches of the floor construction in the storage area (Area 1) are included with the professional engineer's certification documents in Appendix 11. The floor system includes, from top to bottom, 6 inches concrete, Amoco 4516 geotextile, 40 mil HDPE geomembrane, and 1 inch sand over existing concrete. The geomembrane is attached to the concrete with a stainless steel batton bar, bolts, double neoprene gasket and caulking. The strength of the concrete is not known as the original design documents are not available. The reinforced concrete walls of Area 1 are 12 feet high and 1 foot thick. The quantity and size of reinforcing steel and the concrete strength are not known as the original design data for the building is not available.

The greatest load on the floor system in Area 1 would occur when Slag Storage Area 2 is at maximum capacity. For conservatism, a higher unit weight has been assigned to the slag for this calculation. The floor integrity calculations are as follows:

77 ft x 45 ft = 3,465 sf x 144 = 498,960 si
Maximum capacity = 77 ft x 45 ft x 12 ft = 41,580 cf
41,580 cf x 205 lb/cf = 8,523,900 lbs at maximum capacity
Weight of front-end loader = 24,000 lbs
Weight of 55 personnel = 55 x 200 lbs = 11,000 lbs
8,523,900 lbs + 24,000 lbs + 11,000 lbs = 8,558,900 lbs
Maximum load = 8,558,900 lbs / 498,960 si = 17.15 psi

In order to support operations, the concrete strength at Area 1 of the Containment Building would need to be a minimum of 17.15 psi. As concrete has a typical strength of 3,000 to 4,000 psi, the concrete floor is capable of supporting the anticipated loads when properly reinforced and constructed on an adequately prepared subgrade.

Design calculations for the Containment Building walls and information regarding the size and quantity of reinforcing steel could not be located as part of the Part B Permit renewal process. Qualitatively it is obvious that the reinforced concrete walls for the structure provide adequate strength based on the observation that the walls have been functioning since their construction over 10 years ago. The ultimate limit state of the Containment Building walls would be failure by flexure (moment) and shear. No excessive movement or cracking has been observed that would suggest either failure mechanism is occurring.

To substantiate the qualitative observation that the strength of the walls is adequate, a simplified quantitative evaluation for shear stress was performed. For evaluation purposes, the exterior walls are considered as unit lengths with a fixed end at the ground surface and unsupported at the top of the wall, relying on the inherent strength of the walls to resist shear from the applied loads. As shown in the attached calculations, shear forces imposed by the lateral loads from the materials contained in the building are easily handled (F.S.= 1.7) by the resistance developed in the reinforced wall. Calculations are provided in Appendix 22.

For the moment, the building relies on a combination of the inherent strength of the reinforced wall and frame action provided by the building columns. Approximately half of the stress is accommodated by the wall strength with the remainder of the stress being transferred to the building frame. Unlike shear, a simplified quantitative evaluation for flexure could not be completed utilizing the information available, although as stated earlier, no visual observations were made that indicate that the building has not been adequate for the service loads experienced during the last 10 years of operation.

Area 2

The Paste Storage Area (Area 2) is used for the initial staging of neutralized lead paste from the battery breaking/desulfurization process prior to moving the paste to Area 1. As previously stated, the paste stored in Area 2 is a high-density, solid reddish-brown material with a moisture content of less than 5 percent that has the potential to contain free liquids. Due to the potential to contain free liquids, Exide submitted plans on October 17, 2001 to upgrade Area 2 to meet the requirements of this chapter. While approval of the permit modification has not yet been received, LDEQ has approved construction of the upgrades as shown in

Appendix 23. The upgrades occurred in November 2003. Details of the proposed upgrades are provided in Appendix 25. The certification report for the floor upgrades is provided in Appendix 11C. The previous conditions of Area 2 are presented in the Containment Building Certification Document in Appendix 11A and 11B as the Battery Plate Storage Area.

The floors, walls and roof of Area 2 act as the primary barrier. The reinforced walls of Area 2 are 12 feet high and one foot thick. The type and quantity of reinforcement and the strength of the concrete are not known as original design information is not available.

The upgrade renovated the floor system to ensure that it is designed and constructed of materials of sufficient strength and thickness to support itself, the waste contents, any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, uplift, physical contact with the hazardous waste to which it is exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The professional engineer's certification for Area 2 is provided in Appendix 11C. Existing asphalt was removed and the concrete surface prepared for installation of new barrier and drainage layers. The upgraded floor system for Area 2 is, from top to bottom, acid brick, minimum of 6 inches 4,000 psi reinforced concrete, 12 ounce geotextile, 80 mil HDPE geomembrane, and geonet drainage layer, overlying the existing system of 4 inches concrete, limestone gravel, 2 inch Schedule 40 PVC piping with 3/8 inch perforations, 1.5 inches asphalt and 4 inches concrete. The concrete was reinforced with #5 rebar at 12 inches on center in each direction. All joints were covered with corrosive resistant tape. Concrete was mixed and placed in accordance with ACI standards. The geomembrane was attached to the existing concrete wall with a stainless steel batton bar, bolts, and neoprene gaskets. Drawings showing the proposed upgrades are provided in Appendix 25. The certification report, including as-builts, is provided in Appendix 11C.

Wall strength calculations for Area 2 are the same as wall strength calculations for Area 1. Please refer to calculations presented in the response to LAC 33:V.1801.1 regarding Area 1 for an evaluation of Containment Building wall strength.

2. **has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit;**

Response

Based on the calculations provided in the response to LAC 33.V:1801.1, the primary barrier system (floors, walls and roof) of Area 1 (6 inches concrete, Amoco 4516 geotextile, and 40 mil HDPE geomembrane) and Area 2 (acid brick, minimum of 6 inches 4,000 psi reinforced concrete, 12 ounce geotextile, and 80 mil HDPE geomembrane) of Exide's Containment Building are capable of withstanding the movement of personnel, waste, and handling equipment within the unit during the operating life of the unit and are appropriate for the physical and chemical characteristics of the lead bearing materials to be managed on the primary barrier.

3. **when used to manage liquids:**

   a. **has a primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;**

   Response

   The Containment Building has an efficient primary barrier designed and constructed to prevent the migration of any hazardous constituents into the barrier. Migration of waste is prevented by the primary barrier, which consists of 6 inches of concrete and HDPE geomembrane. These materials have a very low permeability and prevent liquids from moving vertically. The floors are sloped to collection points to facilitate removal of liquids which are intercepted by the primary barrier.

   Area 1 manages wastes without free liquids; but will utilize small amounts of water for the purpose of dust suppression. However, this activity should not generate any free standing liquids and this citation does not apply to this area. The floor system of Area 1 is constructed of concrete and geomembrane and is sloped to collection points to facilitate removal of wastes from the primary barrier to prevent migration of hazardous constituents into the barrier. The drainage pattern for the Area 1 floor is shown on sketches in Appendix 11.

Area 2 will be used to manage free liquids. The upgrades for this area included a sloped primary barrier consisting of acid brick, a minimum of 6 inches of concrete, and a HDPE liner. The sloped floor and the materials of construction facilitate collection and removal of wastes from the floor and prevent migration of hazardous constituents. Floor slopes are shown on the design drawings provided in Appendix 25 and as-built drawings provided in Appendix 11.

b. **has a liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and**

Response

Area 1 is not required to have a liquid collection system as liquids are not managed in the area.

The Area 2 floor system was upgraded to acid brick, concrete, and HDPE geomembrane as shown in Appendix 25 and Appendix 11C. Drainage from the primary barrier system in Area 2 is directed to sumps to minimize the accumulation of free liquids on the primary barrier. Sloped floors facilitate the collection of liquids for removal. The liquids collected at the sumps are pumped from the sump and transferred to the facility wastewater treatment plant.

c. **has a secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under LAC 33:V.1802.B.4;**

Response

As Area 1 does not manage free liquids, a leak detection and liquid collection system is not required.

Beneath the primary barrier in Area 2 is a secondary containment system designed with a leak detection and liquid collection system capable of detecting, collecting, and removing hazardous constituents at the earliest practicable time. The leak detection and liquid collection

system consists of a geonet drainage layer beneath the geomembrane. The secondary containment system underlying the drainage layer is the prepared surface of the existing 4 inch thick concrete. Remaining components of the former floor system including limestone gravel, perforated PVC pipes, asphalt and concrete will not be utilized as leak detection or barrier layers, but will be allowed to remain in-place. Drawings of this design are included in Appendix 25. As-built drawings are provided in Appendix 11C.

4. **has controls as needed to permit fugitive dust emissions to meet the no visible emission standard in LAC 33:V.1802.C.1.d; and**

Response

Exide has measures in place to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (according to 40 CFR Part 60 Appendix A, Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) will be operated and maintained with sound air pollution control practices. Exide maintains a state of no visible emissions at all times during normal operating and maintenance conditions, including when vehicles and personnel are entering and exiting the Containment Building. Exide's Containment Building is operated with a ventilation system to permitted point sources as shown on Figure 10. This ventilation system provides inward air flow (negative pressure) on the building. In addition, liquids are occasionally used on the lead bearing materials within the building for dust suppression purposes. These controls are used to ensure that no visible emissions are emitted from the Containment Building.

5. **has been designed and is operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.**

Response

Access areas to the Containment Building are limited. As shown on Figure 6, vehicle wash stations are positioned at the main entrances to the Containment Building to ensure the containment of wastes within the building. All vehicles exiting the building are required to use the vehicle washes to remove any accumulated waste prior to departure from the building. All water from the

vehicle wash area is routed to the on-site wastewater treatment system.

The potential for personnel tracking of materials from the Containment Building to the outer lying areas is minimized through the use of personnel wash areas located in select access areas of the building. In addition, all contaminated clothing is removed and contained for proper handling. Spent PPE is recycled in the furnace or disposed off-site at a permitted facility.

§1802. Design and Operating Standards

A. All Containment Buildings must comply with the following design standards:

1. the Containment Building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on) and to ensure containment of managed wastes;

<u>Response</u>
Exide's Containment Building is completely enclosed with floors, walls (primary barrier system) and a roof with minimal pathways necessary to accommodate operations. These pathways provide limited access for personnel and for the loading/unloading of material. These areas will remain closed when not in use. The ventilation system for the Containment Building keeps a constant inward air flow (negative pressure) on these openings, which minimizes the potential for any fugitive emissions. These controls prevent the exposure to the elements and controls the containment of the lead bearing materials.

2. the floor and containment walls of the unit, including the secondary containment system if required under LAC 33:V.1802.B, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit and to prevent failure due to pressure gradients, settlement, compression, uplift, physical contact with the hazardous wastes to which they are exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The

administrative authority will consider standards established by professional organizations generally recognized by the industry, such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM), in judging the structural integrity requirements of LAC 33:V.1802.A. If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

a. they provide an effective barrier against fugitive dust emissions under LAC 33:V.1802.C.1.d; and

b. the unit is designed and operated in a fashion that ensures that wastes will not actually come in contact with these openings;

Response

As previously discussed, the walls and floors at Areas 1 and 2 have sufficient strength and thickness to support themselves, wastes, equipment and personnel and to prevent failure due to pressure gradients, settlement, compression, uplift, physical contact with the hazardous wastes to which they are exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. Calculations for the structural integrity of Area 1 and 2 walls and floors are provided in the response to LAC 33:V.1801.1. In order to support operations, the concrete strength of the Containment Building floor would need to be a minimum of 17.15 psi. As concrete has a typical strength of 3,000 to 4,000 psi, the concrete floor is capable of supporting the anticipated loads when properly reinforced and constructed on adequately prepared subgrade. Qualitatively, it is obvious that the Containment Building reinforced concrete walls provide adequate strength based on the observation that the walls have been functioning since their construction over 10 years ago. To substantiate the qualitative observation that the strength of the walls is adequate, a simplified quantitative evaluation for sheer stress was performed. As shown in the Appendix 22 calculations, shear forces imposed by the lateral loads from the materials contained in the building are easily handled (FS=1.7) by the resistance developed in the reinforced wall.

The wall surfaces are concrete, which is compatible with the wastes contained in Areas 1 and 2 including blast furnace slag, battery plates, lead oxide paste, reverberatory furnace slag, lead dross and purchased scrap. The surface of the floor system in Area 1 is concrete, which is compatible with the battery plates, lead oxide paste, reverberatory furnace slag, lead dross and purchased scrap. Materials with free liquids are not stored in Area 1, therefore, compatibility of the concrete with battery acid is not a concern. The surface of the floor system in Area 2 is acid brick, which is compatible with any free liquid that may be produced by the lead oxide paste.

Although specific design data from the initial design of the building is not available, Exide believes the foundation and structure of the Containment Building were designed and constructed to meet the applicable building standards, and to ensure the integrity of the building and the safety of the facility personnel. Certification documents provided in Appendix 11A demonstrate that the design and construction of the building were in conformance with the plans for the project and the requirements of LAC 33:V.1802.A-C. As a licensed professional, the certifying engineer was obligated to design the Containment Building to meet the applicable standards and to ensure the integrity of the building and safety of personnel.

Exide believes the concrete foundation was properly reinforced according to the design standards of the American Concrete Institute (ACI); however the type and quantity of reinforcement is not available. In addition, to meet the utilization needs of the building, the exterior walls were constructed of reinforced concrete in accordance with the ACI standards; however the type and quantity of reinforcement is not available. Exide believes the design wind loads for the area, according to the building code standards of the time, were also utilized in the design and construction of the exterior walls; however, the specific design load is not known. As the Containment Building was designed by a licensed professional, the certifying engineer was obligated to design the Containment Building to meet applicable building standards, including those for concrete reinforcement and wind load. The Containment Building was constructed similar to existing Containment Buildings at other Exide facilities, all of which function safely and appropriately. No visual observations have

been made at the Baton Rouge Smelter to indicate that the Containment Building has not been adequate for the service loads experienced during the last 10 years of operation.

3. **incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail;**

Response
Exide only manages lead bearing materials within the Containment Building. No incompatible wastes or treatment reagents will be placed in the unit or its secondary containment system that will cause the unit or secondary containment system to leak, corrode, or otherwise fail.

4. **a Containment Building must have a primary barrier designed to withstand the movement of 55 personnel, waste, and handling equipment in the unit during the operating life of the unit and be appropriate for the physical and chemical characteristics of the waste to be managed.**

Response
Exide's Containment Building is completely enclosed with floors, walls, and a roof. The Area 1 floor system consists of, from top to bottom, 6 inches concrete, Amoco 4516 geotextile, 40 mil HDPE geomembrane and 1 inch sand over existing concrete. The strength of the concrete is not known as the original design documents are not available although the concrete is performing in a manner consistent with concrete used for usual construction projects which typically has a compressive strength equal to or greater than 3,000 psi. The reinforced concrete walls of Area 1 are 12 feet high and 1 foot thick. The quantity and size of reinforcing steel and the concrete strength are not known as the original design data for the building is not available. The certification report for Area 1 is provided in Appendix 11A. The Area 2 floor system consists of, from top to bottom, acid brick, 6 inches of 4,000 psi reinforced concrete, 12 ounce geotextile, 80 mil HDPE geomembrane and geonet drainage layer. The concrete was reinforced with #5 rebar at 12 inches on center in each direction. All joints were covered with corrosive resistant tape. Concrete was mixed and placed in accordance with ACI Standards. Design drawings are provided in Appendix 25. The certification report is provided in Appendix 11C. The reinforced walls of Area 2 are 12 feet high and 1 foot thick. The type and

quantity of reinforcement and the strength of the concrete are not known as original design information is not available. The walls and floors at Areas 1 and 2 have sufficient strength and thickness to support themselves, wastes, equipment and 55 personnel and the movement of heavy equipment within the unit and contact of such equipment with containment walls. Calculations for the structural integrity of Area 1 and 2 walls and floors are provided in the response to LAC 33:V.1801.1 and Appendix 22.

The wall surfaces are concrete, which is compatible with the wastes contained in Areas 1 and 2 including blast furnace slag, battery plates, lead oxide paste, reverberatory furnace slag, lead dross, and purchased scrap. The surface of the floor system in Area 1 is concrete, which is compatible with the battery plates, lead oxide paste, reverberatory furnace slag, lead dross, and purchased scrap. Materials with free liquids are not stored in Area 1; therefore, compatibility of the concrete with battery acid is not a concern. The surface of the floor system in Area 2 is acid brick, which is compatible with any free liquid that may be produced by the lead oxide paste.

The leak detection and liquid collection system in Area 2, as described in the response to LAC 33:V.1801.1, consists of a geonet drainage layer beneath the geomembrane. The secondary containment system is the prepared surface of the existing 4 inch thick concrete. The geonet and concrete are compatible with any free liquid that may be produced by the lead oxide paste.

B. For a Containment Building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include:

1. a primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface);

Response

Exide does not actively manage liquids within Area 1 of the Containment Building. As necessary, Exide may apply small amounts of water to the lead bearing materials within Area 1 of the Containment Building for the purpose of dust suppression. This activity should not generate any free standing liquids within the building and this citation does not apply to this area. The floor

system of Area 1 is constructed of concrete and geomembrane and is sloped to collection points to facilitate removal of wastes from the primary barrier to prevent migration of hazardous constituents into the barrier. The drainage pattern for the Area 1 floor is shown on sketches in Appendix 11.

As previously discussed, Area 2 will be used to manage some free liquids. This area includes a sloped primary barrier consisting of acid brick, a minimum of 6 inches of concrete, and a HDPE liner to prevent migration of hazardous constituents into the primary barrier. Drainage from this primary barrier system is directed to sumps that take any accumulated liquids to the wastewater treatment system. The certification report for the upgrades is provided in Appendix 11C.

2. **a liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the Containment Building:**

   a. **the primary barrier must be sloped to drain liquids to the associated collection system; and**

   b. **liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time;**

   Response

   Area 1 is not required to have a liquid collection system as liquids are not managed in the area.

   The Area 2 floor system has been upgraded to acid brick, concrete and HDPE geomembrane as shown in Appendix 25 and 11C. Drainage from the primary barrier system of Area 2 is directed to sumps to minimize accumulation of free liquids on the primary barrier. Sloped floors facilitate the collection of liquids for removal. The liquids collected at the sumps are pumped from the sump and transferred to the wastewater treatment system. One sump is present at Area 2. The sump is located in the southwest corner of Area 2 as shown on Figure 6 and Appendix 11C. The sump is 4 ft by 8 ft and 2 ft deep.

3. **a secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier and a leak detection system that is capable of detecting failure of the primary**

barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time;

a. the requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

i. constructed with a bottom slope of 1 percent or more; and

ii. constructed of a granular drainage material with hydraulic conductivity of 1 x 10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3 x 10^{-5} m^2/sec or more;

b. if treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building;

Response

Physical treatment, such as stabilization and solidification, is not performed in the Containment Building; therefore, this requirement is not applicable. Materials managed in the Containment Building are fed into the reverbatory and blast furnaces to recover lead. Blast furnace slag stored in the Containment Building which cannot be recycled is treated at the Slag Stabilization Unit prior to on-site disposal.

c. the secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the Containment Building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the Containment Building (Containment Buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A Containment Building can serve as an external liner system for a tank, provided it meets the requirements of LAC 33:V.1907.D.1. In addition, the Containment

Building must meet the requirements of LAC 33:V.1907.B and C.1 and 2 to be considered an acceptable secondary containment system for a tank.);

Response

As Area 1 does not manage free liquids, a leak detection and liquid collection system is not required. Floor drainage and contours of the Containment Building prevent any liquids from Area 2 from entering this area or other areas within the Containment Building. The slope of the Area 2 drainage layer and floor is a minimum of 1.5%, which is adequate for drainage to the sump. The as-built drawing for the Area 2 floor is provided in Appendix 11C.

Beneath the primary barrier in Area 2 is the secondary containment system designed with a leak detection and liquid collection system capable of detecting, collecting and removing hazardous constituents at the earliest practicable time. The leak detection and liquid collection system consists of an HDPE geonet drainage layer beneath the geomembrane. The geonet has a minimum transmissivity of 3×10^{-5} m^2/sec. The secondary containment system underlying the drainage layer is the prepared surface of the existing 4 inch thick concrete. The geonet drainage layer and the existing concrete are chemically resistant to the liquids that may be produced by the lead oxide paste. Remaining components of the former floor system including limestone gravel, perforated PVC pipes, asphalt and concrete will not be utilized as leak detection or barrier layers, but will be allowed to remain in-place. Drawings of this design are included in Appendix 25. The construction certification for the floor upgrades is provided in Appendix 11C.

4. **for existing units other than 90-day generator units, the administrative authority or EPA may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this Section. In making this demonstration, the owner or operator must:**

   a. **have provided written notice to the administrative authority of their request by November 16, 1992. This notification must describe the unit and its operating practices with specific reference to the performance of**

existing containment systems and specific plans for retrofitting the unit with secondary containment;

b. respond to any comments from the administrative authority on these plans within 30 days; and

c. fulfill the terms of the revised plans, if such plans are approved by the administrative authority.

Response
Exide acknowledges and will comply with the above citations; However, Exide is not requesting any delay for the secondary containment requirements.

C. Owners or operators of all Containment Buildings must:

1. use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

a. maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

Response
Exide will maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause the lead bearing materials within the Containment Building to be released from the primary barrier. The Inspection Plan and Schedule, Appendix 5 includes operational procedures for inspection of the feed pile containment areas.

b. maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

Response
Exide will maintain the level of stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded. The height of the Containment Building walls in Areas 1 and 2 is 12 feet.

c. take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment

used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

<u>Response</u>
Exide has measures in place to prevent the tracking of lead bearing materials out of the Containment Building by personnel or by equipment used in handling the waste. Exide operates two vehicle wash stations (Figure 6) at the main entrances to the Containment Building to ensure the containment of wastes and to prevent tracking of wastes. All vehicles exiting the building are required to use the vehicle washes to remove any accumulated waste prior to departure from the building. All rinsate generated from the vehicle washes is collected and conveyed to the facility's wastewater treatment plant for treatment prior to discharge.

