IN THE UNITED STATES BANKRUPTCY COURT
FOR THE DISTRICT OF DELAWARE

IN RE:	§	Case No. 13-11482 -KJC
	§	Chapter 11
EXIDE TECHNOLOGIES	§	
	§	Final Hearing: July 24, 2013 at 10:00 a.m.
Debtor.	§	Relates to Dkt. 17 and 79

DECLARATION OF WADE M. WHEATLEY, P.E. IN SUPPORT OF THE JOINDER BY THE CITY OF FRISCO, TEXAS IN THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S OBJECTION TO DEBTOR'S MOTION FOR INTERIM AND FINAL ORDERS (I) AUTHORIZING DEBTOR (A) TO OBTAIN POST-PETITION FINANCING PURSUANT TO 11 U.S.C. §§ 105, 361, 362, 364(c)(1), 364(c)(2), 364(c)(3), 364(d)(1), AND 364(e) AND (B) TO UTILIZE CASH COLLATERAL PURSUANT TO 11 U.S.C. § 363, (II) GRANTING ADEQUATE PROTECTION TO PRE-PETITION SECURED PARTIES PURSUANT TO 11 U.S.C. §§ 361, 362, 363 AND 364 AND (III) SCHEDULING FINAL HEARING PURSUANT TO BANKRUPTCY RULES 4001(b) AND (c)

I, Wade M. Wheatley, P.E., hereby declare, pursuant to 28 U.S.C. § 1746, under penalty of perjury that:

1. My name is Wade M. Wheatley. I am licensed as a Professional Engineer by the State of Texas (P.E. No. 76710) and I am a Principal and Vice President with Cook-Joyce, Inc (CJI). I am over the age of twenty-one and am competent and otherwise qualified to make this Declaration.

2. CJI has been retained by the legal firm of Russell and Rodriguez to provide environmental engineering and consulting services on behalf of the City of Frisco, a party in interest in this bankruptcy case, in matters relating to the environmental impacts from and appropriate response actions to the operation of the Exide Recycling Center in Frisco, Texas. I am CJI's Project Manager for the City of Frisco project being performed under contract to Russell and Rodriguez.

3. CJI is an Austin, Texas-based environmental engineering consulting firm founded

in March 1983. CJI offers a broad spectrum of environmental services in the areas of solid and hazardous waste, radioactive waste, water and wastewater, air quality, pollution prevention, environmental assessment, regulatory liaison, and remediation technology. Our multidisciplinary team is composed of professionals with education and experience in chemical, civil and environmental engineering; geology; environmental sciences; air quality; and surface and groundwater hydrology. CJI, its staff members, and I are familiar with the requirements of the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the laws of the State of Texas relating to environmental regulation. My resume and the resumes of other CJI personnel assigned to this project are provided in Exhibit 1. I have personal knowledge of the facts set forth herein and they are true and correct.

4. I have personally visited the site as has at least one of my staff and other professional consulting staff working with the City of Frisco on this site with whom I have discussed their personal observations and findings. I have been participating in the meetings regarding the corrective actions at this facility between Exide and the Texas Commission on Environmental Quality (TCEQ), and I and CJI staff members (see Exhibit 1) have personally reviewed the reports and other documentation provided by Exide as well as the records of the TCEQ. True and correct copies of both my resume and the resumes of the CJI staff members who have participated in this project are attached hereto as Exhibit 1. Below are my opinions, conclusions, and mental impressions based on my review of the reports, studies, data, and other documentation created by others, the permits and orders issued by various governmental entities, the information I have received from personal observations at the site and meeting with Exide personnel, and data collected and analyzed by CJI and its staff.

SITE BACKGROUND

5. Manufacturing operations at the site of the Exide Recycling Center in Frisco, Texas

(Exide) began in 1964 when the property was initially developed as a lead oxide manufacturing facility. Battery recycling operations began at the facility in 1969 and continued until the facility ceased operations in November 2012. The Exide facility is constructed over the former channel of Stewart Creek and a tributary to the north. Currently, Stewart Creek is adjacent to the southern side of the facility, and the northern tributary of Stewart Creek is located immediately to the north of the facility. Two structures, a stormwater retention pond and the facility's wastewater treatment plant, are located across Stewart Creek from the facility and connected by piping that crosses the creek.

