

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Putnam Avenue Mercury - Removal Polrep  
Initial and Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V

**Subject:** POLREP #1  
First and Final  
Putnam Avenue Mercury  
B5ZV  
Detroit, MI  
Latitude: 42.3471803 Longitude: -83.0983974

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**From:** Jeffrey Kimble, OSC

**Date:** 3/9/2011

**Reporting Period:**

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B5ZV	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>		<b>Start Date:</b>	12/16/2010
<b>Demob Date:</b>		<b>Completion Date:</b>	12/20/2010
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

Emergency

#### 1.1.2 Site Description

The site is a residential home in the city of Detroit, Michigan.

##### 1.1.2.1 Location

1603 Putnam Ave., Detroit, MI

##### 1.1.2.2 Description of Threat

Elemental mercury was found to have spilled in the home furnace, and was in free form as mercury beads.

##### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Elemental mercury vapor and beads were present in the home at unsafe levels.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

See below.

#### 2.1.2 Response Actions to Date

On December 16, 2010, EPA and its contractors and City of Detroit Health Department arrived on site around 1200

hours and began screening the home with the Lumex. The initial breathing zone reading when entering the home was 50 ng/m3 including the basement. Screening continued throughout the basement and near the area of the furnace.

The furnace area air readings ranged from 100 – 5,000 ng/m3 and there were visible beads of mercury inside the furnace area. There was no heat in the house, so it was anticipated that the levels of mercury vapor would have been much higher if the ambient air was warmer. The City of Detroit Health Department attempted to remove the beads of mercury but some of the areas were inaccessible.

Due to the elevated readings and visible mercury, the EPA Emergency and Rapid Removal Service (ERRS) contractor was mobilized to the Site. ERRS arrived on site and began setting up the mercury vacuum to remove the beads and debris within the furnace. After vacuuming, a solution of HgX (a mercury vapor suppressor) was used to wipe down the entire furnace. After the removal, the area was re-screened and readings in the breathing zone were 400 ng/m3 and the furnace ranged from 2,100 - 4,000 ng/m3. Based on the readings, it was determined that the windows and doors should be closed and two propane heaters were directed on the furnace.

After approximately one hour of heating and then subsequent venting of the air from the basement, the basement was re-screened breathing zone readings were around 400 ng/m3 and the furnace was approximately 2,000 ng/m3. The basement area was vented for another 15 minutes and breathing zone readings were around 150 ng/m3 and the furnace ranged from 350-750 ng/m3. At approximately 2000 hours, EPA and its contractors left the site.

On December 18, 2010, the furnace repairman notified EPA and its contractors that the small switch where the mercury spilled from was still in place and needed to be removed in order for the furnace to be fixed. ERRS headed back to the home and removed the switch. The furnace was then repaired and working properly.

On December 20, 2010, EPA contractors returned to the house to re-screen the affected areas. The furnace was on and the temperature inside the home was around 70 degrees Fahrenheit. The initial breathing zone reading was 150 ng/m3 directly inside the home. The impacted area readings ranged from 150-250 ng/m3.

No further work, based on the air monitoring results, is required.

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

The homeowner had no insurance coverage or other means to conduct the cleanup.

#### 2.1.4 Progress Metrics

<b><i>Waste Stream</i></b>	<b><i>Medium</i></b>	<b><i>Quantity</i></b>	<b><i>Manifest #</i></b>	<b><i>Treatment</i></b>	<b><i>Disposal</i></b>
elemental mercury	liquid	<1 oz	Bill of lading	recycled @ Bowling Green university	

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

No further actions.

#### 2.2.1.1 Planned Response Activities

No further activities.

#### 2.2.1.2 Next Steps

None, referred back to Health Department.

### 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

### 2.5.1 Safety Officer

### 2.6 Liaison Officer

### 2.7 Information Officer

**2.7.1 Public Information Officer**

N/A

**2.7.2 Community Involvement Coordinator**

N/A

**3. Participating Entities**

No information available at this time.

**4. Personnel On Site**

3 ERRS

1 START

1 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.