The potential for personnel tracking of materials from the Containment Building to the outer lying areas is minimized through the use of personnel boot and hand wash areas located at the main employee entrance/exit at the Containment Building. The location is shown on Figure 3 of the Contingency Plan (Appendix 6). In addition, contaminated clothing is removed and is contained for proper handling of these materials. Spent PPE is recycled in the furnace or disposed off-site at a permitted facility.

Boot and hand wash stations are also present at the lunch and break room. Boot washes are also present at the Administration Building and change house. Showers are also present at the change house.

d. **take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 CFR Part 60, Appendix A, Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) must be operated and maintained with sound air pollution control practices (see LAC 33:III.3544 for guidance). This state of no visible emissions must be maintained effectively at all times during normal operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit;**

Response

Exide has measures in place to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (according to 40 CFR Part 60 Appendix A, Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator) will be operated and maintained with sound air pollution control practices. Exide maintains a state of no visible emissions at all times during normal operating and maintenance conditions, including when vehicles and personnel are entering and exiting the Containment Building. Exide's Containment Building is operated with a ventilation system to permitted point sources as shown on Figure 10. This ventilation system provides inward air flow (negative pressure) on the building. In addition, liquids are occasionally used on the lead bearing materials within the building for dust suppression purposes. These controls are used to ensure that no visible emissions are emitted from the Containment Building.

On a facility-wide basis, the following emissions occurred in 2004:

- Particulate Matter (NEDS B1102) 23.59 tons
- Lead (NEDS 12128) 1.94 tons
- Carbon Monoxide (NEDS 42101) 3.60 tons
- SO_2 (NEDS 42401) 1103.76 tons
- NO_x (NEDS 42602) 14.23 tons
- VOC (NEDS 43104) 0.41 tons

2. **obtain certification by a qualified registered professional engineer that the Containment Building design meets the requirements of LAC 33:V.1802.A-C. For units placed into operation prior to February 18, 1993, this certification must be placed in the facility's operating record (on-site files for generators who are not formally required to have operating records) no later than 60 days after the date of initial operation of the unit. After February 18, 1993, PE certification will be required prior to operation of the unit;**

Response

Appendix 11 contains certification by a qualified professional engineer that the Containment Building design for Area 1 meets the requirements of LAC 33:V.1802 A-C. Certification for Area 2,

which will manage any free liquids, has been provided by the Design Engineer and forwarded by Exide to the Department. Copies of these certification documents will be maintained on file with the facility's Part B Permit at Exide, Baton Rouge Smelter. The certification has not yet been approved by LDEQ. The Area 2 floor upgrade certification is provided in Appendix 11C.

3. **promptly repair any condition which the owner or operator detects throughout the active life of the Containment Building that could lead to or has caused a release of hazardous waste in accordance with the following procedures:**

   a. **upon detection of a condition that has lead to a release of hazardous waste (e.g., upon detection of leakage from the primary barrier) the owner or operator must:**

      i. **enter a record of the discovery in the facility operating record;**

      ii. **immediately remove the portion of the Containment Building affected by the condition from service;**

      iii. **determine what steps must be taken to repair the Containment Building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and**

      iv. **within seven days after the discovery of the condition, notify the administrative authority of the condition and, within 14 working days, provide a written notice to the administrative authority with a description of the steps taken to repair the Containment Building and the schedule for accomplishing the work;**

      <u>Response</u>
      Upon detection of a condition that has lead to a substantial release of hazardous waste, Exide will:

      1. Enter a record of the discovery into the facility's operating record;

2. Immediately remove the portion of the Containment Building affected by the condition from service;
3. Determine what steps must be taken to repair the Containment Building, remove any leakage from the secondary collection system; and
4. Establish a schedule for accomplishing the cleanup and repairs and within seven days after the discovery of the condition, notify the administrative authority of the condition and, within 14 working days, provide a written notice to the administrative authority with a description of the steps taken to repair the Containment Building and the schedule for accomplishing the work.

b. **the administrative authority will review the information submitted, make a determination regarding whether the Containment Building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing**;

Response
Exide acknowledges the administrative authority will review and make a determination regarding the information submitted and will notify the owner or operator of the determination as detailed in the above citation.

c. **upon completing all repairs and cleanup, the owner or operator must notify the administrative authority in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with LAC 33:V.1802.C.3.a.iv; and**

Response
Upon completing all repairs and cleanup, Exide will notify the administrative authority in writing and provide verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with LAC 33:V.1802.3.a.iv.

Exide provided the Area 2 certification report, sealed by a professional engineer, to the Department on November 25, 2003 to document that Containment Building upgrades were complete. The report is provided in Appendix 11C.

4. **inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring equipment and leak detection equipment as well as the Containment Building and the area immediately surrounding the Containment Building to detect signs of releases of hazardous waste.**

Response
Exide inspects and records in the facility's operating record, at least once every seven days, data gathered from monitoring equipment and leak detection equipment as well as the Containment Building and the area immediately surrounding the Containment Building to detect signs of releases of hazardous waste. A copy of the inspection record is included in Appendix 5.

D. **For Containment Buildings that contain areas both with and without secondary containment, the owner or operator must:**

1. **design and operate each area in accordance with the requirements enumerated in LAC 33:V.1802.A-C;**

Response
Exide's Containment Building contains areas both with and without secondary containment. Therefore, Exide has redesigned and will operate each area in accordance with the requirements enumerated in LAC 33:V.1802.A and C. Area 1 (without secondary containment) will be used for dry material storage only. Area 2 (with secondary containment) will be used for storage of materials which may contain free liquids.

2. **take measures to prevent the release of liquids or wet materials into areas without secondary containment; and**

Response
Exide will operate the storage areas in accordance with the requirements of LAC 33:V.1802.A and C. The potential for a release of liquids or wet materials into areas without secondary containment are minimized through the building contours that separate Area 2 from the other areas coupled with the use of good material management practices. Area 2 is sloped to drain to a liquid collection sump such that liquids do not flow into adjacent

areas. Only lead oxide pastes with the potential to contain free liquids are stored in Area 2. Materials which do not contain free liquids such as dry paste and battery components are only stored in Area 1.

3. **keep in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.**

   Response
   Exide will maintain, in the facility's operating log, a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

E. **Notwithstanding any other provision of this Chapter, the administrative authority may waive requirements for secondary containment for a permitted Containment Building where the owner or operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements and where containment of managed wastes and liquids can be ensured without a secondary containment system.**

Response
Exide will submit a request that the administrative authority waive requirements for secondary containment for the potential occurrence that liquids could be generated from dust suppression activities in the Raw Materials Storage Area (Area 1).

Periodically dust suppression liquids are used to suppress dust to a level that meets occupational health and safety requirements. The materials stored in Area 1 include battery components, dry lead-oxide paste and slag. Typically, the stored waste will adsorb the liquids to a point that the waste will still pass the paint filter test. This occurs as the waste is initially dry and capable of absorbing additional moisture. Saturation of wastes is not practiced as operations and safety requires that any material feed to the furnaces is as dry as possible. Should liquids become present, Exide will take measures to collect and remove the liquid using a collection sump within the area or absorbent materials. The procedures for handling accumulated liquids are also described in the Dust Suppression Operational Procedure in Appendix 12.

Since the Paste Storage Area (Area 2) will be managed to handle free liquids, it has been designed and upgraded to have a floor system with secondary containment and therefore, will have means to remove free liquids as necessary.

§1803. Closure and Post-closure Care

A. At closure of a Containment Building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate and manage them as hazardous waste unless LAC 33:V.109.*Hazardous Waste* applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for Containment Buildings must meet all of the requirements specified in LAC 33:V.Chapters 35 and 37.

B. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection A of this section, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must either:

1. close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (LAC 33:V.2521). In addition, for the purposes of closure, post-closure, and financial responsibility, such a Containment Building is then considered to be a landfill and the owner or operator must meet all of the requirements for landfills specified in LAC 33:V.Chapters 35 and 37; or

2. perform a risk assessment to demonstrate that closure with the remaining contaminant levels in protective of human health and the environment in accordance with LAC 33:I. Chapter 13. Any such risk assessment is subject to approval by the administrative authority and must demonstrate that post-closure care is not necessary to adequately protect human health and the environment.

<u>Response</u>
Exide acknowledges these citations and will comply. Closure for the Containment Building is addressed in Appendix 8, Closure and Post Closure Plan. The Closure and Post Closure Plan includes general closure procedures; specific closure procedures for the slag stabilization area, the Containment Building, the Truck Trailer Storage area, and the Whole Battery storage area; a closure cost estimate and post-closure care procedures.

Slag remaining in the Containment Building at closure will be loaded into lined end dump trailers for transport to an off-site permitted hazardous waste disposal site. Battery components and other lead-bearing materials remaining in the Containment Building at closure will be loaded into vehicles for transport to another lead smelter for recycling. A sweeper truck will be used to clean any residual material. The walls and floor of the Containment Building will be decontaminated with steam cleaners. Equipment used for loading and sweeping will also be decontaminated. Wash water will be collected in trailers and transported for off-site disposal. Samples of the wash water will be collected to determine if the decontamination process is complete. Confirmation samples will be collected by drilling through the concrete and collecting soil samples for analysis. A certification report stating that the Containment Building was closed in accordance with the approved closure plan will be prepared by an independent registered professional engineer.

RESPONSE
ATTACHMENT 21

CHAPTER 21

CONTAINERS

inspection form. An example inspection form has been included with the Inspection Plan in Appendix 5.

B. All containers must be stacked in such a fashion that each container identification label can be read from the access aisle.

Response

Exide understands this citation and will comply by stacking containers in such a fashion that identification labels can be read from the access aisle. A minimum aisle space of 24 inches is maintained between pallets at the Whole Battery Storage Area. The Whole Battery Storage Area has 20 double rows of double stacked pallets and 10 aisles.

Aisle space is not required between the trailers at the Truck/Trailer Storage Area as the trailers act as containment for the batteries. However, for operational purposes, trailers at the Truck/Trailer storage area have adequate space between the trailers to allow for movement of the trailers.

C. All inspection records must be maintained according to the recordkeeping requirements of LAC 33:V.1529.

Response

Exide understands this citation and will maintain inspection records for at least three years from the date of inspection. The Inspection Plan is provided in Appendix 5.

§2111. Containment

A. Container storage areas must have a containment system that is designed and operated in accordance with LAC 33:V.2111.B except as otherwise provided by LAC 33:V.2111.C.

Response

Exide understands the requirements of this citation and will comply.

The Truck/Trailer Storage area has an asphalt and concrete floor with a 2.5 foot high asphalt berm for containment. Details of the Truck/Trailer Storage Area are provided in Figure 12.

D. **Storage areas that store containers holding the wastes listed below must have a containment system defined by LAC 33:V.2111.B even when these wastes do not contain free liquids: F020, F021, F022, F023, F026, and F027.**

Response

Exide understands the requirements of this citation and will comply; however, it does not apply as Exide does not treat or store F020, F021, F022, F023, F026 or F027 wastes.

§2113. Special Requirements for Ignitable or Reactive Wastes

A. **Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility property line. (See LAC 33:V.1517 for additional requirements or LAC 33:V.4321 for additional requirements for interim status facilities.)**

Response

Exide understands the requirements of this citation and will comply; however, it does not apply as Exide does not manage ignitable or reactive wastes. Exide has a Waste Acceptance program in place that prevents the receipt of ignitable or reactive wastes.

§2115. Special Requirements for Incompatible Wastes

A. **Incompatible wastes, or incompatible wastes and materials, must not be placed in the same container unless LAC 33:V.1517 or LAC 33:V.4321 for interim status facilities is complied with.**

Response

Exide understands, acknowledges and will comply with this provision. Exide has a Waste Acceptance program in place that prevents the receipt of incompatible wastes. If received, incompatible wastes would be stored in separate containers.

B. **Hazardous wastes must not be placed in an unwashed container that previously held an incompatible waste or material.**

Response

Exide understands and acknowledges this provision and will comply.

C. **A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, other device, or approved management technique.**

Response

Exide understands, acknowledges and will comply with this provision. Exide has a Waste Acceptance program in place that prevents the receipt of incompatible wastes. If received, incompatible wastes would be separated by means of a dike, berm, wall or other device.

D. **The owner or operator must place the results of each waste analysis and trial test and any documented information regarding compatibility testing in the operating record of the facility.**

Response

Exide acknowledges this provision and will comply. Exide will maintain all information regarding compatibility testing in the operating record of the facility. Also, Exide has a Waste Acceptance program in place that prevents the receipt of incompatible wastes.

§2117. Closure

A. **At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed. At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with LAC 33:V.109.*Hazardous Waste*.6 that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V.Chapters 9-43.**

RESPONSE
ATTACHMENT 33

CHAPTER 33

GROUND WATER PROTECTION

Title 33

ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Chapter 33. Ground Water Protection

§3301. Applicability

A. **Except as provided in LAC 33:V.3301.C, the regulations in this Chapter apply to owners or operators of facilities that treat, store or dispose of hazardous waste. The owner or operator must satisfy the requirements identified in LAC 33:V.3301.B for all wastes (or constituents thereof) contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.**

Response

Exide acknowledges the requirements of this citation and will comply. The regulations of this chapter apply to the Baton Rouge smelter as the facility treats and stores hazardous waste. The facility maintains two closed hazardous waste piles under the Post-Closure permit LAD 008 184 137 effective May 21, 2001. The piles were closed in-place in 1985 and 1986. A post-closure groundwater monitoring plan is in-place for these piles. The facility also has several regulated units including the Truck/Trailer storage area, the Whole Battery Storage Area and the Containment Building. As these units are in operation and are not closure, groundwater monitoring is not conducted for these units.

B. **All solid waste management units must comply with the requirements in LAC 33:V.3322. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a "regulated unit") must comply with the requirements of LAC 33:V.3303-LAC 33:V.3321 in lieu of LAC 33:V.3322 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of LAC 33:V.3322 apply to regulated units.**

Response

The caps on the hazardous waste piles are clay with vegetative cover. The caps were designed and are operated to exclude liquid, precipitation and other run-on and run-off.

d. has both inner and outer layers of containment enclosing the waste;

Response

As the waste piles were operated prior to promulgation of the environmental regulations, the closed waste piles do not have inner and outer layers of containment. The waste is enclosed by a clay liner and a clay cap.

e. has a leak detection system built into each containment layer;

Response

As the waste piles were constructed and operated prior to promulgation of the environmental regulations, the piles do not have a leak detection system built into each containment layer. The waste piles are lined and capped with clay.

f. the owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods; and

Response

Exide acknowledges the requirements of this section and will comply. As the waste piles do not have leak detection systems, they cannot be operated or maintained. Exide does conduct scheduled inspections of the cap system and monitoring of groundwater in the detection monitoring program.

g. to a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period;

Response

Exide acknowledges the requirements of this citation and will comply; however this does not apply as Exide does not have miscellaneous units.

F. **The regulations of this Chapter apply to all owners and operators subject to the requirements of LAC 33:V.305.H when the department issues either a post-closure permit or an enforceable document (as defined in LAC 33:V.305.H) at the facility. When the department issues an enforceable document, references in this Chapter to "in the permit" mean "in the enforceable document."**

Response

Exide acknowledges the requirements of this citation and will comply.

G. **The administrative authority may replace all or part of the requirements of this Chapter applying to a regulated unit with alternative requirements for groundwater monitoring and corrective action for releases to groundwater set out in the permit (or in an enforceable document as defined in LAC 33:V.305.H) where the administrative authority determines that:**

1. **the regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management unit(s) (or areas of concern) are likely to have contributed to the release; and**

2. **it is not necessary to apply the groundwater monitoring and corrective action requirements of this Chapter because alternative requirements will protect human health and the environment.**

Response

Exide acknowledges that the Department may replace all or part of the requirements of this Chapter with alternative requirements for groundwater monitoring. Exide will comply with the requirements established by the Department.

§3303. Required Programs

A. Owners and operators subject to this Chapter must conduct a monitoring and response program as follows.

1. Whenever hazardous constituents under LAC 33:V.3307 from a regulated unit are detected at the compliance point under LAC 33:V.3311, the owner or operator must institute a compliance monitoring program under LAC 33:V.3319. "Detected" is defined as statistically significant evidence of contamination as described in LAC 33:V.3317.F.

Response

Exide acknowledges the requirements of this citation and will comply. To date, hazardous constituents under LAC 33:V.3307 have not been detected at the compliance points for the closed hazardous waste piles. If hazardous constituents are detected in the future, Exide will implement a compliance monitoring program.

2. Whenever the ground water protection standard under LAC 33:V.3305 is exceeded, the owner or operator must institute a corrective action program under LAC 33:V.3321. "Exceeded" is defined as statistically significant evidence of increased contamination as described in LAC 33:V.3319.D.

Response

Exide acknowledges the requirements of this citation and will comply. To date, groundwater protection standards under LAC 33:V.3305 at the closed hazardous waste piles have not been exceeded. If groundwater protection standards are exceeded in the future, Exide will implement a corrective action program.

3. Whenever hazardous constituents under LAC 33:V.3307 from a regulated unit exceed concentration limits under LAC 33:V.3309 in ground water between the compliance point under LAC 33:V.3311 and the downgradient facility property boundary, the owner or operator must institute a corrective action program under LAC 33:V.3321.

RESPONSE
ATTACHMENT 35

CHAPTER 35

CLOSURE AND POST-CLOSURE

Exide acknowledges and will abide by all of the requirements for closure and post - closure, applicable for the containment buildings found in this Chapter. The Closure and Post - Closure Plan is included in detail in Appendix 8.

on the Permit Modification Request dated October 17, 2001. Revisions included adding the proposed containment building upgrades and increasing costs associated with sampling through the proposed acid brick floor at the containment building. The Containment Building Area 2 floor was upgraded in November 2003.

§3507. Closure Performance Standards

A. In accordance with LAC 33:V.3509, the owner or operator must close his facility in a manner that:

1. minimizes the need for further maintenance; and

<u>Response</u>
Exide acknowledges this provision and will comply. By clean closing the hazardous waste units, no hazardous waste or waste residual will be left at the units and further maintenance will not be required.

Exide has already closed the two Hazardous Waste Piles in a manner that minimized the need for further maintenance while allowing closure in-place. Exide implements a Post-Closure Plan for the waste piles including scheduled inspections, cap maintenance and groundwater monitoring. Post-Closure care activities are detailed in the Post-Closure Permit and the Closure and Post-Closure Plan in Appendix 8.

2. controls, minimizes, or eliminates, to the extent necessary to prevent threats to human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere; and

<u>Response</u>
Clean closure of the hazardous waste units will eliminate the threat to human health and environment as hazardous waste will not remain.

The closed hazardous waste piles have clay caps and liners which minimize the threat to human health and the environment by enclosing the waste.

3. complies with closure requirements of this Chapter, including, but not limited to, the requirements of LAC 33:V.1803, 1911, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203-3207.

Response
Exide acknowledges the requirement of this citation and will comply.

B. **As a means of satisfying the closure requirements of Paragraph A.2 of this Section, the owner or operator may demonstrate an alternative risk-assessment-based closure in accordance with LAC 33:I.Chapter 13.**

Response
Exide has not requested an alternative risk-assessment-based closure in accordance with LAB 33:I.Chapter 13; therefore, this citation does not apply.

§3509. Closure Financial Responsibility

A. **The operator shall submit, with the permit application, a closure plan which provides the estimated cost of closure, and post-closure monitoring including long-term monitoring devices, and the number of years of estimated operation before closure, and which is designed to minimize the need for future maintenance and to ensure against leakage or escape of hazardous waste.**

Response
Exide's Closure and Post Closure Plan is provided in Appendix 8. The plan includes closure procedures and cost estimates for the hazardous waste units (i.e., Truck/Trailer storage area, Whole Battery Storage area, Slag Stabilization area and Containment Building), and post-closure monitoring procedures and cost estimates for the closed hazardous waste piles. Closure costs were developed assuming a third party contractor or consultant would conduct the closure. The facility was opened in 1969. The final closure date of the facility has not yet been determined. For permitting purposes, the approximate timeframe that the facility is expected to continue operation is until the year 2021.

Post-closure activities will not be required for the hazardous waste units as they will be clean closed. Post-closure activities for the hazardous waste piles include scheduled inspections, cap maintenance and groundwater monitoring.

Closure procedures for the hazardous waste units includes shipment of remaining wastes (slag, batteries, battery components, and drums of waste) off-site for disposal at a permitted facility or recycling at a lead smelter. The units will be decontaminated with steam cleaners. Wash water will be collected and transported for off-site disposal. Samples of

wash water will be collected and analyzed to determine if the decontamination process was complete. Decontamination will be considered complete when wash water samples meet the following performance standards: lead, 0.050 mg/L; arsenic, 0.050 mg/L; chromium 0.050 mg/L; cadmium, 0.010 mg/L; and mercury 0.002 mg/L. Confirmatory samples will be collected for total lead, arsenic, chromium, barium, cadmium, silver, selenium, mercury, antimony and pH. The performance standards for soils will be: total lead, 1400 mg/kg; arsenic, 12 mg/kg; chromium, 30,000 mg/kg; barium, 14,000 mg/kg; cadmium, 100 mg/kg; silver, 1000 mg/kg; selenium, 1000 mg/kg; mercury, 61 mg/kg and anitimony, 82 mg/kg; and pH, 2 units minimum. A certification report stating that the unit was closed in accordance with the approved closure plan will be prepared for each unit and certified by an independent registered professional engineer.

E. The operator shall create a "closure fund" under the requirements in LAC 33:V.Chapters 35 and 37.

Response
Exide acknowledges the requirements of this section and will comply.

§3511. Closure Plan; Amendment of Plan

A. Written Plan

1. The owner or operator of a hazardous waste management facility must have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by LAC 33:V.2911.D and 2315.C to have contingent closure plans. The plan must be submitted with the permit application, in accordance with LAC 33:V.517.M and approved by the administrative authority as part of the permit issuance procedures under LAC 33:V.Chapters 3 and 7. In accordance with LAC 33:V.311, the approved closure plan will become a condition of any hazardous waste permit.

