

Exide Technologies (General Battery Corporation)

Nolan Street and Spring Valley Road
Laureldale, PA 19603
Congressional District 6
EPA ID #: PAD990753089
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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 cleanup levels will be cleaned-up. As an interim measure, the AOC requires Exide to [cleanup nineteen properties](#) adjacent to the facility as directed by a Consent Order and Agreement with the Pennsylvania Department of



Figure 1 Exide Technologies, Laureldale, PA

Environmental Protection (PADEP), which was issued on May 22, 2000. The cleanup 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 thirty-seven (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 ninety (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 consists of the environmental sampling (i.e., soil, dust, and tap water sampling and paint screening), the blood lead study, and site-specific risk assessment. The environmental 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 cleanup 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 three hundred fifty (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 that a public meeting will be scheduled 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 four hundred fifty (450) 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 four hundred fifty (450) properties were grouped into three distinct categories. These categories are defined below:

1. Properties that do not require cleanups:

These properties contain an average soil lead concentration of 500 mg/kg or less, which meet the

Pennsylvania Department of Environmental Protection (PADEP) Statewide Health Standard. The properties do not require soil cleanup and are not subject to further evaluation. This determination completes Exide's investigation on these properties. One hundred six properties do not require cleanups. .

2. Properties that require cleanups:

These properties contain average soil lead concentration of 1200 mg/kg or greater, a level that EPA has determined requires cleanup 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 cleanups. Because of the difficulties associated with soil excavation and the low frequency of soil exposure during the winter months, Exide will implement the soil cleanup 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 an average soil lead concentration 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 cleanup level. The properties will be re-evaluated based on this cleanup level. Properties with soil lead concentration below the site-specific cleanup level do not pose a health risk and therefore, will not require soil cleanups. Properties with soil lead concentration above the site-specific cleanup level will require soil cleanups.

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 cleanup. EPA has identified ground areas in the park that will require remediation. EPA is currently working with Exide and the City of Reading to develop a proposal to cleanup these areas. Our goal is to begin the soil cleanup 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 the following goals will be completed in the upcoming years:

- Complete the delineation of the study area by December 2001.
- Cleanup thirty-seven (37) properties in spring 2002 with the seven (7) properties to follow.
- Cleanup 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 cleanup 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 cleanups of properties with soil lead concentrations above the site-specific cleanup 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 cleanups. 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 cleanup. Exide is expected to begin the soil cleanup by mid-June. The soil cleanup 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 cleanup. The remaining properties, which are approximately three hundred (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 workplan to cleanup Bernhart Park. Our goal is to begin soil cleanup 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 cleanups. Exide is committed to the cleanup of the fifty-two (52) residential properties this summer. Exide will begin the residential soil cleanup in June. The soil cleanup 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 cleanup 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 cleanups 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 cleanup of Bernhart Park may be delayed. EPA is working with Exide and the City of Reading to establish a feasible time frame for the cleanup 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 fifty-three (53) occupied residential properties with elevated soil lead concentrations of 1200 parts per million (ppm) or greater that will require soil cleanup. These soil lead levels pose a significant health risk, particularly to children seven years old and younger. Exide began the soil cleanups of the properties in June 2002. The cleanups 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 cleanups meet regulatory requirements. The properties are then backfilled with clean soil and restored to their original conditions. The cleanups of the fifty-three (53) properties are expected to be completed by the end of October 2002.

On August 8, 2002 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 fifty (50) people, including representatives of EPA, PADEP, local government, and citizens. EPA and Exide presented the progress of the investigation, residential cleanups 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 consists of additional environmental sampling (e.g., tap water, house dust, lead-based paint screening), a blood lead study and a site-specific risk assessment. The investigation targets residences with children seven years old and younger. The Step 2 Investigation will determine the site-specific soil cleanup levels that will be protective of human health and the environment. Exide will complete the Step 2 Investigation by spring 2003. The results of the investigation will determine the site-specific soil cleanup levels that will apply to the remaining properties. Properties with soil lead concentrations greater than the site-specific soil cleanup levels will require cleanup. Properties with soil lead concentrations less than the site-specific soil cleanup levels will not require soil cleanup.

