




# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY


REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

JUN 25 2007

## ACTION MEMORANDUM AMENDMENT #3

SUBJECT: Request for Ceiling Increase for the Washington County Lead District – Potosi Area Site in Washington County, Missouri, Time-Critical Removal

FROM: Jeffrey G. Weatherford, P.E.   
On-Scene Coordinator

THRU: Scott Hayes, Chief   
Emergency Response & Removal Branch

TO: Cecilia Tapia, Director  
Superfund Division

Site ID#: A78D

### I. PURPOSE

The purpose of this Action Memorandum Amendment is to request and document approval of a ceiling increase for the ongoing removal action described herein for the Washington County Lead District – Potosi Area Site (Site). This Action Memorandum Amendment (Amendment) seeks to increase the funding ceiling so the response action can continue at the Site. This proposed action continues to satisfy the criteria for removal actions under section 300.415(b)(2) of the National Contingency Plan (NCP) and continues to meet the emergency criteria for exemption of section 104(c)(1) of CERCLA, 42 U.S.C. § 9604(c)(1) from the statutory limits of removal actions.

In the previous Action Memorandums, EPA proposed to address contaminated drinking water and residential properties or other areas conducive to attracting children where the soil contains lead concentrations equal to or greater than 1,200 milligrams per kilogram (mg/kg) or greater than 400 mg/kg where a child resides that is less than 72 months of age and has an Elevated Blood Lead (EBL) of 10 micrograms per deciliter or higher. EPA has also continued to sample additional properties within the current boundaries of the Site. This additional sampling has generated more properties where the soil and water contamination exceed the action levels. Thus, this Amendment is to request additional funding to respond to these properties.

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Superfund



## II. SITE CONDITIONS AND BACKGROUND

### A. Site Description

#### 1. Removal Site Evaluation

See previously approved Action Memorandum for a full description of the Removal Site.

In October 2005, EPA began sampling in the Potosi area to support the removal action. Currently, EPA has sampled approximately 1,542 residential properties with the following results:

Properties with lead levels more than 400 mg/kg:	688
Properties with lead levels 400 to 1199 mg/kg:	532
Properties with lead levels greater than 1200 mg/kg:	156
Wells where drinking water exceeded removal action levels:	138

EPA continues to sample additional properties within the current boundaries of the Site. Additional time-critical removals are expected to be found, and more residences will require bottled water to be provided. Excavation of the contaminated soil will continue, and the additional funding will allow for the excavations to proceed and the additional bottled water to be provided.

Without additional funding, excavation of contaminated soil cannot proceed and bottled water will cease to be furnished to residents. In addition, further sampling of potentially contaminated yards and wells will not continue. Residents in the Potosi area will continue to be exposed to high lead concentrations that could lead to the adverse health effects described in the previous Action Memorandums.

#### 2. Physical Location and Site Characteristics

See previously approved Action Memorandum.

#### 3. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant, or Contaminant

See previously approved Action Memorandum.

#### 4. National Priorities List Status

See previously approved Action Memorandum.

#### 5. Maps, Pictures, and Other Graphic Representations

B. Other Actions to Date

Since the previous ceiling increase, EPA has sampled the soil and/or drinking water at over 259 homes. Excavation and backfilling of 49 properties has been completed. Furnishing of bottled water to residences where lead in the drinking water exceeds the 15 micrograms per liter ( $\mu\text{g/l}$ ) limit continues, with 120 homes receiving bottled water thus far.

C. State and Local Authorities' Roles

See previously approved Action Memorandum.

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

See previously approved Action Memorandum.

IV. ENDANGERMENT DETERMINATION

The actual release of a hazardous substance at this Site, if not addressed by implementing the response action selected in this Amendment, presents an imminent and substantial endangerment to the health of the public that comes in contact with the Site and to public welfare and the environment.

V. EXEMPTION FROM STATUTORY LIMITS

Site conditions continue to meet the emergency exemption criteria specified in the original 12-month and \$2 million exemption/ceiling increase Action Memorandum.

