

SITE HISTORY AND ENFORCEMENT ACTIVITIES

Site History

The ASARCO facility conducted lead smelting and refining operations at the 500 Douglas Street facility from the early 1870s until 1997. The ASARCO facility was located on approximately 23 acres on the west bank of the Missouri River in downtown Omaha. Aaron Ferer constructed and operated a secondary lead smelter and lead battery recycling plant from the early 1950s until 1963. In 1963, the facility was purchased by Gould, who operated until it closed in 1982. During the operational period of these facilities, lead-contaminated particulates were emitted into the atmosphere through smokestacks and other processes. The pollutants were transported downwind in various directions and deposited on the ground surface.

The Douglas County Health Department (DCHD) performed monitoring of the ambient air quality around the ASARCO facility beginning in 1984. This air monitoring routinely measured ambient lead concentrations exceeding the ambient standard for lead at that time of 1.5 micrograms per cubic meter ($\Phi\text{g}/\text{m}^3$). The highest recorded quarterly average measured in air was $6.57 \Phi\text{g}/\text{m}^3$.

The DCHD has compiled statistics on the results of blood lead screening of children less than seven years of age for more than 25 years. Blood lead screening of children living in zip codes located east of 45th Street nearest to the former lead-processing facilities have consistently exceeded the 10 micrograms per deciliter ($\Phi\text{g}/\text{dl}$) health-based threshold more frequently than children living elsewhere in the county.

In 1998, the Omaha City Council requested assistance from the EPA to address the high frequency of children found with elevated blood lead levels by the DCHD. At that time, the EPA began investigating the lead contamination in the Omaha area under the authority of CERCLA.

The EPA began sampling residential properties and properties that were used to provide licensed child-care services in March 1999. Response action was initiated under CERCLA removal authority in August 1999 through an InterAgency Agreement with the U.S. Army Corps of Engineers. From 1999 through 2002, excavation and soil replacement was completed at 257 properties by the Corps of Engineers. EPA began directly implementing the removal action in 2002, and completed excavation and soil replacement at a total of 144 properties through 2003. EPA and the Corps of Engineers completed a combined total of 310 properties in 2004. Removal action was completed by EPA and the Corps of Engineers at 773 properties in 2005 as work was transitioning to CERCLA remedial authority.

The initial removal response actions were directed at excavation and replacement of soil exceeding 400 ppm at child-care centers and residences where children with elevated blood lead levels resided. In August 2002, a second removal action was initiated at all other residential-type properties where the maximum non-foundation soil lead concentration exceeded an action level of 2,500 ppm. At properties determined to be eligible for response under either of the removal actions where the maximum mid-yard soil lead level exceeded the action level, soils exceeding the cleanup level of 400 ppm were excavated and replaced with clean soil and

disturbed areas were revegetated. Because of the potential contribution of deteriorating lead-based paint near the foundations of structures, the soil lead level in the drip zone (areas near structure foundations) alone would not trigger soil removal and replacement if all mid-yard soil lead levels at a property were less than the action level. However, if any mid-yard soil sample exceeded the action level, soil from all areas of the property exceeding the 400 ppm cleanup level would be removed and replaced, including drip zone soils if they exceeded 400 ppm. The action level which triggered response for typical residential properties under the second removal action was reduced to 1,200 ppm in November 2003, but the cleanup level remained at 400 ppm throughout all response actions at the OLS. In 2004, the two removal actions were combined into a single response, and in 2005, following issuance of the Interim Record of Decision, the action level for removal response during the transitional period was lowered to 800 ppm for consistency with the upcoming remedial response.

The OLS was proposed for the EPA's National Priorities List (NPL) on February 24, 2002. The proposed NPL listing became final on April 30, 2003. The general boundaries of the Site were estimated at the time of NPL listing by establishing a perimeter surrounding the properties that had been determined to exceed 1,200 ppm lead at that time. The area enclosed by this perimeter was approximately 8,840 acres (13.8 square miles), with a population of 65,863 (based upon 1990 U.S. Census information). Twenty public schools were located within this area. On the basis of soil sampling performed subsequent to NPL listing, a focus area was established where EPA targeted additional residential properties for soil sampling to characterize the impact from the former lead processing facilities. The original focus area boundary encompassed an area of 12,098 acres (18.9 square miles) bounded by Ames Avenue to the north, L Street to the south, 45th Street to the west, and the Missouri River to the east.

