

**U.S. ENVIRONMENTAL PROTECTION AGENCY
\$250,000 EMERGENCY ACTION MEMORANDUM**

Date: June 29, 2010

Subject: Action Memorandum for a Removal Action at the
Butler Road Mercury Spill Site pursuant to the
On-Scene Coordinator's delegated authority under
CERCLA Section 104

From: Art Smith, On-Scene Coordinator
Emergency Response and Removal Branch

Thru: Matt Taylor, Chief
Emergency Response Section

To: Site File
Chris Masterson, REOC

I. Purpose

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the Butler Road Mercury Spill Site located at 3915 Butler Road and 4134 Madisonville Road in Hopkinsville, Christian County, Kentucky, pursuant to the On-Scene Coordinator's (OSC) delegated authority under CERCLA Section 104. The OSC's delegated authority may be found at Environmental Protection Agency (EPA) Region 4 "Delegation 14-2. Response, authority to obligate CERCLA funding in the amount of \$250,000 to initiate Removal Actions where site conditions constitute an emergency has been delegated to the On-Scene Coordinator (OSC)."

II. Site Information

A. Site Description

Site Name: Butler Road Mercury Spill
Superfund Site ID (SSID): B4A6 **NRC Case No:** 945234
CERCLIS No: KYN000410565
Site Location: Hopkinsville, KY
Lat/Long: +36 52 42.7 /-87 26 4.6 **NPL Status:** Non-NPL
Removal Start Date: 06/24/10

B. Site Background

1. Removal Site Evaluation

Telephone Duty Officer Karen Buerki received a call from the Kentucky Department for Environmental Protection (KDEP) on 06/23/10, reporting the discovery of a mercury spill and subsequent contaminant migration from a farm at 3915 Butler Road in Hopkinsville, Christian County, Kentucky (NRC No. 945234).

KDEP first responded to the situation on 06/22 after receiving a complaint from a private citizen living at the Butler Road location. Apparently, up to 15 pounds of elemental mercury had been stored in plastic squeeze bottle inside of a barn for an undetermined period. When the owner passed away, a person hired to clean out the barn accidentally spilled the mercury onto the lawn outside of the north entrance to the barn. KDEP subsequently contacted the person responsible for the spill. This individual at 4134 Madisonville Road, north of Hopkinsville and approximately 9 miles away from the Butler Road location. Initial assessment by KDEP of the indoor air space for the residence at the Madisonville Road location showed mercury vapor concentrations up to 15,000 ng/m³, which exceeds EPA's action level of 1,000 ng/m³. Based on the expanding nature of the incident, and at KDEP's request, OSC Smith and START contractor Tetra Tech EMI were dispatched on 06/24 to further evaluate the incident. In addition, CMC, Inc., a Region 4 ERRS contractor was already on-scene at the request of KDEP, and EPA took over the contractual responsibility for CMC on 06/24.

2. Physical Location and Site Characteristics

The Site consists of contaminated soil outside of the barn at the Butler Road location and mercury contamination at a residence along Madisonville Road. Coordinates for the two locations are as follows:

The site of the original spill location is from a barn at 3915 Butler Road, east of Hopkinsville at
N 36.878716
W 87.434716.

The site of the residence where the mercury was tracked to is at 4134 Madisonville Road, north of Hopkinsville at
N 36.925466
W 87.489216

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

Mercury is a listed CERCLA hazardous substance. The readings obtained by the Lumex mercury vapor analyzer operated by KDEP document the release of mercury into the environment at the site.

III. Threats to Public Health, Welfare, or the Environment

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

Elemental mercury was spilled into the environment at the Butler Road location and tracked into a home at the Madisonville Road location.

