United Scrap Lead

March 2009

Site Background

United Scrap Lead (USL) Superfund Site is located on a 25 acre property on County Road 25A, about one mile south of the city of Troy in Miami County. The site operated as a lead battery reprocessing facility from the 1946 until 1980. The process involved cutting open used automobile batteries and extracting the lead cores which were then shipped to smelters for salvage. Battery acid was collected and discharged directly to the ground and the empty battery casings were stored on-site. Lead contamination resulting from these operations impacted approximately eight acres of the 25 acre property.

In 1972, the Ohio Department of Health required USL's owners to install an acid treatment system to neutralize the battery acid waste prior to discharge. In 1979, Ohio EPA investigations detected concentrations of cadmium and lead in ground water at the site which exceeded federal health and safety standards. USL was again required to install an acid neutralization system. The company began to dispose of battery casing chips off-site. The combination of a drop in the market price of lead and the need to upgrade environmental facilities at the site led USL to cease operations. Large quantities of empty battery casings remained on portions of the USL property.

In 1980, Galena Industries began to transport the empty battery casings to an off-site recycling facility where the plastic in the polypropylene casings was recycled. The older battery casings, which were made of ebonite, could not be recycled and were brought back to the USL facility and disposed of on the surface of the site. The use of heavy equipment at the site to handle the battery casings produced a lot of dust. Tests conducted by the Ohio Department of Health (ODH) revealed high levels of lead in the blood of several site workers. Excessive levels of lead were also detected in off-site ambient air samples collected by ODH. In response to these findings, Galena Industries ceased casing recycling operations in 1983.

At Ohio EPA's request, the USEPA began investigating the site in 1983. In September 1984, USEPA placed the site on the National Priorities List. Early actions at the site involved moving lead contaminated soils and battery casings away from residences and businesses along County Road 25-A. These materials were stockpiled in the center of the property where other materials, primarily battery casings, were present in large quantities. Since owner/operators of the site had insufficient funds, and other potentially responsible parties refused to cooperate, USEPA proceeded with a comprehensive investigation of the site using Superfund money. The Remedial Investigation (RI), completed in February 1988, identified lead as the primary contaminant of concern.

Cleanup Progress

A Feasibility Study, which analyzed potential cleanup options, was completed in August 1988 and the original Record of Decision (ROD) identifying the preferred remedy for the

site was signed in September 1988. The ROD selected an innovative technology that involved treating the battery casings and contaminated soil on-site to remove and recycle the lead. By June 1992 the U.S. Army Corps of Engineers had completed plans for construction of a pilot treatment plant and had prepared an Economic Analysis Report for the selected remedy. At this point USEPA decided to stop development of the innovative technology due to increased cost estimates, the uncertainty of materials handling, and the treatment of wastewater associated with the innovative treatment technology.

USEPA determined that a fence needed to be constructed around the site to limit public access to the lead contaminated soil and battery casings. Around this time the Potentially Responsible Parties (PRPs) began to take an active interest in the remedy and agreed to undertake construction of the fence as an emergency protective measure to eliminate direct contact with the hazardous materials.

In August 1992, USEPA implemented those components of the 1988 remedy which were not associated with the innovative technology. These components included removing additional contaminated material from off-site locations and placing it on-site with the remainder of the contaminated materials; replacement of one residential drinking water well; and installation of a new septic system to serve the former USL office building (now a used car dealership). This phase of the work was finished in March 1995.

In September 1994 U.S. EPA issued a revised Proposed Plan for public comment and held a public hearing of the new proposed remedy in October 1994. The revised proposed remedy included shipping the battery casings to an off-site lead smelter and excavation of grossly contaminated soils for disposal off-site at a hazardous waste landfill. This remedy was estimated to cost $31 million in capitol costs and $1.2 million in Operation and Maintenance costs. As this was a Fund-lead remedy, the State of Ohio would be obligated to pay 10% of the capital costs and 100% of the Operation and Maintenance costs for the remedy, which totaled $4.3 million. However, substantial comments were raised during the public comment period regarding the proposed remedy’s cost, implementability, and ability to comply with environmental standards. Consequently, U.S. EPA did not move forward with the Proposed Plan.

Beginning in 1995, U.S. EPA and Ohio EPA reopened negotiations with the PRPs in an effort to reach agreement for the PRPs to conduct the clean-up. Using a risk assessment methodology that was not available in 1988, the PRPs submitted a revised risk assessment in September 1996 which was approved by both U.S. EPA and Ohio EPA. The risk assessment established a clean-up level of 1550 parts per million (ppm) of lead in soil, which would allow for future commercial or industrial use of the property, but would preclude residential use. Use of the majority of the property was already severely restricted due to its location in the flood retarding basin behind the Miami Conservancy District’s Taylorsville dam.

