

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Mercury- Emerald Meadow Drive RV 002 - Removal Polrep
Initial and Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VII

Subject: POLREP #1
Mercury- Emerald Meadow Drive RV 002
B7R1
Arnolds Park, IA
Latitude: 43.3613489 Longitude: -95.1345652

To: Heath Smith, Region 7 SEMD

From: Eric Nold, OSC

Date: 10/18/2024

Reporting Period: October 7th, 2024 - October 10th, 2024

1. Introduction

1.1 Background

Site Number:	B7R1	Contract Number:	
D.O. Number:		Action Memo Date:	10/8/2024
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	PRP	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	10/7/2024	Start Date:	10/7/2024
Demob Date:	10/10/2024	Completion Date:	10/10/2024
CERCLIS ID:	IAN000741151	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

PRP lead Emergency Response for residential mercury release. An EPA removal assessment was conducted from September 25-27, 2024. An EPA Fund-Lead Removal Action was started on October 3, 2024 and was completed on October 11, 2024. Concurrently, a PRP lead removal was started on October 7, 2024 and completed on October 10, 2024.

1.1.2 Site Description

On September 20th, the Iowa Department of Natural resources (IDNR) made an informational call to the U.S. Environmental Protection Agency Region 7 spill line regarding a residential mercury spill in Arnolds Park, Iowa. On September 24th, An EPA OSC mobilized to assess the residence and determined a risk to human health. On October 3, the EPA received an RFA from IDNR to conduct a removal action. An Emergency Response Action Memorandum was signed on October 8, 2024.

1.1.2.1 Location

The mercury release impacted a residential unit (b) (6), (b) (6). Due to potential for tracking and migration, two other residences, the vehicles and equipment of a remodeling company stored at a third location, were assessed for potential mercury spread.

1.1.2.2 Description of Threat

On-Scene Coordinators(OSC) arrived at the residence on September 25th to confirm presence of mercury. Real time air monitoring readings with a mercury vapor analyzer in the residence exceeded 50,000 ng/m³ and visible microbeads were observed in the basement of the residence.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

OSC investigation determined that the impacted residence, (b) (6), had recently been sold before the spill was discovered. The former owner had moved from the residence and the new owner was preparing to move in, and had hired contractors to remodel part of the home. The contractors located the mercury spill under carpet and on top of padding being removed from the basement. An interview with the former owner revealed mercury had been spilled from an antique clock the previous year which he cleaned up the best he could, and a possible second spill in 2002 of uncertain size may have occurred from a different clock when it was moved into the residence.

Using a Lumex to screen the (b) (6) residence found levels exceeding 10,000ng/m³ in the garage, and 14,000 ng/m³ in the entry way of the home. Levels beyond the entry way consistently exceeded the instrument's detection range of 50,000 ng/m³. Visible mercury microbeads were identified in the basement.

Screening the adjacent residence, (b) (6), found levels of 400 ng/m³ on the first floor, and 600 ng/m³ in the basement.

Screening of gear owned by the carpet contractors found detections on shoes and vehicle floor mats. One set of shoes was saturated and unsalvageable. Floor mats were removed from the vehicle that had elevated readings and the vehicle then screened below actionable levels. An OSC screened the belongings of the former owner at his new residence and no elevated mercury vapors were detected.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The initial assessment determined a mercury concentrations presented a significant health risk. Spread of the mercury contamination was initially limited, but the ongoing presence of elemental mercury could be spread by future activity in the residence. The flooring contractors who discovered the spill were sent in for mercury exposure testing by the remodeling company. The former residents of the home also went in for mercury exposure testing. The current owner of the residence with technical guidance from EPA OSCs hired a contracting team meeting qualifications to preform cleanup activities.

2.1.2 Response Actions to Date

October 7, 2024: OSCs met with the PRPs contractor team to tour the impacted residence to describe history of spills and explain layout.

October 8, 2024: PRP contractors initiated the mercury cleanup. The PRP contractors removed carpet and padding remaining in the basement and from the basement stairs of the residence, and lower drywall section along the most impacted wall. The Contractors used a mercury vacuum throughout the basement focusing on the major floor cracks in the area where mercury had previously been observed. Frequent screening was conducted to verify proper respiratory protection levels and to identify any potential source hot spots. The PRPs contractor conducted representative sampling of the roll-off box materials in the driveway to submit for TCLP analysis to determine appropriate disposal. A third OSC mobilized to the site with an additional MVA to assist with screening and clearance sampling.

Re-screening by OSCs of the neighboring middle unit home revealed screening values of 40 ng/m³ upstairs, and 50ng/m³ downstairs, significantly lower than the readings prior to initiating the engineered ventilation system.

October 9, 2024: PRP contractors continued cleanup efforts. The contractors cleaned the floors of the basement and kitchen with a sulfur-based mercury absorbent agent and removed remodeling floor covering (Ram Board) in areas of high foot traffic. OSCs screened indoor vapor levels between cleaning operations. OSCs disconnected engineered ventilation system and installed a blower fan in the basement for air circulation. PRP contractors then applied a contaminant barrier sealant to basement floor, concrete seams and wooden steps. Floor treatment was allowed to cure over night.

October 10, 2024: OSCs entered home with two calibrated lumexs for initial screening. Early morning screening of the upstairs detected vapor levels below 500 ng/m³, and basement vapor levels below 800 ng/m³. After initial screening, the air filtration units from the engineered ventilation system were decontaminated and physically removed from the house. The two lumexs were then set for clearance sampling.

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

The current owner of (b) (6) residence and the former owner are both identified as PRPs. The current owner made arrangements to hire a cleanup contractor competent to address the spill and the mercury cleanup was initiated on the morning of October 8, 2024. The PRP contracted cleanup progressed under EPA oversight until the cleanup was completed on October 10, 2024.

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
mercury impacted debris	carpet/padding/ tackboard	15 cubic yards	TBD	TBD	PRP
mercury contaminated debris	PPE, saturated carpet and drywall, previous cleanup equipment	3 cubic yards	TBD	TBD	PRP

2.2 Planning Section

2.2.1 Anticipated Activities

No further removal action is anticipated at this time.

2.2.1.1 Planned Response Activities

No further removal action is anticipated at this time.

2.2.1.2 Next Steps

Enforcement actions are being evaluated.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

No cost estimates have been received at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

4 - contracting personel

3 - EPA OSC

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.