VI. PROPOSED ACTIONS AND ESTIMATED COST

A. Proposed Actions

1. Proposed Action Description

Following are the actions for which the increase in the ceiling will be used. Without the proposed increase, these actions cannot continue:

PROVISION OF ALTERNATIVE DRINKING WATER

Any residence where the drinking water exceeds 15  $\mu\text{g/l}$  for lead and 5  $\mu\text{g/l}$  for cadmium will be provided an alternative source of drinking water if, through sampling and analysis, EPA suspects contaminated water was the result of mining activity.

## SOIL/WASTE EXCAVATION, REMOVAL, AND REPLACEMENT

EPA will excavate and remove all soils and/or wastes from properties where a composite sample exceeds a concentration of 400 mg/kg lead and the area is a high-use area for children 72 months of age or younger with an EBL greater than 10 micrograms per deciliter (µg/dl).

The EPA will excavate and remove all soils and/or wastes from properties where a composite sample exceeds a concentration of 1,200 mg/kg lead. In order to avoid unnecessary mobilization and demobilization and being intrusive to the residents, EPA will excavate all soils exceeding 400 mg/kg in yards where at least one quadrant, cell, or zone exceeds 1,200 mg/kg.

The excavation will be conducted with excavating machinery such as skid loaders, dozers, excavators, backhoes, and hand tools. Excavation will be conducted in lifts until the soil concentrations fall below 400 mg/kg at less than 12 inches or below 1,200 mg/kg at 12 inches or greater. The EPA may choose to place a warning barrier to alert homeowners of the existence of high levels of lead if soils at a depth of 24 inches exceed 1,200 mg/kg and it appears unlikely that the levels will reduce without significant excavation of material.

After removing the soils from the affected area or areas and placing the warning barriers where required, the excavated soils will be replaced with clean soils. Clean soils are soils that have been analyzed for lead and results indicate that the lead concentration is below 240 mg/kg and all other hazardous substances, pollutants, or contaminants are below residential soil screening levels determined by the EPA or by referring to the Region 9 Preliminary Remediation Goal tables found at <http://www.epa.gov/Region9/waste/sfund/prg/index.htm>.

## SOIL TREATMENT AND DISPOSAL

EPA shall sample soils for conducting the Toxicity Characteristic Leaching Procedure (TCLP) according to the requirements of SW-846-Chapter 9 (representative sampling for waste piles). Soils that exceed the TCLP limits for lead must be properly treated with an appropriate lead-stabilization chemical and resampled until the levels are below the TCLP limits for lead. Treatment of soils will not be conducted at the residence.

Transportation, treatment, storage, and disposal of the excavated material shall be in accordance with all applicable local, state, or federal requirements.

## POST REMOVAL SITE CONTROL

It is EPA policy that Post Removal Site Control (PRSC) shall be the responsibility of the State, the Potentially Responsible Party, or the remedial program. At this time it is uncertain what, if any, PRSC will be needed. When that determination is made, the On-Scene Coordinator, working through regional management, will attempt to obtain PRSC agreements, as appropriate.

2. Contribution to Remedial Performance

The removal actions proposed in this Amendment should not impede any future remedial plans or other response. This is consistent with any long-term remedy in that it fully addresses the direct-contact threat posed by lead contamination at this Site.

3. Action/Cleanup Level

Yards with soils contaminated with lead above 1,200 mg/kg will be excavated, treated if TCLP analysis fails, and disposed of at an acceptable soil repository. Another suitable option is to dispose of excavated soils that meet the definition of a hazardous waste in a Resource Conservation and Recovery Act (RCRA) Subtitle C disposal facility. These levels are consistent with the revised interim guidance for lead-contaminated Superfund sites, Office of Solid Waste and Emergency Response (OSWER) Directive 9355.4-12.

All site-sampling activities for comparison to the action levels will be conducted in accordance with the approved Quality Assurance Project Plan.

