



October 12, 2015

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8800 Cal Center Drive  
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Subject: Comments on draft Closure Plan for the  
Exide Technologies Facility, Vernon, California

Dear Ms. Cromie and Mr. Lorentzen,

Thank you for the opportunity to provide preliminary comments on the draft Closure Plan for the Exide Technologies battery recycling facility in Vernon, California. I am writing in my capacity as Technical Advisor for environmental matters to the Exide Citizen Advisory Group. The Advisory Group will likely have comments on many more aspects of this complex plan and we reserve the right to supplement this letter with additional comments during the official public comment period.

I welcome DTSC's openness during this process but note that the community has grave concerns about the ability of the State to insure a safe and thorough closure process. It is my impression that there is a vast deficit of trust within the community due to the perception that regulatory oversight (when the plant was operating) failed to protect the community from exposure to Exide's pollutants. Given this increasingly apparent fact, the skepticism is perhaps understandable that regulatory oversight from the same agencies can somehow be relied upon to protect the community from further harm. In a way, this process is a gradual exercise in rebuilding trust between the community and the regulatory authorities who are charged with insuring their protection against environmental harm.

Similarly, Exide's egregious and cavalier behavior over many years is the cause of this problem and yet the community is now asked to trust Exide to conduct a responsible closure and cleanup. This seems to be an impossible leap of faith. There must be some alternative other than empowering the polluter (who barely avoided criminal prosecution for environmental crimes) to manage this critical project. DTSC has an opportunity to implement a thorough and responsive cleanup but it is hard to see how this vision can come true if the law-breaking responsible party is tasked with the job. DTSC should retain a neutral third party to carry out the entire closure project, funded (but not managed) by Exide. The highest priority of the third-party project manager should be to insure that there are no adverse environmental impacts to the surrounding neighborhood and

the lowest priority should be cost. Under the status quo (i.e. with Exide in control of the closure under DTSC oversight), we believe these priorities may be reversed.

There is no dispute that lead in the environment can pose serious public health problems. An extensive body of medical and scientific research has identified many toxic effects associated with lead exposure. Even low levels of lead in the blood of children can result in neurological problems, learning problems, lower IQ, hyperactivity, slowed growth, hearing problems and anemia. For women of child-bearing age, lead exposure during or before pregnancy can lead to reduced growth of the fetus, premature birth and other physical effects to the mother and the fetus. In other adults, exposure to lead can cause cardiovascular problems such as hypertension, decreased kidney function and reproductive problems.<sup>1</sup> Other inorganic and organic contaminants released from the Exide facility carry their own toxicological risks.

## **Guiding Principles**

The Advisory Group believes that residents of California deserve to be free from exposure to lead contamination and to raise their children in a healthy environment. As such, the Advisory Group insists on a holistic and durable cleanup of lead and other Exide contaminants at the facility and in surrounding neighborhoods. We remind DTSC that achieving this goal requires satisfactory completion of all components of the cleanup (the facility itself, the adjacent commercial area and the residential neighborhoods) and that we must make concurrent progress on all three components of the overall project. Obviously successful RCRA Closure of the facility (the focus of this comment letter) is just one component (albeit a very important one) of this overall goal.

A vital premise for the closure process is that it must do no harm to the surrounding community: it must be carried out in a manner that adds absolutely no additional environmental burden to a community that has been the unwilling and unwitting recipient of decades of Exide's illegal, irresponsible and possibly ongoing<sup>2</sup> releases to the environment. With this premise in mind, certain components of the closure (such as air monitoring and transportation) are of particular concern.

This multifaceted cleanup effort would greatly benefit from a robust conceptual site model that describes where contamination is found (in all relevant environmental media) how it got there and

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<sup>1</sup> <http://www2.epa.gov/lead>

<sup>2</sup> To our knowledge, there is no evidence that releases to the environment have ceased just because the plant is not operating. Experts have concluded that releases to the environment were from a combination of stack emissions and fugitive emissions. Now that the facility has closed, there are no stack emissions but fugitive emissions remain an unchecked threat. There is a massive inventory of lead, other metals and solvents in the soil, rooftops and other surfaces in and around Exide that poses a continuing threat to air and soil quality (via resuspension and airborne transport) and to groundwater quality (via subsurface migration). DTSC should take immediate action to manage this interim risk.

where it is going (i.e, a thorough analysis of fate and transport mechanisms). The conceptual site model would help all stakeholders identify, evaluate and prioritize the many ways in which Exide's contamination has encroached upon the community and the environment.

