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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 2, 2019

Mr. Brad Weaver
Director, Remediation
Exide Technologies
P.O. Box 250
Frisco, Texas 75034

Re: Technical Notice of Deficiency
Exide Technologies - Frisco, Collin County
Hazardous Waste Permit No. 50206
Industrial Solid Waste Registration No. 30516
EPA Identification No. TXD0006451090
Tracking No. 20980444; RN100218643/CN600129787

Dear Mr. Weaver:

The Industrial & Hazardous Waste Permits Section staff of the Texas Commission on Environmental Quality (TCEQ) completed a technical review of your major permit amendment/permit renewal/compliance plan application dated September 27, 2010, October 25, 2016, December 15, 2016, July 25, 2017, August 23, 2018, and May 29, 2019. Our review of the application indicates that additional information must be presented to demonstrate compliance with Title 30 Texas Administrative Code (TAC) Sections (§§)305.45 and 305.50. In addition to other requirements, the above rules adopt by reference the requirements listed in Title 40 of the Code of Federal Regulations (CFR) Parts 264 and 270. The deficiencies noted in the enclosed table follow the format of the TCEQ Part A and Part B hazardous waste permit application forms. Each deficiency is uniquely identified in the enclosed table "Application Deficiencies - Technical Notice of Deficiency (NOD) #2" and requires your response. Please note, when providing your response, you must:

1. Refer to the unique deficiency identifier;
2. Include the location in the permit application where your response requires revisions or where you provide additional information;
3. Include any other narrative necessary to explain your response;
4. If possible, provide a redline/strikeout version clearly identifying all proposed changes from the existing permit application;
5. Include replacement pages for insertion into the application. Each replacement page should contain a revision date and revision number; and
6. If a revision to the application causes text to shift and/or pagination to change, please provide all pages affected by the revision(s).

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An electronic copy of the table is available upon request.

The information requested in the enclosed table is necessary for a complete permit application. Please submit an original and three (3) copies of your application revisions, including signature pages (page 5 of the Part A application and page 5 of the Part B application) within 30 days of the date of this letter.

Failure to submit a satisfactory response to each of the noted deficiencies by the response due date may result in a recommendation to return the application or deny the permit/compliance plan amendment/renewal.

If you have any questions regarding this matter, please contact me at (512) 239-2349, Richard Goldsmith at (512) 239-2961 for Corrective Action issues, or Chris Owen at (512) 239-4235 for Air issues. If you respond in writing, please include mail code MC 130 in the mailing address.

Sincerely,



Chris Shaw, Project Manager
Industrial & Hazardous Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality

CBS/tw

Enclosure

cc: Mr. Brad Weaver, Exide Technologies, Frisco

August 26 2019

Application Deficiencies – Technical NOD No. 2

ID ¹	App. Part	App. Section	Location ²	Citation	Error Type	Deficiency Description/Resolution
T1	B	All	All	40 CFR 270.14	Incorrect	An obsolete version (Rev. 3-3-2016 M.L. Shannon) of the Part B application was used instead of the most recent version (Rev. 9-29-2017 M.L. Shannon), available on our web site. Always check the web site for the latest versions of forms.
T2	B	Various	Various	30 TAC §305.45(a)(8)(C)	Incorrect, Ambiguous, Unclear	It is not clear that the newest rainfall data from the Atlas-14 study was used in all calculations and designs, as requested in our email to Golder dated May 8, 2019. Please confirm that the latest rainfall intensity and base flood elevation data were used. A partial list (not all inclusive) of application elements that should have the latest rainfall data includes: Attachment C (Closure Plan) Appendices F, G, N, and O; Attachment F (RCA Engineering Report), Attachment A (CLOMR Application) appendices for floodwall and erosion, culvert, pipe, and orifice sizing, precipitation recharge for groundwater model, and inputs to the HEC-RAS model. We note that some of these calculations/modeling were performed in 2018.
T3	B	III	Table III.D.	30 TAC §335-4	Incomplete	Please add all groundwater and surface water protection elements (including piezometers, Permeable Reactive Barrier [PRB], sump reactor, transfer pipes, ditches, creek bank, etc.) to Permit Table III.D. – Inspection Schedule. These elements should be inspected for deterioration, erosion, obstruction of flow, etc. on a quarterly basis and after significant storms.
T4	A and B	Throughout	Throughout	30 TAC §305.45(a)(8)(C)	Inconsistent, Incorrect	Please explain or correct the discrepancies between FOP acreage throughout the application. The Former Operating Plant (FOP) acreage should agree with the surveyed extents presented in Part A. For example: Part B, Attachment F, page 1, Section 1.1, acreage is given as approximately 89 acres; Part B, Attachment M states the FOP acreage as 97 acres. Please note that although Parts A and B state the site is “approximately 94 acres”, the sum of surveyed extents presented for Lot 2 Block A, Lot 5 Block A, and Lot 6 Block A is 96.77 acres. We also note that these documents are “for informational purposes only and may not be relied upon as a survey”.
T5	B	V	V.C.	30 TAC §305.45(a)(8)(C)	Incorrect	The response under Permit Section V.C. (tanks) should be located under V.L. (containment buildings).

