

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Pittsburg Zinc - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VII

Subject: POLREP #2
Progress POLREP
Pittsburg Zinc
KSD985015338
Pittsburg, KS
Latitude: 37.4108840 Longitude: -94.7049600

To:
From: Todd Campbell, OSC
Date: 11/9/2009
Reporting Period: 11/2/9 - 11/9/9

1. Introduction

1.1 Background

Site Number:	KSD985015338	Contract Number:	
D.O. Number:		Action Memo Date:	9/30/2009
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	10/26/2009	Start Date:	10/27/2009
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

The incident is a CERCLA Fund lead Removal Action.

1.1.2 Site Description

Smelting operations began in Pittsburg in the late 1870's and continued on and off through WWI. There were a total of eight different smelting facilities known to be located within Pittsburg at one time or another. The Kansas Department of Health and Environment (KDHE) has documented the existence of nearly 30 former smelter sites in southeast Kansas alone. Some have been previously remediated by EPA, while others remain in various stages of assessment and cleanup. The Pittsburg Zinc Site consists of residential yards with residual lead contamination from zinc smelting operations associated with three former smelter sites (Robert Lanyon, S.H. Lanyon, and W&J Lanyon), collectively referred to as the former Pittsburg Zinc Smelters. The Pittsburg Zinc Site has previously been the subject of numerous KDHE assessment efforts conducted between 1987 and 2008. KDHE referred the three former smelter sites and any contaminated residential property to EPA in September 2008. In August of 2009, at the request of KDHE, the three former smelter site properties were referred back to the State for possible enrollment in the voluntary cleanup program (VCP).

1.1.2.1 Location

Pittsburg, Kansas is located within five miles of the Tri-States Mining District that defines an area of heavy historical mining and smelting activities and encompasses parts of southeast Kansas, southwest Missouri, and northeast Oklahoma. The Pittsburg Zinc Site includes residential and commercial areas within the city of Pittsburg where lead contamination associated with the former Pittsburg Zinc smelters has come to be located.

1.1.2.2 Description of Threat

The primary contaminant of concern at this site is lead and lead compounds. Lead and lead compounds are hazardous substances as defined by Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and is listed at 40 C.F.R. § 302.4 and have been detected in the ground water (KDHE), soils, and smelter wastes at the site.

EPA has documented total lead concentrations in soil in residential yards at levels exceeding the site specific action level of 550 ppm, and has detected lead in soils at commercial properties and one residential yard exceeding the EPA time-critical removal action level of 1,200 ppm. Lead contaminated soils may migrate via airborne dusts, surface runoff, percolation into ground water, construction activity, by children transporting soils/dusts into their homes after playing in the affected areas, and track in by foot traffic. Children playing in and around contaminated areas have the highest potential to be exposed to heavy metal contamination. Children are more vulnerable to lead poisoning than adults. For children, lead can damage the central nervous system, kidneys and reproductive system. At higher levels, it can cause comas, convulsions and death. Even low levels of lead are harmful and are associated with decreased intelligence, impaired neurobehavioral development, decreased stature and growth, impaired hearing acuity, and possibly high blood pressure. Lead is classified by the EPA as a probable human carcinogen and is a cumulative toxicant. A significant amount of lead that enters the body is stored in the bone for many years and can be considered an irreversible health effect.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In March 2009, EPA began removal assessment activities at the site. The first phase of the RSE included all properties within 500 feet of the former Pittsburg Zinc smelters, and also included high child use areas in Pittsburg such as city owned parks, schools, daycare facilities, and playgrounds at churches requesting an assessment. In addition, the Phase I RSE included households with children having a documented elevated blood lead level (EBL), and a few miscellaneous properties where concerned citizens requested assistance. A second phase of RSE sampling is planned for three separate areas bordering the Phase I sample area to the northwest, northeast, and southwest. The selection of these areas for the Phase II RSE is based on the direction of prevailing winds and the proximity to other properties with elevated soil lead levels.

The Phase I RSE consisted of 182 assessed properties. Screening data revealed lead soil concentrations greater than 550 ppm. The site specific action level and soil cleanup level as calculated by the EPA Regional Toxicologist, at 25 residential properties and several commercial/industrial properties. Two parcels where the former smelters were once located and one residential property exhibited soil lead levels in excess of 1200 ppm.