Response
Exide's Closure and Post-Closure Plan is provided in Appendix 8. The plan includes general facility closure procedures; specific clean-closure procedures for the Slag Stabilization Area, the Containment Building, the Truck Trailer Storage Area and the Whole Battery Storage Area; a closure cost estimate; and post-closure care procedures and costs for the closed hazardous waste piles. Exide does not plan to conduct any partial closures. The

Response
Exide acknowledges this citation and will comply. Exide submitted a permit modification in October 2001 to propose upgrades to the containment building floor system and include the containment building in the permit. The upgrades to the floor system were completed in November 2003. The modification included a amended closure plan. Comments on the modification request were received from LDEQ in March 2003. The modification request has not yet been approved, but the modifications are included in this renewal application.

1. **The owner or operator may submit a written notification or request to the to the Office of Environmental Services, Permits Division for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.**

   Response
   Exide acknowledges this citation and will comply.

2. **The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:**

   a. **changes in operating plans or facility design affect the closure plan; or**

   b. **there is a change in the expected year of closure, if applicable; or**

   c. **in conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.**

   Response
   Exide acknowledges this citation and will comply.

3. **The owner or operator must submit to the Office of Environmental Services, Permits Division a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile**

that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under LAC 33:V.2911.D or 2315.D must submit an amended closure plan to the Office of Environmental Services, Permits Division no later than 60 days from the date that the owner or operator or administrative authority determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of LAC 33:V.2521, or no later than 30 days from that date if the determination is made during partial closure or final closure. The administrative authority will approve, disapprove, or modify this amended plan in accordance with the procedures in LAC 33:V.Chapters 3 and 7. In accordance with LAC 33:V.311, the approved closure plan will become a condition of any hazardous waste permit issued.

Response
Exide acknowledges this citation and will comply.

4. **The administrative authority may request modifications to the plan under the conditions described in LAC 33:V.3511.A.2. The owner or operator must submit the modified plan within 60 days of the administrative authority's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the administrative authority will be approved in LAC 33:V.Chapters 3 and 7.**

Response
Exide acknowledges this citation and will comply.

5. **The owner or operator requests the administrative authority to apply alternative requirements to a regulated unit under LAC 33:V.3301.G, 3501.D, and/or 3701.D.**

Response
Exide acknowledges this citation and will comply; however Exide does not request alternative requirements.

D. **Notification of Partial Closure and Final Closure**

1. **The owner or operator must notify the Office of Environmental Services, Permits Division in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of a facility with such a unit. The owner or**

RESPONSE
ATTACHMENT 37

CHAPTER 37

FINANCIAL REQUIREMENTS

Exide acknowledges the financial requirements for the containment building presented in this chapter. Please find enclosed as Appendix 9, the Surety Bond for financial assurance obligations.

Section 18. Interpretation

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in LAC 33:V.3719.N as such regulations were constituted on the date first above written.

[Signature of Grantor]
[Title]
Attest:
[Title]
[Seal]
[Signature of Trustee]
Attest:
[Title]
[Seal]

2. The following is an example of the certification of acknowledgement which must accompany the trust agreement for a standby trust fund as specified in LAC 33:V.3715.H or 4411.H.

State of Louisiana

Parish of

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

RESPONSE
ATTACHMENT 38

CHAPTER 38

UNIVERSAL WASTES

overpacked in a container that does meet the requirements of Paragraph E.1 of this Section;

3. a tank that meets the requirements of LAC 33:V.Chapter 19, except for LAC 33:V.1915.C;

4. a transport vehicle or vessel that is closed, structurally sound, and compatible with the antifreeze and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

§3845. Labeling/Marking

A. A large quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

1. Universal waste batteries (e.g., each battery), or a container or tank in which the batteries are contained, must be labeled or marked clearly with the any one of the following phrases: "Universal Waste—Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)";

Response

The trailer containing spent nickel-cadmium batteries will be marked by the generator with the phrase "Universal Waste – Batteries" or "Waste Batteries" or "Spent Nickel-Cadmium Batteries". Exide will ensure that all trailers are marked. Sample labels are provided in Appendix 31.

2. A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in LAC 33:V.3805.A.1 are contained must be labeled or marked clearly with:

a. the label that was on or accompanied the product as sold or distributed; and

Subchapter F. Import Requirements

§3879. Imports

Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of this Chapter, immediately after the waste enters the United States, as indicated in Subsections A-C of this Section.

Response

Exide does not import universal wastes; therefore this section does not apply.

A. A universal waste transporter is subject to the universal waste transporter requirements of Subchapter D of this Chapter.

B. A universal waste handler is subject to the small or large quantity handler of universal waste requirements of Subchapter B or C of this Chapter, as applicable.

C. An owner or operator of a destination facility is subject to the destination facility requirements of Subchapter E of this Chapter.

D. Persons managing universal waste that is imported from an OECD country as specified in LAC 33:V.1113.I.1.a are subject to Subsections A-C of this Section, in addition to the requirements of LAC 33:V.Chapter 11.Subchapter B.

Subchapter G. Petitions to Include Other Wastes Under This Chapter

§3881. General

A. Any person seeking to add a hazardous waste or a category of hazardous waste to this Chapter may petition for a regulatory amendment under this Subpart and LAC 33:I.Chapter 9.

Response

Exide acknowledges this section and will comply; however, Exide is not petitioning to add a hazardous waste to this Chapter.

B. To be successful, the petitioner must demonstrate to the satisfaction of the administrative authority that regulation under the universal waste regulations in this Chapter:

1. is appropriate for the waste or category of waste;

2. will improve management practices for the waste or category of waste; and

3. will improve implementation of the hazardous waste program.

C. The petition must include the information required by LAC 33:I.Chapter 9. The petition should also address as many of the factors listed in LAC 33:V.3883 as are appropriate for the waste or waste category addressed in the petition.

D. The administrative authority will evaluate and grant or deny petitions using the factors listed in LAC 33:V.3883. The decision will be based on the weight of evidence showing that regulation under this Chapter is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

§3883. Factors for Petitions to Include Other Wastes Under This Chapter

A. Factors for petitions to include other waste under this Chapter include:

Response

Exide acknowledges this section and will comply; however, Exide is not petitioning to add a hazardous waste to this Chapter.

1. the waste or category of waste, as generated by a wide variety of generators, is listed in LAC 33:V.4901 or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in LAC 33:V.4903. When a characteristic waste is added to the universal waste regulations of this Chapter by using a generic name to identify the waste category (e.g., batteries), the definition of universal

RESPONSE
ATTACHMENT 40

CHAPTER 40

USED OIL

Included as this Section are the responses to the Chapter 40 regulations. Included as Appendix 16 is Exide's Used Oil Plan that addresses the applicable citations.

Used Oil Processor/Re-refiner—a facility that processes used oil.

Used Oil Transfer Facility—any transportation-related facility, including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation or prior to an activity performed in accordance with LAC 33:V.4009.B.2. Transfer facilities that store used oil for more than 35 days are subject to regulation under Subchapter E of this Chapter.

Used Oil Transporter—any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil-derived products or used oil fuel.

Subchapter A. Materials Regulated as Used Oil

§4003. Applicability

This Section identifies those materials which are subject to regulation as used oil under this Chapter. This Section also identifies some materials that are not subject to regulation as used oil under this Chapter and indicates whether these materials may be subject to regulation as hazardous waste under this Subpart.

A. Used Oil. Used oil is to be recycled unless a used oil handler disposes of it or sends it for disposal. Except as provided in LAC 33:V.4005, the regulations of LAC 33:V.Chapter 40 apply to used oil and to materials identified in LAC 33:V.4003 as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in LAC 33:V.4903.

<u>Response</u>

Exide acknowledges and understands and will comply with this provision. Exide contracts a recycling company to reclaim all used oil generated at the Baton Rouge smelter. The Used Oil Plan is included as Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

B. Mixtures of Used Oil and Hazardous Waste

1. Listed Hazardous Waste

a. Mixtures of used oil and hazardous waste that is listed in LAC 33:V.4901 are subject to regulation as hazardous waste under LAC 33:V.Subpart 1, rather than as used oil under LAC 33:V.Chapter 40.

<u>Response</u>
Exide acknowledges, understands and will comply with this provision. Exide does not mix used oil and hazardous waste. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

b. Rebuttable Presumption for Used Oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in LAC 33:V.4901. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by using an analytical method from EPA Publication SW-846, Third Edition, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in LAC 33:V.3105.Table 1). EPA Publication SW-846, Third Edition, is available from the Government Printing Office, Superintendent of Documents, Box 371954, Pittsburgh, PA 15250-7954, (202) 512-1800 (document number 955-001-00000-1).

<u>Response</u>

Exide acknowledges, understands and will comply with this provision. Exide does not mix used oil and hazardous waste. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

i. The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins if they are processed through a tolling arrangement as described in LAC 33:V.4017.C to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner or disposed.

Response

This provision does not apply since Exide does not use oils in metal working.

ii. **The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units in which the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.**

Response

Exide acknowledges, understands and will comply with this provision. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills. Exide does not manage used oils contaminated with CFCs.

2. **Characteristic Hazardous Waste. Mixtures of used oil and hazardous waste that solely exhibits one or more of the hazardous waste characteristic identified in LAC 33:V.4903 and mixtures of used oil and hazardous waste that is listed in LAC 33:V.4901 solely because it exhibits one or more of the characteristics of hazardous waste identified in LAC 33:V.4903 are subject to:**

   a. **regulation as hazardous waste under LAC 33:V.Subpart 1 rather than as used oil under LAC 33:V.Chapter 40 if the resultant mixture exhibits any characteristics of hazardous waste identified in LAC 33:V.4903, except as provided in LAC 33:V.4003.B.2.c;**

   b. **regulation as used oil under LAC 33:V.Chapter 40 if the resultant mixture does not exhibit any characteristics of hazardous waste identified under LAC 33:V.4903, except as specified in LAC 33:V.4003.B.2.c; or**

   c. **regulation as used oil under this Chapter if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resulting mixture does not exhibit the characteristic of ignitability under LAC 33:V.4903.**

Response

Exide acknowledges, understands and will comply with this provision. Exide does not mix used oil and hazardous waste. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

C. Materials Containing or Otherwise Contaminated with Used Oil

1. Except as provided in LAC 33:V.4003.C.2, materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

a. are not used oil and thus not subject to LAC 33:V.Chapter 40; and

b. are subject to the hazardous waste regulations of LAC 33:V.Subpart 1, if applicable.

Response

Exide acknowledges, understands and will comply with this provision. Management of materials contaminated with used oil is addressed in the Used Oil Plan in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

2. Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under LAC 33:V.Chapter 40.

Response

Exide acknowledges, understands and will comply with this provision, however, Exide does not burn used oil or materials contaminated with used oil for energy recovery.

3. Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under LAC 33:V.Chapter 40.

Response

Exide acknowledges, understands and will comply with this provision. Management of used oil drained or removed from materials containing or contaminated with used oil is addressed in the Used Oil Plan in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

D. Mixtures of Used Oil with Products

1. **Except as provided in LAC 33:V.4003.D.2, mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under LAC 33:V.Chapter 40.**

Response

Exide acknowledges, understands and will comply with this provision. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills. It is not standard practice at Exide to mix oil with fuel or other fuel products; however, mixing of oil with fuel or other fuel products does happen on occasion as part of facility operations.

2. **Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to LAC 33:V.Chapter 40 once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of LAC 33:V.Chapter 40.Subchapter B.**

Response

Exide acknowledges, understands and will comply with this provision. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills. It is not standard practice at Exide to mix oil with diesel fuel; however, mixing of oil with diesel does happen on occasion as part of facility operations.

E. Materials Derived from Used Oil

1. **Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:**

   a. **not used oil and, thus, are not subject to LAC 33:V.Chapter 40; and**

   b. **not solid wastes and, thus, are not subject to the hazardous waste regulations of LAC 33:V.Subpart 1 as provided in LAC 33:V.109.*Hazardous Waste*.4.b.i.**

   Response

   Exide acknowledges, understands and will comply with this provision; however Exide does not manage materials derived from used oil. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

2. **Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under LAC 33:V.Chapter 40.**

   Response

   Exide acknowledges, understands and will comply with this provision; however Exide does not burn materials produced from used oil for energy recovery. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

3. **Except as provided in LAC 33:V.4003.E.4, materials derived from used oil that are disposed of or used in a manner constituting disposal are:**

   a. **not used oil and, thus, are not subject to LAC 33:V.Chapter 40; and**

b. **solid wastes and, thus, are subject to the hazardous waste regulations of LAC 33:V.Subpart 1 if the materials are listed or identified as hazardous waste.**

Response

Exide acknowledges, understands and will comply with this provision; however Exide does not manage materials derived from used oil. The Used Oil Plan (Appendix 16) includes procedures for storage and transportation of used oil and a contingency plan for spills.

4. **Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to LAC 33:V.Chapter 40.**

Response

This provision does not apply since Exide does not generate this type of material.

F. **Wastewater. Wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act and LAC 33:IX (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with de minimis quantities of used oil is not subject to the requirements of this Chapter. For purposes of LAC 33:V.4003.F, "de minimis" quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases or the used oil is recovered from wastewaters.**

Response

Exide acknowledges, understands and will comply with the above provision regarding wastewater contaminated with de minimus quantities of used oil. Wastewater contaminated with de minimus quantities of used oil will be processed in the facility's wastewater treatment plant and discharged in accordance with the facility's NPDES permit. Used oil discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills or other releases or recovered from wastewaters

H. **Used Oil on Vessels. Used oil produced on vessels from normal shipboard operations is not subject to this Chapter until it is transported ashore.**

Response

Exide acknowledges, understands and will comply with this provision. This citation does not apply to the Exide facility as used oil is not produced on vessels.

I. **Used Oil Containing PCBs. Used oil containing PCBs (as defined at 40 CFR 761.3) at any concentration less than 50 ppm is subject to the requirements of this Subchapter. Used oil subject to the requirements of this Subchapter may also be subject to the prohibitions and requirements found at 40 CFR part 761, including sections 761.20(d) and (e). Used oil containing PCBs at concentrations of 50 ppm or greater is not subject to the requirements of this Subchapter, but is subject to regulation under 40 CFR part 761.**

Response

Exide acknowledges, understands and will comply with this provision. Exide does not manage used oil contaminated with PCBs. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

§4005. Used Oil Specifications

Used oil burned for energy recovery and any fuel produced from used oil by processing, blending, or other treatment is subject to regulation under this Chapter unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specifications shown in LAC 33:V.4005.Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any specifications and the person making that showing complies with LAC 33:V.4081, 4083, and 4085.B, the used oil is no longer subject to this Chapter.

Response

Exide acknowledges, understands and will comply with this provision. However, this citation is not applicable since Exide does not burn used oil for energy recovery. It is not standard practice at Exide to mix oil with diesel fuel; however, mixing of oil with diesel happens on occasion as part of facility operations such

as during use of a weed wacker. Mixed oil and diesel is not introduced into the furnaces for energy recovery as furnace capacity is designated for lead smelting.

Table 1

Used Oil Not Exceeding Any Specification Level is Not Subject to this Chapter When Burned for Energy Recovery[1]

Constituent/property level	Allowable
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	1,000 ppm maximum
Flash point	100°F minimum
Total halogens	4,000 ppm maximum[2]

ENDNOTE: [1]The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see LAC 33:V.4003.B).

ENDNOTE: [2]Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under LAC 33:V.4003.B.1. Such used oil is subject to LAC 33:V.Chapter 30 rather than LAC 33:V.Chapter 40 when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

Note: Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).

§4007. Prohibitions

A. Surface Impoundment Prohibition. Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27-29, 31-33, 35, 37, and 43.

Response

Exide acknowledges, understands and will comply with this provision. Exide does not manage used oil in surface impoundments or waste piles. Exide manages Used Oil in tanks as indicated in the Used Oil Plan in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

B. Use as a Dust Suppressant. The use of used oil as a dust suppressant is prohibited.

Response

Exide acknowledges that the use of used oil as a dust suppressant is prohibited. Exide uses water for dust suppression, as specified in the Dust Suppression Operational Procedure which is included in Appendix 12.

C. Burning in Particular Units. Off-specification used oil fuel may be burned for energy recovery in only the following devices:

1. industrial furnaces identified in LAC 33:V.109;

2. boilers as defined in LAC 33:V.109 that are identified as follows:

a. industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

b. utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or

c. used oil-fired space heaters provided that the burner meets the provisions of LAC 33:V.4015.

3. hazardous waste incinerators subject to regulation under LAC 33:V.Chapter 31 and Chapter 43.Subchapter N.

Response

Exide acknowledges, understands and will comply with this provision. Used oil generated by the Baton Rouge smelter is recycled and not burned for energy recovery.

3. **generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of LAC 33:V.4015, must also comply with LAC 33:V.Chapter 40.Subchapter F;**

4. **generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in LAC 33:V.4005 must also comply with LAC 33:V.Chapter 40.Subchapter G; and**

5. **generators who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with LAC 33:V.Chapter 40.Subchapter H.**

Response

Exide acknowledges, understands and will comply with these provisions. However, Exide does not conduct any of the above activities.

§4011. Hazardous Waste Mixing

A. **Mixtures of used oil and hazardous waste must be managed in accordance with LAC 33:V.4003.B.**

Response

Exide acknowledges that all mixtures of used oil and hazardous waste must be managed in accordance with LAC 33:V.4003.B. Exide does not mix used oil and hazardous waste. The Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

B. **The rebuttable presumption for used oil of LAC 33:V.4003.B.1.b applies to used oil managed by generators. Under the rebuttable presumption for used oil of LAC 33:V.4003.B.1.b, used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and, thus, must be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oils/fluids and certain used oils removed from refrigeration units.**

Response

Exide acknowledges, understands and will comply with this provision. Exide does not mix used oil and hazardous waste. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

§4013. Used Oil Storage

Used oil generators are subject to all applicable Spill Prevention, Control, and Countermeasures (40 CFR part 112) in addition to the requirements of this Subchapter. Used oil generators are also subject to the Underground Storage Tanks (LAC 33:XI) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subchapter.

Response

Exide acknowledges, understands and will comply with this provision. A copy of the Used Oil Plan is included in Appendix 16. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills. The requirements of 40 CFR part 112 are addressed in the Spill Prevention, Control and Countermeasures Plan included in Appendix 14. The requirements of Underground Storage Tank (LAC 33:XI) standards do not apply as underground storage tanks are not used for storage of used oil.

A. Storage Units. Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27-29, 31-33, 35, 37, and 43.

Response

Used oil will not be stored at Exide in units other than tanks, containers, or units subject to the regulations listed above. Please refer to the Used Oil Plan in Appendix 16 for detailed information regarding used oil storage at Exide. The Used Oil Plan includes procedures for storage and transportation of used oil and a contingency plan for spills.

B. Condition of Units. Containers and aboveground tanks used to store used oil at generator facilities must:

1. be in good condition (no severe rusting, apparent structural defects or deterioration); and

4. **if necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.**

Response

Upon the detection of a used oil release to the environment, Exide will follow the provisions listed in the Spill Prevention, Control and Counter Measures Plan (Appendix 14) including – stop the release, contain any released used oil, clean up and properly manage the released used oil and other materials. If necessary, the used oil storage unit will be repaired or replaced prior to returning to service.

§4015. On-site Burning in Space Heaters

Generators may burn used oil in used oil-fired space heaters provided that:

A. **the heater burns only used oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators;**

B. **the heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour; and**

C. **the combustion gases from the heater are vented to the ambient air.**

Response

Exide acknowledges, understands and will comply with this provision. However it is not applicable since Exide does not burn used oil.

§4017. Off-site Shipments

Except as provided in LAC 33:V.4017.A-C, generators must ensure that their used oil is transported only by transporters who have obtained EPA identification numbers.

A. **Self-transportation of Small Amounts to Approved Collection Centers. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:**

processor/re-refiner to the generator for use as a lubricant, cutting oil, or coolant. The contract (known as a "tolling arrangement") must indicate:

1. **the type of used oil and the frequency of shipments;**

2. **that the vehicle used to transport the used oil to the processing/re-refining facility and to deliver recycled used oil back to the generator is owned and operated by the used oil processor/re-refiner; and**

3. **that reclaimed oil will be returned to the generator.**

Response

Exide acknowledges, understands and will comply with this provision. Exide's used oil is reclaimed and is returned to the facility for use. The recycling company, including transportation, has an EPA identification number.

Subchapter C. Standards for Used Oil Collection Centers and Aggregation Points

§4019. Do-it-yourselfer Used Oil Collection Centers

A. **Applicability. This Section applies to owners or operators of all do-it-yourselfer (DIY) used oil collection centers.**

B. **DIY Used Oil Collection Center Requirements. Owners or operators of all DIY used oil collection centers must comply with the generator standards in LAC 33:V.Chapter 40.Subchapter B and any applicable requirements set forth in LAC 33:VII.**

Response

Exide is not a used oil collection center. Therefore, this subchapter does not apply.

RESPONSE
ATTACHMENT 41

CHAPTER 41

RECYCLABLE MATERIALS

Response

Exide acknowledges this requirement and will comply.

C. **Owners or operators subject to LAC 33:V.Subpart 1 permitting requirements with hazardous waste management units that recycle hazardous wastes are subject to the requirements of LAC 33:V.Chapter 17 and Subchapters Q-R of LAC 33:V.Chapter 43.**

Response

Exide acknowledges this requirement and will comply.

Subchapter B. Special Requirements for Group II Recyclable Materials

§4117. Applicability

The requirements of this Subchapter and all applicable provisions as provided in this Subchapter apply to industrial ethyl alcohol that is reclaimed; sludges and by products exhibiting a characteristic of a hazardous waste which are reclaimed. The following wastes are exempt from regulations:

A. **scrap metal;**

Response

This exemption does not apply as Exide does not recycle scrap metal.

B. **fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices;**

Response

This exemption does not apply as Exide does not recycle fuels produced from the refining of oil-bearing hazardous wastes.

C. **oil reclaimed from hazardous waste resulting from normal petroleum refining, production, and transportation practices, which oil is to be**

Response

Exide acknowledges this requirement and will comply.

C. **A single manifest may be used for multiple loads of recyclable material, provided that:**

1. **all loads of recyclable material are shipped on the same day from the same location by the same transporter to the same facility;**

2. **all loads are accompanied by a copy of the manifest and emergency information as required by LAC 33:V.4125;**

3. **the recyclable material in all loads has the same shipping description and hazard class;**

4. **the total quantity of each load is specified and is initialed by the generator and transporter; and**

5. **the operator of the transport vehicle for each load is listed on the manifest.**

Response

Exide acknowledges this requirement and will comply.