## Specific Comments

**Air monitoring.** There must be full documentation that closure activities do not result in airborne releases of lead and other contaminants. In short, the goal for this project should be no visible dust ever generated outside of enclosures or containment structures. This will require implementation of clear dust mitigation measures, a comprehensive monitoring program and a third-party onsite monitor. The draft Closure Plan provides for a third-party monitor<sup>3</sup> however, it is not specified that the third-party monitor should have the authority to promptly correct dust problems, up to and including the authority to stop work until problems can be resolved.

As you know, a variety of dust mitigation measures are available for demolition projects involving hazardous materials. These include the following techniques that may be appropriate for this site:

- Track-out prevention and control. "Track-out" refers to vehicles leaving a work site with residual dirt or dust on the tires or undercarriage of the vehicle;
- Management of active storage piles with water or temporary covers;
- Management of inactive surface areas and storage piles.
- Dust mitigation for unpaved truck access, parking and staging areas, including speed limitations, watering, gravel cover.
- Dust mitigation for paved public roads, principally by effective track-out prevention for trucks leaving the work site;
- Dust mitigation for earth moving activities through wetting and protocols to suspend earthmoving operations during periods of high wind;
- Containment of hazardous materials loaded on trucks to avoid losses during offsite transport;
- Post-demolition stabilization, such as establishing vegetative cover, clean fill, or hardscape.

There should also be contingency dust control measures and clear triggers for implementation of contingencies. These might include more frequent watering of work areas and/or haul routes, street sweeping on adjacent roads, automated misting systems, suspending operations during periods of high winds, and/or limiting the amount of dust generating work that can occur at any one time.

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<sup>3</sup> Draft Closure Plan, page 1-8.

We understand that the existing perimeter air monitors may be required under South Coast Air Quality Management District (SCAQMD) regulations but it is unclear whether it is appropriate or useful to repurpose this equipment for closure monitoring. These devices provide 24-hour average concentrations of lead and arsenic (and presumably other metals), but the samples must be physically transported to an offsite laboratory and results are only available after approximately five days (see Draft Closure Report, Appendix H). This is clearly not a meaningful early-warning system. In addition, even though 24-hour averages may be useful in some contexts, it is not sufficient for the purposes of monitoring dynamic demolition activities. Real-time dust monitors should be added along the perimeter of the facility. Work perimeter dust monitors are a good idea, but the third-party dust monitor must have complete autonomy to place the monitors.

**Temporary Enclosures.** Temporary enclosures with negative air pressure should be required for all closure activities. This is a prudent measure to better manage construction dust and to minimize off-site releases.

**Truck Traffic.** There are established and effective protocols for loading trucks with hazardous waste and transporting the wastes offsite. However, it is a significant challenge to translate a good plan on paper into a good plan in the field where real-world distractions and the complexity of field activities can give rise to lapses in compliance. There must be a third-party trucking monitor on site at all times to personally confirm compliance with loading and containment of wastes, decontaminating trucks prior to leaving the site and insuring that drivers understand the approved truck routes.

**Lead in Refining Kettles.** Exide argues that it must remelt lead in kettles that contain more than 12 tons of lead (Draft Closure Plan, p. 2-32). Exide presents a cynical and false premise that we must choose between endangering workers (i.e. by removing solid lead by hand) and restarting the plant (to remelt the lead and drain the kettles). Many members of the Advisory Group are adamantly against any decision that involves restarting industrial operations at this facility. One of the enabling causes of this environmental crisis was the inadequate operation and oversight of Exide's air pollution control equipment. I foresee no possible assurances from SCAQMD or DTSC that can convince this community that it is somehow now okay to restart the industrial operations and rely on failed pollution control strategies to protect the community from additional environmental impacts. DTSC must find a different way to remove the lead-bearing kettles from this site.

