

Region 3 GPRA Baseline RCRA Corrective Action Facility**Exide Technologies (General Battery Corporation)****Nolan Street and Spring Valley Road****Laureldale, PA 19603****Congressional District 6****EPA ID #: PAD990753089****Last Updated: 12/30/2005****Current Progress at the Site**

The Exide Technologies facility is located in Laureldale, PA and is approximately 45 acres in size. In August 2000, the United States Environmental Protection Agency (EPA) issued the Administrative Order on Consent (AOC) to Exide. As part of the AOC requirements, Exide will collect additional soil samples in Laureldale Borough and Muhlenberg Township to assess the extent of soil lead concentrations that are above EPA's screening level. Each property within the boundary of the screening level will be sampled for lead in soil. Properties that have an average lead exposure above the determined lead clean-up levels will be cleaned-up. As an interim measure, the AOC requires Exide to clean-up nineteen properties adjacent to the facility as directed by a Consent Order and

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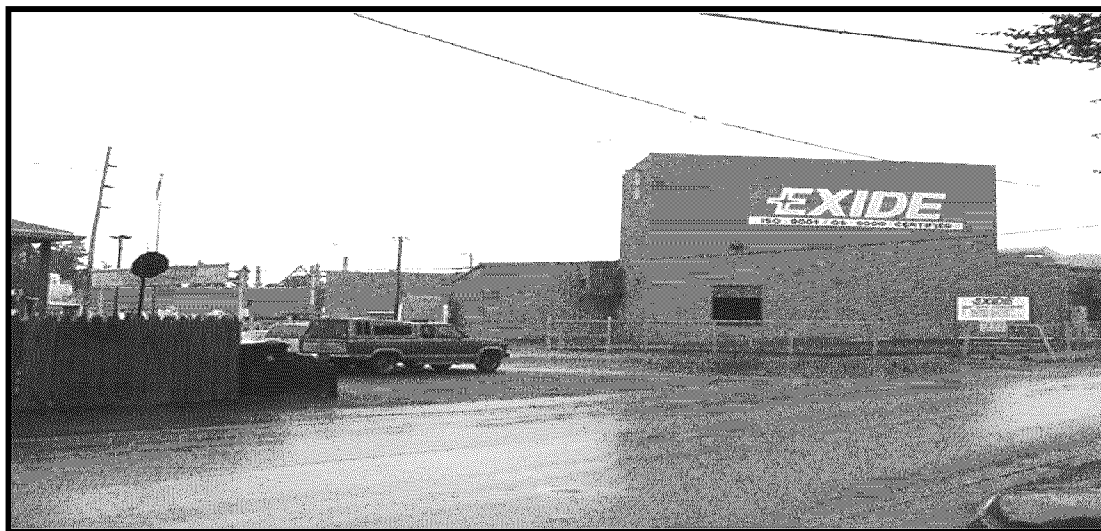


Figure 1 Exide Technologies, Laureldale, PA

Environmental Protection (PADEP), which was issued on May 22, 2000. The clean-up of the nineteen properties was completed in October 2000. In early November 2000 and at EPA's request, Exide voluntarily tested the soils of an approximately additional twenty properties in the northern proximity of the facility. Four of the twenty-two properties require no further corrective action. The remaining 18 properties will be further evaluated pursuant to the AOC.

A public comment period was set from September 8 through October 23, 2000. A public meeting was held on September 27, 2000 at the Muhlenberg Middle School, 801 E. Bellevue Street, Reading, Pennsylvania, for the community and all other interested parties to hear a description of the AOC and to ask questions. The meeting was attended by a total of 37 people, including representatives of EPA, Pennsylvania Department of Environmental Protection (PADEP), the local government, and citizens. This was an opportunity for the public to comment on the AOC and to present any issues and concerns. Comments and oral testimony given at the meeting and comments received during the comment period were considered and addressed by EPA in the Response to Comments and summarized in the RTC fact sheet.

Recent Progress and Developments

(1st Qtr. 2001)

The AOC became effective March 2, 2001. Exide submitted the Draft Step 1 Environmental Sampling Work Plan for EPA's review. EPA had several comments on the work plan. Exide is currently revising the work plan in response to EPA's comments. Although the work plan requires some revisions, EPA has approved the first step of the soil sampling event.