6. The facility recycled large batteries (such as auto and marine batteries) by breaking them in a water bath. Plastic and rubber "chips" from the broken battery casings floated to the surface of the water where they were collected for disposal. Liquid from the batteries mixed with the water, which would eventually be treated either in the facility's wastewater treatment plant or nearby publically owned treatment works (POTWs), such as the City of Frisco's adjacent Stewart Creek Wastewater Treatment Plant. This Wastewater Treatment Plant is in the process of being closed under the State supervised Voluntary Cleanup Program (VCP) to remediate contaminates that originated from the Exide operations. Metal from the batteries sank to the bottom of the bath, where it was collected. The metal was then re-smelted to recover lead and smaller amounts of other valuable metals. The smelting process produced three waste streams: slag, dust control water, and dust (most of which was captured in baghouses).

CONTAMINATION OF SITE AND SURROUNDING AREA

7. The waste streams produced at the Exide facility have resulted in widespread contamination of the site and surrounding area, and multiple state and federal environmental enforcement actions have been taken at the facility. Since 2010, the Texas Commission on Environmental Quality (TCEQ) has issued three Agreed Orders to the facility (Docket #2011-1712-

IHW-E for improper waste management; Docket #2011-0521-MIS for excessive discharges of lead particulate to the atmosphere; and Docket #2010-1818-IWD-E for unmonitored wastewater discharges to Stewart Creek). It is also under a United States Environmental Protection Agency (EPA) Administrative Order on Consent (RCRA 06-2012-0966) for improper waste management practices.

8. As discussed above, the Exide facility is constructed, in part, over the historic stream channel for Stewart Creek and the northern tributary. Boring logs (soil lithology records) indicate that slag, battery chips, and soil have been used as fill material under the facility. The deepest report of battery chips and slag is at a depth of 28.5 feet below grade in MW-30. Based on soil sample results provided in the 7/10/2013 Affected Property Assessment Report[1] (APAR), almost the entire surface of the Exide facility is contaminated with lead. Exceptions to that include the eastern edge of the facility and the Battery Receiving/Storage Building area, which is the westernmost building in the main portion of the facility. Although the near-surface soils aren't contaminated under the Battery Receiving/Storage Building and surrounding area, significant contamination is present from 4 to 10 feet below grade in that area.

9. In the 7/10/2013 APAR, Pastor, Behling & Wheeler, LLC (PBW) concluded that groundwater at the site is not impacted. However, as discussed below, that conclusion is based in part on the characterization of the uppermost groundwater bearing unit as a "Class 3" groundwater resource.[2] It is my opinion that a "Class 3" designation is unsubstantiated and technically incorrect based on currently available information which clearly indicates that the groundwater is a "Class 2"

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[1] *Affected Property Assessment Report, Former Operating Plant, Frisco Recycling Center, Frisco, Collin County, Texas*, Pastor, Behling & Wheeler, LLC, dated July 10, 2013.

[2] Under applicable TCEQ regulations, Class 3 groundwater resources are not considered usable as drinking water, while Class 2 groundwater resources are considered usable, or potentially usable, drinking water supplies.

resource.

On-Site Landfills

10. There are several landfills located on the Exide property (7/10/2013 APAR) which represent areas of environmental concern and pose potential threats to public health and safety. I have evaluated potential remedies to address areas of environmental concern associated with the operation of the Exide facility, including the on-site landfills, which include the potential excavation of waste and contaminated environmental media present above environmental action levels that will be protective of human health and the environment.