D. **Generators must provide a Chem-Card or similar emergency card or a statement concerning the hazardous nature of the material and general guidelines for an emergency situation involving the recyclable material to accompany the manifest on shipments and loads.**

Response

Exide acknowledges this requirement and will comply.

E. In naming a recyclable material, a generator shall:

1. use the proper Department of Transportation (DOT) shipping name (identified in 49 CFR 172);

2. if the DOT proper shipping name is "NOT OTHERWISE SPECIFIED" (NOS), then the classification system of LAC 33:V.105.B shall be used after the DOT proper shipping name, "NOS".

Response

Exide acknowledges this requirement and will comply.

F. If the recyclable material is to be transported out-of-state, the generator will be responsible for receiving the completed, signed manifest from the out-of-state facility.

Response

Exide acknowledges this requirement and will comply.

G. Generators must obtain written confirmation of the acceptability of the type of recyclable material from the operator of the facility where the material will be used or stored prior to use, before shipping the recyclable material.

Response

Exide acknowledges this requirement and will comply.

§4127. Procedures Governing the Transporter's Portion of the Manifest System

A. Transporters will pick up and ship only those recyclable materials which are properly prepared for shipment, are accompanied by a properly completed manifest, and appear to be the recyclable material described on the manifest.

RESPONSE
ATTACHMENT 51

CHAPTER 51

FEE SCHEDULES

Response

Exide acknowledges this section and will comply. Exide is a reclaimer (uncompensated for waste removed or pays for waste removed) with an annual fee of $25,000.

B. Fee per Hazardous Waste Facility Type

Unit Type	Fee
Storage **Container/Tank/Waste Pile/etc.**	**$ 3,273**
Treatment **Incinerator/Boiler/Industrial Furnace/Filtration Unit/etc.**	**$ 5,270**
Disposal **Landfill/Miscellaneous Unit/etc.**	**$ 8,270**

Response

Exide has the following storage units:

Truck/Trailer Storage Area	$3,273
Whole Battery Storage Area	$3,273
Containment Building	$3,273

Exide has the following treatment units:

Slag Stabilization Unit	$5,270

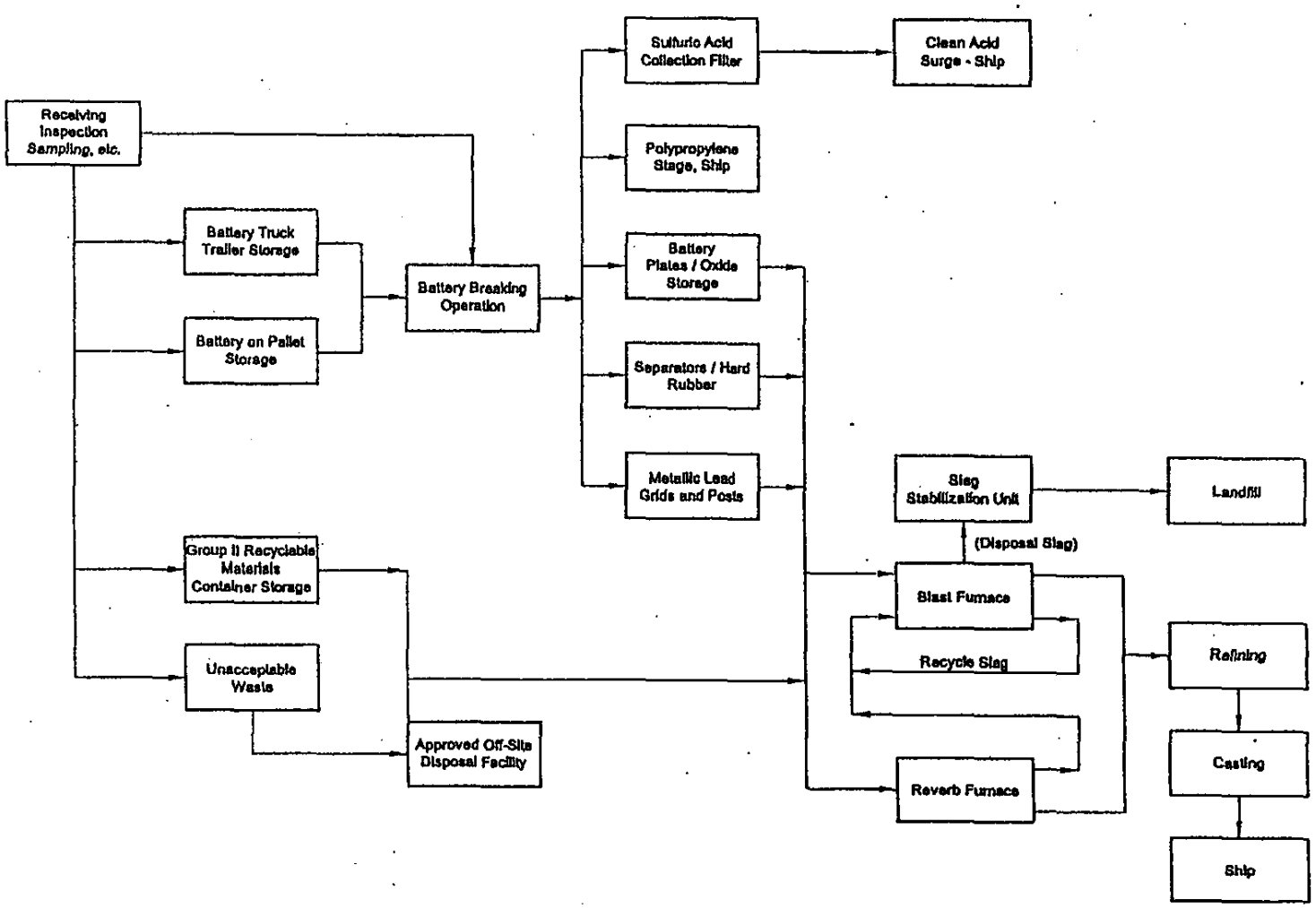
Exide has the following disposal units:

Closed Haz. Waste Pile #1	$8,270
Closed Haz. Waste Pile #2	$8,270
Total	$31,629

C. Fee Based on Volume

Less than 1,000 tons	**$ 1,952**
Less than 10,000 tons	**$ 4,904**
Less than 100,000 tons	**$ 7,856**
Less than 1,000,000 tons	**10,808**
More than 1,000,000 tons	**13,760**

RESPONSE
ATTACHMENT F



NOTES:

TAKEN FROM PROVIDENCE PART B PERMIT MODIFICATION DRAWING 028-001-A005 DATE 05/08/01

EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA

Scale: N.T.S.	PROCESS FLOW DIAGRAM
Originated By: K.A.W.	
Drawn By: P.S.G.	
Checked By: J.W.P.	Advanced GeoServices Corp. 1055 Andrew Drive, Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199
Project Mgr: P.G.S.	
Dwg No. 2003-1058-03-10	Project No. 2003-1058-03 — FIGURE: 1

OCT 20 2005

J:\EXIDE\DRAWINGS\BATON ROUGE\2003-1058-03\2003-1058-03-10

LEGEND:

CONTOUR

APPROXIMATE SITE BOUNDARY

WELL LOCATION

NOTES:

1. AERIAL PHOTOGRAPHY AND TOPOGRAPHY BY GULF COAST AERIAL MAPPING, MAY 2003.
2. SITE BOUNDARY FROM MAY 1991 SURVEY PERFORMED BY MJ DEFIELD AND ASSOCIATES INC. (BATON ROUGE) AND SEPTEMBER 18, 1995 SURVEY BY FORTE AND TABLADA, INC (BATON ROUGE)
3. WELL LOCATIONS FROM LOUISIANA DEPARTMENT OF TRANSPORTATION, PUBLIC WORKS AND WATER RESOURCES DIVISION, WATER RESOURCES SECTION.

200 0 200 400
SCALE IN FEET
2' CONTOUR INTERVAL

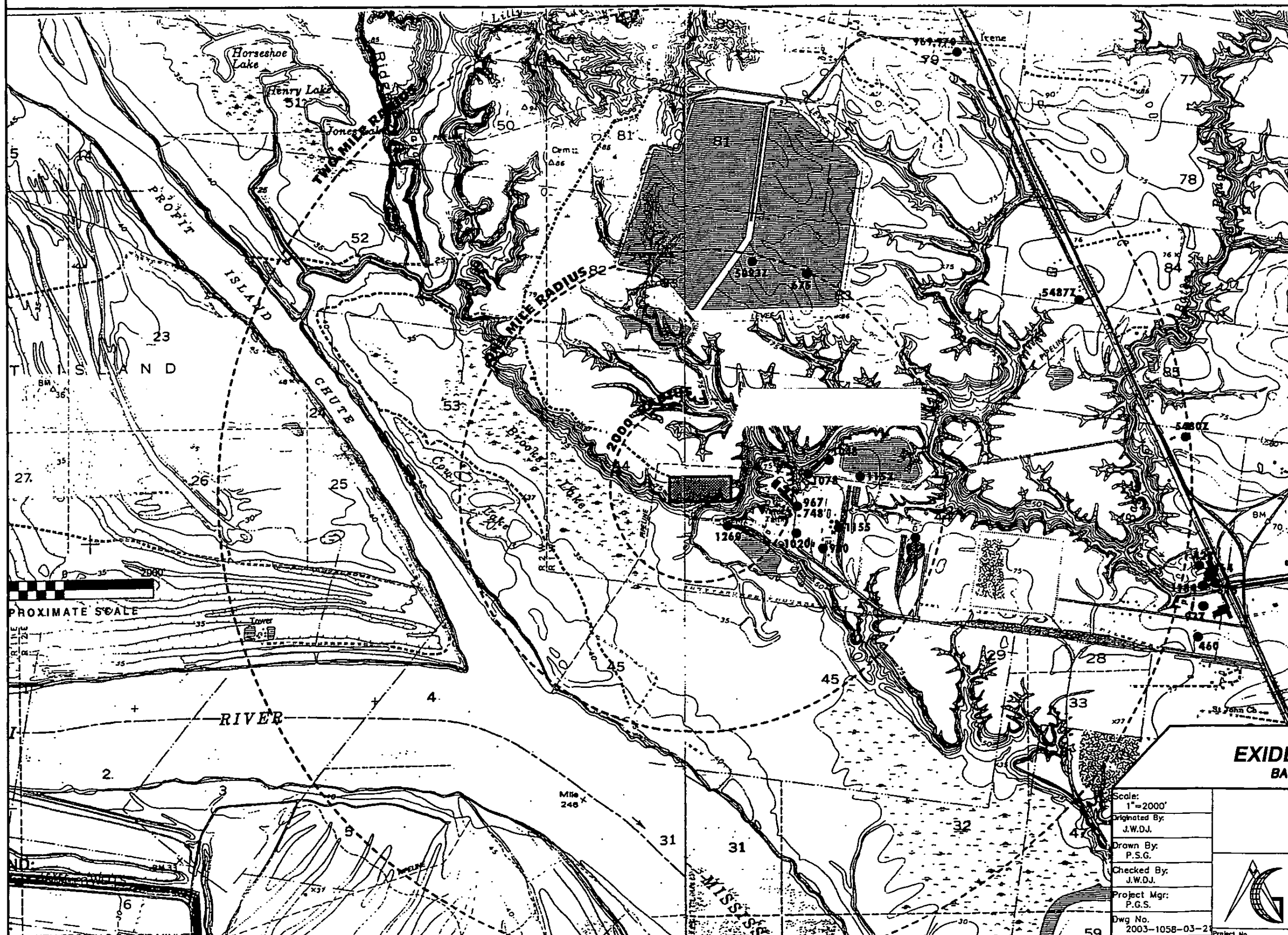
EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

Scale: 1"=200'	200 SCALE TOPOGRAPHIC MAP (WITHIN 1,000 ft.)	FIGURE:
Designed By: J.W.D.J.		
Drawn By: P.G.S.		
Checked By: J.W.D.J.		
Project Mgr: P.G.S.		
Project No.: 2003-1058-03		
Dwg No.: 2003-1058-03-20		2
Date: OCT 30 2005		

Advanced GeoServices Corp.
1055 Andrew Drive, Suite A
West Chester, Pennsylvania 19380
(610) 840-9100
FAX: (610) 840-9199

L:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-20



N
W E
S

NOTES:

1. FROM C-K ASSOCIATION, INC. AUGUST 1995 SOLID WASTE PERMIT APPLICATION.
2. THE ON-SITE DEEP WELLS ARE NO.s 967 AND 748.

EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA

Scale: 1"=2000'	RADIUS MAP WITH WATER WELL LOCATIONS
Originated By: J.W.DJ.	
Drawn By: P.S.G.	
Checked By: J.W.DJ.	
Project Mgr: P.G.S.	
Dwg No. 2003-1058-03-21	
Date: OCT 20 2005	Project No. 2003-1058-03

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1055 Andrew Drive Suite A
West Chester, Pennsylvania 19380
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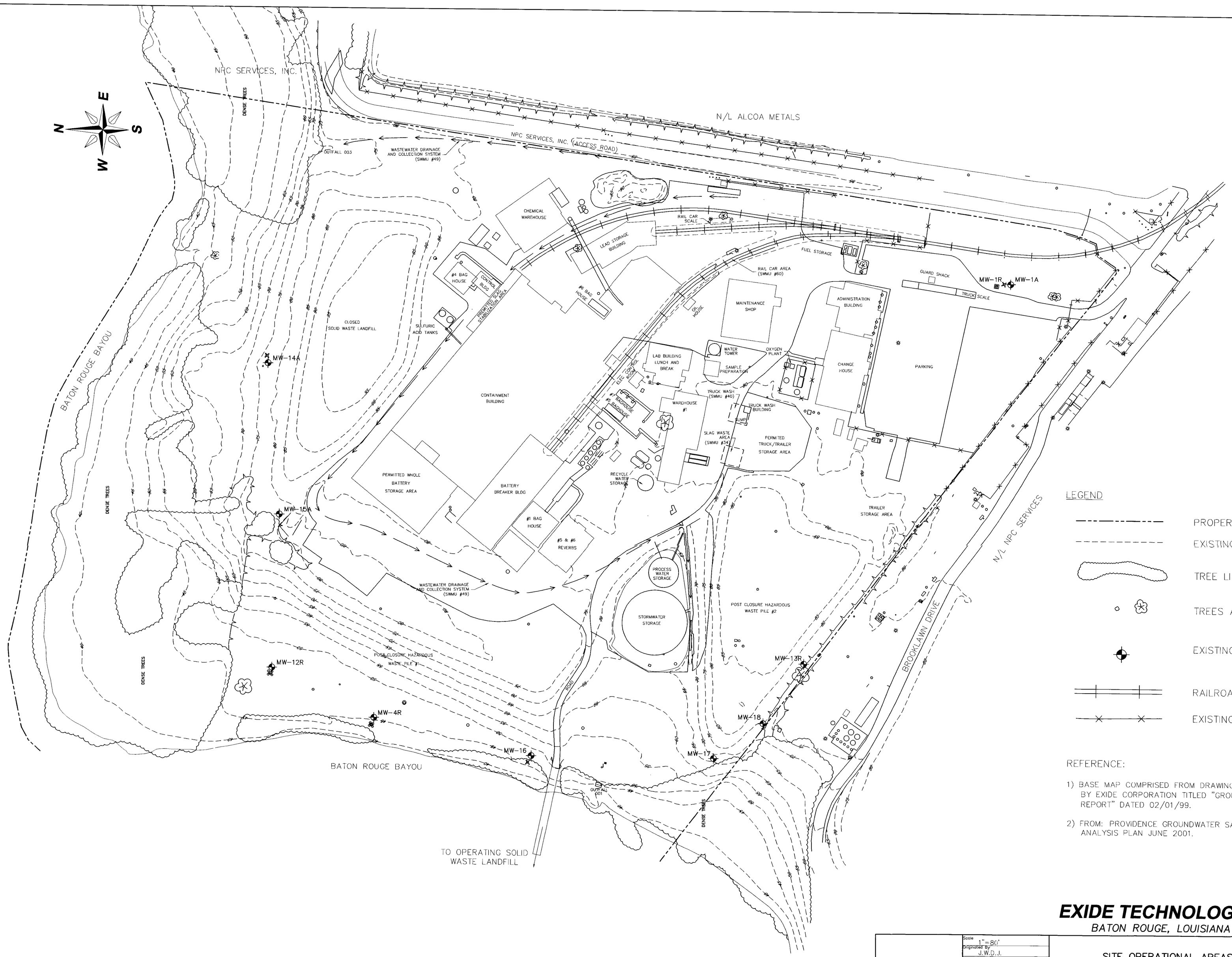
FAX: (610) 840-9199

FIGURE: 3

J:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-21



LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- TREE LINE
- TREES AND SHRUBS
- EXISTING MONITORING WELL
- RAILROAD
- EXISTING FENCE

REFERENCE:

1) BASE MAP COMPRISED FROM DRAWING PROVIDED BY EXIDE CORPORATION TITLED "GROUNDWATER REPORT" DATED 02/01/99.

2) FROM: PROVIDENCE GROUNDWATER SAMPLING AND ANALYSIS PLAN JUNE 2001.

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

Scale	1" = 80'
Originated By	J.W.D.J.
Drawn By	P.S.G.
Checked By	J.W.D.J.
Project Mgr.	P.G.S.
Project No.	2003-1058-03
Dwg No.	2003-1058-03-06
Issued:	Rev:

SITE OPERATIONAL AREAS

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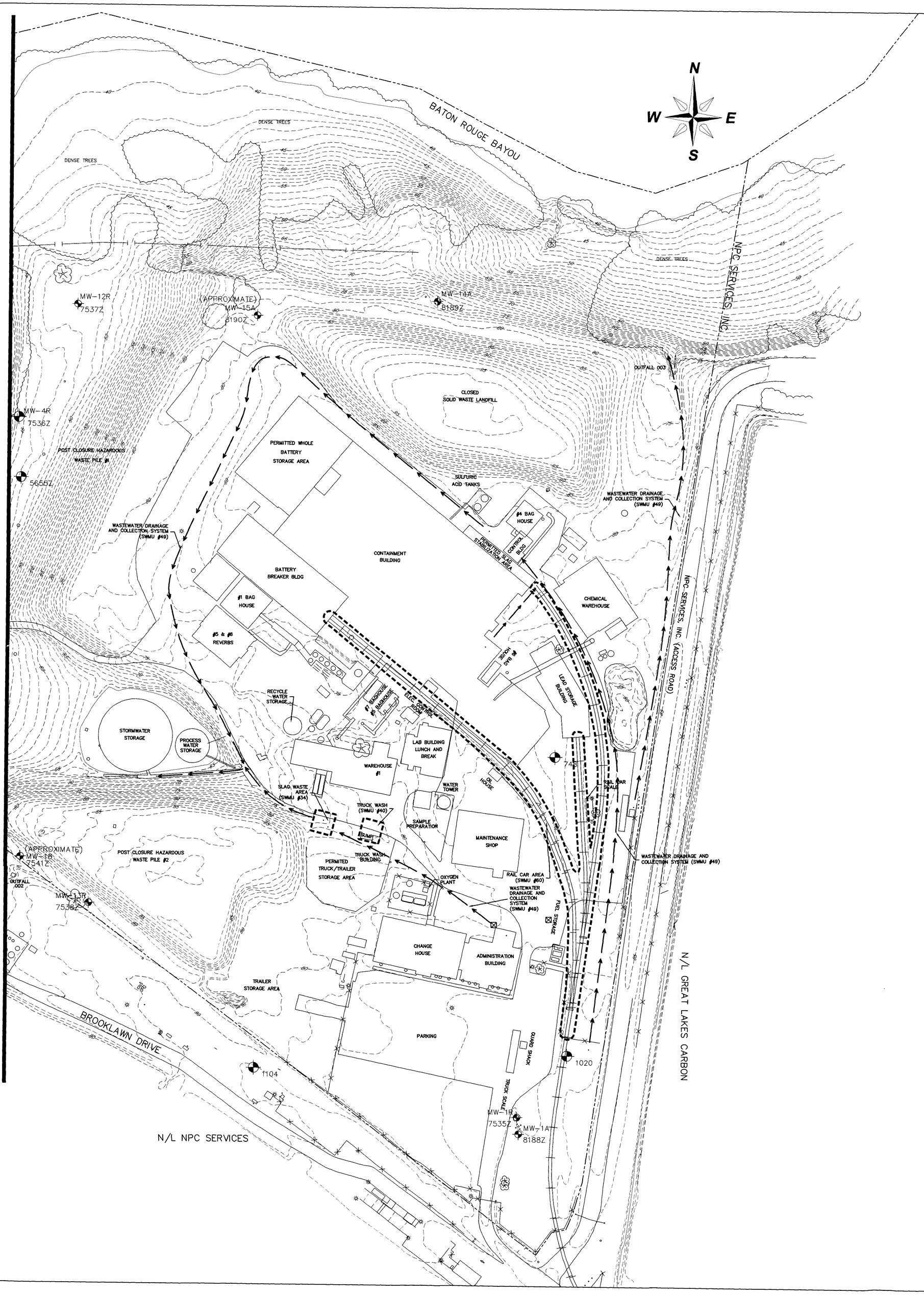
FIGURE: 4

J:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-06

MATCH LINE SEE FIGURE 5B



GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION BASED ON AERIAL SURVEY PERFORMED BY GULF COAST MAPPING ON SEPTEMBER 4, 2001.
2. PROPERTY LINE INFORMATION OBTAINED FROM MAY 1991 SURVEY PERFORMED BY M.J. DEFIELD AND ASSOCIATES, INC. (BATON ROUGE) AND SEPTEMBER 18, 1995 SURVEY PERFORMED BY FORTE AND TABLADA, INC. (BATON ROUGE).
3. NO WETLANDS MAPPING HAS BEEN COMPLETED AT THE FACILITY AND THEREFORE NO SUCH INFORMATION IS INCLUDED ON THIS PLATE.
4. TOPOGRAPHY, PROPERTY LINES AND CELL LOCATIONS FOR SOLID WASTE LANDFILL WEST OF BATON ROUGE BAYOU FROM C-K ASSOCIATES, INC. DRAWING No. C24-502-39 DATED DECEMBER 4, 1996.
5. SEE LEGAL DESCRIPTION IN APPENDIX 18 FOR MORE INFORMATION.