Exide began the investigation in mid-April. The first step entails collecting approximately 90 discrete supplemental soil samples in Laureldale Borough and Muhlenberg Township to refine the boundaries of the study area. To properly oversee the work, EPA collected split soil samples with Exide at various locations to ensure the validity of the soil results.

The soil samples were analyzed and soil lead concentration values were inserted into a geostatistical model (Kriging) to identify areas that are not likely to exceed 400 parts per million (ppm) for lead in soil. This defined the extent of contamination (i.e., study area)

(2nd Qtr. 2001)

EPA approved the Step 1 Environmental Sampling Work Plan. The Work Plan entails two phases of soil sampling. The first phase is to refine the boundaries of the study area. The second phase is to determine the average lead concentration in soil for each property within the study area.

During the month of April and early May, Exide collected approximately 90 soil samples in Laureldale Borough and Muhlenberg Township to refine the boundaries of the study area. The soil samples were analyzed and soil lead results were used to identify areas that are not likely to exceed 400 parts per million (ppm) for lead in soil. This defined the extent of the study area. Properties within the study area received a letter from Exide asking permission to conduct soil sampling. Residents that have agreed to the soil sampling have had their property sampled or will be sampled shortly. The purpose of the soil sampling is to determine the average lead concentration for each property. It is expected that the property soil sampling will be completed by the end of the summer. Property owners will receive the results of the soil sampling in the Fall.

EPA, PADEP and Exide investigated Bernhart Park during the month of June. The assessment consists of soil, sediment and surface water sampling. EPA is currently reviewing the results of the sampling. EPA will present the findings of the assessment at the public meeting in November 2001.

Exide submitted the Step 2 Environmental and Human Health Sampling Work Plan, which is a follow-up to the Step 1 Work Plan. The Step 2 Work Plan entails the Risk Assessment Sampling (i.e., soil, dust, and tap water sampling and paint screening), Blood Lead Study, and Site-Specific Risk Assessment. The Risk Assessment Sampling and Blood Lead Study will focus on the most vulnerable residents (e.g., children under the age of 84 months, and pregnant women). The data will be incorporated in the Site-Specific Risk Assessment to determine the clean-up levels for lead in soil. EPA is currently reviewing the Step 2 Work Plan.

(3rd Qtr. 2001)

EPA has received and is currently reviewing the Bernhart Park Assessment Report. Exide continues to conduct soil sampling of properties within the study area. So far, approximately 350 properties have been sampled. The results of the soil sampling will be mailed to the property owners in the Fall. In addition to Bernhart Park, the review of the Step 2 Work Plan is ongoing. EPA anticipates to hold a public meeting in November to present the progress of the investigation and to answer questions.

(4th Qtr. 2001)

A public meeting was held on November 27, 2001 at the Muhlenberg High School, Reading,

Pennsylvania, to present the progress of the Exide Investigation. The meeting was attended by approximately 100 people, including representatives of EPA, PADEP, the local government, and citizens. EPA presented the progress of the investigation. The presentation is summarized below and in the [Public Meeting Fact Sheet Handout and Map](#).

Soil Sampling of Individual Properties

Approximately 425 properties were sampled, which equate to about 10,000 sample locations. The results of the soil sampling were used to determine the average soil lead concentration for each property. The soil results were sent to the property owners in November and December. Based on the soil results, the 425 properties were grouped into three distinct categories. These categories are defined below:

1. Properties that do not require clean-ups:

These properties contain soil lead concentrations of 500 mg/kg or less, which meet the Pennsylvania Department of Environmental Protection (PADEP) Statewide Health Standard. The properties do not require soil clean-up and are not subject to further evaluation. This determination completes Exide's investigation on these properties. One hundred six properties do not require clean-ups. .

2. Properties that require clean-ups:

These properties contain soil lead concentrations of 1200 mg/kg or greater, a level that EPA has determined requires clean-up to ensure long term protection for children. Forty-seven properties were determined to have soil lead concentrations above 1200 mg/kg. Thirty-seven out of the forty-four properties will be cleaned-up in Spring 2002. The remaining seven properties, which are either vacant, do not have children residing on the property, or do not pose a high frequency of exposure, will be addressed in subsequent clean-ups. Because of the difficulties associated with soil excavation and the low frequency of soil exposure during the winter months, Exide will implement the soil clean-up in Spring 2002. Exide will contact the property owners in advance before any work begins.