(4th Qtr. 2002)

Exide completed the cleanups of the fifty-three (53) residential properties on November 24, 2002. Furthermore, Exide conducted soil sampling for approximately twenty (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 reviewing the data from the environmental sampling and the blood lead study. The final study, which is the site-specific risk assessment, should be completed by spring/summer 2003. The results of the risk assessment will determine the site-specific soil cleanup levels that will be applied to the remaining properties. Properties with soil lead concentrations greater than the site-specific soil cleanup levels will require cleanup. Properties with soil lead concentrations less than the site-specific soil cleanup levels will not require soil cleanup.

(1st Qtr. 2003)

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

The results of the blood lead study indicated that 34 out of 36 children tested exhibited blood lead levels between 0.5 ug/dL and 7 ug/dL. Only two children exhibited blood lead levels above the Centers for Disease Control (CDC) standard of 10 ug/dL. One child had a blood lead level of 14 ug/dL and the other had a blood lead level of 17 ug/dL. EPA determined that one of the children did not live in the area, and was only an occasional visitor. Since the permanent resident at the same property did not exhibit elevated blood lead levels, EPA concluded that the visiting child was being exposed to lead elsewhere. The parents were advised to follow-up with their family physician. The second child with elevated blood lead levels had recently moved into the area. The parents informed the investigators that the child has had a history of elevated blood lead associated with lead paint exposures at their former home. This child's blood lead level has decreased since the family moved into the area.

The blood lead study concluded that the overall blood lead levels for children in the area are safely below the CDC standard. In fact, the average blood lead levels in the Exide study area were nearly identical to the national average of 2.0 ug/dL.

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 cleanup 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 site-specific risk assessment will be completed this summer. EPA expects to schedule a public meeting later this year to present the findings of the site-specific risk assessment.

(3rd Qtr. 2003)

Exide and EPA are progressing with the site-specific risk assessment. There have been several delays with the analysis of the data. EPA anticipates that the risk assessment will be completed by the end of the year.

(4th Qtr. 2003)

Exide submitted the Site-Specific Risk Assessment Report, which is the final submission to the Step 2 Investigation. The national EPA Technical Review Workgroup for Lead (TRW) is currently reviewing the Report. The final approval of the Risk Assessment Report 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 risk assessment. 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)

EPA determined that additional information is needed to complete the review of the Risk Assessment Report. Exide is gathering the additional information and will submit their findings in the second quarter of 2004.

(2nd Qtr. 2004 - 1st Qtr. 2006)

Exide submitted the additional information to complete the Risk Assessment Report. The EPA Technical Review Workgroup (TRW), which consists of EPA national experts, is currently reviewing the supplementary information.

(2nd Qtr. 2006 - 1st Qtr. 2007)

EPA Region III is evaluating the recommendations submitted by the Technical Review Workgroup regarding the Risk Assessment Report. EPA Regional Office will announce its conclusion and decision on the risk assessment in 2007. Following the announcement, EPA will schedule a public meeting to present and discuss the results of the risk assessment and the ensuing residential cleanups.

(2nd Qtr. 2007)

Recently, EPA and Exide met on June 12, 2007 to discuss the remaining technical issues with the risk assessment and the residential soil cleanup level. At the meeting, EPA asked Exide to provide additional calculations related to the risk assessment. Exide delivered part of this information to EPA on June 18, but additional information is needed and is expected the following week. As a result, the decision on the final soil level will be delayed several weeks.

EPA expects that the cleanup levels and a workplan for the residential remediation will be developed by the fourth quarter of 2007.

(3rd Qtr. 2007)

On August 2, 2007, EPA issued a final decision that established a residential soil lead cleanup level of 650 parts per million (ppm) for the study area surrounding the Exide Technologies smelter. Based on the site-specific risk assessment, EPA has determined that the 650 ppm cleanup level will ensure long term protection of the residents and the environment in Laureldale Borough and Muhlenberg Township.

Residential properties that contain an average soil lead level greater than 650 ppm will require soil cleanup. Residential properties with an average soil lead level of 650 ppm and less do not pose a health risk and will not require cleanup.

Exide is currently preparing a workplan that will lay out the steps to accomplish the residential cleanups. Under the terms of the Consent Order between EPA and Exide, this workplan will be submitted for EPA review in late September.