11. As discussed below, the majority of the materials from these landfills would likely meet the definition of hazardous waste under the RCRA if the materials were to be exhumed and actively managed. As such, these exhumed materials would have to be managed in accordance with applicable RCRA regulations.

a. The **Class 2 Landfill** is a post-RCRA landfill[3] that is currently approximately 8.5 acres in size and 30 feet deep. It was used from 1996 to the present date for the disposal of slag. It currently holds approximately 116,500 cubic yards of waste. There are also two waste piles that contain several thousand cubic yards of slag in the active area of the landfill. The untreated slag is hazardous waste, and TCEQ has analytical data for samples of the waste collected from the landfill documenting and confirming inadequate treatment to remove the hazardous characteristics of the waste. Additionally, Exide cannot document that any treatment performed to remove the hazardous characteristics of the slag was sufficient to meet the regulatory treatment

[3] The term, "post-RCRA landfill" indicates that the landfill was constructed and operated after the effective date of the RCRA hazardous waste regulations.

standards prior to land disposal. Based on this information, it has been demonstrated that a portion of the waste in the Class 2 landfill is improperly treated hazardous waste that did not meet RCRA treatment standards prior to disposal.[4]

b. The **Slag Landfill** is a pre-RCRA landfill[5] that remained active after the effective date of RCRA. It is approximately 3.5 acres in size and its depth is unknown. It was used for the disposal of slag from 1978 to 1996, when it was capped and closed. Slag disposed in this unit prior to May 8, 1990 was not required to be treated; after this date, RCRA regulations required treatment of the slag to render it non-hazardous. There is limited information available regarding the treatment, if any, the slag interred in this landfill received. However, untreated and improperly treated slag from this facility has been determined to be a hazardous waste under current regulations, and improperly treated slag has been identified in the Class 2 landfill that was used for slag disposal after this landfill was capped.

c. The **North Disposal Area (NDA)** is a pre-RCRA landfill that is approximately 5.5 acres in size and 13-15 feet deep. It was used from 1974 to 1978 for the disposal of slag, battery chips, and municipal solid waste (MSW) from the City of Frisco. Based on the environmental statutes and regulations in place at the time the landfill was

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[4] The Hazardous and Solid Waste Amendments of 1984 (HSWA) established EPA's authority for the Land Disposal Restriction program under RCRA. This program requires treatment of hazardous waste before disposing of the waste on the land. To ensure proper treatment, EPA establishes a treatment standard for each type of hazardous waste to substantially diminish the toxicity of a waste or otherwise restrict the potential for release of toxic materials to the environment. Beginning on May 8, 1990, metal-bearing hazardous wastes such as the slag from the Exide facility were required to be treated to achieve non-hazardous levels prior to land disposal. These standards were replaced, effective August 24, 1998, with more stringent, technology-based standards for treatment of metal-containing hazardous wastes prior to land disposal.

[5] The term, "pre-RCRA landfill" indicates a landfill that was constructed and operated before the effective date of the RCRA hazardous waste regulations.

active, the slag would not have required treatment prior to disposal in this unit. However, under current standards, untreated slag from this facility would meet the RCRA definition of a hazardous waste.

d. The **South Disposal Area (SDA)** is a pre-RCRA landfill that is approximately 1 acre in size and 8 feet deep. It was used for the disposal of slag and battery chips from 1969 to 1974, when it was capped and closed. Based on the environmental statutes and regulations in place at the time the landfill was active, the slag would not have required treatment prior to disposal in this unit. However, under current standards, untreated slag from this facility would meet the RCRA definition of hazardous waste.

Stewart Creek

12. Sections of Stewart Creek have previously been dredged to remove slag and/or lead contaminated sediment - initially in 1986[6] and again in 1999[7]. A closed waste pile consisting of sediment dredged from the creek in 1986 is still present on-site. Stewart Creek was identified as a Solid Waste Management Unit (SWMU) at the former Exide facility in 1991[8]. More recently, lead contaminated sediment or soil has been reported in or adjacent to Stewart Creek in the following locations:

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[6] *Water and Sediment Tests, GNB Lead Plant, Frisco, Texas,* prepared by Southwestern Laboratories (SWL) dated February 21, 1986; *Stream Sediment Samples, GNB, Inc. Plant, Frisco, Texas,* prepared by SWL dated May 21, 1986; *Stream Sediment Test, GNB, Inc. Plant, Frisco, Texas,* prepared by SWL dated June 13, 1986; and *Stream Sediment Tests, GNB, Inc. Plant, Frisco, Texas,* prepared by SWL dated July 29, 1986.