4. Applicable Relevant and Appropriate Requirements (ARARs)

Section 300.415(j) of the NCP provides that fund-financed removal actions under section 104 of and removal actions pursuant to CERCLA section 106 shall, to the extent practicable considering the exigencies of the situation, attain ARARs under federal environmental or state environmental facility siting laws. The following specific ARARs have been identified for this action:

- Subtitle D of RCRA, section 1008, section 4001, et seq.; 42 U.S.C. § 6941, et seq.; State or Regional Solid Waste Plans; and implementing federal and state regulations.
- Occupational Safety and Health Act, 29 CFR part 1910, will be applicable to all actions.
- Subtitle C of RCRA, 42 U.S.C. section 6901, et seq.; 40 CFR Part 260, et seq.; and implementing federal and state regulations for contaminated soils that exhibit the characteristic of toxicity and are considered RCRA hazardous waste.

Subtitle C of RCRA is potentially applicable for the removal of soils contaminated with heavy metals from spills of lead concentrate, particularly if these soils exceed the TCLP regulatory threshold. However, soils contaminated with heavy metals from extraction, beneficiation, or processing of ores are exempt from the requirements of RCRA Subtitle C pursuant to the Bevill amendment; section 3001(b)(3)(A) of RCRA, 42

U.S.C. section 6921(b)(3)(A); and implementing regulations, 40 CFR section 261.4(b)(7).

- 40 CFR Part 122, section 122.26, National Pollution Discharge Elimination System storm water discharge regulations may be relevant and appropriate for management of storm water runoff from the repository.
- 49 CFR Parts 107 and 171-177, the Department of Transportation's hazardous material transportation regulations may be relevant and appropriate for transportation of the contaminated soils to the repository.

In a letter dated November 30, 2005, EPA requested potential state ARARs. In a letter dated December 15, 2005, EPA received ARARs from the state of Missouri. These ARARs will be evaluated per EPA guidance on consideration of ARARs during removal actions.

Any lead-bearing wastes exceeding the TCLP regulatory threshold will undergo treatment in accordance with the requirements of the RCRA.

#### 5. Project Schedule

Soil excavation activities are expected to continue through the construction season. It is expected that this removal action will take several months to complete.

#### B. Estimated Costs

The costs associated with this removal action are estimated as follows:

##### Extramural Costs:

	<u>Current Ceiling</u>	<u>Proposed Increase</u>	<u>Proposed Ceiling</u>
Removal Costs	\$2,933,944	\$2,034,375	\$4,968,319
Contingency	<u>\$ 497,629</u>	<u>\$ 406,875</u>	<u>\$ 904,504</u>
Total Removal Project Ceiling	\$3,431,573	\$2,441,250	\$5,872,823

**The EPA direct and indirect costs, although cost recoverable, do not count toward the total removal project ceiling for this removal action.**

Intramural Costs:

EPA Direct	\$ 160,000	\$ 160,000	\$ 320,000
EPA Indirect (52.39% of all costs)	<u>\$ 1,820,568*</u>	<u>\$ 1,362,795</u>	<u>\$3,244,420</u>
	\$ 1,980,568	\$ 1,522,795	\$3,564.420

**\*Previous indirect rate of 50.69% was used on Amendment #2.**

**The EPA direct and indirect costs, although cost recoverable, do not count toward the total removal project ceiling for this removal action.**

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

See previously approved Action Memorandum.

VIII. OUTSTANDING POLICY ISSUES

See previously approved Action Memorandum.

IX. ENFORCEMENT

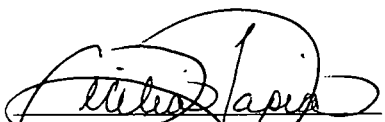
See previously approved Action Memorandum.

X. RECOMMENDATION

This decision document represents an increase in the project ceiling for the contaminated soils and drinking water 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 continue to meet NCP section 300.415(b) criteria for a removal action and the CERCLA section 104(c) emergency exemption, and I recommend your approval of the \$2,441,250 ceiling increase to allow the removal response to continue. The total project ceiling, if approved, will be \$5,872,823.

Approved:

  
Cecilia Tapia, Director  
Superfund Division

6/25/07  
Date