

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Margate Mercury Release - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IV

**Subject:** POLREP #5  
Clearance and Restoration  
Margate Mercury Release  
B4C2  
Margate, FL  
Latitude: 26.2351389 Longitude: -80.2305556

**To:** Alyssa Hughes,  
Matt Taylor, USEPA R4 ERRB

**From:** Alyssa Hughes, FOSC

**Date:** 9/28/2010

**Reporting Period:** 9/6/10 2000 - 9/9/10 2000

**1. Introduction**

**1.1 Background**

<b>Site Number:</b>	B4C2	<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>	9/1/2010	<b>Start Date:</b>	9/1/2010
<b>Demob Date:</b>		<b>Completion Date:</b>	
<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 Response

**1.1.2 Site Description**

The owner of a property located 3 2-ounce bottles of mercury in a closet in the garage. The mercury reportedly belonged to the previous owner. He opened one of the bottles and spilled the contents onto the driveway. Some neighborhood children walked by and saw the mercury and started to play with it. The owner gave the children one of the bottles. The material was then carried into 4 other houses. Two additional properties were impacted at outside locations only.

**1.1.2.1 Location**

The residential area is located on flat ground in Margate, Broward County, FL. Margate is located just north of Fort Lauderdale, FL, approximately 40 miles from Miami.

**1.1.2.2 Description of Threat**

The material known on site is elemental mercury which is a CERCLA hazardous substance. At approximately 70 degrees F it becomes a vapor which can travel through small openings to surrounding apartments and the environment. In its elemental form it may also be tracked on shoes and clothing.

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

FDEP Emergency Responder Steve Threet arrived on site on Tuesday, August 31 in order to perform an assessment of potentially impacted areas. FDEP responder reported his findings from the screening of 5 schools, 1 public library, 10 public vehicles, 9 houses and 5 school buses. The screenings in the schools, buses, and library were all well below EPA removal action levels (1,000 ng/m<sup>3</sup>). The values ranged from 0 to 87 ng/m<sup>3</sup>. Three of the residential properties exhibited levels of mercury vapor exceeding EPA's Removal Action Level, these residents were temporarily relocated with assistance from the Red Cross.

FDEP response personnel contacted EPA Region 4 Duty Officer to ask for assistance in conducting the clean-up operations at the three residential properties.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

On 8/28/2010, a resident of Margate, FL, provided bottles of elemental mercury to several neighborhood children to play with. The children reportedly "squirted" each other with the mercury and dropped much of it on the ground outside of the residence; at least one partially filled bottle was reportedly dropped into the nearby canal. Weekend rains washed much of the outdoor mercury off the source location property, but several beads remain visible across the driveway and lawn. Later, the parents of the children discovered what had happened and one or more were taken to the hospital for screening. The local PD and FD responded on 8/30/2010.

EPA TEL coordinated with FLDEP and local PD on 8/30/2010 (FD and Hazmat demobilized by late evening); local responders requested assistance from EPA, having no resources to conduct or oversee cleanup activities, however, FLDEP took the lead on 8/31/2010 and performed an assessment of the affected locations with a mercury vapor analyzer.

#### **2.1.2 Response Actions to Date**

**The following activities were conducted at each of the properties during the indicated time period.**

##### **9/6/10 2000 to 9/7/10 0700**

###### **7857 NW 3rd Place**

START attempted another clearance monitoring of the property overnight. The highest mercury vapor levels were detected in one of the children's bedroom and the children's bathroom, 1,500 and 3,800 ng/m<sup>3</sup> respectively. The bed will be removed from the bedroom and the drains in the bathroom will continue to be addressed.

###### **141 NW 78th Ave**

Clearance monitoring at the property was attempted, but values increased up to 2,900 ng/m<sup>3</sup> by the end of the 8 hour clearance monitoring. Additional remediation is necessary.

##### **9/7/10 0700 to 9/7/10 2000**

The carpet contractor visited the three properties to determine the scope of work. Materials were ordered and contractor expects to begin work on Thursday, September 9th.

###### **7871 NW 3rd Place - source**

ERRS crew completed the removal of the driveway. START screened the exposed dirt to determine if any elemental mercury was still present. Two areas with levels exceeding 40,000 ng/m<sup>3</sup> were excavated using the back hoe. The driveway was re-screened and graded in preparation for the concrete contractor.

###### **7857 NW 3rd Place**

The bed was removed from the childrens bedroom and the drains in the bathroom were treated again. The house was opened up for ventilation and air exchange until 1600 hrs, and then it was closed up and the air conditioner was turned on in preparation for overnight clearance.

###### **141 NW 78th Ave**

At the direction of the OSC, the remaining carpeting present in the master bedroom was removed. All personal belongings in each of the bedrooms was labeled and removed from the house. The items were then screened and segregated according to level of contamination. Any items exceeding 10,000 ng/m<sup>3</sup> were set aside for disposal. Remaining items were placed back inside the house.

##### **9/7/10 2000 to 9/8/10 0700**

###### **7857 NW 3rd Place**

Room averages of mercury vapor levels ranged from 500 ng/mg to 1,300 ng/m<sup>3</sup> in the bathroom. These levels meet the ATSDR requirements for clearance.

