

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



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #4
Final Polrep
Braswell Place Mercury Spill

Lenoir, NC
Latitude: 35.8848630 Longitude: -81.6823010

To:
From: Stephen Ball
Date: 3/25/2011
Reporting Period: 3/12/2011 - 3/14/11

1. Introduction

1.1 Background

Site Number:	B4G2	Contract Number:	
D.O. Number:		Action Memo Date:	3/10/2011
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	3/6/2011	Start Date:	3/6/2011
Demob Date:	3/14/2011	Completion Date:	3/14/2011
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category: Emergency Removal Action

1.1.2 Site Description: Detached single family residence.

1.1.2.1 Location: 1934 Braswell Place, Lenoir, NC

1.1.2.2 Description of Threat: Toxicity by inhalation, ingestion.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results: Visible mercury discovered in a glass container. Large (quarter-sized) beads and numerous smaller beads observed in kitchen where mercury was released by owner's family members. The glass container was flask-shaped and was allegedly corked. The home owner is alleged to have had possession of the mercury since his gold processing days. EPA has yet to determine the time frame for the former operation that required elemental mercury.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative:

On 3/12/2011 in an attempt to further reduce mercury concentrations in the source area, ERRS sealed the subfloor area and baseboards near the spill location with epoxy. The kitchen was heated and vented for six hours after the epoxy was applied. After heating and venting ERRS sealed the kitchen subfloor with plastic to simulate a new floor. Then the kitchen was sealed and allowed to equilibrate for 2 hours. EPA and START then entered the kitchen to take preliminary test readings to support a final clearance test. Mercury concentrations of 0.2 ug/m³ were observed in the kitchen at 75 degrees. ERRS then began reinstallation of the floor in the kitchen to prepare for final clearance. START also received analytical results from the bulk sample of the wall, which were negative for asbestos.

On 3/13/2011 the house was heated to between 70 and 80 degrees, sealed and allowed to equilibrate for one hour in preparation for final clearance. START and EPA performed clearance air monitoring for the house beginning at 0900 hrs. The center of each room was sampled every hour with the lumex at a height of approximately 4 feet. Average mercury concentrations over the 6 hour final clearance for each room were 0.15 ug/m³. ERRS then installed vinyl flooring, a kitchen counter, baseboards, and a dishwasher to bring

the kitchen back to pre-spill conditions.

	0900	1000	1100	1200	1300	1400	1500	1600	Average
Kitchen	0.1	0.1	0.1	0.2	0.2	0.2			0.15
Living Room	0.1	0.1	0.1	0.1	0.2	0.2			0.13
Room 1	0.1	0.1	0.2	0.1	0.2	0.2			0.15
Room 2	0.1	0.1	0.1	0.1	0.2	0.2			0.13
Room 3	0.1	0.1	0.2	0.1	0.2	0.2			0.15
Bathroom	0.1	0.1	0.1	0.1	0.2	0.2			0.13
Temperature	75	78	73	72	80	76			75.67
Basement	0.4	0.6	0.7	0.7	0.6	0.6			0.60
Temperature	50	50	50	50	53	53			51.00

Concentrations are in ug/m³

Temperatures are in degrees Fahrenheit

On 3/14/2011 ERRS finished reconstructing the kitchen and moved all personal items into the residence. EPA notified residents that they were cleared to return to the house and reported verbal results to all involved local authorities. EPA secured waste in a roll-off and 2 drums for pick up by ERRS for disposal. EPA, ERRS and START demobilized at approximately 1457 hrs.

2.1.2 Response Actions to Date

- Removed and bagged all personal items in the kitchen.
- Removed visible mercury with a mercury vacuum.
- Removed the cabinet and counter where the spill occurred.
- Wiped and vacuumed kitchen to remove all residual mercury.
- Screened the resident's car, clothing and hotel rooms.
- Vacuumed and removed soil from a crawlspace below the kitchen where high concentrations of mercury were discovered.
- Heated and vented the kitchen.
- Removed more soil from the crawlspace to bring mercury levels down.
- Heated crawlspace bricks and concrete with butane torch in order to volatilize residual mercury.
- Heated to over 100 degrees and vented the kitchen.
- Heated the remainder of the house to 80 degrees and obtained mercury concentrations of .2 ug/m³.
- Removed the floor and a portion of the subfloor and vacuumed all exposed areas
- Sealed the spill area with epoxy to prevent any mercury vapor from volatilizing.
- Replaced the subfloor and floor to properly simulate living conditions for clearance test.
- Sealed the house and heated to approximately 75 degrees and allowed air flow to equalize for one hour.
- Performed 6 hourly clearance readings in each room with lumex, concentrations did not exceed .2 ug/m³.
- Installed vinyl flooring, dishwasher, half wall, kitchen counter and baseboards.
- Waste streams prepared
- Secured waste in drums and roll-off for disposal pickup by ERRS.

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

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal

2.2 Planning Section

2.2.1 Anticipated Activities

- Disposal of waste generated on site

2.2.1.1 Planned Response Activities

No further response anticipated. Response complete.

2.2.1.2 Next Steps

- Disposal of waste generated on site pending pick-up schedule with disposal facility

2.2.2 Issues

2.3 Logistics Section

Red Cross is assisting EPA by providing for temporary relocation of the residents during the clean-up.

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

Caldwell County Health Department
Caldwell County EMA
Red Cross

4. Personnel On Site

OSC (1)
START (1)
ERRS (5)

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.