[7] *Stewart Creek Corrective Measures Implementation Report (CMI),* JDC Consulting, Inc., dated July 13, 2000.

[8] *RCRA Facility Investigation (RFI), GNB Incorporated, Frisco, Texas,* Lake Engineering, dated May 8, 1991.

- On Exide property as reported by the TCEQ[9] and the United States EPA[10].
- Immediately downstream of the Exide facility at the former Stewart Creek Wastewater Treatment Plant (SCWTP)[11] and on the Grand Park property, which is located slightly farther downstream (Exhibit 2). The SCWTP itself was previously remediated to abate soil contamination caused by receipt of wastewater with a high lead content from Exide.

Upland Areas and Adjacent Properties

13. Shallow soil contamination primarily resulting from airborne deposition of lead particulate extends over more than 20 acres of Exide "buffer property" that surrounds the Recycling Facility. Most of this soil contamination is less than 1 foot deep, and some is present in heavily wooded areas. Additionally, slag and battery chips from the Exide facility have been used for fill, soil stabilization, and erosion control on a number of properties in the area., including Bicentennial Park and an adjacent area to the north of Bicentennial Park in the early 1990s.

Groundwater Classification

14. As part of the investigation of their facility, Exide has claimed that the shallow groundwater under their property and in the near vicinity is non-potable and unusable (a "Class 3 groundwater resource"). However, based on technical data gathered from the site, including analytical data and yield tests, I have concluded that existing information indicates the uppermost groundwater

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[9] *Texas Commission on Environmental Quality Investigation Report, Exide Technologies, Exide Frisco, Battery Recycling Plant, Investigation #880260, CN600129787, RN100218643*, dated September 9, 2011.

[10] *Corrective Action Inspection, Exide Technologies, 7471 South 5th Street, Frisco, TX 75034, TXD0064510920*, United States Environmental Protection Agency, dated January 12, 2011.

[11] *Affected Property Assessment Report, Former Stewart Creek Wastewater Treatment Plant (VCP ID No. 212), Frisco, Texas*, Pastor, Behling & Wheeler, LLC, dated April 1, 2013.

is a "Class 2 groundwater resource." This information includes data collected by a previous consultant for Exide that the relevant groundwater bearing zone yields large amounts of groundwater in certain locations[12]. In fact, the groundwater production data resulted in the consultant's recommendation to use two dewatering wells during the construction and filling of Cell 1 in the Class 2 Landfill. Further, Exide's current consulting firm also documented that monitoring well B5N yielded groundwater at a Class 2 level over a 48 hour pumping test performed in March 2013. The TCEQ has not issued a final acceptance of Exide's contention that the groundwater beneath the site is Class 3.

15. Based on meetings with Exide personnel which I have attended as well as the recently submitted APAR, filed with the TCEQ on 7/10/2013, and Screening Level Ecological Risk Assessment (SLERA), filed with the TCEQ on 5/10/2013 and 7/10/2013, Exide is operating under the assumption that a Class 3 groundwater designation will be approved and, as a result, that remedial action levels for soils at the site will be less stringent (in most cases, soil action levels based on Class 3 groundwater would be 100 times the levels that would be required for Class 2 groundwater). For example, in the case of lead in subsurface soil (greater than 5 feet deep), Class 3 groundwater results in a soil action level of 27,451 milligrams per Kilogram (mg/Kg); Class 2 groundwater results in an action level of 274.51 mg/Kg (Exhibit 3). It is my opinion that existing information clearly demonstrates the groundwater at the site is Class 2 and significantly more stringent action levels are therefore appropriate and necessary.

16. Use of action levels for site soils based on a Class 2 groundwater designation would have a significant impact on the amount of waste that would need to be removed or properly contained and controlled on-site, thereby significantly increasing the costs to properly remediate the site.

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[12] *Notification of an On-Site Class II Industrial Waste Landfill, GNB Class II Industrial Landfill, Frisco, Texas,* by Jones & Neuse, Inc., dated September 1995.