##### **9/8/10 0700 to 9/8/10 2000**

General housekeeping activities were conducted around the Site in preparation for demobilization. The

###### **7871 NW 3rd Place - source**

The concrete contractor began working on the installation of the driveway. City Of Margate building inspector was on site to ensure that the driveway was installed according to code regulations.

###### **7857 NW 3rd Place**

The property was re-occupied by the owners. The carpet installation will take place tomorrow.

###### **141 NW 78th Ave**

Clearance monitoring was performed beginning at 0700 hrs. The 8 hour room averages were approximate 600 ng/m3, well below residential clean up level. See final clearance spreadsheet in Documents Section. Remaining items were removed from the bedroom so that the carpet contractor can easily access these areas.

**9/9/10 0700 to 9/9/10 2000**

**7871 NW 3rd Place**

Concrete driveway was completed. ERRS crew placed topsoil in the areas around the driveway to complete restoration. Carpet contractor installed carpet in master bedroom and house was re-occupied by owner.

**7857 NW 3rd Place**

Carpet contractor installed carpet in master bedroom.

**141 NW 78th Ave**

The carpet contractor completed the carpet installation throughout the house. ERRS crew moved the furniture back into the rooms. The tile in the foyer will be replaced tomorrow morning.

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

The mercury was found by the home owner at 7871 NW 3rd. He reportedly found the mercury in a closet that was left on-site from the previous owner. He stated that he didn't understand the dangers of mercury and that's the why he let the children handle the material. The Margate Police Department and FDEP CID are conducting an independent investigation.

**2.1.4 Progress Metrics**

<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**

**2.2.1.1 Planned Response Activities**

START will complete full scan assessments of potentially impacted properties  
 Address gross contamination outside  
 Remove contaminated items exceeding 10,000 ng/m3 from within the homes  
 Employ mitigation techniques to reduce the level of mercury vapors within the homes  
 Provide clearance sampling of properties following sufficient mitigation

**2.2.1.2 Next Steps**

START:

- No further START activities are anticipated, contractor demobilized from the Site

ERRS:

- Ensure subcontractors complete work
- Continue housekeeping items
- Prepare for transportation and disposal of waste

**2.2.2 Issues**

**2.3 Logistics Section**

No information available at this time.

**2.4 Finance Section**

**2.4.1 Narrative**

An Emergency Action Memo will be signed in the amount of \$250,000.

**Estimated Costs \***

	<b>Budgeted</b>	<b>Total To Date</b>	<b>Remaining</b>	<b>% Remaining</b>

<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$190,000.00	\$0.00	\$190,000.00	100.00%
TAT/START	\$50,000.00	\$0.00	\$50,000.00	100.00%
<b>Intramural Costs</b>				
USEPA - Direct	\$10,000.00	\$0.00	\$10,000.00	100.00%
<b>Total Site Costs</b>	<b>\$250,000.00</b>	<b>\$0.00</b>	<b>\$250,000.00</b>	<b>100.00%</b>

\* 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**

ERRS and START contractors are responsible for their respective health and safety plans. Each contractor has a HASP and it has been reviewed by the OSC.

### **2.6 Liaison Officer**

Captain Jeff Gary with the City of Margate Fire Rescue is serving as the liaison officer.

Officer Tom McNally will serve as the City of Margate Police Department liaison.

### **2.7 Information Officer**

#### **2.7.1 Public Information Officer**

No PIO was provided for this response.

#### **2.7.2 Community Involvement Coordinator**

Two of the families are being provided with lodging assistance. CIC will be assisting with reimbursement of personal items from Regional office.

## **3. Participating Entities**

### **3.1 Unified Command**

EPA  
FDEP  
City of Margate Fire Rescue  
City of Margate Police Department

### **3.2 Cooperating Agencies**

Broward County School Board  
Broward County Health Department  
Florida Department of Health  
ATSDR

## **4. Personnel On Site**

EPA - 1  
FDEP - 1  
START - 3  
ERRS - 6

## **5. Definition of Terms**

No information available at this time.

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

N/A

### **6.2 Reporting Schedule**

Daily for previous day's operational period

## **7. Situational Reference Materials**

EPA Mercury Website - Spills, Disposal and Site Cleanup including the Mercury Response Guidebook  
[www.epa.gov/mercury/spills/index.htm](http://www.epa.gov/mercury/spills/index.htm)  
ATSDR - Metallic Mercury FAQs <http://www.atsdr.cdc.gov/mercmetal5.html>

<http://www.atsdr.cdc.gov/MercMetallic05.pdf>

NIOSH- Safety and Health Topic: Mercury

<http://www.cdc.gov/niosh/topics/mercury/>

OSHA – Mercury Vapors <http://www.osha.gov/SLTC/healthguidelines/mercuryvapor/index.html>

ACGIH - Threshold Limit Values (TLVs®) and Biological Exposure Indices (BEIs®)

<http://www.acgih.org/TLV/>

CDC- Elemental Mercury Releases Attributed to Antiques

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5623a2.htm?s\\_cid=mm5623a2\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5623a2.htm?s_cid=mm5623a2_e)

POLREP #5 Last Updated 9/30/2010