



**Bureau of Water Protection and Land Reuse
Remediation Division**

Connecticut Department of Energy & Environmental Protection
RCRA Corrective Action Program

**STATEMENT OF BASIS
FOR A
CORRECTIVE ACTION COMPLETION DETERMINATION
FOR
FORMER EXIDE BATTERY FACILITY
2190 BOSTON POST ROAD
FAIRFIELD, CT
EPA ID No. CTD001181148**

Based upon the investigation and remedial activities conducted at the former Exide Battery Facility located at 2190 Post Road, Fairfield, Connecticut, the Department of Energy and Environmental Protection (Department) is announcing a Completion Determination remedy proposal that Corrective Action obligations under the Hazardous and Solid Waste Amendments of the Resource Conservation and Recovery Act (RCRA) are “complete without controls” and that no activities exist that require a hazardous waste management permit under RCRA, no waste management unit closure obligations remain or exist, and no further investigation or remediation is needed.

INTRODUCTION

The Department is announcing its Completion Determination¹ remedy proposal under the Hazardous and Solid Waste Amendments of RCRA. This proposal states that Corrective Action obligations at the former Exide Battery Facility (“Exide” or “Facility”) located at 2190 Post Road in Fairfield, Connecticut (Site) are complete. Investigation and remediation activities performed at the Site demonstrate that the releases of hazardous wastes or hazardous constituents do not pose a threat to human health or the environment based upon proposed risk exposure and current and future land use assumptions. The Department’s proposed Completion Determination is based upon the results of the Site investigation, remediation, and reporting activities performed by Exide under the oversight of the Department.

This document summarizes the regulatory status of the Site, the results of various investigation and remediation activities performed at the Site and reasons for proposing that a “Completion Without Controls” determination is appropriate and protective of human health and the

¹ “Completion Determination” is a regulatory phrase that refers to a final disposition of a facility subject to Corrective Action obligations under the Resource Conservation and Recovery Act. In this case, the Completion Determination proposed for the facility is one that is “complete without controls.” More information on this category of Completion Determination can be found in the Federal Register notice entitled, Final Guidance on Completion of Corrective Action Activities at RCRA Facilities, 68 Fed. Reg. 8757 [Proposed Rule: Tuesday February 25, 2003]. This proposed rule is summarized on EPA’s website at http://www.epa.gov/swerfrr/documents/guidance_on_completion.

environment. The Department is publishing this document to provide the opportunity for public review and comment of this proposal. The Department will consider public comments as part of its decision making process.

This Statement of Basis is intended to:

- Explain the opportunities for public participation, including how the public may comment on this proposed Completion Determination and tentative permit application termination, and where the public can find more detailed information;
- Provide a brief description and history of the Site;
- Present the principal findings of investigation and remediation activities performed to date;
- Present the Department's rationale for proposing that Corrective Action obligations under the Hazardous and Solid Waste Amendments of RCRA are "complete without controls" for the current and proposed future land use of the Site; and
- Present the Department's rationale for terminating the permit applications for the Facility.

THE PUBLIC'S ROLE IN EVALUATING THIS CORRECTIVE ACTION PROPOSAL/RECOMMENDATION

All interested parties are invited to express their views on this proposal. Public comment on all potential Corrective Action proposals or measures, and supporting information, is an important contribution to the Department's decision making/remedy selection process.

Public Comment Period

Written comments on this proposal will be accepted throughout a 45-day public comment period in order to provide an opportunity for public comment and involvement during the evaluation of this proposal. During this public comment period, the public is invited to review this Statement of Basis and supporting information and to offer comments to the Department.

Public Informational Meeting

In accordance with RCSA Section 22a-449(c)-110(a)(2)(III), the Commissioner shall hold a public information meeting regarding her tentative determination that a permit is not necessary. A public informational meeting is scheduled to be held at Sullivan Independence Hall (1st Floor Conference Room), 725 Old Post Road, Fairfield, Connecticut, on December 19, 2019; starting at 4:30 PM.

A final decision regarding this proposed Completion Determination will not be made until the public comment period has closed and all comments received by the Department have been evaluated and addressed. Based on any new information or comments from the public, the Department may modify its proposal.

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Written Comments

If, after reviewing the information on the Facility, you would like to comment in writing on this proposal, or on any other issues related to this proposal, you should mail your written comments, postmarked no later than January 27, 2020, to:

Carolyn Fusaro
Remediation Division
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Please be sure to clearly indicate that you are commenting on this proposal.

