



## REGION 8

DENVER, CO 80202

### **ACTION MEMORANDUM**

**SUBJECT:** Action Memorandum for a Removal Action at the West Valley Utah Mercury Spill Site pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104.

**FROM:** Eric Sandusky, OSC  
Oil Section

**THRU:** Steven Merritt, Supervisor  
Oil Removal Section  
  
Deirdre Rothery, Manager  
Emergency Management Branch

**TO:** Aaron Urdiales, Director  
Superfund and Emergency Management Division

#### **I. Purpose**

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the West Valley Utah Mercury Release Site located in West Valley City, Salt Lake County, Utah, pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104. This emergency response involved the collection of liquid mercury and off-site disposal of mercury-contaminated waste. Conditions existing at the Site presented a threat to public health or welfare or the environment and met the criteria for initiating a removal action under 40 CFR 300.415(b)(2) of the National Contingency Plan (NCP).

## **II. Site Information**

### **A. Site Description**

Site Name: West Valley Utah Mercury Spill

Site Spill ID (SSID): B8L8

NRC Case Number: 1411489

CERCLIS Number: UTN000826460

Site Location: 3600 W and W 3965 S, West Valley City, Utah 84119

Lat/Long: 40.684326, -111.979473

Potentially Responsible Party (PRP):

NPL Status: Non-NPL

Removal Start Date: September 22, 2024

### **B. Site Background**

#### **1. Site Evaluation**

On September 21, 2024, EPA received a report of spilled mercury in a residential home in West Valley City, Utah. The homeowner contacted the Utah Department of Environmental Quality and the Salt Lake City Health Department, which in turn contacted the Environmental Protection Agency (EPA) for assistance. A Federal On-Scene Coordinator and additional contractor assets mobilized to the Site on September 21, 2024.

Air monitoring readings from the breathing zone in the home during the initial entry showed an approximate average of 5,000 ng/m<sup>3</sup>, which is above the removal action level for normal use and unrestricted habitation (1,000 ng/m<sup>3</sup>). The homeowner identified the spill locations and the events that led up to the vial of mercury being spilled. The cat spread mercury around the house and into the beds/cribs of the children. The homeowner also attempted to clean-up the mercury by doing laundry.

#### **2. Physical location and Site characteristics**

The Site is located near 3600 West and W 3965 South, West Valley City, Utah 84119 in Salt Lake County. The Site is an approximate 0.25-acre residential property with a single-family home, as well as the local household hazardous waste (HHW) landfill where the waste is awaiting a profile for disposal. There are several residential homes adjacent to the Site.

The roads and general topography in the area is flat. The home is along the western side of the Wasatch mountains, approximately five miles south of Salt Lake City. According to the 2022 census, the City of West Valley City has a population of approximately 137,000 over an area of 35.88 square miles. The median individual income is approximately \$34,638.

According to EPA's Environmental Justice (EJ) Screening and Mapping Tool, the data indicates potential areas of EJ concern at or near the Site.

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

Mercury is the main contaminant of concern at the Site and is listed as a hazardous substance as defined by section 101(14) of CERCLA.

Mercury is the only metal that is liquid at room temperature. In its pure form (often called metallic or elemental), mercury is a shiny, silver-white, odorless liquid. At room temperature, mercury vaporizes into a toxic, colorless, odorless gas.<sup>1</sup> In its vapor form, mercury is easily inhaled and extremely toxic. For liquid mercury, the most important route of absorption is through inhalation. Because of the chemical nature of mercury vapor, deposition and retention in the lungs are quite high (on the order of 80 percent in humans).<sup>2</sup>

When spilled or tracked into a small or poorly ventilated room, mercury can pose significant health threats. Very small amounts of mercury released into an enclosed space (such as a workshop) can raise air concentrations to harmful levels. Metallic mercury is extremely difficult to remove from shoes, clothes, furniture, carpet, and other porous items. It is easily tracked and transferred. If these items are not properly disposed or cleaned, the mercury can linger for months or years and continue to pose a health threat.<sup>3</sup>

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<sup>1</sup> United States of America, Agency for Toxic Substances and Disease Registry, Division of Toxicology and Environmental Medicine Prevention, Response and Medical Support Branch Emergency Response Team. (2012, March 22). Action Levels for Elemental Mercury Spills.

