

**U.S. ENVIRONMENTAL PROTECTION AGENCY
\$250,000 EMERGENCY ACTION MEMORANDUM**

Date: September 1, 2010

Subject: Action Memorandum for a Removal Action at the Margate Mercury Spill Site pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104

From: Alyssa Hughes, On-Scene Coordinator
Emergency Response and Removal Branch

Thru: Matt Taylor, Chief
Emergency Response Section

To: Site File
Chris Masterson, REOC
Steve Threet, FDEP
Lisa Boynton, Regional Coordinator, EPA-HQ

I. Purpose

The purpose of this memorandum is to document the decision to initiate emergency response actions described herein for the Margate Mercury Spill Site located at 7871 NW 3rd Place, Margate, Broward County, Florida, pursuant to the On-Scene Coordinator's delegated authority under CERCLA Section 104. Environmental Protection Agency (EPA) Region 4 delegation of authority may be found in "Delegation 14-2. Response, authority to obligate CERCLA funding in the amount of \$250,000 to initiate Removal Actions where site conditions constitute an emergency has been delegated to the On-Scene Coordinator (OSC)."

II. Site Information

A. Site Description

Site Name: Margate Mercury Spill	
Superfund Site ID (SSID): B4C2	NRC Case No: 952576
CERCLIS No: FLN000410587	Site Location: Margate, FL
Lat/Long: 26.2351389/-80.2305556	NPL Status: Non-NPL
Removal Start Date: 9/01/10	

B. Background

1. Removal Site Evaluation

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 a 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 effected locations with a mercury vapor analyzer.

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/m³). The values ranged from 0 to 87 ng/m³. 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.

EPA OSC Alyssa Hughes and EPA OSC Jose Negron arrived on scene and met at the Margate Police Department for an initial briefing of the situation. Participants at the meeting included Margate Fire Rescue, Margate Police Department, Broward County School Board, Florida Department of Environmental Protection (Bureau of Environmental Response and Criminal Investigations Bureau) and the Broward County Health Department. Following the meeting EPA and START mobilized to the site and met with ERRS PM. The Margate Police Department had established a perimeter around

the vacated contaminated properties with mercury beads outside the houses. FDEP and Margate Fire Rescue accompanied EPA to the scene.

EPA, ERRS and START performed a walk thru and identified the effected properties to undergo a full scan assessment and subsequent clean-up. START teams conducted an assessment of the three properties where residents were relocated (7871 NW 3rd, 7857 NW 3rd and 141 NW 78th). The assessment indicated mercury vapor levels above EPA Removal Action Levels throughout the properties. Clothes, shoes, door mats, trash cans, hampers and other removable items exhibiting mercury vapor levels above 10,000 ng/m3 were identified and staged outside to air out while the houses ventilate.

Based upon OSC Hughes' observations and monitoring results from the Lumex mercury vapor analyzers, OSC Hughes determined that conditions at the Site meet criteria listed under 40 CFR Part 300.415 for initiation of an emergency removal action.

2. Physical Location and Site Characteristics

The Site consists of a total of six single family residences located in a residential area in Margate, Broward County, Florida. The elemental mercury that subsequently impacted additional properties was originally located at 7871 NW 3rd Place.

3. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant

The material known on site is elemental mercury which is a CERCLA hazardous substance. At approximately 70 ° F it becomes a vapor which can travel through small openings and into the environment. In its elemental form it may also be tracked throughout houses and remain in porous material including furniture, shoes and clothing.

III. Threats to Public Health, Welfare, or the Environment

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

Elemental mercury was initially spilled outside of a single family house; it was subsequently tracked into or outside of five additional residences. The levels of mercury vapors in the houses exceed residential removal action levels and pose a chronic exposure threat to human health.

B. Applicable factors which were considered in determining the appropriateness of a removal action:

x 300.415(b)(2)(i) "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants."

Elemental mercury is a hazardous substance. Elemental mercury was spilled and tracked throughout several residences. Residents are being exposed to levels of mercury vapor exceeding EPA Removal Action Levels.

x 300.415(b)(2)(vii) "The availability of other appropriate federal or state response mechanisms to respond to the release."

At this time there are no State mechanisms that are able to respond to this incident with the resources needed to assume the cleanup.

IV. Selected Removal Action and Estimated Costs

A. Situation and Removal Activities to Date

1. Current Situation

The weather has been mostly sunny with highs in the upper 90s ° F. There are typically thunderstorms in the late afternoon. Upon arrival to the scene, there were several media stations present. OSC Hughes conducted interviews with four network stations, and OSC Negrón conducted an interview with one network regarding the details of the response actions.