ID ¹	App. Part	App. Section	Location ²	Citation	Error Type	Deficiency Description/Resolution
T6	B	V	Tables V.A., V.B., and V.L., Att. F pg 6	30 TAC §305.45(a)(8)(C)	Omitted	The Container Storage Area (CSA) and containment building are not closed and should be included in Permit Tables V.A. (both units), V.B. (CSA), and V.L. (containment building). We understand that these units will be incorporated into the Remediation Consolidation Area (RCA) Corrective Action Management Unit (CAMU). However, they are not “designated units”. These units may be removed from the permit upon approval and closure of the RCA CAMU.
T7	B	Att. F	Vol. 2/4	30 TAC §305.45(a)(8)(C)	Ambiguous, Inconsistent	The barrier wall analysis in Attachment F, Appendix H-4, pg. 2 concludes that the perimeter ditch should be 3’ – 5’ (preferably 5’) from the barrier wall. In Attachment F, Appendix J, Section 4.2.1, pg. 10, there is language stating that the “perimeter channel formed adjacent to the flood wall...”. Similar language is at Section 3.1.1.5, pg. 18, 2 nd paragraph. Please correct the language throughout the application for consistency, ensure the perimeter ditch or channel is setback according to the analysis, and/or explain why the perimeter ditch or channel will be adjacent to the barrier wall.
T8	B	Att. C	Sec. 3.1.1.5, pg. 18, 2 nd paragraph	30 TAC §305.45(a)(8)(C)	Ambiguous/Unclear	Please demonstrate that the drainage pipe and retention pond will have sufficient capacity to handle the maximum stormwater runoff. Please address the potential for drainage pipe failure. Please include this element in the closure and post-closure cost estimates, as applicable.
T9	B	Att. C	Sec. 3.1.1.7	40 CFR 270.23	Omitted	Please provide the permeability for this RCA multi-layer final cover system (MLFCS).
T10	B	Att. F	Pgs 16 (Sec. 3.3), 19 (Sec. 4.2.11)	30 TAC §305.45(a)(8)(C)	Ambiguous/Unclear	The on-site wastewater treatment plant (WWTP) is slated for demolition prior to waste placement (pg 16). Would this include the storage tanks that will store water infiltrating through the concrete slab, for off-site disposal or treatment and discharge? The timeline for this is not clear.
T11	B	Att. F, Apps. H-1, H-2	Various Figures (C-003, S-3, S-4, S-6)	30 TAC §305.45(a)(8)(C)	Inconsistent/Incorrect	The existing barrier wall is 10” thick. The extensions are described as being 10” thick in the narratives. Several drawings show the add-ons and extensions as being 1’ thick or 1’-3’ thick. Please explain or correct these inconsistencies.
T12	B	VII	Section Tables	30 TAC §305.45(a)(8)(C)	Incomplete	Please provide more detailed line item costs for “Other Closure Costs” in Permit Table VII.B. – Unit Closure Cost Estimate. Also, please provide the source for all cost estimates.

ID ¹	App. Part	App. Section	Location ²	Citation	Error Type	Deficiency Description/Resolution
CP1	B	XI.D	XI.D.6.n and Attachment M	30 TAC §335.166 and §350	Incomplete/Unclear	<p>The TCEQ has reviewed the Response Action Plan (RAP) which is found in Attachment M and is referenced in the Compliance Plan (CP). In the Response Action Objectives section (1.0) of the RAP, an Area of Contamination (AOC) is proposed. The limits of the AOC are shown in Figure 1A-7.</p> <p>Exide states that an AOC is necessary to place affected soils on the caps of the Slag Landfill and the North Disposal Area (NDA). However, it is not clear why an AOC is necessary. Rather than proposing an AOC, the entire area under the constructed cap and within the funnel and gate system (including the Slag Landfill and the NDA) could be designated as the Remediation Consolidation Area (RCA) corrective action management unit (CAMU). Soils and wastes would be consolidated and treated within this CAMU or placed in the North CAMU.</p> <p>No other consolidation areas, SWMUs, or treatment units are proposed in the current RAP. Based on the description of soil handling/management in the RAP and Waste Analysis Plan, the TCEQ understands that soils will be characterized on plastic sheeting or in roll off boxes adjacent to the excavation and once characterized, disposed of at an offsite facility, in the RCA CAMU, or the North CAMU as appropriate. No AOC would be required for this material management approach.</p> <p>Please clarify why Exide believes that an AOC is necessary. Please also note that if an AOC is necessary, the proposal should include a materials management plan which identifies which materials will be consolidated, the locations where materials will be consolidated, the purpose and time frame over which these materials will be consolidated, and criteria used to decide which materials will be consolidated in these areas as opposed to being placed directly into a CAMU.</p>
CP2	B	XI.D	XI.D.6.n and Attachment M	30 TAC §335.166 and §350	Incomplete/Unclear	<p>The RAP does not list the Railroad Museum as an affected property; however, the Waste Analysis Plan (WAP) lists soils stockpiled at the Railroad Museum as a waste (Waste 10) which may be placed into the North CAMU or the RCA CAMU. The only discussion indicates that these soils were generated as a result of construction of the Railroad Museum. Please provide a discussion regarding why it is believed that these soils are related to corrective action and are eligible for placement in a CAMU.</p>
CP3	B	XI.D	XI.D.6.n and Attachment M	30 TAC §335.166 and §350	Incomplete	<p>Exide states in Worksheet 2.0 of the RAP that the sediments will be "...excavated, loaded, and transported to and placed in the RCA". Please provide a more detailed description of how sediments are to be transported from downstream locations to the RCA CAMU.</p>