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- TREE LINE
- TREES AND SHRUBS
- MW-15A 8190Z — EXISTING MONITORING WELL LOCATION WITH LOUISIANA DOT IDENTIFICATION NUMBER.
- STORMWATER COLLECTION SUMP (LOCATION APPROXIMATE)
- RAILROAD
- DRAINAGE FLOW
- EXISTING FENCE
- LIGHT POST

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

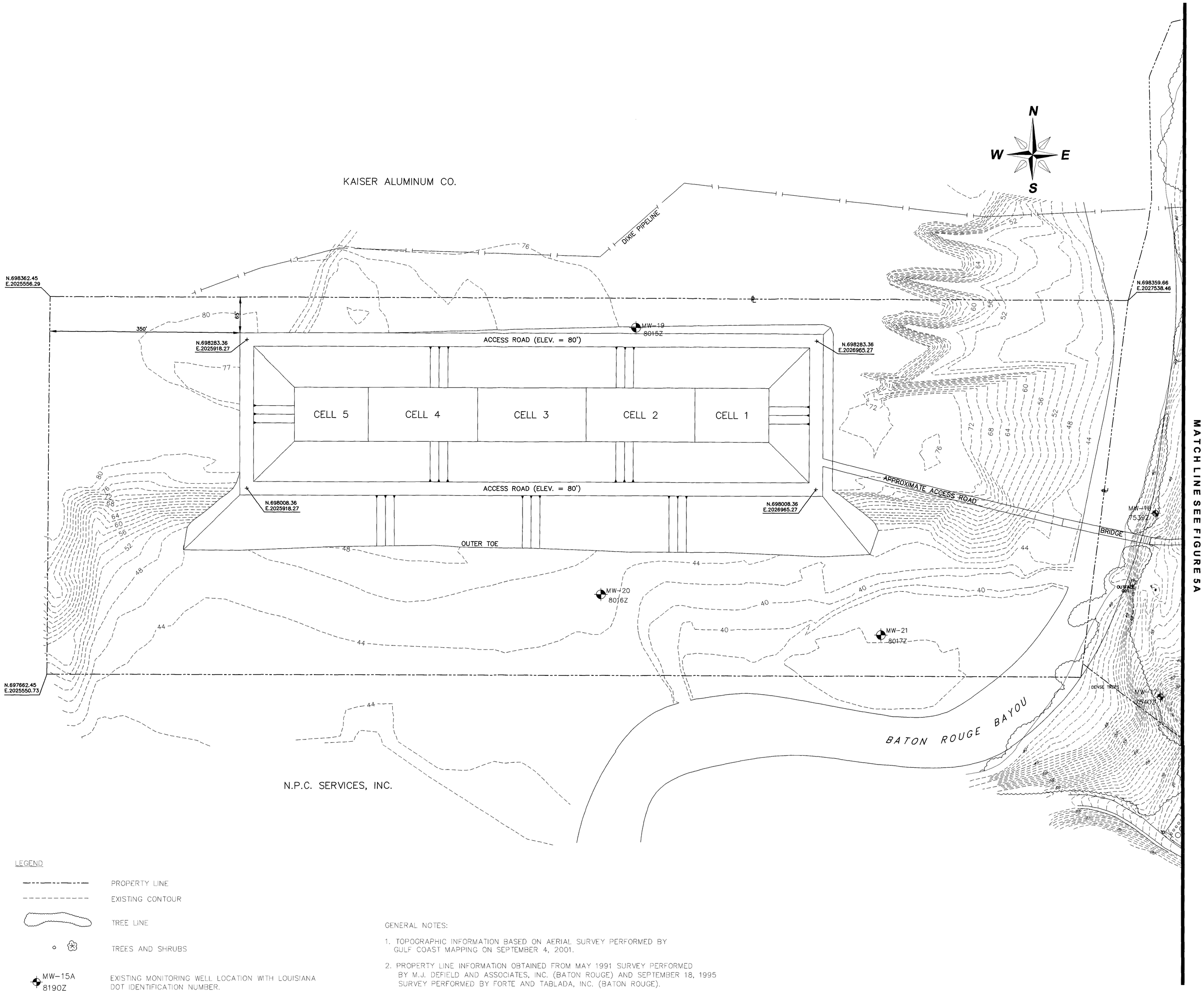
Scale	1"=50'
Originated By	P.G.S.
Drawn By	P.S.G.
Checked By	P.G.S
Project Mgr.	P.G.S.
Project No.	2003-1058-03
Dwg. No.	2003-1058-03-17
Date	Oct. 30, 2003

50 SCALE TOPOGRAPHIC MAP (FACILITY EAST)

Advanced GeoServices Corp.
1055 Andrew Drive, Suite A
West Chester, Pennsylvania 19380
(610) 840-9100

FIGURE: **5A**

c:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-17



LEGEND

- PROPERTY LINE
- EXISTING CONTOUR
- TREE LINE
- TREES AND SHRUBS
- MW-15A 8190Z — EXISTING MONITORING WELL LOCATION WITH LOUISIANA DOT IDENTIFICATION NUMBER.
- RAILROAD
- DRAINAGE FLOW
- EXISTING FENCE

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION BASED ON AERIAL SURVEY PERFORMED BY GULF COAST MAPPING ON SEPTEMBER 4, 2001.
2. PROPERTY LINE INFORMATION OBTAINED FROM MAY 1991 SURVEY PERFORMED BY M.J. DEFIELD AND ASSOCIATES, INC. (BATON ROUGE) AND SEPTEMBER 18, 1995 SURVEY PERFORMED BY FORTE AND TABLADA, INC. (BATON ROUGE).
3. NO WETLANDS MAPPING HAS BEEN COMPLETED AT THE FACILITY AND THEREFORE NO SUCH INFORMATION IS INCLUDED ON THIS PLATE.
4. TOPOGRAPHY, PROPERTY LINES AND CELL LOCATIONS FOR SOLID WASTE LANDFILL WEST OF BATON ROUGE BAYOU FROM C-K ASSOCIATES, INC. DRAWING No. C24-502-39 DATED DECEMBER 4, 1996.
5. SEE LEGAL DESCRIPTIONS IN APPENDIX 18 FOR MORE INFORMATION.

50 0 50 100
SCALE IN FEET

EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA

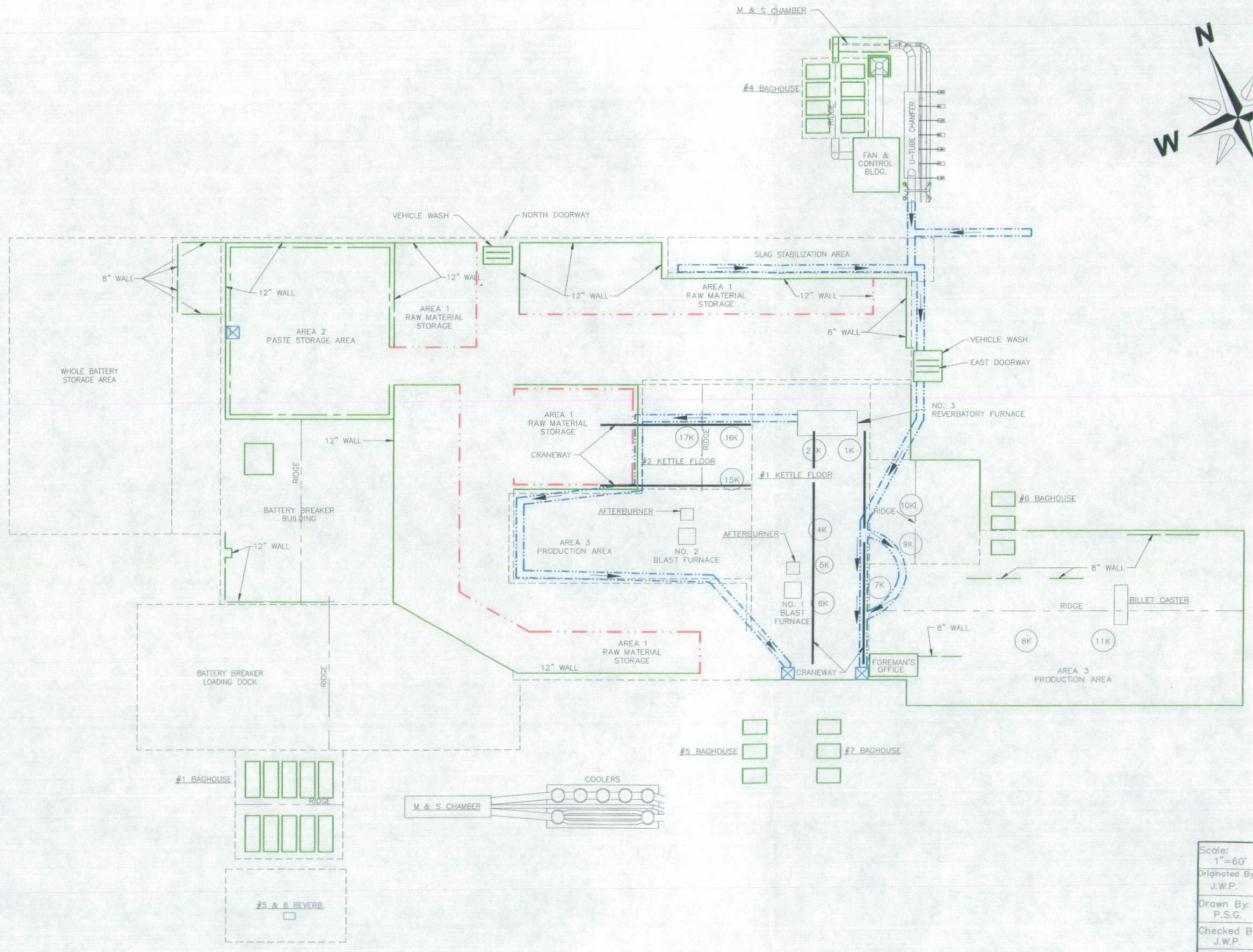
Scale:	1"=50'
Originated By:	P.G.S.
Drawn By:	P.S.G.
Checked By:	P.G.S.
Project Mgr:	P.G.S.
Project No:	2003-1058-01
Dwg No:	2003-1058-01-02
Revised:	OCT 20 2003 Date:

50 SCALE TOPOGRAPHIC MAP
(FACILITY WEST)

Advanced GeoServices Corp.
1055 Andrew Drive, Suite A
West Chester, Pennsylvania 19380
(610) 840-9100
FAX: (610) 840-9199

FIGURE:
5B

J:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-17



Legend

- Area 1 Raw Material Storage Areas
- Area 2 Paste Storage Area
- Area 3 Production Area
- Water Collection Sump
- Floor Drain
- Water Flow

Notes:

1. Base map comprised from Exide Corporation drawing titled "Containment Building" for the Hazardous Waste Containment Building Certification drawing no. B24-810-01 drawn by C-K Associates, Inc. dated 11/03/99.
2. Area 2 sump location from Providence Engineering as-built dated November 19, 2003.

60 0 60

Scale: 1" = 60'

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

Scale: 1"=60'	CONTAINMENT BUILDING MAP
Originated By: J.W.P.	
Drawn By: P.S.G.	
Checked By: J.W.P.	Advanced GeoServices Corp. 1055 Andrew Drive Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199
Project Mgr: P.G.S.	
Dwg No. 2003-1058-03-09	Project No. 2003-1058-03
Issued: OCT 20 2005	FIGURE: 6

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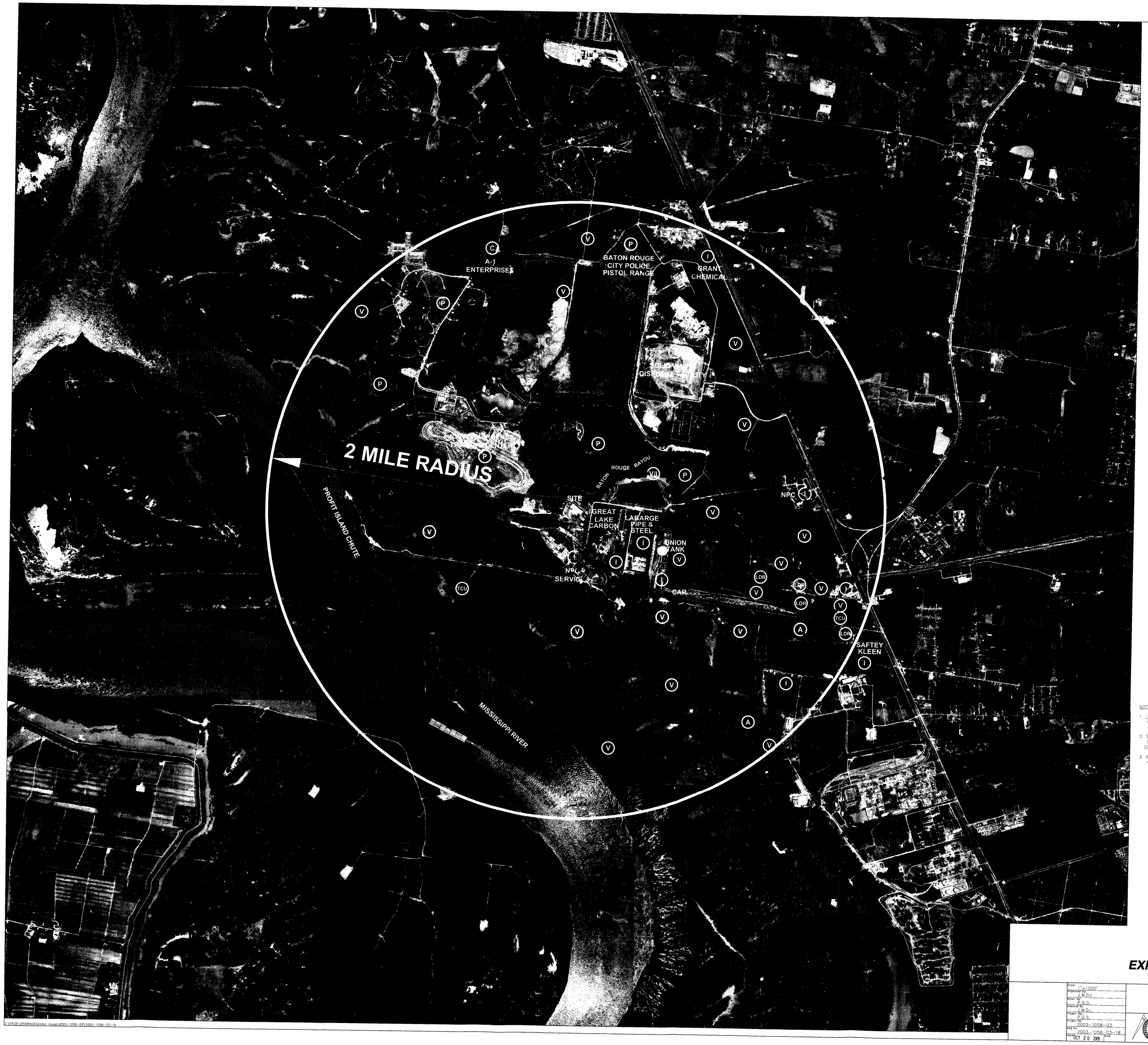

LEGEND

- (I) = INDUSTRIAL
- (C) = COMMERCIAL
- (V) = VACANT
- (LDR) = LOW DENSITY RESIDENTIAL
- (TCU) = TRANSPORTATION, COMMUNICATION, UTILITIES
- (A) = AGRICULTURE
- (P) = PUBLIC / SEMI PUBLIC INDUSTRIAL

– APPROXIMATE SITE BOUNDARY

– WELL LOCATION

NOTES:

1. LAND USE DESIGNATIONS FROM BATON ROUGE GOVERNMENT WEBSITE GEOGRAPHICAL INFORMATION SYSTEM. BOUNDARY LINES ARE APPROXIMATE.
2. SITE BOUNDARY FROM MAY 1991 SURVEY PERFORMED BY MJ DEFIELD AND ASSOCIATES INC. (BATON ROUGE) AND SEPTEMBER 18, 1995 SURVEY BY FORTE AND TABLADA, INC (BATON ROUGE)
3. WELL LOCATIONS FROM LOUISIANA DEPARTMENT OF TRANSPORTATION, PUBLIC WORKS AND WATER RESOURCES DIVISION, WATER RESOURCES SECTION.

1000 0 1000 2000
SCALE IN FEET

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

Scale: 1"=1000'	SURROUNDING LAND USE 1000 SCALE AERIAL MAP (2 MILE RADIUS)	FIGURE:
Designed by: J.W.D.J.		
Drawn by: P.S.G.		
Checked by: J.W.D.J.		
Reviewed by: P.G.S.		
Project No: 2003-1058-03	Advanced GeoServices Corp. 1055 Andrew Drive, Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199	7
Dwg No: 2003-1058-03-18		
Date: OCT 20 2005		

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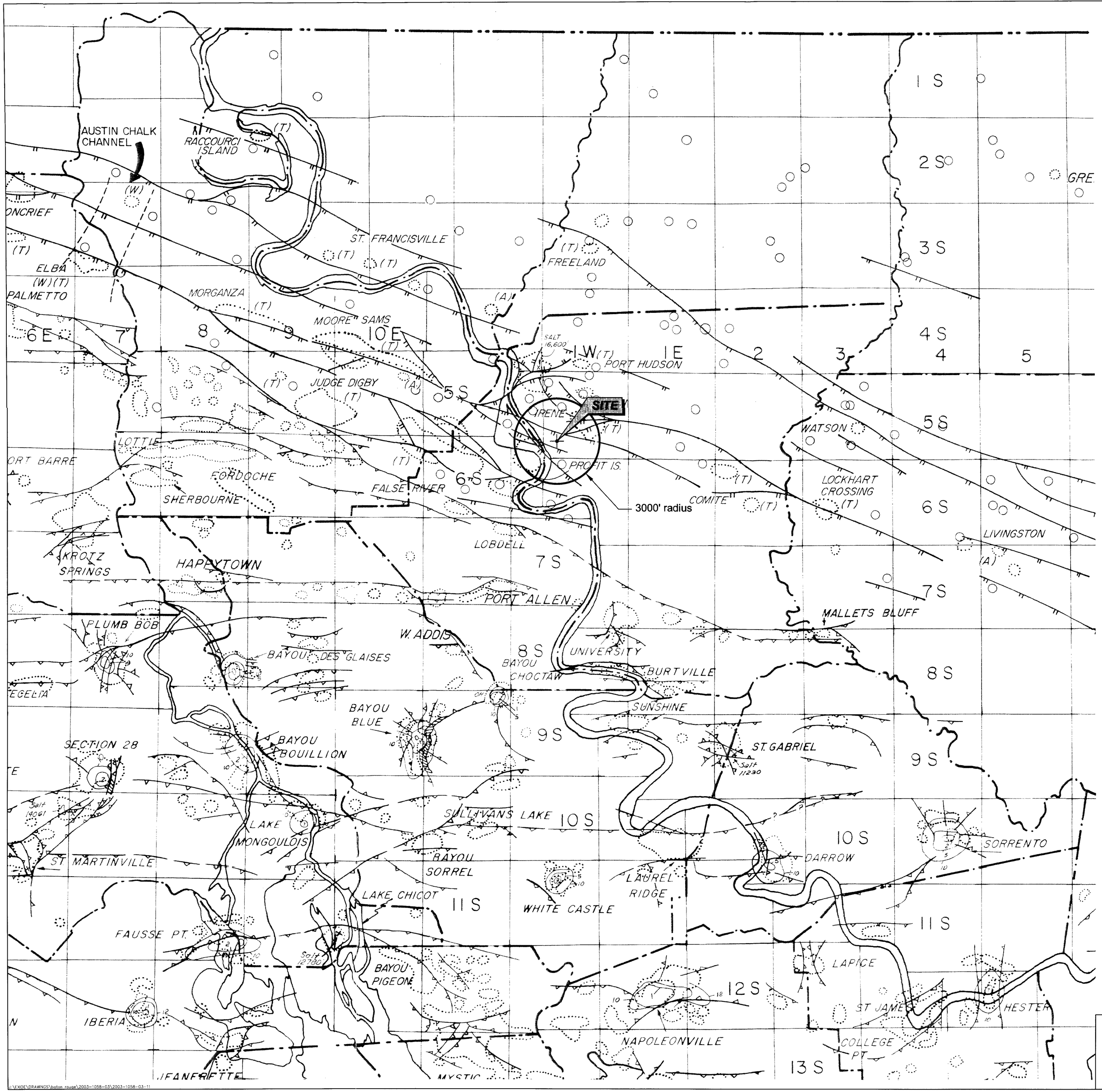


Legend

TERTIARY FAULTS (UNDER 2,000')

TERTIARY FAULTS (2,000' - 5,000')

TUSCALOOSA FAULTS

TUSCALOOSA PENETRATIONS

TUSCALOOSA OIL & GAS PRODUCTION

(T) OIL & GAS PRODUCTION (W) WILCOX (A) AUSTIN (CV) COTTON VALLEY

SALT CONTOURS (X 1,000)

OVERHANG (ON SALT DOMES) OH

NOTE:

1. ADAPTED FROM "FAULT AND SALT MAP OF SOUTH LOUISIANA", 1982 BY W.E. WALLACE AND C-K ASSOCIATES INC. SOLID WASTE PERMIT APPLICATION DRAWING A124-502-12 DATED AUGUST 17, 1995.