<sup>2</sup> Arch Environ Health, 1976 Nov-Dec; 31(6):302-9. Clearance of mercury (HG- 197, HG-203) vapor inhaled by human subjects.

<sup>3</sup> <https://www.epa.gov/mercury/health-effects-exposures-mercury>

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

Due to the potential mercury spillage, lack of proper storage and the extreme mobility and persistency of liquid mercury, this Site posed a substantial threat of a release of mercury into the environment. In addition, air monitoring readings from the breathing zone in the home during the EPA's initial entry showed an approximate average of 5,000 ng/m<sup>3</sup>, above the removal action level for normal use and unrestricted habitation (1,000 ng/m<sup>3</sup>).

**Check applicable factors (from 40 CFR 300.415) which were considered in determining the appropriateness of a removal action:** EPA has considered all the factors described in 40 CFR 300.415(b)(2) of the NCP and determined that the following factors apply at the Site.

- ☒ 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)].

### III. Selected Removal Action and Estimated Costs

#### A. Situation and Removal Activities to Date

##### 1. Current Situation.

EPA's Removal Program initiated an emergency response, pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104 on September 22, 2024. An EPA response team arrived at the Site

on September 22, 2024. Field activities were completed on September 27, 2024, with off-site disposal pending.

2. Removal activities to date:

a) Federal Government/Private Party

On September 22, 2024, the EPA team, including EPA's Emergency and Rapid Response Services (ERRS) and Superfund Technical Assessment and Response Team (START) contractors assessed the release in the residence. It was discovered the cat had spread mercury throughout the house and into the children's beds and cribs. In an attempt to clean up the mercury, the homeowner inadvertently further spread mercury through the house and laundry machine. Mercury vapor concentrations inside the home were above EPA's reference levels.

Based on the site evaluation, the EPA team immediately initiated a removal action. EPA's ERRS contractors removed potentially contaminated items from the residence for screening. EPA's START contractors screened the items for mercury contamination using Jerome and Lumex mercury vapor monitors. Throughout the response, the mercury levels were documented. Items with vapor levels above applicable screening levels were set aside for disposal after consultation with the homeowner. A detailed inventory was made to document the heavily contaminated items that were recommended for disposal by the EPA. After permission was obtained from the homeowner, contaminated items were placed in a waste roll-off box in the driveway. In addition to the household items, mercury-contaminated carpet in the basement and children's bedrooms was removed for disposal.

Each day the residence was left open to vent and allow airflow. At night the home was closed and heated to approximately 84 degrees via thermostat to volatilize the mercury.

START contractors also screened the cat for mercury-contamination. Based on the screening-levels, ERRS contractors decontaminated the cat with Selsun Blue shampoo and monitored the cat's mercury levels throughout the response. After cleaning and vacuuming with a specialized mercury vacuum, the breathing zone readings dropped to approximately 500-800 ng/m<sup>3</sup> via an 8-hour test. Approximately 0.1 pound of mercury was collected during the response.

At the time of this Action Memorandum, the EPA Response team has cleared the home of mercury contamination as well as removed liquid mercury from the residence and transported it to the HHW landfill where it awaits final disposal.

b) State/Local

The Salt Lake County Health Department initiated the call to EPA and was on-Site during the response efforts.

3. Enforcement

Where the responsible parties are known, an effort initially shall be made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

**B. Planned Removal Actions**

1. Planned action description

The EPA removal team is currently coordinating final disposal of recovered mercury and the mercury-contaminated household materials. All other Site operations have been completed.

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, though none are expected or necessary at this time.

3. Applicable or Relevant and Appropriate Requirements (ARARs)

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the OSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted. No ARARs were identified due to the urgency of the situation and the scope of the removal action to be conducted.

4. Project Schedule

Final disposal of the recovered mercury is anticipated to occur by December 31, 2024.