Later this fall, EPA will schedule a public meeting to present the basis of the risk assessment, the soil cleanup level and the residential cleanups. This is an opportunity for the public to comment and pose questions and concerns that they may have. EPA encourages the community to attend the public meeting. EPA will publish an announcement in the Reading Eagle as well as send an invitation to the residents with the specifics of the time and location of the meeting. EPA anticipates that the residential cleanups will begin in spring 2008.

(4th Qtr. 2007)

On October 11, 2007, EPA held a public meeting at the Muhlenberg Middle School, Reading, Pennsylvania. The purpose of the meeting is to present the next steps for completing the investigation and cleanup of the residential properties within the [Exide Study Area](#). The meeting was an opportunity for the public to comment and pose questions to the EPA. The meeting was attended by approximately one hundred (100) people, including representatives of EPA, local government, and citizens. EPA presented the results of the site-specific risk assessments and how the results are applied to the residential properties. Several handouts pertaining to the Exide Investigation were distributed at the public meeting. These handouts are available online and can be viewed by clicking the following links:

[Fact Sheet on the Exide Cleanup, Reading PA](#)
[Summary of the Exide Residential Cleanup Work Plan](#)
[Frequently Asked Questions](#)

The purpose of the site-specific risk assessment is to evaluate lead exposure risks from various sources, such as tap water, air, lead paint, soil, dust, and food to determine a protective soil lead concentration for the residents of Laureldale Borough and Muhlenberg Township. The risk assessment targets residences with children seven years old and younger, who are considered

most susceptible to lead exposures. Based on the risk assessment, EPA determines that 650 parts per million (ppm) as a protective soil lead level that will ensure long term protection of the residents and the environment in Laureldale Borough and Muhlenberg Township.

Properties that contain an average soil lead concentration of 650 ppm and less will receive a letter from EPA that states that the soil lead levels on their property do not pose a health risk. Therefore, these properties will not require soil cleanup.

Residential properties with an average soil lead concentration greater than 650 ppm will require soil cleanup. EPA will notify the owners of these properties. The residential cleanup will begin in Spring 2008 and may take up to 3 years to complete. The schedule of the cleanups will be priority based. Properties where children seven years old and younger reside are scheduled to be cleaned up first. The cleanup of the remaining residential properties will be prioritized based on occupancy. The cleanup contractors for Exide and the homeowners will be consulted prior to any work being done on their property.

During the public meeting, many residents expressed their concerns regarding the odor from the Exide facility. The Pennsylvania Department of Environmental Protection (PADEP) currently is working with Exide to ameliorate the odor. Residents who have questions or complaints regarding odor from the Exide facility should contact Julia Olafson of PADEP at (610) 916-0100 or at jolafson@state.pa.us.

In November 2007, Exide initiated additional soil sampling. The sampling targets residences that were not sampled in the earlier rounds of soil sampling and expanded areas to confirm the Study Area. Exide anticipates that the majority of the sampling will be completed by the end of 2007. Properties that could not be sampled before the ground freezes will be sampled in spring 2008.

Exide is currently working on the Human Health and Ecological Risk Assessments for Bernhart Park. The Risk Assessments will evaluate the exposure risks at the park and will determine how the park will be cleaned up to be protective of human health and the environment. EPA anticipates that the Risk Assessments will be completed early 2008 with the expectation that the park will be cleaned up concurrently with the first remediation phase of the residential properties in 2008.

(1st Qtr. 2008)

As part of the additional soil sampling to confirm the Study Area, Exide sampled approximately 100 properties in 2007. Exide will complete the soil sampling of the remaining 25 properties later this spring. The latest soil sampling efforts will be used to finalize the Study Area.

Currently, Exide is analyzing the collected soil samples. The soil results will be mailed to the respective property owners in the spring with an attached EPA determination letter. Residential properties with an average soil lead level above 650 mg/kg will require soil cleanup. Residential

properties with an average soil lead level of 650 mg/kg or less do not pose a human health risk and will not require soil cleanup.

The first phase of the residential cleanup is scheduled to begin early June 2008. Exide is currently conducting a census in the community to determine residences with children seven years old and younger. The residential cleanups will be prioritized based on the census. Properties where children seven years old and younger reside are scheduled to be cleaned up first. Prior to the implementation of the soil cleanup Exide will develop a specific remediation plan that will address the layout and condition for each property. In the coming weeks, Exide and EPA will conduct a survey and assessment of the properties to be cleaned up. The information from the survey will be incorporated into the specific remediation plan for each property. Exide will work with the property owners to insure that the cleanups meet the owners' satisfaction. The first phase of the residential cleanups will consist of approximately 50 residential properties.