Questions on this proposal may be directed to Carolyn Fusaro by phone at (860) 424-4105 or by email at: Carolyn.Fusaro@ct.gov

Response to Public Comments/Decision Making Process

Following a review of public comments, the Commissioner of the Department will decide whether to make the tentative determination a final determination. If the Commissioner makes a final determination that a hazardous waste management permit is not necessary for the Facility because hazardous waste management activities have ceased and remediation is complete, then the Facility is considered to have completed its requirements related to RCRA Corrective Action. The Facility's interim status will then be terminated. Any future waste management activities at the Facility would be subject to applicable local, state, and federal requirements.

Likewise, the Department will not make a final decision regarding the proposed Completion Determination until the public comment period has closed and all received comments have been evaluated and addressed. Based on any new information or comments from the public, the Department may modify its proposal. A brief decision-making document (Decision Document) that responds to comments will be prepared by the Department in order to address all significant public comments received during the public comment period. If the comments are such that significant changes are made to the proposal, the Department will seek additional public comments on a revised proposal. If comments are such that no significant changes are made or if no comments are received, then because the Facility is not requesting a permit or a modification to an existing permit, but is seeking to terminate all of its regulated activities that would ordinarily require a permit, the Department's final decision will be issued in a brief letter to the Facility.

Additional Public Information

This Statement of Basis provides only a summary description of the investigation and remediation activities performed at the Facility. Therefore, the public is encouraged to consult the Administrative Record. The Administrative Record is that collection of information (including data, reports, etc.) that the Department relied upon for its proposed remedy decision. In this case, the Administrative Record contains this Statement of Basis, site assessments describing the

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Facility's release and operational history, the results of the Site investigation and remediation activities conducted under State and federal regulation and other Facility documents which provide additional information regarding the work conducted at the Site.

The following documents were used for this Statement of Basis:

- *Upland Remedial Action Plan Implementation Report*, prepared by CCA, LLC (CCA), dated October 2006;
- *Supplemental Upland Remedial Action Plan Implementation Report (SUPPRAPIR)*, prepared by CCA, dated September 2013;
- *Sediment Remedial Action Implementation Report*, prepared by TRC, dated September 28, 2017;
- *Post-Remediation Groundwater Monitoring Closure Report – 2018*, prepared by HRP, dated January 28, 2019;
- *SUPPRAPIR Appendix VII: Areas Requiring Post-SUPPRAP Follow-Up*, prepared by HRP, dated May 10, 2019; and
- *Demonstration of Compliance with Consent Order SRD-193*, prepared by HRP, dated May 30, 2019.

The Administrative Record is available for review at the following locations:

Connecticut Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
www.ct.gov/dep/fileroom

The hours of the Department's record center are:

Tuesday - Thursday
9:00 a.m. to 11:45 a.m. & 1:00 p.m. to 2:45 p.m.

And

Fairfield Town Hall
Town Clerk Office
611 Old Post Road
Fairfield, CT 06824
(203) 256-3090

The hours of the Fairfield Town Hall are Monday through Friday, 8:30 a.m. to 4:30 p.m.

Internet Access: For convenience, this Statement of Basis may also be accessed on the Department's website at www.ct.gov/deep under the facility's name, former Exide Battery Facility, Fairfield, CT.

BACKGROUND

Investigation and remediation actions conducted in accordance with RCRA Corrective Action have been performed to demonstrate that releases of petroleum products and/or hazardous materials have been cleaned up ("remediated") to protect human health and the environment. The Site is in compliance with the residential standards of the Connecticut Remediation Standard Regulations, RCSA §§ 22a-133k-1 through 3 (the RSRs).

FACILITY HISTORY

Property Description

The former Exide Battery Facility ("Exide" or "Facility"), located at 2190 Boston Post Road, Fairfield, Connecticut, consists of approximately 6.22-acres of land. The Site topography is generally flat. The surrounding area is generally comprised of mixed residential and commercial properties. At the time of the Facility's operation however, there were several neighboring industrial operations. One such facility still exists just west of the site.

Site History and Description of Operation

The Site was registered as a RCRA hazardous waste storage facility and previously operated three hazardous waste management units (HWMUs) at the site. From 1951 through June 1981, the Site was used as a battery manufacturing facility, including lead acid automotive and marine buoy batteries. Exide no longer stores RCRA hazardous waste or manufactures batteries at the Site. All buildings have been removed and the Site is currently vacant.

A RCRA Part A was submitted to EPA on November 18, 1980, for three HWMUs which included a waste sump (T04 [Other Treatment]) and two drum storage areas, interior and exterior (S01 [container storage]). These units were clean closed in 1988 and a Certification of Closure (COC) certifying the closure of these units was submitted to EPA and the Department on February 19, 1988. The Department reviewed the submittal and determined that the closure was completed in accordance with the approved closure plan on June 16, 1988.