**C. Estimated Costs\***

Contractor costs (ERRS/START staff, travel, equipment)	<b>\$100,000</b>
Other Extramural Costs (Strike Team, other Fed Agencies)	<b>\$0</b>
Contingency costs (20% of subtotal)	<b>\$20,000</b>
<b>Total Removal Project Ceiling</b>	<b>\$120,000</b>

\*EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA. "

**IV. Expected Change in the Situation Should Action Be Delayed or Not Taken**

A delay in action or no action at this Site would have increased the actual or potential threats to the public health and/or the environment.

**V. Outstanding Policy Issues**

None

**VI. Approvals**

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

Conditions at the site met the NCP section 300.415(b) criteria for a removal action and through this document, I am approving the proposed removal actions. The total project ceiling is **\$120,000**, this amount will be funded from the Regional removal allowance.

**ERIC SANDUSKY**

Digitally signed by ERIC  
SANDUSKY  
Date: 2024.12.06 09:18:00 -07'00'

Eric Sandusky,  
Federal On-Scene Coordinator

Date

**Attachments:**

1. Utah DEQ Spill Report



195 North 1950 West Salt Lake City, Utah 84116  
Bus. Hours: 801-536-4100  
Report Spills 24/7/365: (801) 536-4123

## ENVIRONMENTAL INCIDENT REPORT - WEST VALLEY CITY - SMALL MERCURY VIAL SPILL IN HOME

Report Taken By: Robin Keeler

Date/Time Reported: 9/20/2024, 6:15 PM

### REPORTING PARTY DATES AND TIMES

Reporting Party:		Title:	Citizen
Company:		Phone:	
Date & Time Discovered:	9/20/2024, 5:30 PM	Email:	
Lead Agency:	DERR	Agency Contact:	

### RESPONSIBLE PARTY

Name:		Phone:	
Email:			
Address:		Company:	N/A

### INCIDENT LOCATION

Incident Address:			
Nearest Town:		County:	
Highway:		Mile Marker:	
UTM:	417238, 4504195	Land Owner:	Private
Longitude, Latitude:	-111.9794085000039, 40.68449100000048		

### INCIDENT SUMMARY

Caller reported a friend of the family brought over a small glass vial of mercury for a science experiment and left it on the shelf in the living room. The caller's five-year-old son climbed up on the shelf, opened the vial, and dumped it out on the living room wood floor and dining area tile floor. The amount of mercury dumped is unknown, but it's approximately the same amount that would be in a thermometer. The caller was not sure of the exact time the spill occurred, but it was sometime today in the afternoon and he was not home at the time.

The caller scooped up the visible mercury with cards and triple bagged it, using a lawn/leaf bag for the outermost bag, and placed the bag outside in the driveway. The caller opened the windows of the home for ventilation and called Poison Control around 6 pm. Poison Control advised him to report the spill to the DEQ spills hotline and to get the kids outside. The caller, his wife, their five-year-old son, their one-year-old, and their three other kids (elementary school-aged) were all in the house at the time of the incident. One cat and one bird also reside in the home. The caller stated no one is currently experiencing any symptoms.

Tom Daniels with the DEQ Division of Environmental Response and Remediation was notified, as well as the Salt Lake County Health Department, and they will make a site visit tomorrow morning to screen the home with a Lumex mercury vapor analyzer.

### CHEMICALS REPORTED

Material/Chem	Chem (Other)	Amount	Amount Type	Amount Type (Other)
Mercury		Unknown	N/A - Unknown	

### IMPACTED MEDIA

Media	Impacted Media	Media (Other)	Land Use	Waterway Name	Near Water	NRC Rpt. #
IM-15829	Indoor Air		Residential		N/A	

### NOTIFICATIONS MADE

Agency	Agency (Other)	Contact	Phone	Date/Time	By	Have First Responders Been Notified?
Salt Lake County HD		Jose Caerron		9/20/2024, 6:45 PM	Robin Keeler	
DERR		Thomas Daniels		9/20/2024, 6:37 PM	Robin Keeler	

### ACTIONS TAKEN

Date	Agency	Agency Contact	Action	Action Details
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Incident notification reports are prepared by DEQ staff using information provided by the reporting party. The information is considered preliminary and is subject to revision. The reported incident and associated details may or may not be valid.