17. In addition to affecting action levels for soils, the Class 2 versus Class 3 groundwater designation also impacts action levels for groundwater. Groundwater in a landfill monitoring well (LMW-9) contains selenium concentrations in excess of its Class 2 action level but not the Class 3 action level. In addition, existing data indicate that water encountered in subsurface borings has been impacted, as described below. Obviously, if action levels for groundwater are based on Class 2 versus Class 3 groundwater (as is technically accurate based on existing information), then a response action would be required at the LMW-9 location and potentially at other locations within the former operating area.

UNKNOWN CONDITIONS

18. Unknown conditions, such as unidentified disposal areas or historic spill sites that were not adequately remediated, may also be present that could increase the scope, urgency, and immediacy of any clean up of the site and surrounding area.

Groundwater Contamination

19. Although PBW concluded that there is no groundwater contamination at the Exide Recycling Facility (because PBW concluded the upper most groundwater should be characterized as Class 3 and that the shallow groundwater encountered in the borings is not groundwater), they collected samples of water that began filling shallow boreholes while they were being completed. These borings varied in depth from 2.5 feet to 12 feet below grade. Lead concentrations in 3 of the 5 samples exceed the Class 2 groundwater action level, and the lead in 1 of those samples exceeds the Class 3 groundwater action level. Cadmium concentrations in 2 of the 5 samples exceed the Class 2 action level as well (Exhibit 4).

20. The samples were turbid because they were collected from open boreholes, which lack the sand pack and slotted piping that allow wells to produce clear, non-turbid water. The large

amounts of suspended solids in the samples allowed PBW to argue that sample analytical results were not comparable to groundwater action levels required by rule. Therefore any comparison to action levels is qualitative versus quantitative. But these data suggest that groundwater beneath the facility is contaminated and would need to be addressed to properly remediate the site.

Stewart Creek

21. As shown in Exhibit 5, Stewart Creek flows into Lake Lewisville, a major source of public water supply to the area. As a follow-up to 2011 downstream sampling in Stewart Creek (Exhibit 4), a recent survey of the creek by Southwest Geoscience confirmed that there are pieces of slag and battery chips from the Exide facility in or along the creek several miles downstream of the Exide Recycling Facility (Exhibit 5). Southwest Geoscience subsequently collected additional sediment samples in those areas where these wastes were observed.

22. Based on preliminary reports, some of the visually impacted downstream locations have lead impacts that will require remediation. However, Southwest Geoscience has not completed their review of those data and has not released them to CJI or the City of Frisco for additional evaluation. However, the requirements for off-site remediation, that is, remediation on property not owned by either the City of Frisco or Exide, could increase remediation costs significantly. Preliminary Stewart Creek remediation cost estimates are provided in Exhibit 8.

REGULATORY OPTIONS FOR SITE AND AREA REMEDIATION

Federal and State Requirements

23. In 1984, through the Federal rule making process, the Environmental Protection Agency (EPA) determined that the hazardous waste rules adopted by the State of Texas were substantially equivalent to Federal requirements and adopted 40 CFR 272.2201 which provided final authorizations for the State of Texas to implement the requirements Subchapter C of the Resource

Conservation and Recovery Act (RCRA C).

24. Specific rules adopted by the State of Texas that meet the federal requirements that enabled state authorization of the federal hazardous waste rules include 30 TAC §335.2, Permit Required, which states in part that no person may cause, suffer, allow, or permit any activity of storage, processing, or disposal of any industrial solid waste or municipal hazardous waste unless such activity is authorized by a solid waste permit, unless an exemption or other valid authorization is obtained from the Commission.

Corrective Action Recommendation

25. In determining the lowest cost and least burdensome mechanism to achieve regulatory compliance, I have determined that the Class 2 landfill should be closed under a Post Closure Care Order as authorized by 30 TAC 305 subchapter C. And the RCRA permit should be modified to create a Corrective Action Management Unit (CAMU) within the current RCRA permit boundary to manage the corrective action residuals that will be generated from the cleanup of the remainder of the property, including the wastes that will be generated from the cleanup of Stewart Creek.