The Mill Pond, which is a tidally-influenced surface water body along a segment of the Mill River, abuts the western property boundary of the Site.

RCRA Corrective Action

As the result of the RCRA Part A submittal, the Site was registered as a RCRA hazardous waste facility under EPA ID #CTD001181148 and is subject to RCRA Corrective Action due to previously operating a greater than 90 day container storage area under interim status. Three HWMUs consisting of a waste sump, interior drum storage area, and exterior drum storage area operated onsite from 1951 to June 1981. A description of each of the HWMUs is provided below.

- The concrete waste sump was used to contain lead-contaminated wastewaters originating from the plant's operations. The waste sump measured 30 ft by 17 ft by 8 ft.

- The interior drum storage area was located in Building 3 to house 28 55-gallon drums of soil containing lead removed from a spill containment basin around an above-ground oil storage tank.
- The exterior drum storage area was located in the eastern portion of the site, consisted of a 59-ft by 36-ft curbed asphalt concrete pad (approximately 6 inches thick), and was used to store lead dust mixed with water and sulfuric acid.

These HWMUs were clean closed in 1988. The buildings associated with the HWMUs were removed in 2005 and 2006 as part of the site demolition and site-wide remediation.

Under RCRA, the following Corrective Action milestones have been achieved:

- June 1988: Certificate of Closure (CL372CA)
- April 2014: Final Remedy Decision (CA400)
- September 2016: Current Human Exposures Under Control Environmental Indicator (CA725)
- September 2016: Migration of Contaminated Groundwater Under Control (CA750)
- September 2017: Construction Complete (CA550)

In addition, in January 1982, the Department issued Consent Order #2696 requiring Exide to remove 4,100 cubic yards of contaminated sediment from the Mill Pond.

Compliance with the Consent Order was achieved by May 1983 and Exide was released from the Consent Order by the Department.

Beginning in October 1984, Exide voluntarily and cooperatively worked with the Department to develop remedial action plans for environmental remediation of the Site. Once the plans were approved, Exide completed multi-phased cleanup activities by December 1989. The cleanup was extensive and involved remediation of the subsurface drainage systems and leach fields at the Site, complete pressure-washing of the roof, floors, and walls of the former buildings (since removed), removal, filling, and/or cleaning of surface and subsurface oil tanks, abatement/removal of asbestos, removal of those portions of the plant roof impacted with lead, contaminated soil removal and other on-site remediation activities.

Commencing in 1986, the Department re-tested the sediments in the Mill Pond portion of the Mill River, which revealed that concentrations of lead had risen during the 1985-1986 time period (notwithstanding the extensive remediation of the Mill Pond completed by Exide to achieve compliance with Consent Order #2696).

In November 1989, the Department issued Consent Order #WC4893 requiring Exide to determine the sources and degree of Mill Pond contamination which may have been still emanating from the Site and to present remediation alternatives for further removal of contaminated sediment from the Mill Pond. In June 1992, Exide submitted a comprehensive engineering report in compliance with the requirements and time schedule outlined in Consent Order #WC4893.

On April 20, 1998, the Department, in collaboration with the Town of Fairfield, submitted a letter to Exide regarding the June 1992 report, which included a list of 28 comments to be addressed via a "Work Plan" for additional Site investigations.

Between July 1998 and March 2000, Exide worked cooperatively with the Department and the Town of Fairfield to develop investigation and remediation work plans for the Site. Several subsurface investigations were completed at the Site between 2000 and 2002, which revealed elevated concentrations of lead, total petroleum hydrocarbons ("TPH"), and/or polychlorinated biphenyls ("PCBs") in soil and lead in groundwater that required remedial action to meet the RSRs. The final investigation reports were approved by the Department on March 4, 2003.

A Remedial Action Plan ("RAP") was developed for the upland portion of the Site (i.e., on-site areas) and submitted to the Department in July 2003. The Department approved the RAP on February 6, 2004. Implementation of the RAP, which included removal of impacted soil on-site and de-watering of groundwater within excavation areas, was successfully completed without the use of any institutional or engineered controls between July 2005 and April 2006. However, based on the data collected through April 2006, a few outstanding issues remained in discrete areas of the upland portion of the Site.