Between March 1999 and January 2004, surface soil samples were collected from 15,012 residential properties. EPA finalized an initial Remedial Investigation (RI) at the Site in 2004 which presented the results of previous site investigations. During data collection for the 2004 RI, the boundaries of the focus area were expanded to include additional areas where elevated soil lead levels were consistently found. The 2004 expanded focus area added portions of areas north to Redick Avenue, west to 52nd Street, and south to Harrison Street, encompassing a total area of 16,465 acres (25.7) square miles. The 2004 RI estimated that 16,000 residential properties could exceed 400 ppm lead; 5,600 properties could exceed 800 ppm lead; and 2,800 properties could exceed 1,200 ppm lead.

EPA issued an Interim Record of Decision (Interim ROD) for the OLS on December 15, 2004, based upon information in the Administrative Record for the Site, including the Remedial Investigation and Feasibility Study (RI/FS) released in 2004. The Interim ROD expanded the scope of the ongoing response action to include excavation and replacement of residential soils exceeding 400 ppm at typical residential and residential-type properties where the maximum non-foundation soil lead level exceeded 800 ppm, and continued removal and replacement of soils exceeding 400 ppm at child care centers and residences where children with elevated blood lead levels resided. The selected interim remedy added new elements to the response action, including stabilization of deteriorating exterior lead-based paint in cases where the continued effectiveness of the soil response was threatened, high-efficiency interior dust cleaning at eligible properties, health education, and participation in a comprehensive remedy with other agencies and organizations to address all identified lead exposure sources in the community.

In March 2005, the scope of the ongoing removal action was amended to include all elements of the Interim ROD, which continued until work commenced under CERCLA remedial authority. Removal response was discontinued when remedial response commenced. Proceeding under CERCLA remedial authority, EPA completed soil excavation and replacement (remediation) at 255 properties in 2005 for a total of 1,060 properties completed under combined removal and remedial authority. During 2006, soil remediation was completed at 1,044 properties under remedial authority. Soil remediation was completed at an additional 1,000 properties in 2007 and 800 properties in 2008. Through the close of the 2008 construction season, soil excavation and replacement under CERCLA removal and remedial authority has been completed at 4,615 residential properties.

Stabilization of deteriorating exterior lead-based paint in accordance with the interim remedy commenced in 2007 through a cooperative agreement with the city of Omaha's Lead Hazard Control Program. Stabilization was completed at 18 properties in 2007. In 2008, under both EPA and the city of Omaha contracts, stabilization of deteriorating exterior lead-based paint was completed at 1,169 properties.

During implementation of the interim remedy, EPA continued to perform soil lead characterization to support a final remedy for the OLS. In October 2008, EPA released a draft Final Remedial Investigation, which presented results of all site investigations including soil sampling performed at more than 35,000 residential properties. Based on the 2008 data set, EPA established the Final Focus Area for the Site, which defined the area of residential properties that are targeted for sampling. This area is generally bounded by Read Street to the north, 56th Street to the west, Harrison Street (Sarpy County line) to the south, and the Missouri River to the east, and encompasses 17,290 acres (27.0 square miles). The 2000 U.S. Census data for this area shows a total population of 125,650, including 14,117 children seven years of age and younger. Information from the Douglas County Assessor's Office indicates the presence of 39,783 residential properties within the Final Focus Area.

Through completion of the OLS Final Remedial Investigation, soil sampling had been completed at 37,076 residential properties, including 34,565 within the Final Focus Area's boundary. Of the residential properties sampled, the 800 ppm soil action level established by the Interim ROD¹ was exceeded at 4,144 properties. An additional 8,552 properties had soil lead levels between 400 ppm and 800 ppm. In total, 34.2 percent of properties sampled through completion of the 2008 RI had at least one mid-yard sample with a soil lead level exceeding 400 ppm. Based on the data trends, the OLS Final Feasibility Study (FS) estimates that soil lead levels will exceed 400 ppm at a total of 14,577 properties when soil sampling is completed at all properties within the Final Focus Area.

On the basis of spatial analysis of the data generated during the Final OLS Remedial Investigation (RI), EPA established a Final Focus Area for the OLS. Portions of the Final Focus Area extend to 56th Street to the west, the Missouri River to the east (excluding the Omaha

¹ Maximum mid-yard (non-foundation) soil lead concentrations are compared to established action levels to determine eligibility of a property for remedial action.

central business district), Read Street to the north, and Harrison Street to the south. *Figure 2* shows the boundary of the Final Focus Area and depicts the sequential expansion of the focus area since the Site was originally proposed for the NPL.