EPA has received Exide's Human Health and Ecological Risk Assessment Reports for Bernhart Park. EPA and PADEP are currently reviewing the reports. EPA and PADEP will complete the review of the reports by early March. Prior to EPA's final approval, EPA will discuss the findings of the risk assessment reports with the City of Reading.

Because of the change in ownership from Omega Laboratories to Quest Diagnostics, Exide is in the processing of completing the necessary administrative logistics to restart the free blood lead testing program. Exide anticipates that the program will restart in early March. EPA will update the website when the free blood lead testing program is available.

(2nd Qtr. 2008)

Exide completed soil sampling of the majority of the remaining properties during the first quarter of 2008. The updated [Exide Study Area](#) reflects the results of these properties and confirms the extent of the lead contamination. There remain a handful of properties that have yet to have their soil samples analyzed. When the soil results for these properties become available, the Study Area will be updated to reflect the results.

To date, Exide has sampled about six hundred (600) properties, which is approximately 99% of the total sampling area. There are about ten (10) remaining properties that have yet to be sampled because of inaccessibility issues. Exide will continue its effort to sample these remaining properties. Out of the six hundred (600) sampled properties, four hundred twenty-five (425) properties have a soil lead average of 650 mg/kg or less. The owners of these properties have received a determination letter from EPA that states that soil lead levels detected on their properties do not pose a health risk and therefore, their properties do not require soil cleanup.

An estimated 130 to 150 additional residential properties will require soil cleanup. Presently, Exide has cleaned up seventy-five (75) residential properties that contain an average soil lead level greater than 1200 mg/kg. In the upcoming weeks EPA will issue determination letters to the property owners that will require soil cleanup.

Exide will clean up approximately fifty (50) residential properties in 2008. These properties will be contacted by EPA or Exide. Those properties that are not scheduled to be cleaned up in 2008 will be cleaned up in the subsequent years. The schedule for the residential cleanups are prioritized based upon children 7 years old and younger residing on the properties. The children in this age group are more susceptible to lead exposures. If there are no young children residing on the property, soil cleanup of the property will probably not occur in 2008. In the first quarter of 2008, Exide conducted a home survey to determine properties where young children reside. Based on the home survey, Exide will submit to EPA a list of 50 residential properties that will require soil cleanup in 2008. The residential cleanup of the initial 50 residential properties will begin in July 2008 and will be completed by October 2008.

Prior to the implementation of the soil cleanup Exide will develop a specific remediation plan that will address the layout and condition for each property. Exide and EPA will conduct a site visit to survey and assess the properties to be cleaned up. The information from the survey will be incorporated into the specific remediation plan for each property. Exide will work with the property owners to insure that the cleanups meet the owners' satisfaction.

EPA anticipates that Exide will complete all the residential cleanups by 2010 or possibly sooner. If the property owner is uncertain of his/her property status or the scheduling of the cleanups, please contact Khai M. Dao, the EPA Project Manager, at 1 (800) 352-1973, ext. 45467.

The [Final Draft Human Health Risk Assessment for the Northwest Portion of Bernhart Park Report](#) was made available in March 2008. EPA has received preliminary comments from Berks County. The Final Draft Ecological Risk Assessment Report for Bernhart Park is ongoing. When the Final Draft Ecological Risk Assessment Report is complete EPA will make this document available to the public. Prior to EPA's final approval, EPA will discuss the findings of the risk assessment reports and an appropriate cleanup approach to Bernhart Park with the City of Reading.

Because of privacy issues (i.e., personal medical information) the restart of the free blood lead testing program has been delayed. Presently, Exide is finalizing the contract with Quest Diagnostics. EPA will update the website when the free blood lead testing program is available.

(3rd Qtr. 2008)

The soil sampling within the Exide Study Area is near completion. Out of 600 plus properties, there are only ten properties remain that require sampling or resampling. Nine of the ten are scheduled to be sampled this fall. The lone remaining property has yet to consent to the soil sampling. EPA and Exide are working with Muhlenberg Township officials to encourage the homeowner of this property to agree to the soil sampling.

