

United States Environmental Protection Agency
Region VII
POLLUTION REPORT

Date: Monday, September 15, 2003

From: Dan Garvey, Eric Nold

Subject: Omaha Lead

Greater Omaha Area, Council Bluffs, Carter Lake, Greater Omaha Area, NE

Latitude: 41.1997000

Longitude: -95.9303000

POLREP No.:	9	Site #:	NESFNO703481
Reporting Period:	9/8-13-03	D.O. #:	
Start Date:		Response Authority:	CERCLA
Mob Date:		Response Type:	Time-Critical
Demob Date:		NPL Status:	
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	NESFN0703481	Contract #	
RCRIS ID #:			

Site Description

The Omaha Lead Site is located in the Omaha metropolitan area including Council Bluffs, and Carter Lake, Iowa. Specific boundaries of the site have not yet been defined because the sampling activities for the entire area of investigation are not complete.

Several businesses and manufacturing companies used or processed lead at their facilities in the Omaha metropolitan area. ASARCO Incorporated (ASARCO) operated a lead refinery at 500 Douglas St. in Omaha for over 100 years beginning in the 1870s. The operation of the refinery ceased in 1997. As a routine part of the refinery operation, lead particles were emitted into the atmosphere at the refinery. In addition, the Gould Inc. lead battery recycling plant located at 555 Farnam Street in Omaha was a secondary smelter of lead from discarded lead batteries, closing in 1982. The blast furnace used to smelt the lead at the Gould plant emitted lead particles into the air from that smelter.

In the fall of 1996, the Douglas County Health Department (DCHD) began an assessment of 179 homes located in eastern Omaha. The goal of the assessment was to identify all sources of lead poisoning in each residence. DCHD collected outdoor soil samples from 84 of the 179 residences. Twenty of the 84 exceeded the 400 mg/kg screening level for lead.

In the fall of 1998, DCHD began a more thorough assessment of soil lead contamination at selected residences in east Omaha. Several more residential yards were found to be lead contaminated.

DCHD performed air monitoring of the ambient air quality around the ASARCO lead refinery. In 1984 an air monitor was placed along Abbott Drive immediately north of ASARCO. In the 37 quarters of monitoring conducted at this location between 1984 and 1996, the air standard for lead (1.5 grams per cubic meter) was exceeded 19 times. A second air monitoring station was placed along the Missouri River front immediately south of ASARCO in 1990. The standard was exceeded 17 of the 23 quarters that monitoring was conducted at that station. In 1995, a third monitor was placed immediately northwest of ASARCO. This monitor exceeded the standard in all five quarters that monitoring was conducted at this location.

In May 1998, Mr. Frank Brown, President of the Omaha City Council, sent a letter to the United States Environmental Protection Agency (EPA) requesting the assistance of EPA in addressing problems with lead contamination in the Omaha area. EPA initiated a process to investigate the lead contamination using CERCLA authority.

EPA began sampling soil from child care facilities and selected residential properties in March 1999. Seventy-eight of the 364 licensed child care facilities tested have one or more non-foundation results greater than 400 mg/kg with a high concentration of 4,670 mg/kg. The locations of the 364 child care facilities are widely scattered over the Omaha metropolitan area (including Carter Lake, and Council Bluffs, Iowa). There are additional child care facilities that have not been sampled by the EPA. Efforts to sample these child care facilities are ongoing. Two hundred eighty-two residences with elevated blood

lead (EBL) were tested resulting in 134 yards exceeding 400 mg/kg. Sampling at residences with EBL are ongoing. Five hundred sixty-nine of the first 1,422 private residences tested have one or more non-foundation soil analytical results greater than 400 mg/kg lead. The EPA is continuing to sample additional residential properties.

Current Activities

September 8-13, 2003

This was the 4th week of this phase of the removal action. Because set up and mobilization were completed prior to this week, all activities were focused on excavation and restoration of residential yards. Rain on Tuesday resulted in cessation of site work immediately after noon. Rain also slowed progress on Wednesday. Sod, which was anticipated for this week, was also delayed by the wet weather. Thus far, no sod has been laid at any of the residences. No issues (e.g., complaints or obvious damage) were resultant of this week's efforts. Excavation was completed on 9 addresses and approximately 90 percent completed on a 10th. Approximately 665 cubic yards of contaminated soil was removed from those 10 residences. Approximately 200 cubic yards of clean backfill was applied to the remediated yards (because of the wet weather, not all yards were backfilled).

*See documents link below for list of addresses where removal activities have occurred and site totals.

[documents](#)

Planned Removal Actions

Thirty six properties were identified at the beginning of this phase. Six properties have been removed from the list because: 1) the child that exhibited the elevated blood lead level has since moved from the residence and/or 2) the property has been sold. Work next week will continue on those addresses which have yet to be excavated. Sod will then be laid to repair the yards. After the sod has been laid the EPA will water the yard(s) for 30 days, after which, the residents will be responsible for maintaining their own properties.

Contaminated soil is being stockpiled at the waste water treatment facility. The material is to be sampled at approximately 1,000 cubic yard increments for pH, TCLP lead, and TOC. The first batch will be ready for sampling and transport to the Loess Hills Regional Landfill next week.

A scheduled break will occur next week when site activities will halt at approximately noon on Friday September 19 and resume at 7 am on Monday September 22.

Next Steps

The current criteria for removal candidacy is a child with an EBL (greater than 10 micrograms per deciliter) coupled with lead in soil above 400 mg/kg. Removal candidacy is being extended to addresses where lead in the soil exceeds 1,200 mg/kg and a child under 7 years of age resides.

Key Issues

For this phase of the project, the Loess Hills Regional Landfill operated by Iowa Waste Systems, Inc. located in Malvern, Iowa, has been selected to accept the lead contaminated soil.

Close coordination has occurred with the Iowa Department of Natural Resources concerning the CERCLA Off-Site policy and also the landfill to determine the analytical testing that is required.

Also, Mr. Todd Davis, Nebraska Department of Environmental Quality has assisted the EPA in determining that all of the backfill soil that is used during this phase of the project does not come from the protected Council Bluffs, Loess Hills Area.

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