## **Closure vs. Corrective Action**

As evidenced from our meeting in September, there is considerable discomfort regarding DTSC's distinction between closure and corrective action at this site. Among other things, some members

of the Advisory Group are concerned that the lack of a single comprehensive plan for restoring the site could leave the project with inadequate funding from Exide to accomplish this monumental task. The corrective action protocols made sense for addressing environmental problems while the plant was operation (i.e., before a Closure Plan was needed). Now, it threatens to bog down the overall cleanup process by mandating confusing, overlapping and inconsistent tasks. This bifurcation of the cleanup process could only make sense to a bureaucrat. To laypeople, it defies common sense. For example, the West Yard of the former Exide facility would barely be touched during RCRA Closure. However, according the Revised Current Conditions Report<sup>4</sup> this is the location of the Old Slag Landfill that allegedly includes 60,000 to 80,000 cubic yards of industrial waste, as well as the Earthen Acid Dump Pit which appears to have created such acidic conditions in the subsurface that lead and other metals have been mobilized down to the water table and have impacted groundwater quality.

In another example, one proposed performance standard in the Closure Plan is to only clean up soil that is so contaminated as to be classified as a California hazardous waste:

“The Closure Performance Standards for soil up to five feet beneath a unit are non-hazardous Total Threshold Limit Concentrations (TTLC) and Soluble Threshold Limit Concentrations (STLC) (where necessary) test results pursuant to 22 CCR 66261.24, and non-corrosive test results based on pH testing per 22 CCR 66261.22...Contaminated soil with hazardous characteristics, proposed for remediation during the Phase 2 Closure, will be managed as hazardous waste.”  
(Draft Closure Plan, p. 3-15).

This is a far more lenient cleanup standard than would likely be imposed under corrective action. For example, the TTLC for trichloroethene (also called, TCE; a chemical of concern for soil and groundwater at the Exide site) is 2,040 mg/kg. Soil below this threshold (which would not be cleaned up under the proposed Closure Plan) may not be classified as hazardous waste but it can still constitute a significant threat to human health and the environment. Indeed, typical soil cleanup goals for TCE in California are on the order of 1 mg/kg; 2,000 times lower than the target proposed by Exide in the Draft Closure Plan. It is clear from this example that the Draft Closure Plan would only require a partial cleanup of on-site soil, leaving the bulk of soil and groundwater cleanup for the corrective action program.

The corrective action process for this site was launched in 2002 (DTSC, 2002, Corrective Action Order). The general sequence of activities for RCRA corrective action is as follows:

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<sup>4</sup> Advanced Geoservices, October 5, 2012, Revised Current Conditions Report, p. 3-14.

1. Current Conditions Report
2. RCRA Facility Investigation (RFI) Work Plan
3. RCRA Facility Investigation and RFI Report
4. Interim Corrective Measures (if needed)
5. Corrective Measures Study
6. Remedy Selection
7. Remedy Implementation (e.g. site cleanup)

Thirteen years after issuing the corrective action order, Exide and DTSC have yet to complete step 2 of the Corrective Action process.<sup>5</sup> This process is taking too long. Deferring most subsurface cleanup to the corrective action program is inefficient and redundant and is likely to unnecessarily drag out the process. DTSC seems to be telling the community that a thorough cleanup can only be accomplished through a glacially slow process that will require many years, if not decades. I believe the community is justified in demanding a cleanup that is both thorough and timely. We should not be forced to choose between these two priorities. I believe DTSC has the power to mandate a thorough and timely cleanup if only it would exercise its full range of authorities.

As currently planned, the CEQA process for this site seems to only address RCRA Closure and not Corrective Action. This would be an incomplete and perhaps arbitrary bifurcation of what should rightly be considered a single project: the comprehensive environmental restoration of the former Exide facility. In closing, the two overlapping processes (Closure and Corrective Action) should be combined under the RCRA Closure program and the EIR should evaluate both phases of this project. This would better allow DTSC to work toward comprehensive site restoration with renewed vigor and an appropriate sense of urgency. Streamlining and accelerating this process is perhaps one way DTSC could continue rebuilding trust with the community.

Sincerely,



James Wells, PhD, PG

Technical Advisor to the Exide Advisory Group

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<sup>5</sup> Advanced Geoservices, March 26, 2013, revised Comprehensive RCRA Facility Investigation Work Plan; Advanced Geoservices, June 7, 2013, Addendum No. 1 Revised Comprehensive RFI Work Plan; Advanced Geoservices September 20, 2013, Addendum No. 2, Revised Comprehensive RFI Work Plan.