

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Delhi Mercury Spill - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #3
Final
Delhi Mercury Spill

Ann Arbor, MI
Latitude: 42.2940870 Longitude: -83.8190560

To:

From: Elizabeth Nightingale, OSC

Date: 12/3/2014

Reporting Period: 9/26/14 - 11/25/14

1. Introduction

1.1 Background

Site Number:	C54E	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	9/22/2014	Start Date:	9/22/2014
Demob Date:	11/25/2014	Completion Date:	11/25/2014
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	MDCH
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

Single family residence in a suburban neighborhood.

1.1.2.1 Location

Ann Arbor, Michigan.

1.1.2.2 Description of Threat

On 9/22/14, MDCH filed an NRC Report (# 1096105), indicating that a furnace repair technician had identified a mercury spill from a switch on the furnace while completing a service call. The County Health Department screened the site with a Lumex, and reported ambient mercury levels of up to 50,000 (nanograms per cubic meter) ng/m³ near the furnace and 34,000 ng/m³ in the basement. After opening windows and ventilating the house, levels were generally reduced to less than 1,000 ng/m³. MDCH and the County Health Department requested EPA assistance to address the situation. Mercury is a characteristically hazardous waste under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901 et seq., as amended, and 40 CFR 261.24. Mercury exhibits the characteristic of toxicity (D009), and is therefore a hazardous substance under Section 101 (14) of CERCLA, 42 U.S.C. 9601(14).

The health effects of mercury are detailed by the ATSDR as follows:

The nervous system is very sensitive to all forms of mercury. Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus. Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems. Short-term exposure to high levels of metallic mercury vapors may cause effects including lung damage, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

EPA mobilized to the site at approximately 5:00 PM on 9/22/14 and met with the County Health Department representative, and later with the homeowner. The homeowner requested that we return the next morning to conduct monitoring and cleanup work. The homeowner planned to stay in the home overnight, with the windows open to maintain ventilation. EPA and START arrived on site at 8:00 AM on 9/23/14. The team closed windows and screened all rooms in the house with the Lumex. Mercury vapor concentrations were below the acceptable concentrations for most sensitive people (less than 1,000 ng/m³) in the breathing zone in all areas of the house except right near the furnace. Mercury vapors were roughly 2,000 ng/m³ there. Visible beads of mercury were present in the furnace. As these conditions presented an imminent and substantial endangerment to public health, welfare, or the environment, ERRS was mobilized and a removal action was initiated at the site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Please see prior POLREPs for actions completed in previous reporting periods.

2.1.2 Response Actions to Date

Actions over this reporting period:

9-26-14

START mobilized to the site to conduct mercury vapor survey and meet with multiple furnace installation contractors and receive formal quotes.

9-30-14

START mobilized to the site to conduct mercury vapor survey and performed mercury cleanup confirmation air sampling.

10-01-14

START delivered air samples to laboratory for analysis.

10-02-14

START mobilized to the site to conduct oversight of furnace installation.

Results from mercury cleanup confirmation air sampling were received. Both main floor and lower level samples that were collected were below the detection limit for mercury vapors. Results are included in the documents section of the OSC website.

10-07-14

ERRS subcontractor and City of Ann Arbor Building inspector mobilize to the site and conduct a mechanical inspection of the recently installed furnace. (Certificate of Compliance Issued.)

11-19-14

ERRS mobilized to the site to conduct transport and disposal of mercury contaminated waste.

11-25-14

ERRS mobilized to the site and to conduct transport and disposal of elemental mercury.

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

Investigation into potentially responsible parties is ongoing.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Mercury Contaminated Debris	Solid	Five 55 gal drums	012265142 JJK	No	Yes
Waste Elemental Mercury	Liquid	Four 16 oz glass	012265183 JJK	No	Yes

Regional Metrics

This is an Integrated River Assessment. The numbers should overlap.