3. Properties that will be retained and re-evaluated:

These properties contain soil lead concentrations between 500 mg/kg and 1200 mg/kg. The levels do not present an immediate problem. These properties will be retained and re-evaluated for the second phase study next year. The second phase study will determine the site-specific clean-up level. The properties will be re-evaluated based on this clean-up level. Properties with soil lead concentration below the site-specific clean-up level do not pose a health risk and therefore, will not require soil clean-ups. Properties with soil lead concentration above the site-specific clean-up level will require soil clean-ups.

Expansion of Study Area

The original study area was expanded to fully define the extent of soil lead contamination. The expansion of the study area can be viewed in the [Public Meeting Fact Sheet Handout and Map](#) webpage. The expansion includes soil sampling of an additional 150 properties. The property owners were contacted by Exide in October. The properties were sampled in November or will be sampled shortly. The results of the soil sampling will be mailed to the property owners in February 2002.

Bernhart Park Assessment

In addition to soil sampling of the individual properties, EPA, PADEP and Exide assessed Bernhart Park this past summer. This assessment entailed soil, sediment, and surface water sampling. Lead levels detected in sediment and surface water in the reservoir do not pose a human health risk and therefore, the reservoir do not require clean-up. EPA has identified ground areas in the park that will require remediation. EPA is currently working with Exide and the City of Reading to put together a proposal to clean-up these areas. Our goal is to begin soil clean-up at the park in Spring 2002 with the anticipation of re-opening park in the Summer of 2002.

Ongoing and Future Activities

As we look ahead to the future, we anticipate to complete the following goals in the up-coming years:

- Complete the delineation of the study area by December 2001.
- Clean-up 37 properties in Spring 2002 with the 7 properties to follow.
- Clean-up Bernhart Park and re-open the park for recreational use in Summer 2002.
- Collect data for the second phase study in Summer 2002 to determine the site-specific clean-up level.
- Complete the second phase study in Spring 2003.
- Re-evaluate properties with soil lead concentrations greater than 500 mg/kg but less than 1200 mg/kg. Commence clean-ups of properties with soil lead concentrations above the site-specific clean-up level in Spring 2003.

(1st Qtr. 2002)

Exide completed additional soil sampling in the expanded areas. A revised study area was delineated from the additional soil results. Properties that were recently sampled in the expanded areas should receive their results by the end of May 2002. Thus far, EPA has identified seventy-one (71) properties that require soil clean-ups. Nineteen (19) of the seventy-one (71) properties were cleaned up in Fall 2000. The remaining fifty-two (52) properties will be cleaned up this summer. The property owners have been notified of the soil clean up. Exide is expected to begin the soil clean up by mid-June. The soil clean up is expected to be completed by October 2002. In addition, EPA has identified a total of two hundred fourteen (214) properties that have an average soil lead concentration equal to or less than the Pennsylvania Department of Environmental Protection (PADEP) Statewide Health Standard of 500 mg/kg. These properties will not require soil clean up. The remaining properties, which are approximately 300 properties, have soil lead concentrations greater than 500 mg/kg but less than 1200

mg/kg. These levels do not present an immediate problem. However, these properties will be retained and re-evaluated for the second phase study to be completed by next year.

EPA is currently working with Exide and the City of Reading to finalize the work plan to clean-up Bernhart Park. Our goal is to begin soil clean-up in Spring 2002 with the anticipation of re-opening park in the Summer of 2002.

(2nd Qtr. 2002)

Given Exide's present financial difficulties, the company filed for Chapter 11 Bankruptcy, which entails reorganization of the company. By enlarge, the bankruptcy will not impede the progress of the soil investigation and clean ups. Exide is committed to the clean-up of the fifty-two (52) residential properties this summer. Exide will begin the residential soil clean-up in June. The soil clean up is expected to be completed by October 2002. As presented in the previous public meeting in Nov. 2001, Exide will initiate the second phase study to determine the site-specific clean up level this summer. This work is proceeding accordingly. EPA plans to schedule a public meeting later this summer to present the progress of the residential clean ups and the second phase study. The residents and interested parties will be informed of the public meeting in advance.

