



REGION 7

LENEXA, KS 66219

ACTION MEMORANDUM

SUBJECT: Request for a Time-Critical Removal Action at the Omaha Lead Site, Douglas County, Nebraska

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TO: Robert Jurgens, Director
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**BRENDAN
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I. PURPOSE

The purpose of this Action Memorandum is to request funding for and document the decision to initiate a Time-Critical Removal Action for the Omaha Lead site in Omaha, Douglas County, Nebraska. This response action is to address two residential properties referred to the U.S. Environmental Protection Agency's Assessment, Emergency Response and Removal (AERR) branch by the EPA's Lead Mining and Special Emphasis (LMSE) branch. An assessment of these properties, performed under a cooperative agreement between LMSE and the city of Omaha, identified smelter waste exposed at the surface of both properties. Field screening of the smelter waste confirmed the presence of lead at up to 36,770 parts per million (ppm). There are no local, state, or other federal partners able to quickly address the situation. For these reasons, this Time-Critical Removal Action is proposed.

II. SITE CONDITIONS AND BACKGROUND

| | |
|----------------------|-----------------|
| Site Name: | Omaha Lead Site |
| SSID #: | 07ZY |
| CERCLA ID: | NESFN0703481 |
| CERCLA Sequence #: | RV03 |
| Category of Removal: | Time-Critical |

| | |
|--------------------------------|---------------------------|
| Nationally Significant: | No |
| Site Location: | Omaha, Douglas County, NE |
| Lat/Long: | [REDACTED] |
| Potentially Responsible Party: | See Enforcement Addendum |

A. Site Description

1. Removal site evaluation

This proposed Removal Action is administratively within Operable Unit 2 (OU2) of the site. The properties addressed through this Removal Action are being referred by the LMSE branch to the AERR branch. Sampling conducted by the city of Omaha, under a cooperative agreement with the LMSE branch, identified smelter waste with elevated lead concentrations in soil at two adjoining residential properties. The smelter waste was screened with an X-ray fluorescence (XRF) analyzer which measured lead concentrations ranging from 5,353 to 36,770 parts per million (ppm). A sample of the smelter waste mixed with soil was analyzed for Toxic Characteristic Leaching Procedure (TCLP) metals in which indicated 17.3 milligrams per liter (mg/L) lead.

2. Physical location

The Omaha Lead site is comprised of residential properties, child-care centers, and other residential-type properties in the city of Omaha, Nebraska, where the surface soil is contaminated primarily from deposition of air emissions from historic lead smelting and refining operations. The site boundary encompasses 27 square miles and is centered on downtown Omaha, where two former lead-processing facilities operated.

This proposed Removal Action is in an area of two adjoining residential properties in Omaha, Nebraska, [REDACTED]. The vicinity of the properties includes residential properties and the Gomex Heritage Elementary School.

The EPA has conducted an environmental justice review of the community where the proposed Removal Action is located using EJScreen, EPA's EJ mapping and screening tool. EJScreen provides a nationally consistent dataset and approach for combining environmental and demographic indicators. The EPA uses EJScreen to evaluate a community where a Superfund site is located to determine whether additional consideration, analysis, or outreach is appropriate, as determined by the site team, as EPA plans for, and conducts, response actions in the community. According to the EJScreen for this proposed Removal Action, the data does indicate potential areas of EJ concern. The EJScreen for this proposed Removal Action is included in the Administrative Record for the site.

Per the EJScreen Report, these Socioeconomic Indicator categories met the above thresholds within the one-mile buffer:

Socioeconomic Indicators

People of Color: 96th percentile State/81st percentile USA

Low Income: 87th percentile State/80th percentile USA

Unemployment Rate: 82nd percentile State/65th percentile USA

Limited English-Speaking Households: 98th percentile State/ 93rd percentile USA

Less Than High School Education: 97th percentile State/95th percentile USA

Under Age 5: 76th percentile State/81st percentile USA

Low Life Expectancy: 91st percentile State/83rd percentile USA

Borderline Socioeconomic Indicators

3. Site characteristics

The site consists of two OUs. Under the 2004 Interim Record of Decision (ROD), OU1 addressed child high impact areas such as child daycare facilities, and the most highly contaminated site properties exceeding 800 ppm lead. Under the 2009 Final ROD, OU2 addressed the remaining residential and residential-type properties that exceed risk-based soil lead levels established during the Final Remedy selection process. This proposed Removal Action is administratively within OU2 of the site.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

An assessment of these properties performed under the LMSE branch cooperative agreement with the city of Omaha identified smelter waste with elevated lead concentrations. XRF screening indicated the smelter waste located on the surface of the residential properties contained lead concentrations ranging from 5,353 to 36,770 ppm. A TCLP sample of the smelter waste mixed with soil exhibited a result of 17.3 mg/L lead.