B. Check applicable factors (from 40 CFR 300.415) which were considered in determining the appropriateness of a removal action:

- ☒ Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances or pollutants or contaminants [300.415(b)(2)(i)].
- ☐ Actual or potential contamination of drinking water supplies or sensitive ecosystems [300.415(b)(2)(ii)].
- ☐ Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].
- ☒ High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate [300.415(b)(2)(iv)].
- ☒ Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.415(b)(2)(v)].
- ☐ Threat of fire or explosion [300.415(b)(2)(vi)].
- ☒ The availability of other appropriate federal or state response mechanisms to respond to the release [300.415(b)(2)(vii)].
- ☐ Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

IV. Selected Removal Action and Estimated Costs

A. Situation and Removal Activities to Date

1. Current Situation

Approximately 20 tons of mercury-contaminated soil has been

excavated from the north entrance to the barn at 3915 Butler Road. The soils are staged in a rolloff box, pending receipt of analytical results to confirm that cleanup goals of 23 mg/kg for total mercury in excavated areas has been attained. The Christian County Health Department (CCHD) has issued an Order to Vacate the premises at 4134 Madisonville Road due to confirmed mercury contamination. The Order will remain in effect until such time as EPA can document that the indoor air concentrations remain below 1,000 ng/m³.

2. Removal Activities to Date

a. Federal Government/Private Party

Based upon the amount and location of the elemental mercury, EPA and START and ERRS contractors have been activated to stabilize conditions at the Site.

b. State/Local

KDEP requested EPA's assistance with the Site. CCHD has arranged for medical surveillance of the family at 4134 Madisonville Road to evaluate for mercury exposure.

3. Enforcement¹

The PRPs are the property owners at 3915 Butler Road and 4134 Madisonville Road. They cannot perform the proposed response promptly. There have been no enforcement actions initiated by EPA or the State.

B. Planned Removal Actions

1. Proposed Action Description

The specific tasks involved in the proposed response to the threats include:

i. Preparation of a Health and Safety Plan

¹ Enforcement strategy is not part of the Action Memo for purposes of NCP consistency.

- ii. Assessment of the levels of mercury vapor in the apartment.
- iii. Segregation of highly contaminated items for disposal.
- iv. Recovery of spilled elemental mercury.
- v. Heating, treating, and ventilation of contaminated items and surfaces, as necessary.
- vi. Completing an inventory items for disposal and providing reimbursement and relocation expenses, as necessary.
- vii. Providing analytical for disposal profiling.
- viii. Providing off-site disposal, treatment, or recycling of elemental mercury and mercury contaminated material, as necessary.
- ix. Performing demolition, as necessary, to remove free mercury and providing for restoration of the associated damage, as necessary.

Any off-site disposal will be in compliance with the CERCLA off-site disposal policy. The rationale for choosing the response action(s), and the technical feasibility and probable effectiveness of the proposed action(s) will be based on the "Draft US EPA Region 4 Emergency Response OSC Mercury Field Operations Guide" dated January 2008. Decisions regarding the extent to which cleanup is adjudged to be complete will be predicated on field and analytical data for the decision collected in response to this incident.

2. Contribution to Remedial Performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the site.

3. ARARs

Federal and State ARARs were not identified or considered prior to removal initiation due to emergency circumstances. At a minimum, the RCRA Land Disposal Restrictions at 40 CFR 268 are an ARAR for this site, and will be attained to the extent practicable.

4. Project Schedule

The removal action is anticipated to be completed within two months of the Start Date listed in Section II of this document.

C. Estimated Costs³

Extramural Costs:

	<u>Ceiling</u>	<u>Costs to Date</u>
ERRS - CMC.....	\$160,000	\$,
START - Tetra Tech EMI.....	\$50,000	\$,
Extramural Contingency (15-20%).....	\$40,000	\$,
TOTAL, Extramural Costs.....	\$250,000	\$,
TOTAL REMOVAL PROJECT CEILING.....	\$250,000	\$,

V. Expected Change in the Situation Should Action be Delayed or Not Taken

A delay in action or no action at this Site would increase the actual or potential threats to the public and the environment. Residents are prohibited from occupying the premises at 4134 Madisonville Road until such time as EPA can remove mercury to acceptable levels. Failure to remove mercury-contaminated items at this location will result in tracking of the elemental mercury to other residences, vehicles, and other public and private buildings.

VI. Outstanding Policy Issues

None

VII. Approval

³ Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on 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 pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of 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 cost recovery.

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the site.

Conditions at the site meet the NCP section 300.415(b) criteria for a removal and through this document I am approving the proposed removal actions. The total project ceiling is \$250,000, of which, an estimated \$160,000 of which may be funded from the Regional removal advice of allowance.

Art Smith, OSC
U.S. EPA, Region 4

Date