Because of the bankruptcy and the limited funds available, the clean up of Bernhart Park may be delayed. EPA is working with Exide and the City of Reading to establish a feasible time frame for the clean up of the park.

(3rd Qtr. 2002)

Since the last public meeting, one additional property was added to the list of properties to be cleaned up. This makes the total of 53 occupied residential properties with elevated soil lead concentrations of 1200 parts per million (ppm) or greater that will require soil clean up. These soil lead levels pose a significant health risk, particularly to children six years old and younger. Exide began the soil clean ups of the properties in June 2002. The clean ups consist of an initial landscape survey of the properties, with an approximate 6 to 12 inches of excavation, depending on the magnitude of contamination. Confirmatory soil samples are collected and analyzed after excavation to ensure that the cleans up meet regulatory requirements. The properties are then backfilled with clean soil and restored to their original conditions. The clean ups of the 53 properties are expected to be completed by the end of October 2002.

On August 8, 2001 EPA held a public meeting at the Muhlenberg Middle School, Reading, Pennsylvania, to present the progress of the Exide investigation and remediation. The meeting was attended by approximately 50 people, including representatives of EPA, PADEP, local government, and citizens. EPA and Exide presented the progress of the investigation, residential clean ups and upcoming activities. The outline of the public meeting is summarized in the [August 8, 2002 Public Meeting Handouts](#).

Exide is currently collecting additional data as part of the Step 2 Investigation. The Step 2 Investigation will determine the site-specific soil clean up levels that will be protective of human health and the environment. The Investigation targets residences with children six years old and younger and consists of additional environmental sampling (e.g., tap water, house dust, lead-based paint screening) and a blood lead study. Exide will complete the Step 2 Investigation by spring 2003. The results of the Investigation will determine the site-specific soil clean up levels that will be apply to the remaining properties. Properties with soil lead concentrations greater than the site-specific soil clean up levels will require clean up. Properties with soil lead concentrations less than the site-specific soil clean up levels will not require soil clean up.

(4th Qtr. 2002)

Exide completed the clean ups of the 53 residential properties on November 24, 2002. Furthermore, Exide conducted soil sampling for approximately 20 additional properties within the Study Area. The property owners should receive their results by March of next year.

The Step 2 Investigation is ongoing. Exide completed the supplementary data collection and is progress of reviewing the data. The Step 2 Investigation should be completed by spring/summer 2003. The results of the investigation will determine the site-specific soil clean up levels that will be applied to the remaining properties. Properties with soil lead concentrations greater than the site-specific soil clean up levels will require clean up. Properties with soil lead concentrations less than the site-specific soil clean up levels will not require soil clean up.

(1st Qtr. 2003)

As reported in the previous quarter, the Step 2 Investigation is ongoing. We anticipate that the Step 2 Investigation will be completed this year. The results of the investigation will determine the site-specific soil cleanup levels that will be applied to the remaining properties.

Properties that were sampled for soil lead concentrations during the fall and winter of 2002 will receive their results this quarter. Properties with soil lead concentration below the Pennsylvania Department of Environmental Protection (PADEP) Statewide Health Standard of 500 parts per million (mg/kg) will receive a letter from EPA stating that their properties do not require soil clean-up and are not subject to further evaluation. All the other remaining properties will be retained and reevaluated as part of the Step 2 Investigation.

(2nd Qtr. 2003)

The Step 2 Investigation is ongoing. Additional data analysis is required to determine the site-specific soil cleanup levels that will be applied to the remaining properties. EPA anticipates that the Step 2 Investigation will be completed this summer. EPA expects to hold a public meeting later this year to present the findings of the Step 2 Investigation.

(3rd Qtr. 2003)

Exide and EPA are progressing with the Step 2 Investigation. There have been several delays with the analysis of the data. EPA anticipates that the Step 2 Investigation will be completed by the end of the year.

(4th Qtr. 2003)

Exide has submitted the Risk Assessment, which is the final submission to the Step 2 Investigation. The national EPA Technical Review Workgroup for Lead (TRW) is currently reviewing the Risk Assessment to ensure that the Step 2 Investigation is implemented properly. The final approval of the Risk Assessment will determine the site-specific soil lead cleanup levels for the study area. A public meeting will be held in the new year to present the results of the Step 2 Investigation. EPA anticipates that the next round of residential cleanups will take place during the next construction period, which normally begins in April or May 2004, weather permitting.