SCALE IN MILES

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

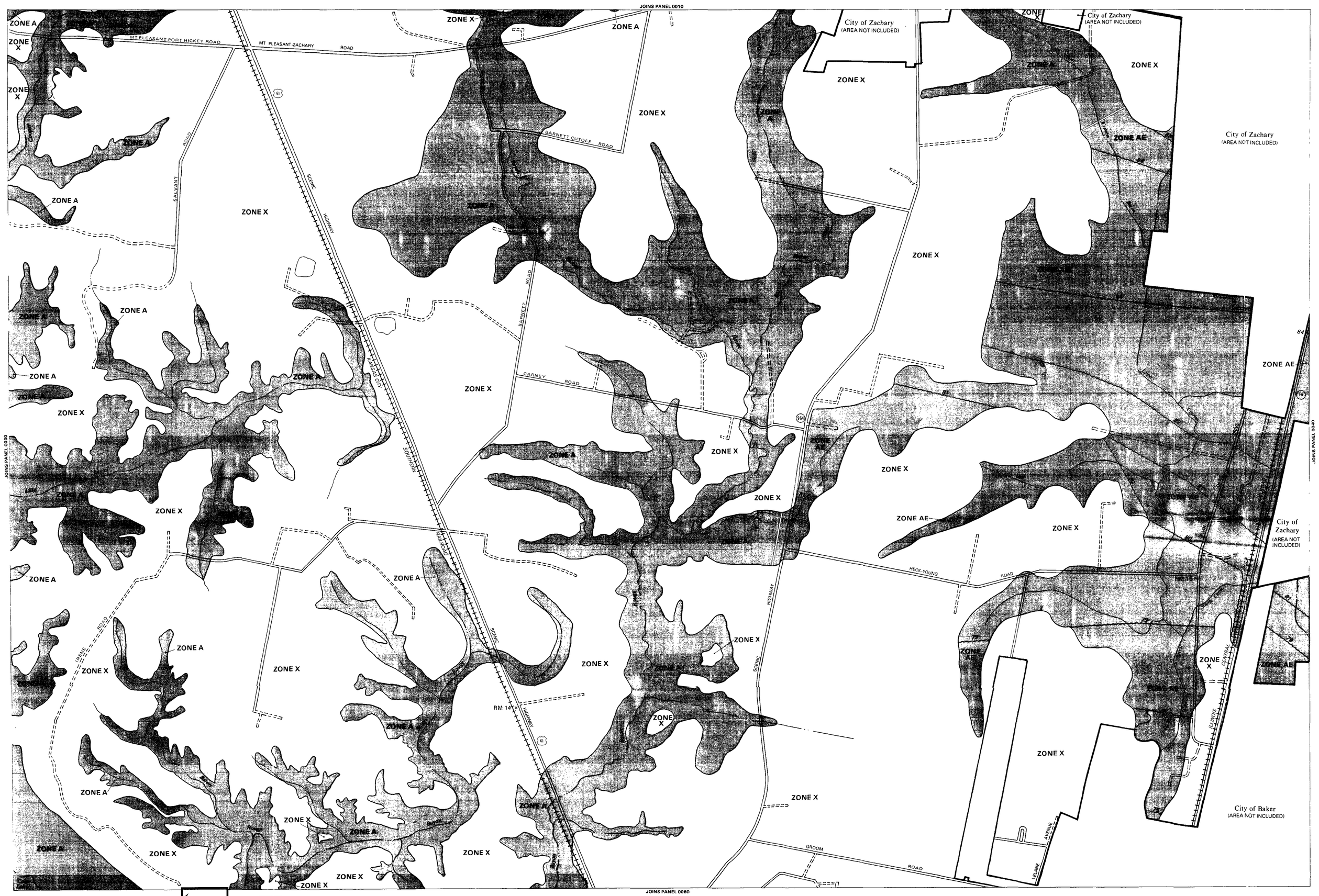
Scale	1" = 1/2 MILE
Originated By	J.W.D.J.
Drawn By	P.S.G.
Checked By	J.W.D.J.
Project Mgr.	P.G.S.
Project No.	2003-1058-03
Dwg No.	2003-1058-03-11
Issued	OCT 20 2005

FAULTS LOCATION MAP

Advanced GeoServices Corp.
1055 Andrew Drive, Suite A
West Chester, Pennsylvania 19380
(610) 840-9100
FAX: (610) 840-9199

FIGURE: 8

I:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-11



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION IN FT. (NGVD)[1]	DESCRIPTION OF LOCATION
RM 13	84.5[3]	Disk is approximately 0.7 mile north of intersection of Carney and Barnett Roads, 0.6 mile south of intersection of Barnett and Barnett Cutoff Roads, 36 feet west of Barnett Road, 21 feet north of driveway, and 3 feet west of witness post near fence. 2-620-73
RM 14	69.1[3]	Disk is 0.2 mile north of Scenic Highway (U.S. Route 61) bridge over Bayou Baton Rouge, 98 feet southwest of Scenic Highway, 43 feet south of gravel drive, 21 feet northeast of Kansas City Southern Railroad, and 1 foot west of witness post. 6-616-73
RM 15	75.2[4]	Disk is 81 feet west of Twin Oaks Drive 41 feet south of Heck-Young Road, and 1 foot east of witness post near fence. 6-624-73

[1]For the latest adjusted elevations at these points and for the most recent National Geodetic Vertical Datum Releveling information, please contact the East Baton Rouge Department of Public Works, Engineering Division, at (504) 389-3186.
[2]National Geodetic Vertical Datum of 1929 (1959 Releveling).
[3]National Geodetic Vertical Datum of 1929 (1984 Releveling).
[4]National Geodetic Vertical Datum of 1929 (1988 Releveling).

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined.
- **ZONE AE** Base flood elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.
- **ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year floodplain.
- **ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS†

Identified 1983 | Identified 1990 | Otherwise Protected Areas

†Coastal barrier areas are normally located within or adjacent to special flood hazard areas

- Floodplain Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones
- 513 — Base Flood Elevation Line, Elevation in Feet*
- (D)—(D) Cross Section Line
- (EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*
- RM 7x — Elevation Reference Mark
- •M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas. The community map repository should be consulted for possible updated flood hazard information prior to use of this map for property purchase or construction purposes.

Coastal base flood elevations apply only landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of special flood hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index.

MAP REPOSITORY
Flood Office Engineering Department, 4th Floor Municipal Building, North Street, Baton Rouge, Louisiana 70804 (Maps available for reference only, not for distribution)

INITIAL IDENTIFICATION:
NOVEMBER 22, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
NONE

FLOOD INSURANCE RATE MAP EFFECTIVE:
JULY 2, 1979

FLOOD INSURANCE RATE MAP REVISIONS:
JULY 6, 1982
NOVEMBER 15, 1985
MAY 17, 1993 - to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to change special flood hazard areas, to change zone designations, to update map format, to add roads and road names, to incorporate previously issued letters of map revision, and to incorporate previously issued letters of map amendment

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE
1200 0 1200 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

EAST BATON ROUGE PARISH, LOUISIANA
(BATON ROUGE AND VICINITY)

PANEL 35 OF 125
(SEE MAP INDEX FOR PANELS NOT PRINTED)

PANEL LOCATION

COMMUNITY-PANEL NUMBER
220058 0035 D

MAP REVISED:
MAY 17, 1993

Federal Emergency Management Agency

EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA

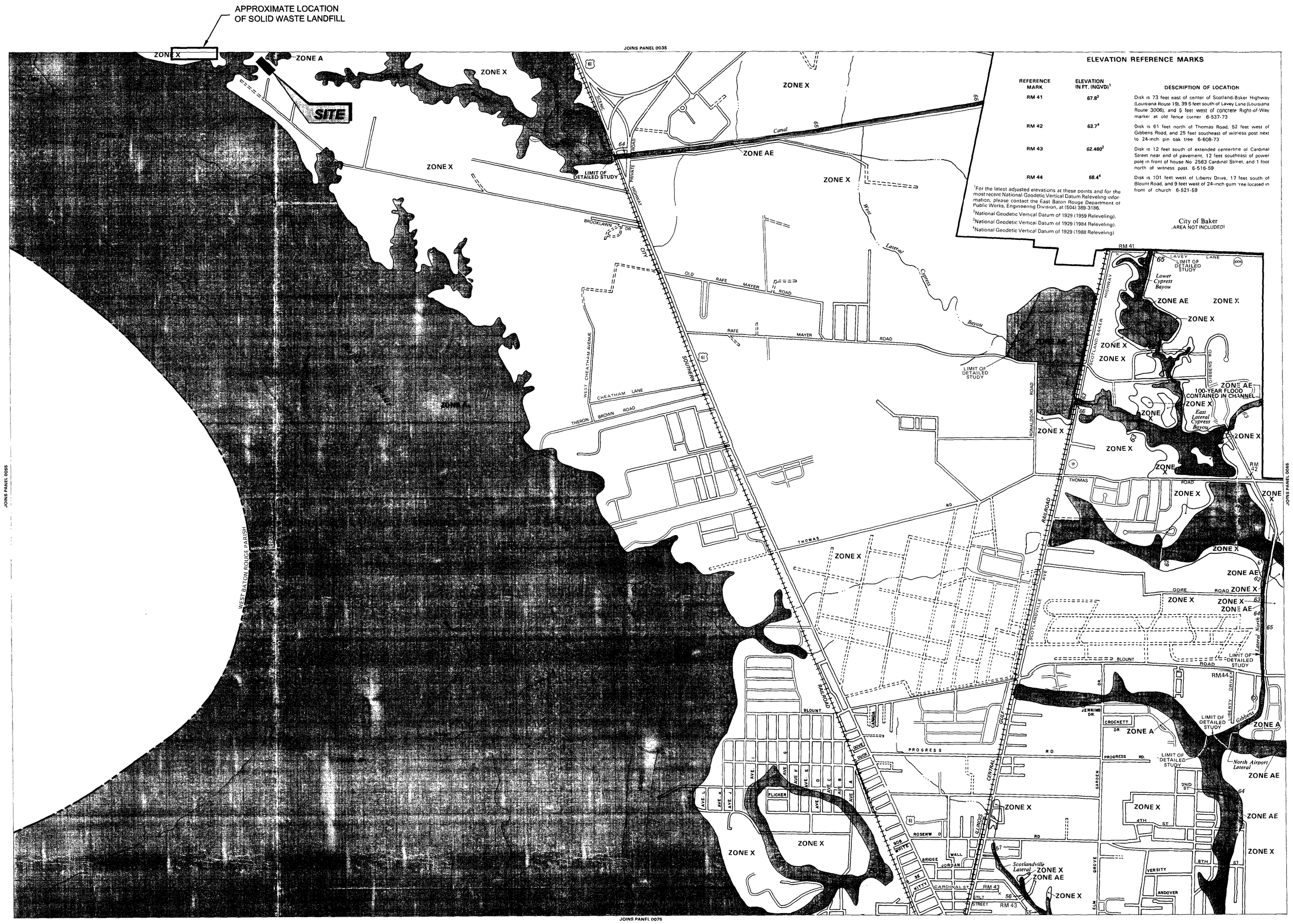
Scale	1"=1200'
Originated By	J.W.D.J.
Drawn By	P.S.C.
Checked By	J.W.D.J.
Project Mgr.	P.S.C.
Project No.	2003-1058-03
Dwg. No.	2003-1058-03-01
Issued	OCT 20 2005

1200 SCALE FLOOD PLAIN MAP (NORTH)

Advanced GeoServices Corp.
1055 Andrew Drive, Suite A
West Chester, Pennsylvania 19380
(610) 840-9100
FAX: (610) 840-9199

FIGURE: 9A

\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-01



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION IN FT. (NGVD)[1]	DESCRIPTION OF LOCATION
RM 41	67.8[2]	Disk is 73 feet east of center of Scotland-Baker Highway (Louisiana Route 19), 39.5 feet south of Lavey Lane (Louisiana Route 3006), and 5 feet west of concrete Right-of-Way marker at old fence corner 6-537-73
RM 42	63.7[4]	Disk is 61 feet north of Thomas Road, 52 feet west of Gibbens Road, and 25 feet southeast of witness post next to 24-inch pin oak tree 6-608-73
RM 43	62.480[3]	Disk is 12 feet south of extended centerline of Cardinal Street near end of pavement, 12 feet southeast of power pole in front of house No. 2563 Cardinal Street, and 1 foot north of witness post 6-516-59
RM 44	68.4[4]	Disk is 101 feet west of Liberty Drive, 17 feet south of Blount Road, and 9 feet west of 24-inch gum tree located in front of church 6-521-59

[1]For the latest adjusted elevations at these points and for the most recent National Geodetic Vertical Datum Releveling information, please contact the East Baton Rouge Department of Public Works, Engineering Division, at (504) 389-3186.

[2]National Geodetic Vertical Datum of 1929 (1959 Releveling).

[3]National Geodetic Vertical Datum of 1929 (1984 Releveling).

[4]National Geodetic Vertical Datum of 1929 (1988 Releveling)

City of Baker
(AREA NOT INCLUDED)

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined.
- **ZONE AE** Base flood elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding; velocities also determined.
- **ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.
- **ZONE V** Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- **ZONE VE** Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

- **ZONE X** Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year floodplain.
- **ZONE D** Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS(1)

Identified 1983 — Identified 1990 — Otherwise Protected Areas

(1)Coastal barrier areas are normally located within or adjacent to special flood hazard areas.

- Floodplain Boundary
- Floodway Boundary
- Zone D Boundary
- Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.
- 513 — Base Flood Elevation Line; Elevation in Feet*
- (D) — (D) — Cross Section Line
- (EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*
- RM 7x — Elevation Reference Mark
- •M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

The map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas. The community map repository should be consulted for possible updated flood hazard information prior to use of this map for property purchase or construction purposes.

Coastal base flood elevations apply only landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of special flood hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index.

MAP REPOSITORY
Flood Office Engineering Department, 4th Floor, Municipal Building, North Street, Baton Rouge, Louisiana 70801 (Maps available for reference only, not for distribution)

INITIAL IDENTIFICATION:
NOVEMBER 22, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
NONE

FLOOD INSURANCE RATE MAP EFFECTIVE:
JULY 2, 1979

FLOOD INSURANCE RATE MAP REVISIONS:
JULY 6, 1982
NOVEMBER 15, 1985
MAY 17, 1993 -to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to change special flood hazard areas, to change zone designations, to update map format, to add roads and road names, to incorporate previously issued letters of map revision, and to incorporate previously issued letters of map amendment

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620

APPROXIMATE SCALE
1200 0 1200 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

EAST BATON ROUGE PARISH, LOUISIANA
(BATON ROUGE AND VICINITY)

PANEL 60 OF 125
(SEE MAP INDEX FOR PANELS NOT PRINTED)

PANEL LOCATION

COMMUNITY-PANEL NUMBER
220058 0060 D

MAP REVISED:
MAY 17, 1993

Federal Emergency Management Agency

EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA

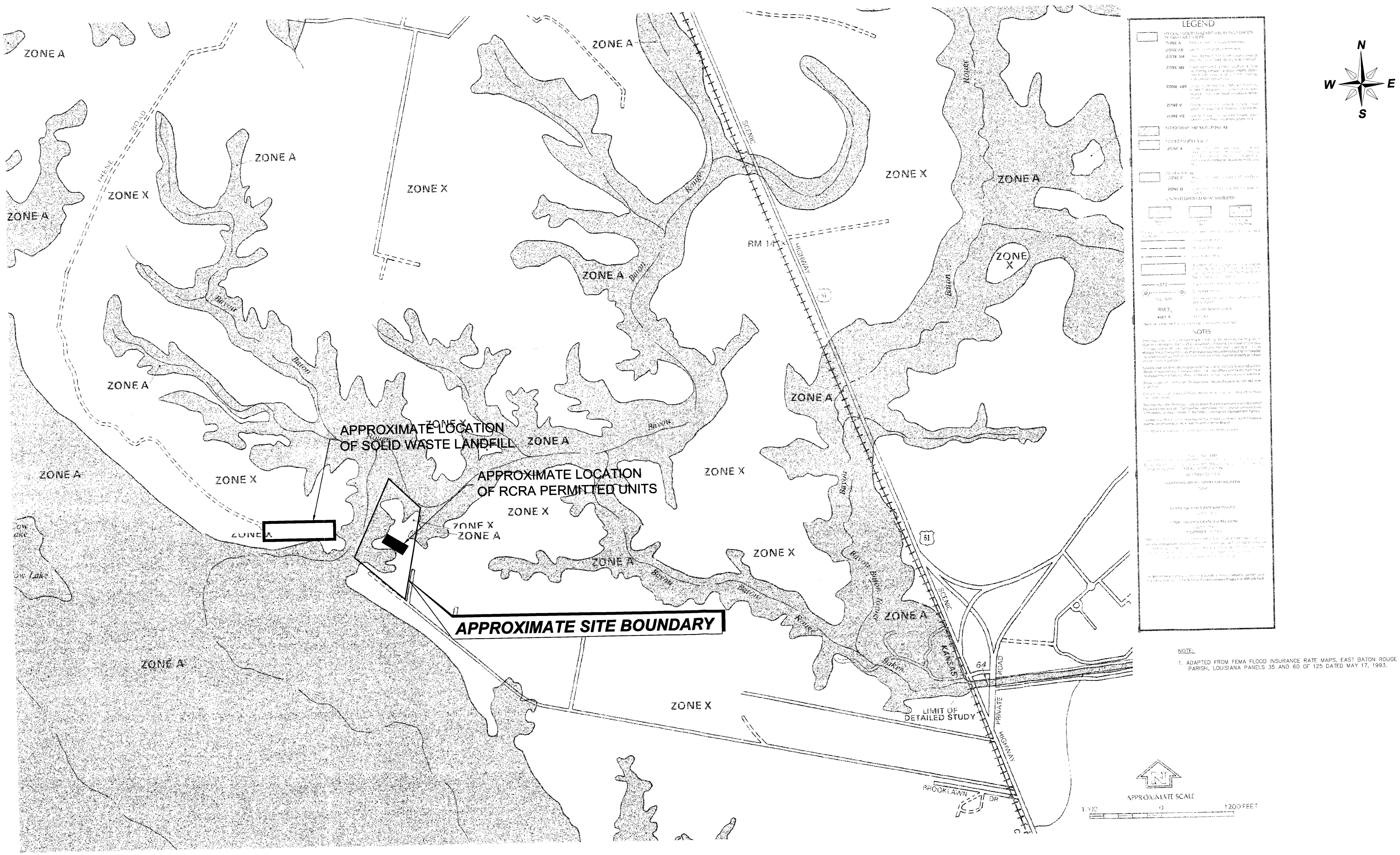
Scale	1"=1200'
Digitized By	J.W.D.J.
Drawn By	P.S.C.
Checked By	J.W.D.J.
Project Mgr.	P.G.S.
Project Number	2003-1058-03
Dwg No.	2003-1058-03-02
Issued	OCT 20 2005

1200 SCALE FLOOD PLAIN MAP (SOUTH)

Advanced GeoServices Corp.
1055 Andrew Drive, Suite A
West Chester, Pennsylvania 19380
(610) 840-9100
FAX: (610) 840-9199

FIGURE: **9B**

X:\EXIDE\DRAWNGS\baton rouge\2003-1058-03\2003-1058-03-02



NOTE:

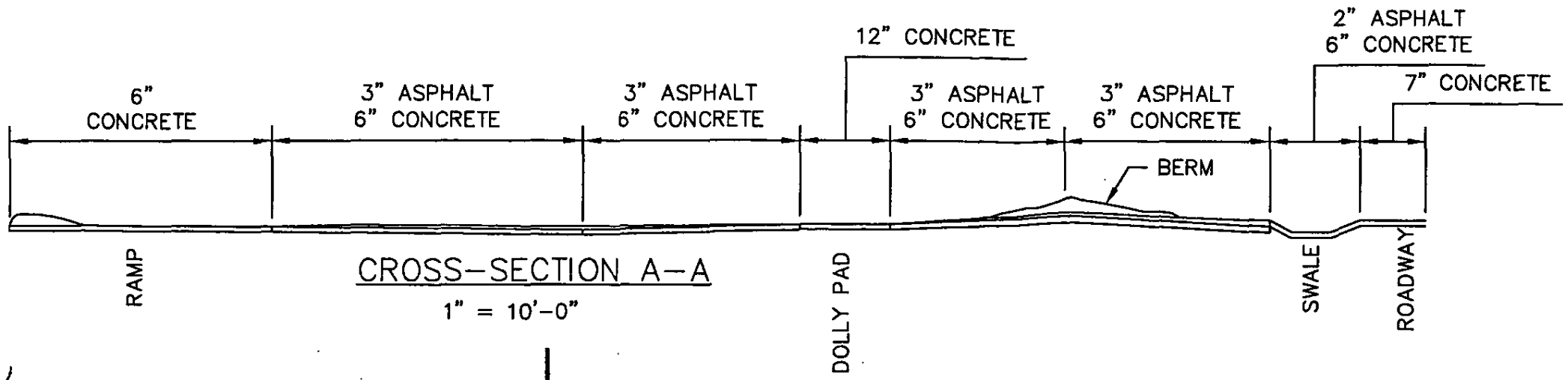
1. ADAPTED FROM FEMA FLOOD INSURANCE RATE MAPS, EAST BATON ROUGE PARISH, LOUISIANA PANELS 35 AND 60 OF 125 DATED MAY 17, 1993.