In addition, Arsenic was detected in soils at a maximum concentration of 35.6 mg/kg, a level that would represent a minimal health threat in Pittsburg, Kansas according to the EPA Regional toxicologist. Arsenic is often found in conjunction with other heavy metals that comprise smelter waste contamination. However, the areas in which arsenic was detected at the site exhibited no correlating elevated levels of lead in the soil. Therefore, the arsenic is believed to either be naturally occurring, or associated with the historical legal application of pesticides.

A review of the Kansas Geological Survey (KGS) registered well database showed no known drinking water wells within two miles of the site. Conversations with city officials revealed that all residents within the Pittsburg city limits are connected to the city water supply. Therefore, no assessment of residential drinking water was conducted.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA R7 mobilized both START and ERRS contractors to Pittsburg, Kansas on Monday, October 26, 2009, to begin excavating contaminated soil from residential yards in Pittsburg. The initial action is to excavate soil from 25 residential yards and conduct RSE activities within the Phase II assessment area.

2.1.2 Response Actions to Date

To date, EPA has completed excavation at nine (9) residential properties and partially completed excavation work at two others. Backfill efforts have been completed at seven (7) properties, and sod has been applied at four of the backfilled locations. All excavated soil has been taken to the Oak Grove Landfill in Arcadia, KS and disposed of as a special waste with the approval of KDHE. To date, 671 tons of contaminated soil has been removed.

Phase II assessment activities have been completed at 88 properties. Phase II assessment activities will continue pending receipt of additional access agreements. Data results will be transmitted to property owners when final data is received from the laboratory. Initial screening results indicate that numerous properties exceed the action level of 550 ppm lead.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

A title search has been completed on all parcels of land either known or suspected to be part of the three former smelter sites associated with the Pittsburg Zinc Site. Several of these parties are working with the city and the state to address contamination on their properties through the state Voluntary Cleanup Program. EPA is conducting a full PRP search.

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
Special Waste	Soil	671 tons	multiple	n/a	Oak Grove Landfill

2.2 Planning Section

2.2.1 Anticipated Activities

Continue cleanup of Phase I properties, await laboratory confirmation on residential soil lead data from the Phase II assessment, and pursue access for additional assessment in the Phase II area.

2.2.1.1 Planned Response Activities

Continue excavation, backfill, and revegetation as weather permits.

2.2.1.2 Next Steps

Continue excavations, backfilling, and revegetation.

2.2.2 Issues

Weather.....

2.3 Logistics Section

Continue gathering access agreements from the remaining property owners that have yet to submit an access agreement for the Phase I removal, as well as additional access agreements from Phase II property owners (will complete Phase II assessment when have enough additional properties to warrant mobilizing a contractor to site for sampling and field screening activities)

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

The OSC has reviewed the ERRS Health and Safety Plan, requested that START update and amend the original Site Safety Plan to include removal activities, and contacted R7 SHEMP to request a site visit to review site safety procedures and practices.

2.6 Liaison Officer

OSC continues to coordinate site activities through the site Community Involvement Coordinator, who is coordinating information dissemination through the EPA R7 Government Liaison.

2.7 Information Officer

2.7.1 Public Information Officer

2.7.2 Community Involvement Coordinator

The site PIO/CIC helped to coordinate a public availability session on Thursday, October 15th, so any concerns from the Phase I/II property owners could be addressed.

3. Participating Entities

3.1 Unified Command

There is currently no formal ICS structure in place; however, all vested parties and interests are being addressed with regard to planning, assessment, and removal efforts.

3.2 Cooperating Agencies

US EPA R7

ATSDR

Kansas Department of Health and Environment

Crawford County Health Department

City of Pittsburg, Kansas

4. Personnel On Site

1 -EPA OSC

1 - START Contractor

1 - RM

1 - Cost Accountant

2 - Equipment Operators

2 - Laborers

5 - Truck Drivers

5. Definition of Terms

n/a

6. Additional sources of information

6.1 Internet location of additional information/report

The Administrative Record is being compiled.

6.2 Reporting Schedule

POLREPS will be written and posted weekly.

7. Situational Reference Materials

n/a