In October 2008, the Department issued Consent Order SRD-193, which superseded the previous two Consent Orders (#2696 and #WC4893), and required Exide to address the outstanding issues in the upland portion of the Site and implement cleanup of lead-impacted sediments in the Mill River. A Supplemental RAP was developed for the Site in July 2011 (amended August 2012) to address the outstanding issues remaining in the upland portion of the Site. The goal of the Supplemental RAP was to remove any remaining potential contamination sources at the Site and along the Site boundaries, thereby eliminating the potential for recontamination of the adjoining Mill River. The Supplemental RAP was approved by the Department on August 28, 2012. Implementation of the Supplemental RAP was successfully completed at the Site by June 2013. The cumulative remedial actions completed between 2005 and 2013 at the Site resulted in removal of approximately 44,000 tons of impacted soil (lead, TPH, and PCBs).

Upon successful completion of the remedial actions in the upland areas, a Sediment RAP was developed in December 2012 to address lead-impacted sediment in the Mill River in accordance with remedial criteria established by the Department. The Sediment RAP was approved by the Department in October 2013. Sediment remediation activities, which included dredging and off-site disposal of approximately 27,000 cubic yards of lead-impacted sediment from the Mill River, was successfully completed between October 2014 and November 2016. Site restoration activities in the upland portions of the Site, which included re-grading and re-establishing a vegetative cover, were subsequently completed by May 2017. Upon successful completion of the required remediation of the Mill River, a Sediment RAP Implementation Report was submitted to and approved by the Department in October 2017.

Below is a summary of estimated volumes of contaminated media removed from the Site:

Media	Estimated Volume (units defined)	Contaminant	Maximum Concentration	RSR Cleanup Goal	Date Compliance Achieved
Soil	38,210 tons	Lead	±100,000 mg/kg	400 mg/kg	June 2013
	5,494 tons	TPH	<100,000 mg/kg	500 mg/kg	June 2013
	626 tons	PCBs	<50 mg/kg	1 mg/kg	June 2013
Sediment	27,000 yd ³	Lead	±100,000 mg/kg	400 mg/kg; 220 mg/kg	November 2017
Groundwater	N/A	TPH	±0.50 mg/L	0.25 mg/L	November 2018
		Lead	±0.020 mg/L	0.015 mg/L – GWPC; 0.013 mg/L – SWPC	November 2018

Post-remedial groundwater monitoring data at the Site collected through November 2018 has confirmed that the groundwater data has achieved compliance with the RSRs. The groundwater results were reported to the Department in a report entitled *Post-Remediation Groundwater Monitoring Closure Report - 2018*, dated January 28, 2019. In that report, it was recommended that the onsite groundwater monitoring program be terminated as compliance had been demonstrated. The Department approved the report via a letter dated March 6, 2019.

Accordingly, based on confirmation data collected during the upland soil and river sediment remedial actions and the recent completion of post-remediation groundwater monitoring, the Site has achieved compliance with the residential standards of the RSRs. Therefore, the remedial actions completed at the Site were successful in achieving compliance with the residential standards of the RSRs without the use of any institutional or engineered controls (e.g., caps or deed restrictions).

Exposure Pathways

The results of the historic investigations completed in accordance with the above-referenced Consent Orders indicated that releases of lead, TPH, and PCBs to the on-site soil occurred throughout portions of the Site. Releases of lead were also identified in sediments located in the adjoining Mill River. The impacted soil areas at the Site were successfully remediated to meet the residential standards of the RSRs. The lead-impacted sediments in the adjacent Mill River were successfully remediated by mid-2017. The Current Human Exposures Under Control Environmental Indicator (CA725) was completed in September 2016. The Migration of

Contaminated Groundwater Under Control Environmental Indicator (CA750) was completed in September 2016. The Construction Complete (CA550) Corrective Action milestone was completed in September 2017.

Selected Remedy

Under the Department's guidance and oversight, Exide designed and implemented an extensive series of remedial action plans for the Site and the adjacent Mill River, which were successfully implemented using a multi-phased approach over a period of three decades. The cleanup plans involved the demolition of all the former Facility buildings, removal of former subsurface drainage systems and underground storage tanks (USTs), and removal (via excavation/dredging and off-site disposal) of approximately 44,000 tons of polluted soil (lead, TPH, and PCBs) from upland areas and approximately 27,000 cubic yards of lead-impacted sediments from the adjacent Mill River. Exide's closure remedy is evaluated below with respect to general standards and remedy decision factors. These standards and decision factors provided specific guidance in determining the effectiveness of a remedy or proposed remedy.