A new ROD, issued in 1997, selected a remedy that included stabilizing the battery casing chips and the top foot of contaminated soil for disposal as solid waste (as opposed to hazardous waste) at an approved solid waste landfill. Remaining contaminated soils would be covered with a solid waste cap. This remedy was estimated to have a capital cost of $16 million and an operation and maintenance cost of $700,000. The PRPs agreed to implement this remedy and entered into a Consent Decree with U.S. EPA in July 1998.

The Remedial Design was submitted in October 1998 and approved in July 1999. Construction began in August 1999 and was completed in December 1999. The remedial technology was very successful and resulted in the commercial/industrial clean-up levels being met throughout the site. Thus, it was determined that a solid waste cap would not be necessary. On September 28, 2001, USEPA approved the PRPs Remedial Action Report. Deed restrictions were placed on the site to limit the use of groundwater at the site. On September 27, 2001, USEPA issued a Five-Year Review for the Site. The site is currently undergoing O&M monitoring and delisting is pending O&M issues being negotiated by USEPA and OEPA.

Site Chronology

Date	Event
1946	United Scrap Lead commenced battery reclamation operations.
1979	Ohio EPA became aware of contaminated Site conditions.
1983	United Scrap Lead ceased battery reclamation operations.
September 8, 1983	Site proposed for NPL listing.
September 21, 1984	Site listed on NPL.
1985	U.S. EPA conducted an emergency removal at the Site.
January 1986	Remedial Investigation/Feasibility Study commenced.
February 1988	Remedial Investigation completed.
August 1988	Feasibility Study completed.
September 16, 1988	U.S. EPA issued the 1st ROD.
1992	U.S. EPA abandoned the innovative treatment technology component of the first ROD.
August 1992	U.S. EPA commenced remedial action activities pursuant to the 1988 ROD.
March 1995	First phase remedial actions completed.
July 27, 1997	U.S. EPA issued an Amended ROD.
June 1999	Remedial action activities commenced pursuant to the final Amended ROD.
November 30, 1999	U.S. EPA and Ohio EPA conducted the final remedial action inspection.
October 23, 2000	U.S. Army Corps of Engineers conducted a site visit.
September 27, 2001	First Five-Year Review signed.
August 17, 2006	Site visit conducted in support of the 2nd five-year review.

USEPA conducted a second five-year review of the site and OEPA conducted the site inspection in August 2006. The five-year review was completed by USEPA September of 2006. The assessment of this five-year review found that the remedy was constructed in accordance with the requirements of the interim and final Record of Decisions (RODs). However, despite intensive efforts on the part of USEPA enforcement staff, the institutional controls remain to be implemented. The Site remedy is protective of human health in the short-term; however, for the remedy to be protective in the long-term, institutional controls need to be implemented at the Site. USEPA will explore with the Department of Justice the feasibility of asking the judge to name a Receiver who would be empowered to enter into a Uniform Environmental Covenants Act (UECA) covenant at the Site.

According to the information reviewed during the 2006 five-year review, including the Site inspection, upon implementation of the institutional controls, the remedy will be functioning as intended by the ROD and Amended ROD. There have been no changes in the physical conditions of the Site that would affect the protectiveness of the remedy. ARARs for soil contamination cited in the ROD have been met. There have been no changes in the toxicity factors for the contaminants of concern that were used in the baseline risk assessment, and there have been no changes to the standardized risk assessment methodology that could affect the protectiveness of the remedy. There is no other information that calls into question the protectiveness of the remedy.

No issues were identified concerning remedy protectiveness. However, the Site security should be maintained, including periodic inspections of the Site, performed by OEPA.

Inspections of the fence constructed around the site to limit public access are performed by OEPA annually and a report submitted to USEPA. The next five-year review for the United Scrap Lead Site is due September 2011.

On February 18, 2009, it was announced that the USEPA and the U.S. Department of Justice, reached a $1.6 million settlement related to the Superfund cleanup from Livingston and Coo., Inc., a business that contributed hazardous waste to the USL Superfund site. U.S. EPA plans to work with a receiver appointed by the court to finalize controls and market the property.

For more information about USEPA's involvement at this site, please go to: http://www.epa.gov/region5superfund/npl/ohio/OHD018392928.htm

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