Lead concentrations exceeding the Removal Management Level (RML) have been identified in surface soils at the area of the proposed Removal Action. Lead is a hazardous substance consistent with the definition at Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and as defined and listed at 40 C.F.R 302.4.

5. NPL Status

The site was listed on the National Priorities List in 2003.

6. Maps, pictures and other graphic representations

Not applicable.

B. Other Actions to Date

1. Previous actions

There have been numerous actions conducted at the site to address lead-contaminated properties. From August 1999 to March 2004, the EPA conducted the first Removal Action. From August 2002 to March 2006, the EPA conducted the second Removal Action. From July 2005 to September 2009, the EPA conducted the interim Remedial Action for OU1, established under the December 2004 interim ROD. From June 2009 to December 2015, the EPA conducted the final Remedial Action established under the May 2009 final ROD. In May 2015, the EPA signed a cooperative agreement with the city of Omaha and began transitioning lead cleanup activities to the city. The city of Omaha is performing the remaining soil sampling, soil remediation, and the exterior lead-based paint stabilizations within the site. Two Five-Year Reviews have been conducted for the site, in September 2014 and August 2019. The third Five-Year Review is ongoing and is planned to be completed in August 2024.

The [REDACTED] properties were identified during an LMSE site data review. City of Omaha sampling efforts identified smelter waste exposed at the surface of both properties; however, the city had been unable to remediate the properties due to technical issues and contracting constraints. For these reasons, the LMSE referred the properties to the AERR for consideration of a Removal Action.

2. Current actions

The city of Omaha continues to address lead contamination issues at the site under the 2015 cooperative agreement.

The city of Omaha is unable to fully address the subject properties in a timely manner due to the nature of the contamination and their contractual processes and limited resources. The city of Omaha has installed temporary fencing on the [REDACTED] property, around the most prominent area of exposed smelter waste. The LMSE and AERR groups have conducted meetings with the city of Omaha and property owners at the locations of the proposed action.

C. State and Local Authorities' Roles

1. State and local actions to date

The EPA has coordinated with the city of Omaha and state of Nebraska on past Removal and Remedial Actions. The city of Omaha is performing the remaining soil sampling, soil remediation, and the exterior lead-based paint stabilizations

within the site under the 2015 cooperative agreement with the EPA; however, the city of Omaha is unable to address the properties included in this proposed removal action in a timely manner due to the nature of the contamination and their contractual processes and limited resources.

2. Potential for continued state/local response

The EPA will continue to coordinate with the city of Omaha and the state of Nebraska regarding the ongoing cooperative agreement and the proposed Removal Action. The city of Omaha is unable to address the properties in a timely manner but have the potential to assist the EPA Removal Action with communication with residents, local resources, and documentation of the Removal Action in the Omaha Lead Registry.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Section 300.415(b) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) provides that the EPA may conduct a Removal Action when it determines that there is a threat to human health or welfare or the environment based on one or more of the eight factors listed in 40 C.F.R. § 300.415(b)(2). The factors that justify a Removal Action are as follows:

300.415(b)(2)(i) – Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, or pollutants or contaminants.

The primary contaminant of concern at the site is lead in the form of smelting waste. Lead is a heavy metal and has been listed as a hazardous substance pursuant to section 102 of CERCLA, 42 U.S.C § 9602 and 40 CFR § 302.4, of the NCP. The city of Omaha, under a cooperative agreement with the LMSE branch, confirmed elevated concentrations of lead as high as 36,770 ppm have been identified in smelter waste present on the surface of the residential properties. Potential exposure of residents may occur through inhalation or ingestion of lead particles from normal property use. Sensitive populations frequently visit one of the residential properties.

Lead is classified by the EPA as a probable human carcinogen and is a cumulative toxicant. The early effects of lead poisoning are nonspecific and difficult to distinguish from the symptoms of minor seasonal illnesses. Children are more vulnerable to lead poisoning than adults. For children, low levels of lead are harmful and are associated with decreased intelligence, impaired neurobehavioral development, decreased stature and growth, and even damage to the central nervous system, kidneys and reproductive system. At higher levels, lead poisoning can cause comas, convulsions, and death.

300.415(b)(2)(iv) – High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

Elevated lead concentrations as high as 36,770 ppm have been identified in smelter waste present on the surface of two residential properties. Lead-contaminated smelter waste and soils may migrate via airborne dusts, surface runoff, percolation into groundwater, construction activity, gardening, by children transporting soils/dusts into their homes after playing in affected areas, and by pedestrian foot traffic.