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

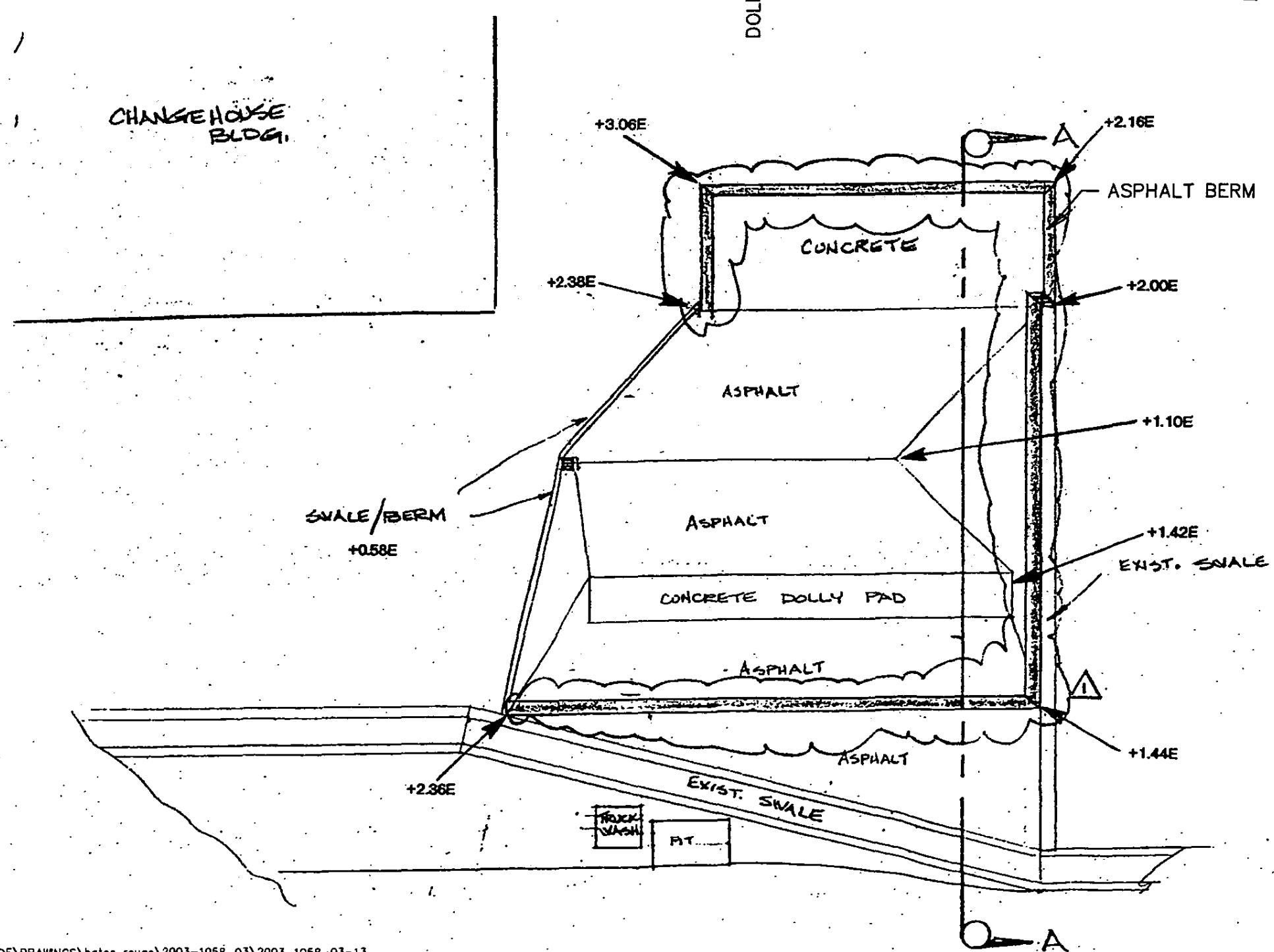
Scale: 1"=600' Originated By: J.W.DJ. Drawn By: P.S.G. Checked By: J.W.DJ. Project Mgr: P.G.S. Project No: 2003-1058-03 Dwg No: 2003-1058-03-19 Issued: OCT 20 2005	600 SCALE FLOOD PLAIN MAP Advanced GeoServices Corp. 1055 Andrew Drive, Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199	FIGURE: **9C**

J:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-19



CROSS-SECTION A-A

1" = 10'-0"



NOTES:

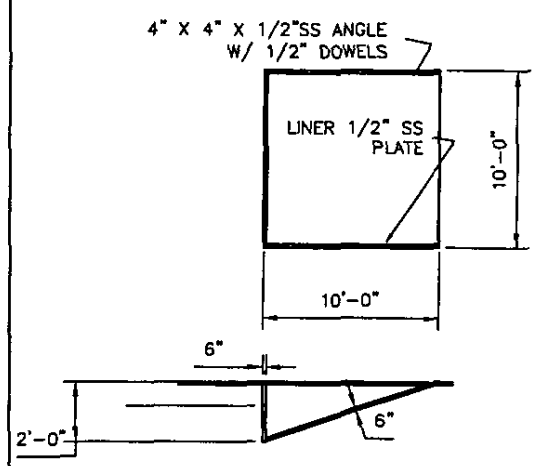
1. ASPHALT BERM WAS CONSTRUCTED PER DRAWING. TO CONTAIN 12" RAINFALL AND 10% OF TOTAL BATTERY ACID STORED WITHIN BERMED AREA. BERM IS 2.5 ft ABOVE 0.0' REFERENCE ELEVATION AT COLLECTION SUMP.
2. ORIGINAL DRAWING BY PAT B. ROY DATED MAY, 1998 AND REVISED MAY 1991, DRAWING NOS LTP-1R AND LTP-2R.
3. ALL MEASUREMENTS ARE IN FEET

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

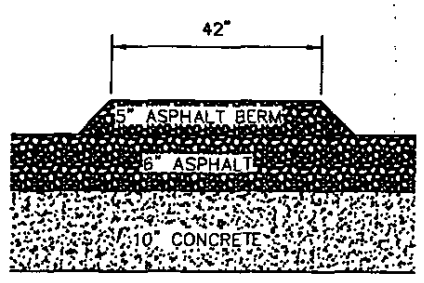
Scale: AS SHOWN	TRUCK TRAILER STORAGE AREA
Originated By: J.W.P.	
Drawn By: P.S.G.	
Checked By: J.W.P.	Advanced GeoServices Corp. 1055 Andrew Drive Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199
Project Mgr: P.G.S.	
Dwg No. 2003-1058-03-13	Project No. 2003-1058-03
Issued: OCT 20 2005	FIGURE: 12

E:\EXIDE\DRAWINGS\baton rouge\2003-1058-03\2003-1058-03-13



SUMP DETAIL

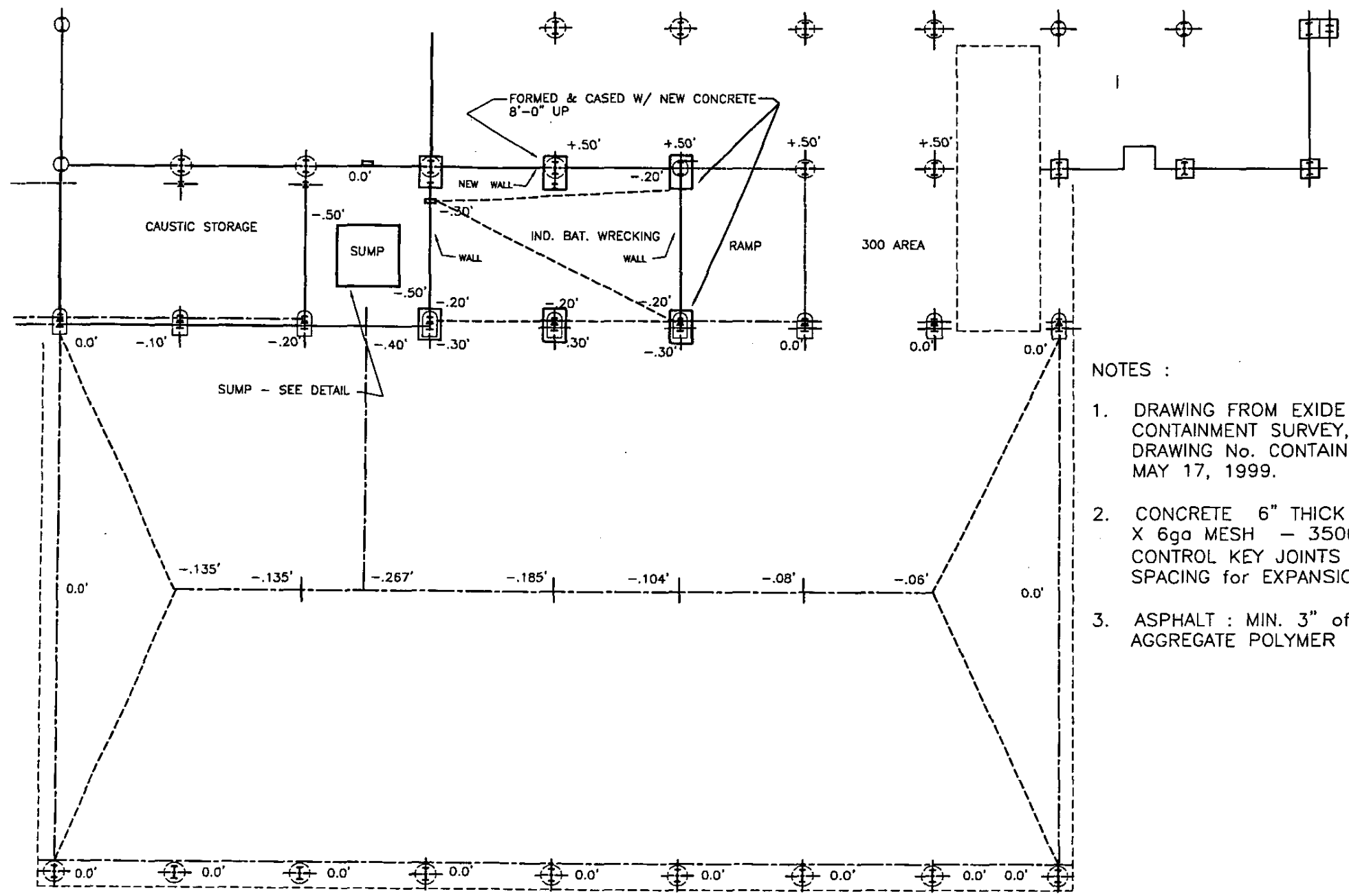
NOT TO SCALE



FLOOR AND BERM DETAIL

NOT TO SCALE

DESU & CRYST



NOTES :

1. DRAWING FROM EXIDE SCHUYLKILL METALS, CONTAINMENT SURVEY, LOCATION DIAGRAM, DRAWING No. CONTAIN – 1A DATED MAY 17, 1999.
2. CONCRETE 6" THICK W/ 6" X 6" X 6ga MESH – 3500 psi MIX – CONTROL KEY JOINTS AT 20'-0" SPACING for EXPANSION CONTROL.
3. ASPHALT : MIN. 3" of SILICA BASED AGGREGATE POLYMER per SPECS.

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

Scale: N.T.S.	WHOLE BATTERY STORAGE AREA
Originated By: J.W.P.	
Drawn By: P.S.G.	
Checked By: J.W.P.	Advanced GeoServices Corp. 1055 Andrew Drive Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199
Project Mgr: P.G.S.	
Dwg No. 2003-1058-03-14	Project No. 2003-1058-03
Date: OCT 20 2005	FIGURE: 13

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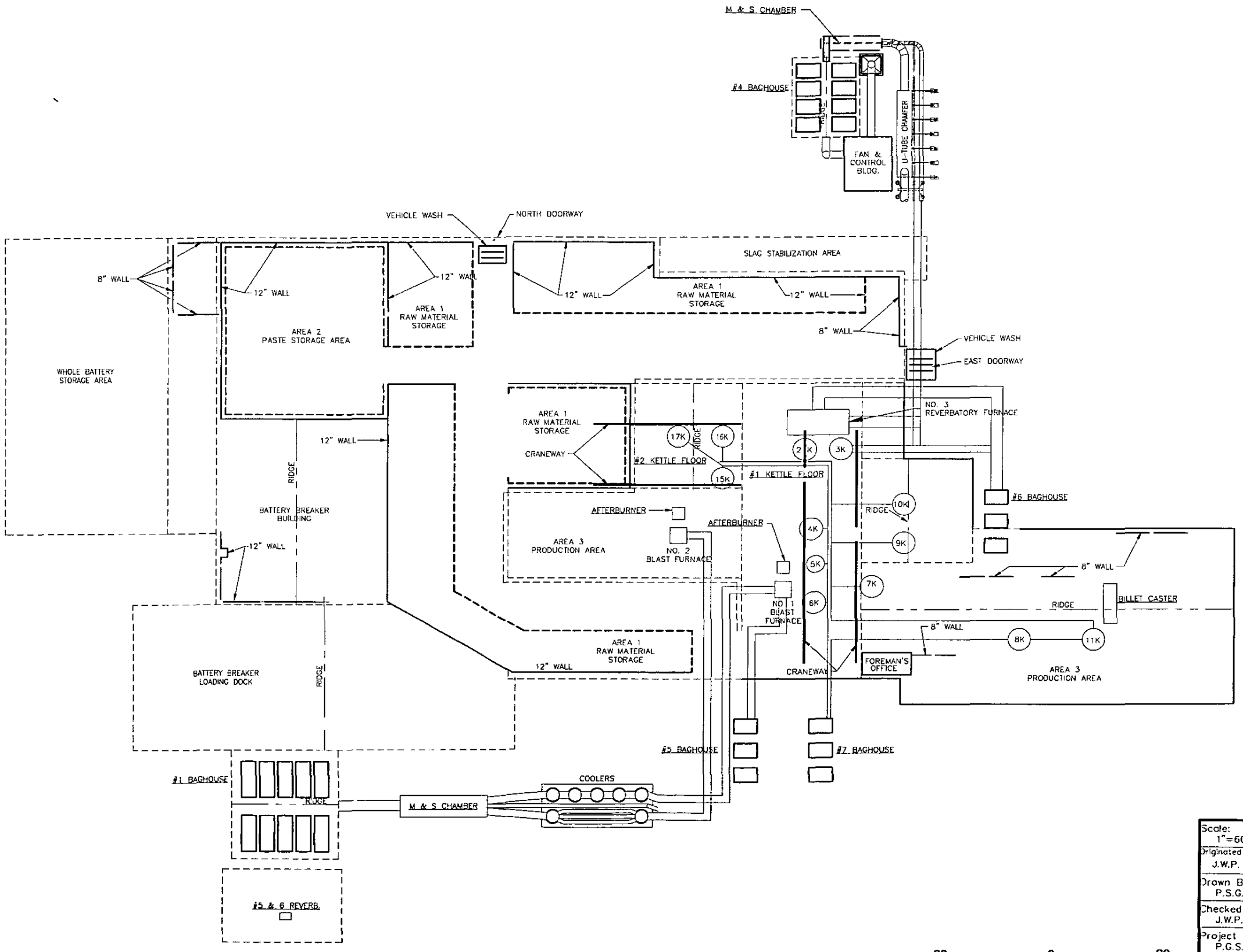

Legend

------ Area 1 Raw Material Storage Areas

------ Area 2 Paste Storage Area

------ Area 3 Production Area

Reference:

Base map comprised from Exide Corporation drawing titled "Containment Building" for the Hazardous Waste Containment Building Certification drawing no. B24-810-01 drawn by C-K Associates, Inc. dated 11/03/99.

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

Scale: 1"=60'	AIR HANDLING SYSTEM
Originated By: J.W.P.	
Drawn By: P.S.G.	
Checked By: J.W.P.	Advanced GeoServices Corp. 1055 Andrew Drive Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199
Project Mgr: P.G.S.	
Dwg No. 2003-1058-03-12	
Issued: OCT 20 2005	Project No. 2003-1058-03 — FIGURE: 10

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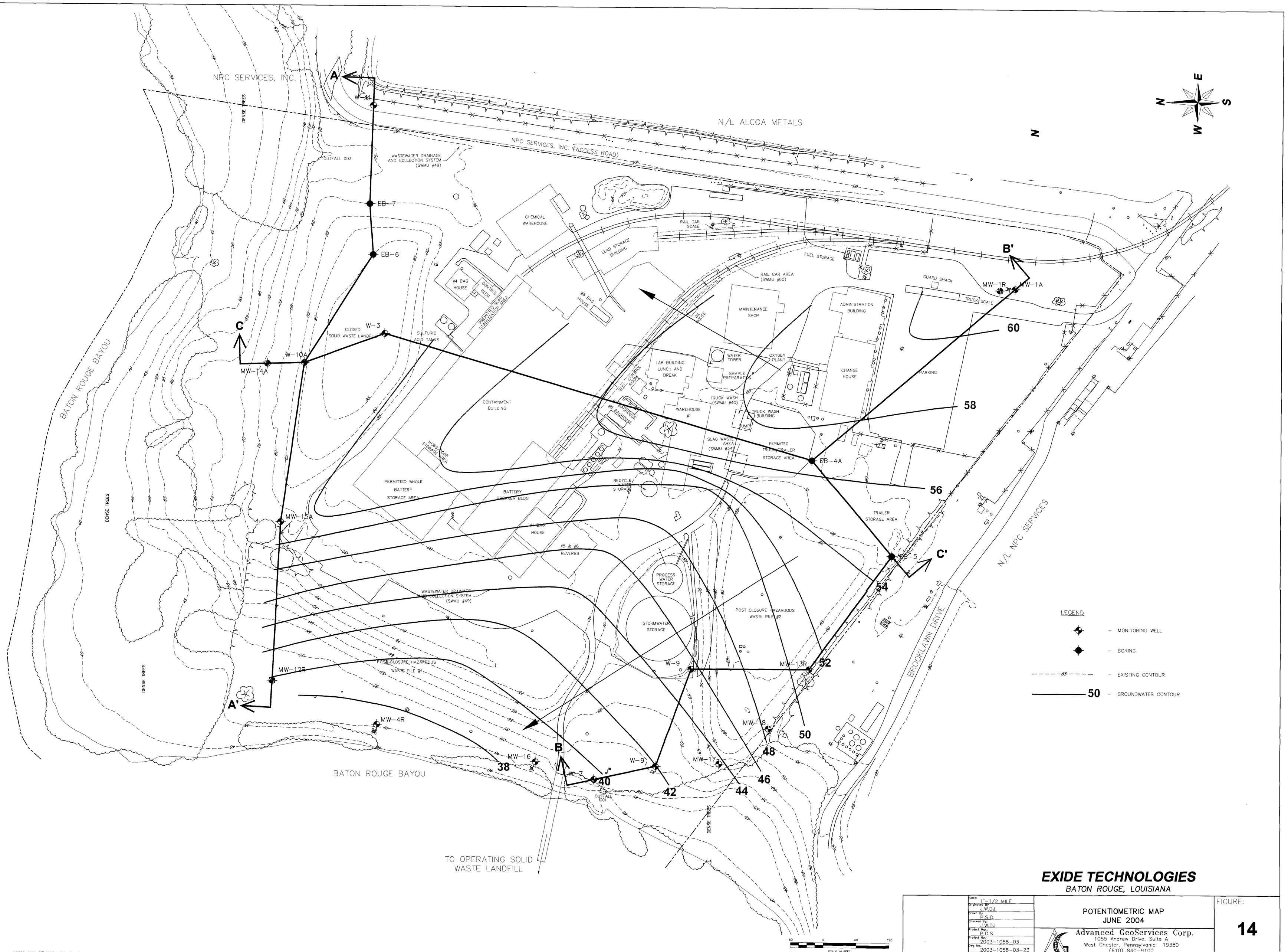

EXIDE TECHNOLOGIES

BATON ROUGE, LOUISIANA

Scale: 1" = 1/2 MILE Originated by: J.W.D.J. Drawn by: P.S.C. Checked by: J.W.D.J. Project Mgr.: P.G.S. Project No.: 2003-1058-03 Dwg. No.: 2003-1058-03-23	POTENTIOMETRIC MAP JUNE 2004 Advanced GeoServices Corp. 1055 Andrew Drive, Suite A West Chester, Pennsylvania 19380 (610) 840-9100	FIGURE: 14

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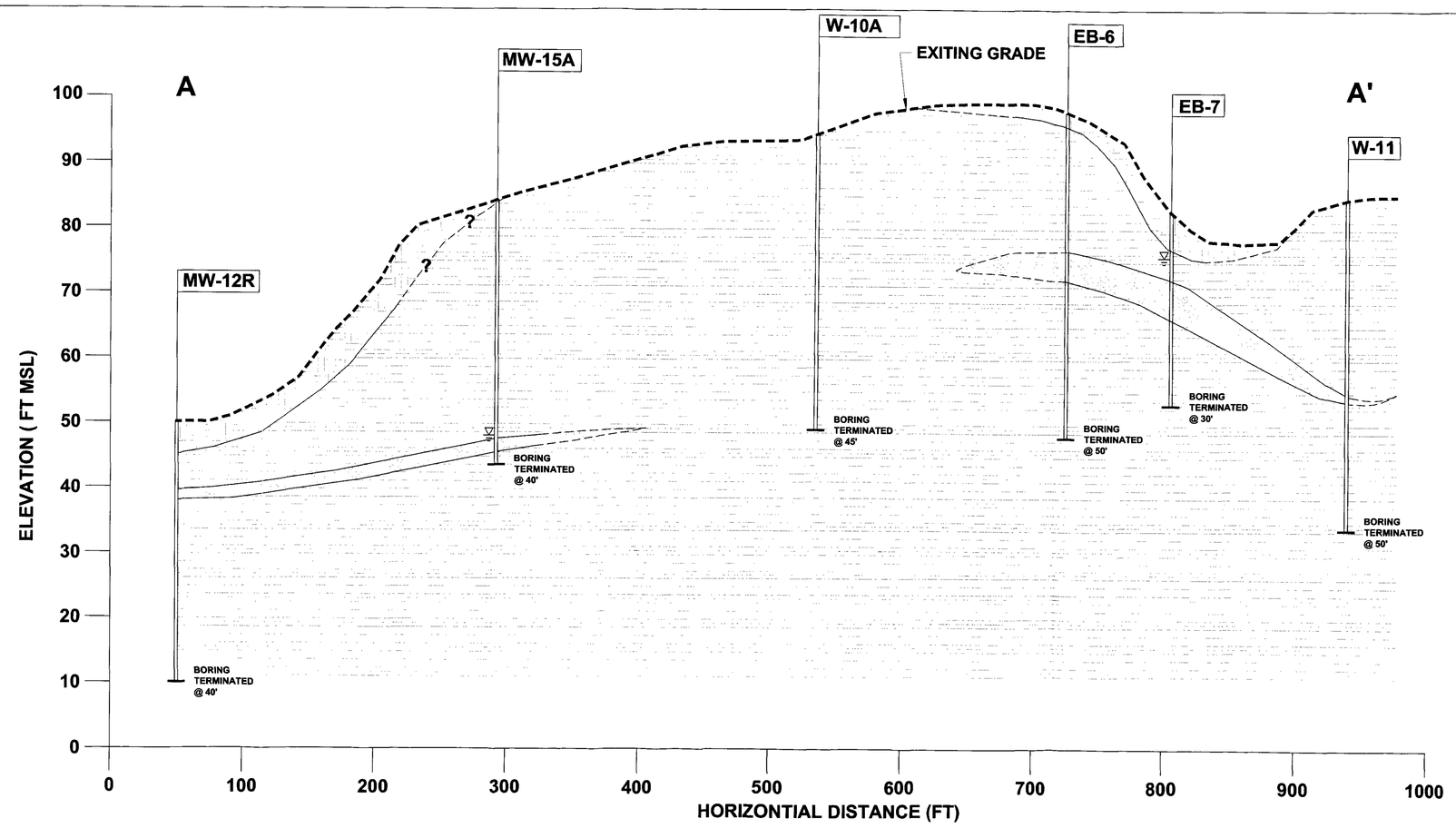