(1st Qtr. 2004)

The completion of the Risk Assessment have been delayed due to inadequate information. Exide is preparing to submit the additional information. EPA will re- evaluating the Risk Assessment to ensure that all supporting information will meet the requirement of the Risk Assessment. At the completion of the Risk Assessment and the determination of the site-specific soil lead cleanup levels EPA will schedule a public meeting to present the results of the Risk Assessment and initial the residential clean up process.

(2nd Qtr. 2004 - Present)

Exide submitted the additional information to complete the Risk Assessment. The EPA Technical Review Workgroup (TRW), which consists of EPA national experts , is currently reviewing the Risk Assessment. EPA anticipates that the review of the Risk Assessment will be completed shortly. EPA will announce its' conclusion and decision on the Risk Assessment later this year. Following the announcement, EPA will schedule a public meeting to present and discuss the results of the Risk Assessment.

Site Description

The Exide Technologies Site occupies approximately 50 acres of land and is located in Laureldale Borough and Muhlenberg Township, just northeast of Reading, PA. The Facility began operating as a battery manufacturing plant in the mid-1930s under the ownership of the Bowers Battery Company. General Battery Corporation purchased the facility in 1958, and was itself acquired by Exide in 1987. The Facility currently recycles lead batteries. Spent lead-acid batteries are sent to a battery breaker

unit where lead, plastic and acid are separated. The recycled lead is smelted and cast into lead-alloy bars to make new battery plates. As a result of approximately 35 years of lead smelter operation prior to the installation of air pollution controls and the advent of the Clean Air Act of 1970, Exide contributed to lead contamination in soil of the surrounding areas of the Facility. Currently, the Exide plant operates in compliance with air permits issued by the Pennsylvania Bureau of Air Quality.

Site Responsibility

Off-site investigation and remediation for lead in soil are being implemented in accordance with the 7003 Administrative Order on Consent that became effective March 2001. On-site RCRA Corrective Action activities at the Exide facility are conducted in accordance with the federal RCRA Corrective Action Permit that was issued on November 7, 1988 and was renewed September 1999.

Institutional Controls

Institutional controls are not required at this time.

Contaminants

Off-site contaminants of concern include lead contamination in soil and the potential of indoor lead dust contamination. On-site concerns are antimony, arsenic, cadmium and lead in soil and groundwater.

Community Interaction

The community has been vocal about their concerns with Exide's operations. EPA has interacted with the public in numerous occasions through public meetings, responding to controlled correspondence and answering phone calls.

There will be future opportunities for the public to review the Risk Assessment and Remediation Work Plans with respect to the off-site investigation and remediation. The work plans will be available for review at the Muhlenberg Community Library and the EPA Region III Office. A public meeting will be held to present the content of the work plans and to respond to any questions that the public may have.

Lead Blood Sampling

Residents who wish to be tested for lead blood levels can go to the Omega Medical Laboratories. The

service is free of charge to the public. Please specify that the lead blood test is under the Exide program in order to receive this free service. The facility is located at:

Omega Medical Laboratories
Fairgrounds Square Mall
Reading, PA 19605
(610) 921-0305

Lead Poisoning Prevention

There are several ways in which you can minimize your exposures and risks to lead from any source. The EPA website <http://www.epa.gov/opptintr/lead/index.html> contains valuable information to reduce your exposure and protect you and your family from these lead sources.

Government Contacts

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Information Repositories

An information repository containing documents related to the site is maintained at the following locations:

U.S. EPA Region III
1650 Arch Street,
Philadelphia, PA 19103
Phone: (215) 814-5467

Muhlenberg Community Library
3612 Kutztown Road
Laureldale, PA 19605
Hours: Mon & Thurs: 9:00 AM - 5:00 PM
Tues & Wed: 12:00 PM - 8:00 PM
Fri: 11:00 AM - 5:00 PM
Sat: 9:00 AM - 4:00 PM

Contact: Annette Pendleton
Phone: (610) 929-0589

For more information about EPA's corrective action webpage, including Environmental Indicators, please visit our site at: www.epa.gov/reg3wcmd/correctiveaction.htm