- Overall Protection. The excavation and removal of the polluted soil from upland areas provides protection of human health and the environment by eliminating potential sources of contamination, including potential off-site impacts to the adjacent Mill River. Dredging and removal of impacted sediments from the Mill River, which was completed following successful completion of the upland remedial actions, protects aquatic life and the environment by eliminating any residual sources of contamination in those areas. Excavation/dredging and removal activities included sampling excavated soils and dredged sediments to confirm that the remedy was comprehensive. Results of soil/sediment sampling indicated that remedial actions were successful.
- Attainment of Media Cleanup Standards. The implemented remedies attained both Federal and State cleanup standards. The sediment cleanup efforts met site-specific ecological risk based cleanup criterion determined through extensive ecological assessment work and agreed to by the Department.
- Controlling Sources of Releases. The implemented remedies were effective in reducing, to the maximum extent possible, further releases of contaminants to the soils, groundwater, and/or the sediments in the adjacent Mill River.
- Compliance with Waste Management Standards. The cumulative remedial actions, including UST/tank closures, building demolition, and soil/sediment removal and disposal complied with all applicable requirements for the management of solid wastes.
- Long-term Reliability and Effectiveness. The excavation/dredging and removal of the impacted soils and sediments at the upland portion of the Site and adjacent Mill River area, in conjunction with the stabilization of the Site as a vacant parcel, eliminated potential hazards, and is therefore effective and reliable with respect to both the short and long-term.

- Reduction of Toxicity, Mobility, or Volume of Wastes. The selected remedies eliminated the overall toxicity and the volume of waste by removing potential sources/hazards.
- Short-term Effectiveness. The removal and excavation of the impacted soil and other on-site sources eliminated the possibility of direct human contact with potential contaminants.
- Implementability. Implementation of the remedies occurred in multiple phases completed over the period of 1983 through 2018 and have been approved by the Department.

The remedy was then evaluated with respect to human health and current use. This was because in addition to the aforementioned decision factors, EPA has promulgated criteria by which a level of protectiveness of human health for current use may be ascertained. Collectively, these criteria constitute "Stabilization." The achievement of Stabilization means that there are no unacceptable human health risks and that groundwater contaminants are not migrating offsite. Stabilization occurs when both indicator criteria (Human Exposures Controlled and Groundwater Releases Controlled) are achieved.

- Human Exposures Controlled. The Human Exposures Controlled criteria evaluates whether unacceptable health risks exist at a facility or site.

Analysis of current Site conditions demonstrate that there is no unacceptable human exposure to any contaminant (either detected or reasonably suspected to be onsite) in concentrations above action levels, based on current contaminant concentrations and current Site conditions. As a result of the implemented remedial activities, no contamination remains at the Site which may require further remediation.

- Groundwater Releases Controlled. Groundwater Releases Controlled evaluates whether groundwater contaminants may be migrating off-site.

Post-remedial groundwater data collected at the Site revealed improvement in groundwater quality data following the successful completion of the remedial actions. Groundwater data collected from 2017 through November 2018 revealed that compliance with the RSRs has been achieved for the contaminants of concern.

The aforementioned investigation and remedial actions have been the only activities conducted at the Site since 1981. Therefore, any and all potential sources of contamination have been eliminated in a manner that is effective and comprehensively protective of human health and the environment.

Innovative Technologies Considered

The cleanup activities conducted at the Site and adjacent Mill River were completed over a period of three and a half decades. During that time period, any and all remedial options were considered to address the impacts, including various innovative technologies. In addition, several technologies

that were previously considered innovative but have evolved into routine remedial practices (e.g., oxygen release compound injections) have been implemented at the Site.

DEPARTMENT'S PROPOSAL

Based on the above information, the Department is proposing a Completion without Controls Determination for the Facility. In accordance with EPA guidance on Completion Determinations, the Department believes a "Completion Without Controls" Determination is appropriate because:

1. There are no on-going treatment, storage, or disposal activities at the site that require a RCRA permit;
2. All RCRA closure requirements applicable at the previously identified regulated units have been fulfilled; and,
3. All corrective action obligations, including implementation of long-term monitoring procedures, have been met.

Notwithstanding this Completion Determination, EPA or the Department may conclude additional cleanup is needed if, subsequent to this Completion Determination, EPA or the Department discovers evidence of unreported or misrepresented releases. *See* Corrective Action Completion Guidance I at 50197; Corrective Action Completion Guidance 2 at 9177 n156.

In summary, the Department, using all available information, is announcing its Corrective Action "Completion Without Controls" Completion Determination proposal. Because investigations performed at the Facility demonstrate that releases of hazardous wastes have been remediated and residual impacts have naturally attenuated and do not pose a threat to human health or the environment and because the Facility has attained all media protection and human health and environmental standards promulgated by the State of Connecticut for protection of human health, the public and the ecosystems, a "Completion Without Controls" Determination is reasonable and appropriate. The Department's determination that remediation is complete and that a permit is not needed means that the Facility's interim status will be terminated.