The majority of the homeowners have received their soil results with an EPA determination letter. Properties with an average soil lead level below 650 mg/kg do not pose a health risk and will not require cleanup. Those properties that have an average soil lead level above 650 mg/kg have received a letter from EPA that informed the property owners that their property will require soil cleanup. Properties with children seven years old and younger are scheduled to be

cleaned up this fall. Those properties that are not scheduled to be cleaned up in 2008 will be cleaned up in the subsequent years. EPA anticipates that Exide will complete all the residential cleanups by 2010 or possibly sooner. If the property owner is uncertain of his/her property status or the scheduling of the cleanups, please contact Khai M. Dao, the EPA Project Manager, at 1 (800) 352-1973, ext. 45467.

Based on the home survey, there are forty (40) properties that have young children and an average soil lead level above 650 mg/kg. These properties will be cleaned up in 2008. Exide has started the residential cleanups in late August. The cleanups are expected to be completed by the end of October. The cleanups consist of soil excavation, backfilling with clean soil and restoring the property to its original condition. Exide and its contractors will work with the property owners to insure that the cleanups meet the owners' satisfaction.

The free blood lead testing program is now available to residents who reside in Laureldale Borough and Muhlenberg Township. The free service is offered at Quests Diagnostics located at the Fairgrounds Square Mall. Additional information about the program and how to receive the free testing is available at:

<http://www.epa.gov/reg3wcmd/ca/pdf/ExideTechnologiesCommunityBloodLeadTestingProgram.pdf>

In June 2008, the City of Reading submitted an official request to the Pennsylvania Department of Health (PADOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) to review the [Final Draft Human Health Risk Assessment for the Northwest Portion of Bernhart Park Report](#). The PADOH and ATSDR are currently reviewing the report.

(4th Qtr 2008)

Exide completed the first phase of the residential cleanups of forty-one (41) properties. The initial cleanups focused on properties that have young children and an average soil lead level above 650 mg/kg. The cleanups consisted of soil excavation, backfilling with clean soil and restoring the property to its original condition. With the inclusion of the recent cleanups Exide have completed a total of one hundred fifteen (115) residential properties. There are approximately eighty-five (85) remaining residential properties that will require soil cleanup. Exide will initiate the second phase of residential cleanups in the spring of 2009. EPA anticipates that Exide will complete the remaining residential cleanups by 2010 or possibly sooner.

With the assistance of the communities and the local officials, Exide achieved 100% soil sampling of all the properties in the defined Study Area. The sampling comprised of approximately six-hundred twenty-five (625) properties. The significance of this achievement has enabled EPA to comprehensively determine those properties that have been adversely affected by the Facility's past activities.

During the winter months Exide will continue to prepare the necessary logistics to implement the second phase of the residential cleanups in 2009.

(1st Qtr. 2009)

Exide is currently preparing the necessary logistics to implement the second phase of the residential cleanups. The 2009 cleanups will consist of approximately forty-three (43) residential properties. Properties that require soil cleanup and have not been contact by Exide's contractors this year will be cleaned up in 2010. In preparation for the soil cleanup Exide is presently surveying the properties. The information from the survey will be used to develop individual cleanup plans that will address the specific layout and condition of each property. Prior to the cleanups Exide will schedule pre-meetings with the property owners to explain the soil cleanup and to address any concerns that the property owners may have. Exide has started to schedule the pre-meetings with the property owners. The pre-meetings will take place during the months of March, April and possibly May. Exide will work with the property owners to insure that the cleanups will meet the owners' satisfaction. The 2009 residential cleanups will begin late spring/early summer and will continue into the fall.

In June 2008, the City of Reading submitted an official request to the Pennsylvania Department of Health (PADOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) to review the [Final Draft Human Health Risk Assessment for the Northwest Portion of Bernhart Park Report](#). The PADOH and ATSDR are in the final stage of submitting the final draft report. EPA anticipates that the final draft report will be available for public comment by the end of April. The PADOH and ATSDR will review and consider all public comments prior to finalizing the report.