300.415(b)(2)(vii) – The availability of other appropriate federal or state response mechanisms to respond to the release.

There are no other known appropriate federal or state response mechanisms available to conduct an appropriate response at the site.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances at this site, if not addressed by implementing the response action selected in the Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

This proposed action involves the excavation and disposal of smelter waste and lead-contaminated soil exceeding the RML, backfilling the excavated area to original grade with clean topsoil, and restoring a vegetative cover. This Removal Action will encompass the area of the two residential properties where elevated lead contamination has been identified.

Based on information provided with this referral and a field reconnaissance performed in February 2024, the smelter waste material present on the surface is the top of a larger deposit the extent of which is currently unknown. A sample was collected by the city of Omaha from the impacted yards and reported a TCLP result of 17.3 mg/L lead. A preliminary review, including input by experts at the Office of Research and Development, indicates treatment may not be practicable due to the smelter waste characteristics. For this reason, a portion of excavated materials may require disposal at a Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous waste facility, which will greatly increase response costs. The EPA plans to segregate materials based on potential to pass or fail TCLP, in an effort to minimize the volume of material requiring hazardous waste disposal.

Remediation of the residential properties will be consistent with the *Superfund Lead-Contaminated Residential Sites Handbook* and the Remedial Action for the site.

2. Contribution to remedial performance

The response provided for here is expected to contribute to remedial performance, or not adversely affect any future remedial performance at the site.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

The NCP at 40 C.F.R. Part 300.415 requires that Removal Actions shall, to the extent practicable, considering the exigencies of the situation, attain ARARs under federal environmental, state environmental or facility-siting laws. The following ARARs have been identified as being potentially applicable for this action:

Federal

RCRA, 42 U.S.C. § 6901, et seq., including:

- 40 C.F.R. Part 258, et seq., Subtitle D
- 40 C.F.R. Part 260, et seq., Subtitle C
- 40 C.F.R. §§ 107, 171-177 (Department of Transportation hazardous material transportation regulations) may be relevant and appropriate for transportation of the contaminated soils.

State

By letter dated March 8, 2024, a written request for state ARARs was sent to the Nebraska Department of Environment and Energy. Potential ARARs received by the EPA from the NDEE will be considered in accordance with 40 C.F.R. §300.400(g).

4. Project schedule

The proposed Removal Action start date is June 10, 2024, and the proposed Removal Action completion date is September 30, 2024.

B. Estimated Costs

The costs associated with the Removal Action are estimated below and assume that two residences will be remediated. The estimated costs are based on three weeks of work and 450 tons of D008 hazardous waste transported to a RCRA Subtitle C facility, and 200 tons of non-hazardous lead waste transported to a local Subtitle D facility for disposal.

Wastes will be segregated to minimize the amount of material transported to a Subtitle C facility.

Extramural Costs:

| | <u>Total</u> |
|--|-------------------|
| Removal Costs | \$ 545,000 |
| Extramural Cost Contingency (20 percent) | <u>\$ 109,000</u> |
| Removal Ceiling | \$ 654,000 |

EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this Removal Action.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

The actions proposed herein for the site should be taken immediately. Should these actions be delayed, the potential threats to human health and the environment will continue and increase.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

A Confidential Enforcement Addendum has been created for this site. For NCP consistency purposes, it will not be a part of this Action Memorandum.

IX. COSTS

The total EPA costs for this Removal Action based on full cost-accounting practices are estimated to be:

| | <u>Total</u> |
|---|-------------------|
| Direct Extramural Costs | \$ 654,000 |
| Direct Intramural Costs | \$ 40,000 |
| EPA Indirect Costs (41.14% of direct costs) | <u>\$ 285,512</u> |
| Total Project Costs | \$ 979,512 |

Direct costs include direct extramural and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost-accounting methodology effective October 2, 2000. These estimates do not include prejudgment interest, do not consider other enforcement costs, including Department of Justice costs and may be adjusted during a Removal Action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to recovery. The indirect rate

is currently 41.14 percent. The indirect charged to the proposed ceiling increase reflects the current indirect rate.

X. RECOMMENDATION

This decision document represents the selected Removal Action for addressing the hazardous substances, pollutants or contaminants present at the site. The Removal Action was developed in accordance with CERCLA, as amended, and is not inconsistent with the NCP. This decision is based on the Administrative Record for the site.

Conditions at the site meet the NCP criteria for a removal action, as set forth in 40 C.F.R. § 300.415(b), I recommend your approval of the proposed action to complete the Removal Action. The removal ceiling, if approved, will be \$654,000. This amount comes from the Omaha Lead Special Account.

Approved:

**ROBERT
JURGENS**

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Robert D. Jurgens, Director
Superfund and Emergency Management Division