TECHNICAL OPTIONS FOR SITE AND AREA REMEDIATION

Low Cost Solution – Close in Place Option with Targeted Remediation

26. This cleanup option calls for the removal of waste/contaminated soil from areas that can be "rehabilitated" in a cost effective manner. Essentially these areas are the contaminated portions of the site that aren't already landfills or, in the case of the former Exide Recycling Facility, highly contaminated. The "rehabilitation" areas include the J Parcel (buffer property surrounding the Exide operating facility which is proposed to be purchased by the City of Frisco), Stewart Creek, and peripheral portions of the "Bowtie" (so named due to its physical configuration) property (the Lake Parcel, the South Field, the South Wooded Area, the North Wooded Area, and the area near the

crystallizer building). Exhibit 6 depicts the locations where excavations would occur.

27. Waste removed from the areas identified above will be consolidated in areas that are already landfills or within the former Exide Recycling Facility. The consolidation areas (the Class 2 landfill, the South Disposal Area, and the contiguous Exide Recycling Facility/North Disposal Area/Slag Landfill) would then be contained with slurry walls and capped to limit access to and migration of the waste.

28. Approximately 1 mile of slurry wall would be installed around the three areas mentioned above providing a vertical barrier to prevent lateral migration of waste constituents to off-site properties, including Stewart Creek. The slurry walls would be installed vertically from the ground surface and be keyed into the shale formation that underlies the Exide property and provides horizontal containment beneath the wastes and contaminated soils to prevent downward migration of wastes. After each area is encircled with a slurry wall, the entire surface area within and including the slurry wall will be capped with a flexible membrane liner (FML), three feet of compacted, low permeability clay, and additional fill as necessary to achieve positive long-term drainage of surface water falling onto and running across each area. In all, the combined surface area that would be capped is approximately 40 acres in size. Topsoil would be placed on top of the cap and vegetated to control erosion.

29. In a preliminary evaluation, I have concluded that this effort will take considerably less time to complete than a full scale excavation and disposal effort. The estimated cost for this effort, based on currently available information, is approximately $15,000,000.

Probable Cost Solution – More Complex Close in Place Option with Targeted Remediation

30. The probable cost solution is simply a modification of the low cost solution. There are numerous variables that could complicate, delay, and/or increase the costs of the close in place

strategy. Those uncertainties include litigation, inclement weather, potential remediation in and adjacent to Stewart Creek downstream of the site, and similar issues. To account for those uncertainties, the probable cost of the close in place option is 1.5 times the low cost, or $22,500,000.

High Cost Solution – Excavation, Removal, and Disposal of Waste/Contaminated Media

31. This cleanup option calls for the removal of all waste and media contaminated at concentrations above action levels based on Class 2 groundwater from the "Bowtie" and Class 2 Landfill properties, and removal of soil impacted above the negotiated cleanup value for lead of 250 mg/Kg on Exide buffer property (the "J Parcel") and the "Lake Parcel" portion of the Bowtie property (which the City of Frisco has an option to purchase). Exhibit 7 depicts the locations where excavations will occur.

32. In a preliminary evaluation, I have concluded that this effort will likely take several years to complete and will generate between 615,000 and 760,000 cubic yards of waste, with almost half of that total being hazardous waste. The estimated cost to complete a remedial excavation of this magnitude is in excess of $130.0 million dollars.

A summary of the remediation and closure estimates is provided as Exhibit 8.

Stewart Creek Remediation

33. Several remediation scenarios have been prepared for downstream segments of Stewart Creek by Southwest Geoscience, another consulting firm working on behalf of the City of Frisco. The remediation scenarios were based on the following:

a. The complete removal of stream sediments along a 1.87 mile segment of the Creek. The estimated cost to complete this remediation scenario is approximately $3.4 million.

b. The complete removal of stream sediments along a 0.75 mile segment of Stewart

Creek plus the removal of hot spots outside of this area. The estimated cost to complete this remediation scenario is approximately $2 million.

c. The targeted removal of hot spots on the creek. The estimated cost to complete this remediation scenario is approximately $1.85 million.

The actual remediation scenario will be determined by future testing of stream sediment to determine more precisely levels and extent of contamination.

Dated: July 19, 2013.

Wade M. Wheatley, P.E.