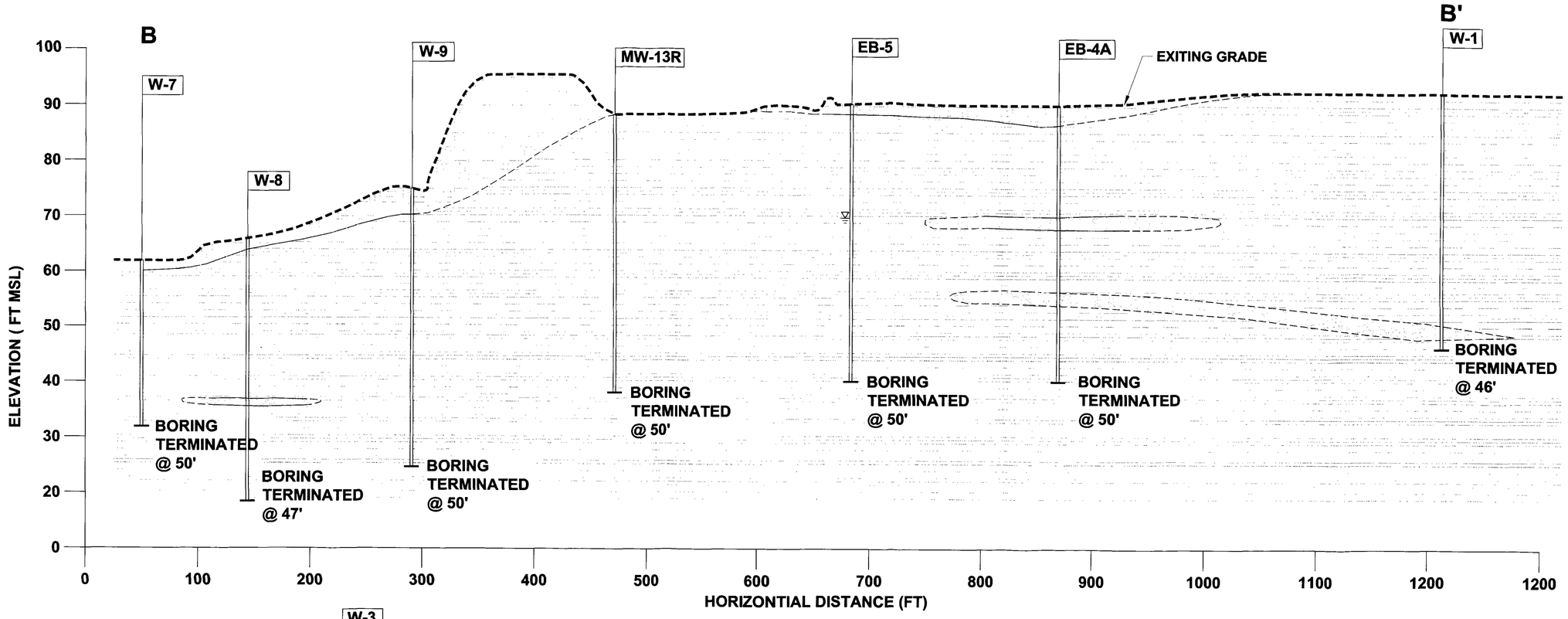

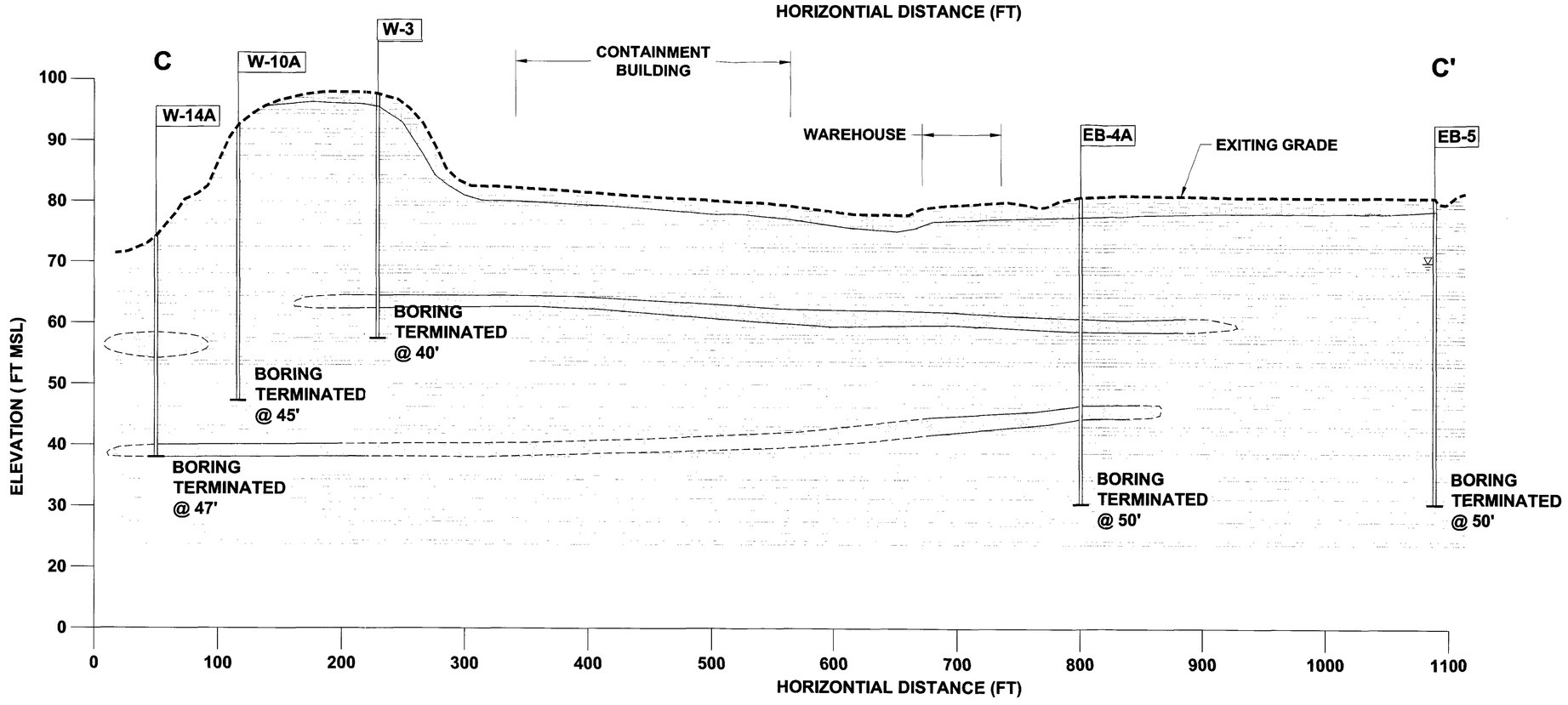

NOTES:

1. REFER TO "FIGURE 14" FOR APPROXIMATE LOCATION OF PROFILES AA', BB' AND CC' ON PLAN VIEW.
2. PROFILES ARE GENERALIZATION OF INFORMATION FROM TEST BORINGS DRILLED AT THE SITE. WATER LEVEL ELEVATIONS AND SCREENED INTERVALS AT WELLS WERE ALSO OBTAINED FROM THESE BORING LOGS. REFER TO THE BORING LOGS FOR ADDITIONAL INFORMATION.
3. LINES REPRESENTING CHANGES IN SOIL STRATA BETWEEN EXPLORATION LOCATIONS MAY NOT REPRESENT ACTUAL SUBSURFACE CONDITIONS. ACTUAL SUBSURFACE CONDITIONS, INCLUDING CHANGES BETWEEN SOIL STRATA, MAY VARY FORM THOSE REPRESENTED IN THIS SHEET.

EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA

Scale: AS SHOWN Designed By: P.H. Drawn By: P.S.G. Checked By: P.H. Project Mgr: P.G.S. Project No: 2003-1058-03 Dwg No: 2003-1058-03-22 Date: OCT 20 2005	CROSS-SECTIONS Advanced GeoServices Corp. 1055 Andrew Drive, Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199	FIGURE: 15

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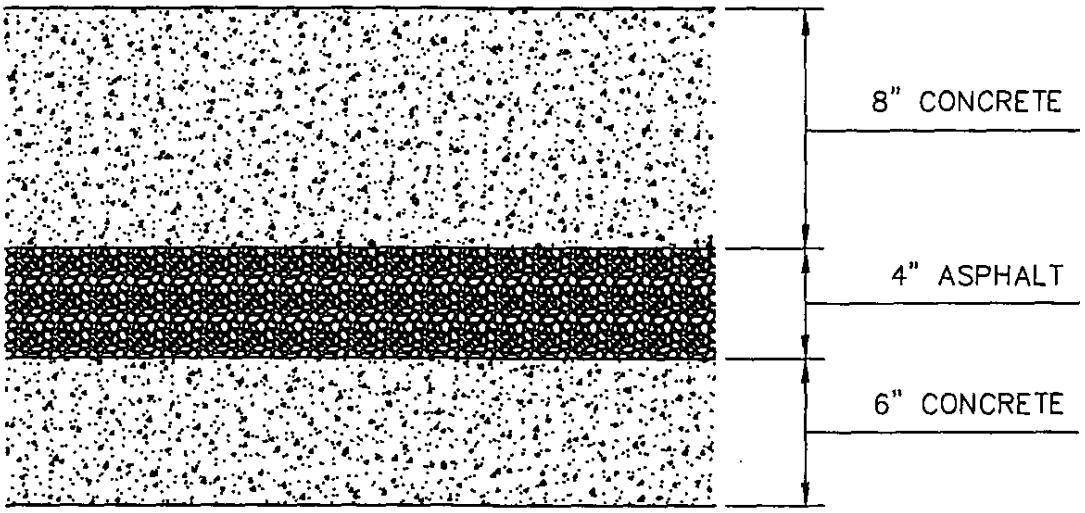

FLOOR SYSTEM

EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA

Scale: N.T.S.	SLAG STABILIZATION UNIT
Originated By: J.W.P.	
Drawn By: P.S.G.	
Checked By: J.W.P.	Advanced GeoServices Corp. 1055 Andrew Drive, Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199
Project Mgr: P.G.S.	
Dwg No. 2003-1058-03-15	Project No. 2003-1058-03 — FIGURE: 16

OCT 20 2005

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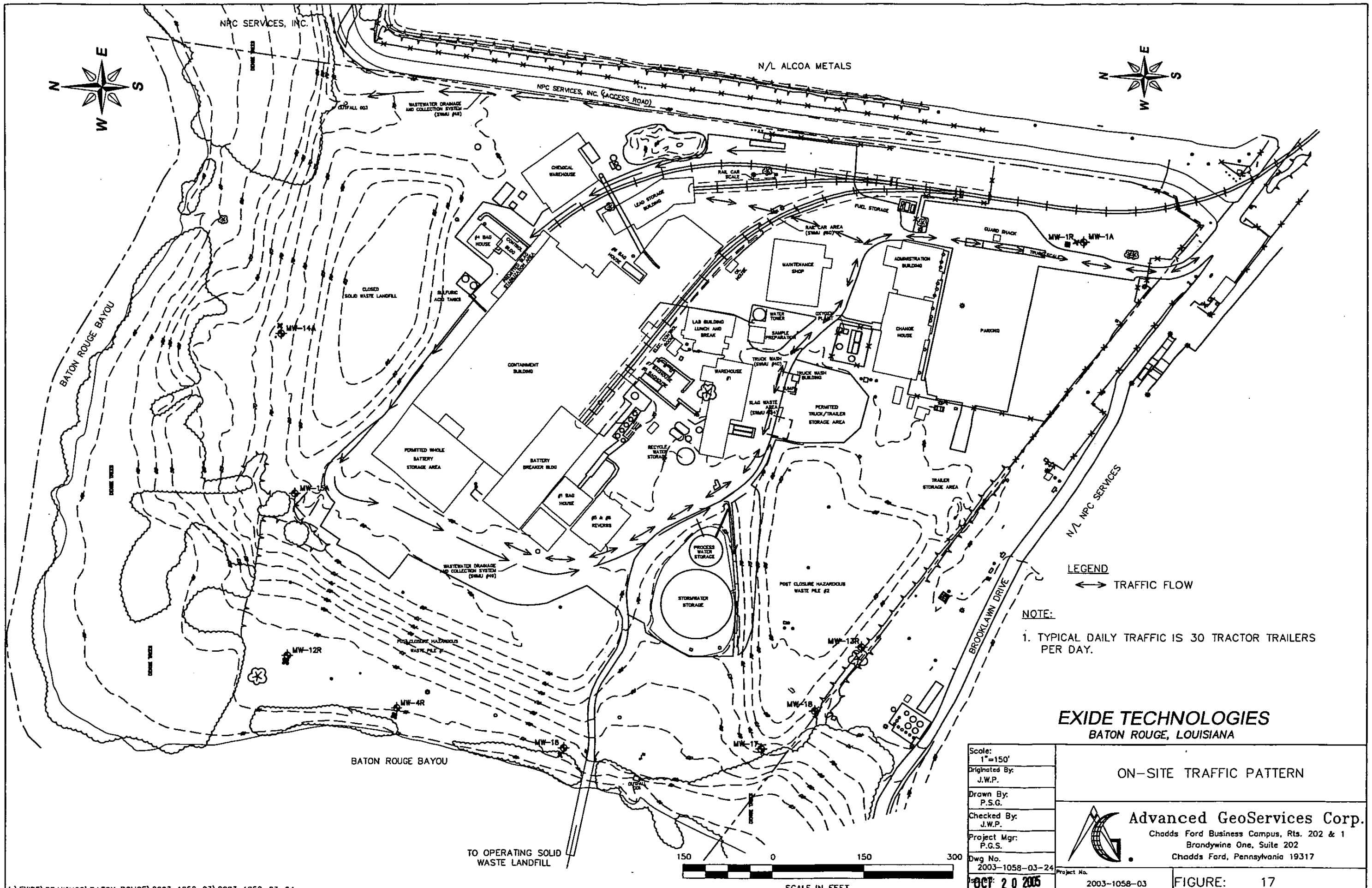
NPC SERVICES, INC.
N/L ALCOA METALS
NPC SERVICES, INC. (ACCESS ROAD)
BATON ROUGE BAYOU
CHEMICAL WAREHOUSE
LEAD STORAGE BUILDING
RAIL CAR SCALE
FUEL STORAGE
GUARD SHACK
MW-1R
MW-1A
MAINTENANCE SHOP
ADMINISTRATION BUILDING
CHANGE HOUSE
PARKING
CLOSED SOLID WASTE LANDFILL
SULFURIC ACID TANKS
MW-14A
CONTAINMENT BUILDING
LAB BUILDING LUNCH AND BREAK
WATER TOWER
SAMPLE PREPARATION
WAREHOUSE #1
TRUCK WASH BUILDING
SLAG WASTE AREA
PERMITTED TRUCK/TRAILER STORAGE AREA
PERMITTED WHOLE BATTERY STORAGE AREA
BATTERY BREAKER BLDG
RECYCLE WATER STORAGE
TRAILER STORAGE AREA
MW-15A
PROCESS WATER STORAGE
STORMWATER STORAGE
POST CLOSURE HAZARDOUS WASTE PILE #2
POST CLOSURE HAZARDOUS WASTE PILE #1
MW-12R
MW-4R
MW-18
MW-17
MW-13R
BROOKLAWN DRIVE
N/L NPC SERVICES
BATON ROUGE BAYOU
TO OPERATING SOLID WASTE LANDFILL
150 0 150 300
SCALE IN FEET
LEGEND
TRAFFIC FLOW
NOTE:
1. TYPICAL DAILY TRAFFIC IS 30 TRACTOR TRAILERS PER DAY.
EXIDE TECHNOLOGIES
BATON ROUGE, LOUISIANA
Scale: 1"=150'
Originated By: J.W.P.
Drawn By: P.S.G.
Checked By: J.W.P.
Project Mgr: P.G.S.
Dwg No. 2003-1058-03-24
Issued: OCT 20 2005
ON-SITE TRAFFIC PATTERN
Advanced GeoServices Corp.
Chadds Ford Business Campus, Rts. 202 & 1
Brandywine One, Suite 202
Chadds Ford, Pennsylvania 19317
Project No. 2003-1058-03
FIGURE: 17
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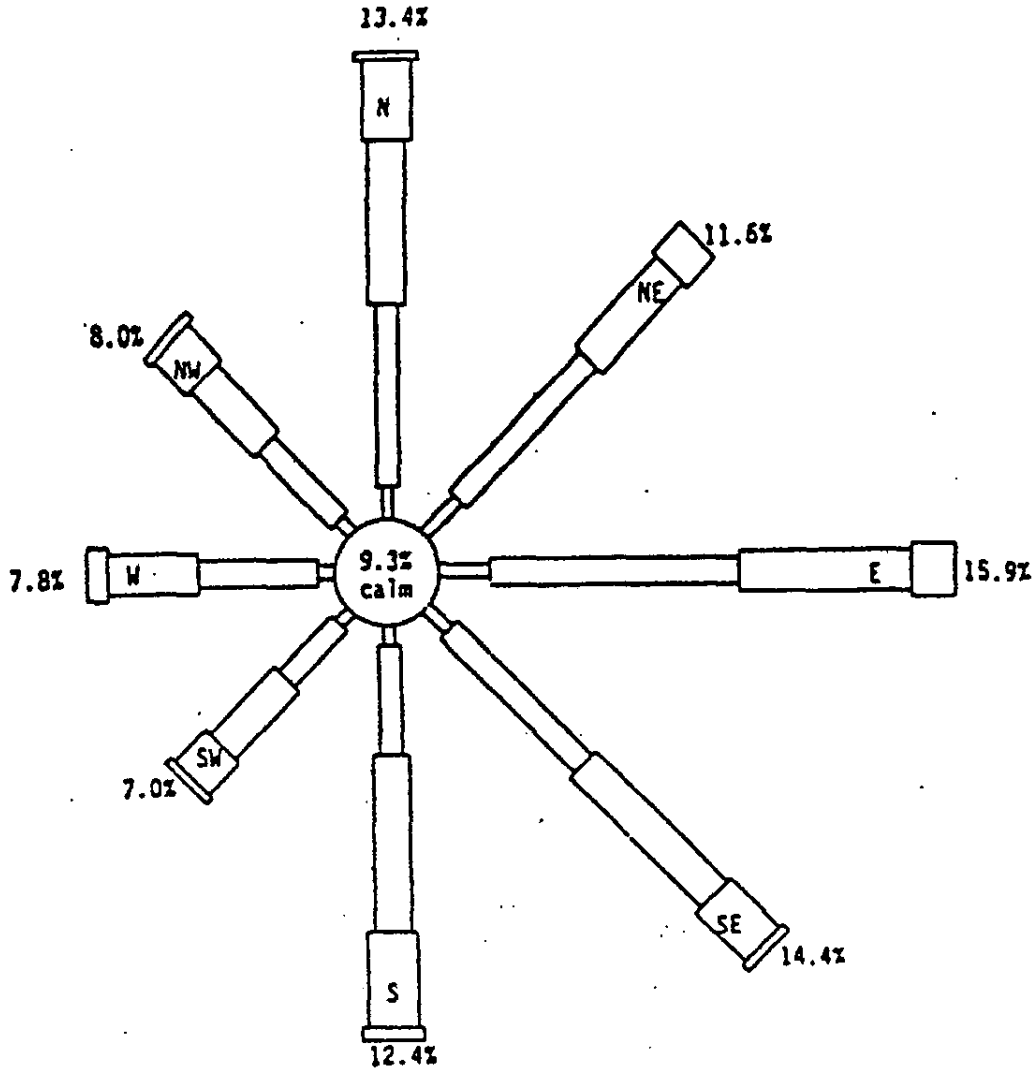

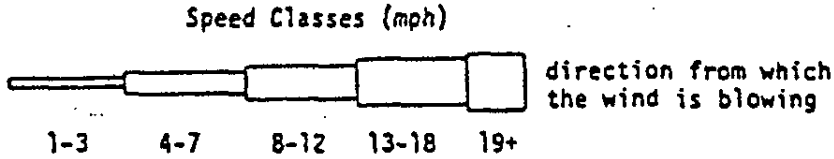

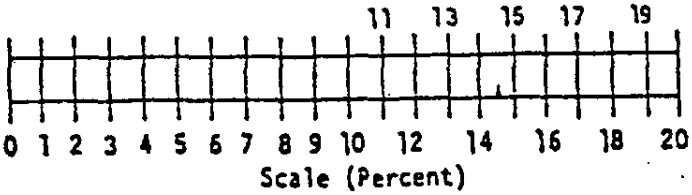

BATON ROUGE SMELTER

BATON ROUGE, LOUISIANA

NOTES:

1. ANNUAL AVERAGE
2. BATON ROUGE 1965–1974

SOURCE: WOODWARD CLYDE CONSULTANTS FILE 90B532C AUGUST 1990 FROM LOUISIANA OFFICE OF STATE CLIMATOLOGY, 1982.

Scale: N.T.S.	WIND ROSE
Originated By: K.A.W.	
Drawn By: J.L.V.	Advanced GeoServices Corp. 1055 Andrew Drive, Suite A West Chester, Pennsylvania 19380 (610) 840-9100 FAX: (610) 840-9199
Checked By: J.W.P.	
Project Mgr: P.G.S.	
Dwg No. 2003-1058-01-12	Project No. 2003-1058-01
OCT 20 2005	FIGURE: 18

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