Miles of river systems cleaned and/or restored 0

Cubic yards of contaminated sediments removed and/or capped 0

Gallons of oil/water recovered 0

Acres of soil/sediment cleaned up in floodplains and riverbanks 0

Stand Alone Assessment

Number of contaminated residential yards cleaned up 0

Number of workers on site 5

Contaminant(s) of Concern

mercury

Oil Response Tracking

Estimated volume

Initial amount released n/a

Final amount collected n/a

CANAPS Info

FPN Ceiling Amount n/a

FPN Number n/a

Body of Water affected n/a

Administrative and Logistical Factors (Place X where applicable)

Precedent-Setting HQ Consultations (e.g., fracking, asbestos) Community challenges or high involvement Radiological

More than one PRP Endangered Species Act / Essential Fish Habitat issues Explosives

AOC Historic preservation issues x Residential impacts

UAO NPL site Relocation

DOJ involved Remote location Drinking water impacted

Criminal Investigation Division involved	Extreme weather or abnormal field season	Environmental justice
Tribal consultation or coordination or other issues	Congressional involvement	High media interest
Statutory Exemption for \$2 Million	Statutory Exemption for 1 Year	Active fire present
x Hazmat Entry Conducted – Level A, B or C	Incident or Unified Command established	x Actual air release (not threatened)

2.2 Planning Section

2.2.1 Anticipated Activities

None. Removal Action has been completed

2.2.1.1 Planned Response Activities

Planned response actions were as follows:

- a) Assessing the site;
- b) Securing, staging characterizing spilled mercury and mercury contaminated waste;
- c) Consolidating and packaging all materials containing hazardous substances, pollutants and contaminants for transportation and off-site disposal; and
- d) Transporting and disposing of all characterized or identified hazardous substances, pollutants, wastes, or contaminants that pose a substantial threat of release at a Resource Conservation and Recovery Act/CERCLA-approved disposal facility in accordance with EPA's Off-site Rule (40 C.F.R. § 300.440).

These planned actions have been completed.

2.2.1.2 Next Steps

None. Removal Action has been completed

2.2.2 Issues

None

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

Washtenaw County
Michigan Department of Community Health

4. Personnel On Site

Personnel on site on 9/26/14:

EPA: 0
Washtenaw County: 0
START: 1
ERRS Subcontractors: 6

Personnel on site on 9/30/14:

EPA: 0
Washtenaw County: 0
START: 1
ERRS: 0

Personnel on site on 10/02/14:

EPA: 0
Washtenaw County: 0
START: 1
ERRS: 2

Personnel on site on 10/07/14:

EPA: 0
Washtenaw County: 0
START: 0
ERRS: 2

Personnel on site on 11/19/14:

EPA: 0
Washtenaw County: 0
START: 0
ERRS: 2

Personnel on site on 11/25/14:
EPA: 0
Washtenaw County: 0
START: 0
ERRS: 2

5. Definition of Terms

ATSDR	Agency for Toxic Substances and Disease Registry
BZ	Breathing Zone
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
DNR	Department of Natural Resources
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ERRS	Emergency and Rapid Response Service
MDCH	Michigan Department of Community Health
MDEQ	Michigan Department of Environmental Quality
NG/M ³	nanograms per cubic meter
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NOAA	National Oceanic and Atmospheric Administration
NPL	National Priorities List
NRC	National Response Center
OSC	On Scene Coordinator
PPE	Personal Protective Equipment
PPM	Parts per million
RCRIS	Resource Conservation and Recovery Act Information System
RP	Responsible Party
RRT	Regional Response Team
START	Superfund Technical Assessment and Response Team
US FWS	United States Fish and Wildlife Service
USCG	United States Coast Guard

6. Additional sources of information

6.1 Internet location of additional information/report

epaossc.net/delhi

6.2 Reporting Schedule

No further reporting is anticipated for this action.

7. Situational Reference Materials

No information available at this time.