

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Mertz Road Mercury Spill - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #2
Continuation of Removal Action
Mertz Road Mercury Spill
C549
Caro, MI
Latitude: 43.4490059 Longitude: -83.3854761

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From: Jon Gulch, On-Scene Coordinator

Date: 5/6/2011

Reporting Period: May 6-9, 2011

1. Introduction

1.1 Background

Site Number:	C549	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:	5/5/2011	Start Date:	5/5/2011
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

See POLREP #1 for a detailed Site Description.

1.1.2.1 Location

The residential property is located on Mertz road in Caro, Tuscola County, Michigan. The property is occupied by four adults living in the main living area and one person that occupies a lower level of the home (former garage area).

1.1.2.2 Description of Threat

Elemental Mercury present in a residential property and suspected of being tracked into the environment.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On May 5, 2011, TCHD used a Lumex to screen the inside of the home where the mercury was spilled. Readings inside the home ranged from 6,000-22,000ng/m3 in the breathing zone and up to 100,000 ng/m3 in the immediate vicinity of the mercury that was visible in the back of the house.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On May 6, 2011 at approximately 0600, EPA continued response activities at the residential property. Initial screenings of the main floor living area remained below 1,000 ng/m3, while mudroom readings through the plastic vapor barrier were above 34,000 ng/m3. EPA contractors then entered the mudroom and lower level bedroom, performing vacuum operations of free elemental mercury beads. Following vacuum operations, household belongings were bagged while utilizing a chemical compound to wipe down non-furniture items. Sealed bags were placed on a plastic barrier outside the residence to volatilize. START personnel photo documented bagged items, periodically screening the items to document mercury vapor concentrations.

At 1240, the mudroom, laundry room, and lower level bedrooms were screened. Breathing zone readings ranged from 4,600-8,100 ng/m3 while floor readings in the bedroom were greater than 20,000 ng/m3. EPA contractors continued to bag household items and perform a second round of vacuuming.

At approximately 1500, EPA and START personnel met with the TCHD and screened the individual who occupied the lower level bedroom at the time of the release, as well as their vehicle. Concentrations were below 1,000 ng/m3, comparable to ambient background readings.

At 2025, EPA and START performed a final screening and breathing zone levels in the mudroom were below 1,000 ng/m3. Concentrations at the lower level bedroom entry-way were 4,700 ng/m3 in the breathing zone and 33,000 ng/m3 along the floor. Based on the vapor readings, EPA instructed ERRS contractors to deploy two heaters within the bedroom in an attempt to aid the volatilizing process. Heaters were shut off over night.

On May 7, 2011, EPA screened the mudroom and lower level bedroom. Due to night time cooling, concentrations in the areas of concern had inverted. Floor readings were below 1,000 ng/m3 while breathing zone levels ranged from 15,000-40,000 ng/m3. Multiple heating and venting cycles were conducted while START re-screened and organized bagged items which were left to volatilize outside.

At 1445, the upper level of the house was screened a final time for potential clearance. All levels in the upper level of the residence remained below 1,000 ng/m3. EPA relayed obtained levels to the TCHD and at 1900, verbal permission was granted to have the home owner return to the upper level living quarters. The home owner informed the TCHD and START that they would not return to occupy the residence until May 8, 2011.

Following numerous heating and venting cycles, sustained concentrations above 10,000 ng/m3 were narrowed down to two east-west running cracks in the cement slab of the lower level bedroom. Another round of heating and venting was applied specifically to these areas, but did not lower the concentration. Due to elevated readings in this area, the cracks were sealed, allowed to dry and re-screened. Upon completion, all sustained readings throughout the lower level bedroom remained below 10,000 ng/m3 with breathing zone levels between 1,500-2,500 ng/m3. Because no visible mercury beads or highly elevated readings were obtained, the basement floor was sealed with a coat of epoxy sealant.

Items which had been bagged and remained below 1,000 ng/m3 were returned to the mudroom. Those between 1,000-9,999 ng/m3 remained sealed in bags outside for the home owner to continue airing out over the next 1-2 weeks. Bags which had concentrations about 10,000 ng/m3 were documented and disposed intop the roll-off dumpster for disposal.

On May 9, 2011, START and TCHD personnel revisited site to screen the lower level bedroom. The temperature of the room was 55 degrees Fahrenheit. Values obtained in the breathing zone had a maximum 150 ng/m3 while those along the floor ranged from 250-600 ng/m3. The highest concentrations were located along the east-west running sealed cracks. Due to the temperature of the bedroom, it was determined that the windows should be closed and TCHD would return to the residence on May 10, 2011 to re-screen the room with the temperature at or above 70 degrees Fahrenheit.

Disposal samples were taken off-site and will be submitted to the laboratory for analysis.

2.1.2 Response Actions to Date

Removal of elemental mercury beads.

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

NA

2.1.4 Progress Metrics

Cages containing a pet python and tarantula were screened prior to removal by owner. Concentrations were well below 1,000 ng/m3 and both animals were cleared to be removed.

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

- Restore residential property to livable condition.
- Perform disposal of Mercury and Mercury contaminated material and debris.

2.2.1.1 Planned Response Activities

Complete Removal Action

2.2.1.2 Next Steps

Complete Removal Action

2.2.2 Issues

None at this time.

2.3 Logistics Section

NA

2.4 Finance Section

2.4.1 Narrative

On May 5, 2011, the START was mobilized by the EPA Project Officer. A ceiling of \$15,000 was approved by Emergency Response Branch (ERB) management for the ERRS contractors. The ERRS contractor was mobilized by the On-Scene Coordinator.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$15,000.00	\$0.00	\$15,000.00	100.00%
TAT/START	\$10,000.00	\$0.00	\$10,000.00	100.00%
Intramural Costs				
USEPA - Direct	\$5,000.00	\$0.00	\$5,000.00	100.00%
Total Site Costs				
	\$30,000.00	\$0.00	\$30,000.00	100.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

NA

2.6 Liaison Officer

NA

2.7 Information Officer

2.7.1 Public Information Officer

To date, there has been no media interest in the Emergency Response.

2.7.2 Community Involvement Coordinator

NA

3. Participating Entities

3.1 Unified Command

EPA
Caro Fire Department
Tuscola County Sheriff Department
Tuscola County Health Department
Tuscola County Office of Emergency Management
Michigan Department of Community Health

3.2 Cooperating Agencies

EPA
Caro Fire Department

Tuscola County Sheriff Department
Tuscola County Health Department
Tuscola County Office of Emergency Management
Michigan Department of Community Health

4. Personnel On Site

EPA
START
ERRS

5. Definition of Terms

NA

6. Additional sources of information

6.1 Internet location of additional information/report

NA

6.2 Reporting Schedule

NA

7. Situational Reference Materials

NA

POLREP #2 Last Updated 5/13/2011