2. Removal Activities to Date

a. Federal Government/Private Party

Based upon the amount and location of the elemental mercury, EPA and START and ERRS contractors have been activated to stabilize conditions at the Site. Emergency removal activities include, but are not limited to, the following:

- i. Preparation of a Health and Safety Plan
- ii. Assessment of the levels of mercury vapor in the residences.

- iii. Segregation of highly contaminated items for disposal.
- iv. Recovery of spilled elemental mercury.
- v. Heating, treating, and ventilation of contaminated items and surfaces, as necessary.
- vi. Completing an inventory of items for disposal and providing reimbursement and relocation expenses, as necessary.
- vii. Providing analytical for disposal profiling.
- viii. Providing off-site disposal, treatment, or recycling of elemental mercury and mercury contaminated material, as necessary.
- ix. Performing demolition, as necessary, to remove free mercury and providing for restoration of the associated damage, as necessary.

b. State/Local

State OSC Steve Threet of the Florida Department of Environmental Protection requested EPA's assistance with the Site. FDEP and City of Margate Fire Rescue and City of Margate Police Department were the first responders on the scene.

3. Enforcement¹

The PRP is the owner of the house where the mercury originated. They cannot perform the proposed response promptly. There have been no enforcement actions initiated by EPA or the State.

B. Planned Removal Actions

1. Proposed Action Description

The specific tasks involved in the proposed response to the threats include:

¹ Enforcement strategy is not part of the Action Memo for purposes of NCP consistency.

- i. Preparation of a Health and Safety Plan
- ii. Assessment of the levels of mercury vapor in the apartment.
- iii. Segregation of highly contaminated items for disposal.
- iv. Recovery of spilled elemental mercury.
- v. Heating, treating, and ventilation of contaminated items and surfaces, as necessary.
- vi. Completing an inventory of items for disposal and providing reimbursement and relocation expenses, as necessary.
- vii. Providing analytical for disposal profiling.
- viii. Providing off-site disposal, treatment, or recycling of elemental mercury and mercury contaminated material, as necessary.
- ix. Performing demolition, as necessary, to remove free mercury and providing for restoration of the associated damage, as necessary.

Any off-site disposal will be in compliance with the CERCLA off-site disposal policy. The rationale for choosing the response action, supporting data for the decision, and the technical feasibility and probable effectiveness of the proposed action may be found in the logbook kept by the START contractor during the Removal Site Evaluation, the July 21, 2005, memorandum "Revised Mercury Removal Action Levels at ERRB Sites", and the OSC Mercury Field Operations Guide dated January 2008.

2. Contribution to Remedial Performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the site.

3. ARARs

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the OSC may consider appropriate factors, including the urgency of the situation and the scope of the removal action to be conducted.

The Federal ARARs identified for the site include:

 x RCRA Land Disposal Restrictions

- RCRA Treatment, Storage and Disposal
- RCRA Transportation
- DOT
- OSHA

The State has not provided any ARARs.

4. Project Schedule

The removal action is anticipated to be completed within two weeks of the Start Date listed in Section II of this document.

C. Estimated Costs³

Extramural Costs:

	<u>Ceiling</u>	<u>Costs to Date</u>
ERRS - WRS Compass	\$95,000	\$,
START - TetraTech EMI	\$50,000	\$,
Extramural Contingency (20%)	<u>\$95,000</u>	<u>\$,</u>
TOTAL, Extramural Costs	\$240,000	\$,
TOTAL REMOVAL PROJECT CEILING	\$250,000	\$,

V. Expected Change in the Situation Should Action be Delayed or Not Taken

A delay in action or no action at this Site would increase the actual or potential threats to the public and the environment. The worst-case scenario is continued tracking of the elemental mercury to additional residences.

VI. Outstanding Policy Issues

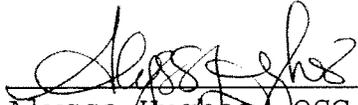
None

³ Direct Costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

VII. Approval

This decision document represents the selected removal action for this Site, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan. This decision is based on the administrative record for the site.

Conditions at the site meet the NCP section 300.415(b) criteria for a removal and through this document I am approving the proposed removal actions. The total project ceiling is \$250,000, of which, an estimated \$190,000 may be funded from the Regional removal advice of allowance.



Alyssa Hughes OSC
U.S. EPA, Region 4

9/6/10

Date