The Final Focus Area boundaries define a general area where the majority of the properties impacted by former lead processing emissions are located and soil sampling has been prioritized. The actual site, however, includes any property where soil lead levels exceed EPA criteria for initiating remedial action. The Site is composed of individual properties that exceed the established action levels, defined on a property-to-property basis, and is not defined by a discrete boundary.

Enforcement Activities

EPA issued a general notice letter under CERCLA authority on August 4, 1999, to ASARCO, Incorporated (ASARCO), asking ASARCO to perform a time-critical removal action to address lead-contaminated soils at child-care centers and residences at the site. In a response dated August 13, 1999, ASARCO declined to perform the removal action. On August 30, 1999, EPA issued an Administrative Order (Docket Number-CERCLA-7-99-0029), ordering ASARCO to perform the necessary removal action. ASARCO responded on September 7, 1999, stating they would not comply with the UAO. EPA proceeded with a fund-lead removal action to address the threat associated with the lead contamination in the residential soils. EPA subsequently identified three additional PRPs: Union Pacific, Gould, and Aaron Ferer.

The EPA has coordinated with these four PRPs during the implementation of all response actions at the site. General notice letters were issued on June 4, 2002, to initiate discussions on the performance of the RI/FS. The four parties declined to perform the RI/FS so EPA proceeded using Superfund Trust monies.

Following completion of the Interim ROD, special notice letters were issued to the four parties on December 16, 2004, requesting payment of past costs and performance of the work under the Interim ROD. A good faith offer for performance of the work was not received. On March 31, 2005, an Administrative Order (Docket No. CERCLA-07-2005-0207) was issued with a delayed effective date to Union Pacific requesting performance of the work required by the Interim ROD. The effective date was extended several times to allow continued discussions with Union Pacific. The Administrative Order became effective on December 16, 2005. Union Pacific responded on January 3, 2006, indicating that it would not comply with all of the provisions of the Administrative Order. EPA proceeded with a fund-lead remedial action to address the threats posed by Site contamination.

In August 2005, ASARCO filed for bankruptcy protection under Chapter 11 of the Bankruptcy Code in the Southern District of Texas, Corpus Christi Division. The United States filed a proof of claim in the bankruptcy action to cover all past and future costs associated with the OLS. Numerous other sites and facilities are included in the bankruptcy case. An estimation hearing on the claim for the OLS was held in Corpus Christi, Texas in August 2007. The claim for the Omaha Lead Site has not been determined and the bankruptcy reorganization case is still ongoing.

COMMUNITY PARTICIPATION

EPA has worked extensively with the Omaha community through a variety of communication vehicles, including but not limited to local speaking engagements, participation in citizens' groups and city council meetings, local public access television, public service announcements on local cable television, coverage on radio and television and in local and national newspapers, mass mailings of informational materials, public outreach by telephone, by conducting public meetings, and through the EPA Web site.

EPA has been performing outreach to Omaha citizens, elected officials, school officials, health officials, the media, nonprofit groups, and others since becoming involved in the project in 1998 in an effort to convey information about the hazards of lead poisoning and particularly how lead affects the health of children. The EPA has participated in numerous formal and informal meetings to explain EPA's role and commitment in Omaha, convey information about the Superfund process, and provide general information about the site and lead contamination. EPA responds to inquiries on a daily basis regarding the site and individual property owner's sampling results.

In November 2004, EPA established two Public Information Centers within the boundary of the focus area at the OLS that provide information regarding conditions at individual properties, the status of the overall EPA response, and information about other lead hazards in the community. One information center was established in the north Omaha community and a second was located in the south Omaha community. These information centers are staffed with bilingual public information specialists with direct access to the project database maintained at the EPA Regional Office.

In January 2004, a Community Advisory Group (CAG) was formed for the site. A CAG is a committee, task force, or board made up of residents affected by a Superfund site. They provide a public forum where representatives of diverse community interests can present and discuss their needs and concerns related to the site and the cleanup process. CAGs are a community initiative which functions independently of EPA, providing a constructive avenue for addressing and understanding historical information, cultural concerns, and communication approaches tailored to the site. Union Pacific Railroad Company, an Omaha-based company, supports the CAG by providing the services of a technical consultant and facilitator. EPA participates in all aspects of CAG-related activities and meetings at the OLS.