ID ¹	App. Part	App. Section	Location ²	Citation	Error Type	Deficiency Description/Resolution
CP4	B	XI.D	XI.D.1.j and Attachment M	30 TAC §335.166 and §350	Unclear	The TCEQ notes that Figures 11, 13, and 15 of the Groundwater Remedy Design Report, which illustrate the groundwater modeling flow results with the funnel and gate system show the constant head boundaries and no flow boundaries along the North Tributary and Stewart Creek. It is not clear that the horizontal flow barrier representing the slurry wall is present. Please verify that this barrier was included in the model under the funnel and gate scenario.
CP5	B	XI.D	XI.D.1.j and Attachment M	30 TAC §335.166 and §350	Incomplete/ Unclear	The procedure for rejuvenation of the zero valent iron (ZVI) calls for the extraction of one pore volume of acid solution at the end of the rejuvenation process. Please justify how this will ensure that all the solution as well as any mobilized metals are removed from the system, as opposed to terminating the extraction process based on the stabilization of measured pH in the extracted fluid within a certain percentage of the pre-injection concentration. In addition, downgradient wells should be monitored during this process.
CP6	B	XI.D	XI.D, and CP Attachment A,	30 TAC §335.166 and §350	Incorrect	Please revise CP figures 1 of 4, 2 of 4, II.A-1, and II.F-1 so that the features are distinguishable in black and white copies.
CP7	B	XI.D	XI.D.6.n and CP Table V	30 TAC §335.166 and §350	Incorrect/ Incomplete	In CP Table V, monitor wells PMW-19R and MW-45 are listed as background wells for both the North CAMU and the RCA; however, the groundwater flow paths are different for each CAMU. Please propose other background wells for the RCA CAMU.
CP8	B	VII.C, XI.E	Table XI.E.3, Table VII.D, Attachment M, Attachment O	30 TAC §335.166 and §350	Inconsistent /Incomplete	<ol style="list-style-type: none"> 1. The estimated annual and total post-closure costs for corrective action monitoring and OMM from Attachment 5B and Appendix O do not match the total listed on RAP Worksheet 5.o. Please explain the discrepancy and revise. 2. The cost for Annual Monitoring, Inspections and Reporting for the North CAMU was left off Table VII.D. Please list this cost.
T13	B	App C, App H	Vol. 1/4	30 TAC §335.4	Inconsistent /Incorrect	“Take Action” and “Stop Work” PM values are set to greater than only and not equal to as they are in the FOP Air Monitoring Plan
T14	B	App C App H	Vol. 1/4	30 TAC §335.4	Inconsistent /Incorrect	The lead “Take Action” and “Stop Work” values are set to 0.78 ug/m ³ , however, Section 4.3 states that it is 1.07 ug/m ³ . The Table 1 values in the FOP Air Monitoring Plan are 0.8 and 1.07 ug/m ³ .
T15	B	App C App H	Vol. 1/4	30 TAC §335.4	Inconsistent /Incorrect	Table 1 should show that “Take Action” and “Stop Work” PM levels are equal to or greater than, not just greater than, just as they are in the FOP Air Monitoring Plan.

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ID ¹	App. Part	App. Section	Location ²	Citation	Error Type	Deficiency Description/Resolution
C1	B	Various	Various	30 TAC §335.4	Comment	Many references are made to future reductions in inspection frequencies. Any such actions would require TCEQ approval and permit modification.
C2	B	Att. F, App. A	Vol 2/4	30 TAC §335.4	Comment	Please copy the TCEQ on the US Army Corps of Engineers (USACE) Conditional Letter of Map Revision (CLOMR) response, and the Letter of Map Revision (LOMR) reflecting as-built conditions.
C3	B	Various	Various	30 TAC §335.4	Comment	Please replace all references to Golder performing, overseeing, or any other involvement with on-site work with a generic term. In the event of a contractor change, any references to that contractor would require changes to all affected documents.

¹ Deficiency ID - Key: A#=Administrative deficiency (ex. A12); T#=Technical deficiency relating to Sections I-X and Sections XII-XIII of the Part B application (ex. T10); C#=Comment only (ex. C1); CP#=Technical deficiency relating to Section XI-Compliance Plan of the Part B application (ex. CP14); Number in parenthesis (*n*) = *n*th instance of same deficiency (ex. T1(2) is the second instance of deficiency T1 originally identified in previous NOD).

¹ Location of deficiency in submittal/application. Items in square brackets [] refer to applicant's supplemental information submitted as attachments to the application form.

¹ Possible Error Types: Ambiguous, Incomplete, Inconsistent, Incorrect, Omitted, Typo, or Format.