In addition to the human health risk assessment for Bernhart Park, Exide is in the process of completing the ecological risk assessment. Additional soil samples at greater depths were collected in January 2009 to assess the ecological impact of lead in soil. Along with the supplemental soil samples Exide will conduct a fish study later this spring to evaluate the impact of aquatic life and the consumption of fish that are caught from the reservoir.

(2nd Qtr. 2009)

Exide implemented the cleanup of forty-three (43) residential properties. The cleanups consist of soil excavation, backfilling with clean soil and restoring the property to its original condition. Initially, the cleanups were expected to be completed in early fall. Because of ideal weather conditions and the effective coordination between Exide's contractors and the homeowners, Exide will complete the forty-three (43) residential properties by the end of June, which is well ahead of schedule. Given this opportunity, Exide has proposed to complete the third and final phase of the residential cleanups in 2009, which consists of forty-two (42) remaining properties. Similar to the previous cleanups and prior to soil excavation, Exide will survey the properties in June and July. The survey is used to develop individual cleanup plans that will address the specific layout and condition of each property. EPA anticipates that soil excavation of the final residential cleanups will begin in mid-August with an expected completion date by mid fall.

In May 2009, the Pennsylvania Department of Health (PADOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) issued the public comment version of the [Health](#)

[Consultation \(HC\) Report](#) on Bernhart Park. The original June 8, 2009 deadline for public comment has been extended by the Pennsylvania Department of Health. For more information regarding the new deadline please contact Christine Lloyd, PADOH Health Assessor at chllloyd@state.pa.us or at (717) 265-8882. The PADOH and ATSDR will review and consider all public comments prior to finalizing the report.

Also in May, Exide submitted the draft ecological risk assessment report for Bernhart Park. EPA is currently reviewing the report. Once the HC report is finalized, EPA will evaluate the HC report's recommendations and the findings of the ecological risk assessment report to propose a cleanup plan that will be submitted to the City of Reading.

(3rd Qtr. 2009)

Exide completes the cleanup of the residential properties one year ahead of schedule. As previously stated in the 2nd quarterly update, Exide proceeded with the soil remediation of the remaining forty-two (42) residential properties in early August. The cleanups were completed in mid-October. As a follow-up, Exide will conduct property inspections in Spring 2010 to ensure that ground cover is established and final restoration is satisfactory. In the coming months EPA will issue cleanup completion letters to the property owners.

The final cleanups conclude the soil lead investigation of residential and commercial properties that were impacted by the facility's past operations. Out of the six hundred twenty-five (625) properties investigated, Exide cleaned up a total of two hundred three (203) residential properties that exceeded the protective soil lead level of 650 mg/kg. Four hundred twenty-two (422) properties did not require cleanup.

In May 2009, the Pennsylvania Department of Health (PADOH) and the Agency for Toxic Substances and Disease Registry (ATSDR) issued the public comment version of the [Health Consultation \(HC\) Report](#) on Bernhart Park. PADOH and ATSDR received several comments. They will address and respond to the comments in the final report. EPA expects that PADOH and ATSDR will issue the final HC Report in the coming weeks. The final report will be posted on the EPA/Exide website.

Exide recently submitted the revised ecological risk assessment report on Bernhart Park to address EPA and PADEP's comments on the original draft report. EPA and PADEP are currently reviewing the report. Based on the recommendations and findings of both the final HC Report and the ecological risk assessment EPA will propose a cleanup plan for Bernhart Park that will be submitted to the City of Reading. Moving ahead to next year, EPA looks forward to resolving any pending issues regarding Bernhart Park with the anticipation that the park can be cleaned up and re-opened in 2010.

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 Workplans with respect to the off-site investigation and remediation. The workplans 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 workplans and to respond to any questions that the public may have.

Free Blood Lead Testing

Exide is providing free blood lead testing for residents who reside in Laureldale Borough and Muhlenberg Township. The free service is available at Quest Diagnostics. The facility is located at:

Fairgrounds Square Mall
3050 North 5th Street Highway
Reading, PA 19605
(610) 921-0305

Additional information about the program is available at:

<http://www.epa.gov/reg3wcmd/ca/pdf/ExideTechnologiesCommunityBloodLeadTestingProgram.pdf>

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 the Exide site and EPA's corrective action webpage, including Environmental Indicators, please visit our site at: www.epa.gov/reg3wcmd/correctiveaction.htm