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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #2**
Final POLREP
Valleystream Rd Mercury Spill
B4B4
Winston Salem, NC
Latitude: 36.0840600 Longitude: -80.3677900

To:
From: Subash Patel, OSC
Date: 9/15/2010
Reporting Period: August 23 to September 15

1. Introduction

1.1 Background

Site Number:	B4B4	**Contract Number:**	EPA40704
D.O. Number:	103	**Action Memo Date:**	8/6/2010
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/4/2010	**Start Date:**	8/4/2010
Demob Date:	8/8/2010	**Completion Date:**	8/8/2010
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

The residential home is located at 849 Valleystream Road, Winston-Salem, NC. The surrounding area is a residential neighborhood comprised of single family homes.

1.1.2.1 Location

Latitude: 36.084061
Longitude: -80.36736

1.1.2.2 Description of Threat

On August 4, 2010, Phone Duty Officer received a NRC report of two children that live at a single family residence that may be experiencing mercury poisoning. The report was submitted by the family physician after discovering that there was a mercury spill in the residence. Phone Duty Officer dispatched OSC Patel to conduct an assessment of the children's home. Elemental mercury concentrations of the breathing air in the house were between 5,000 ng/m3 and 6,000 ng/m3. This exceeds the EPA Residential Removal Action Level of 1,000 ng/m3. During cleanup activities, elemental mercury beads were observed under the legs of the kitchen table. It appeared the source came from a mercury switch that was dropped from the kitchen table. The family relocated to a relative's homes during cleanup activities.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

During the assessment, elemental mercury concentrations of the breathing air was found to be between 5,000 ng/m3 and 6,000 ng/m3. Other homes where the children frequently visited were found to have elemental mercury concentrations below EPA's Residential Removal Action Level of 1,000 ng/m3. A company vehicle used for business purposes was found to have mercury concentration above EPA's Industrial Removal Action Level 25,000 ng/m3. Cleanup activities reduced the vehicle's mercury concentration in air to well below EPA's Industrial Removal Action Level.

Forsyth County EMA participated with EPA during the assessment of the home. ATSDR was informed of indoor air concentrations and ongoing cleanup activities.

2. Current Activities

2.1 Operations Section

2.1.1 Response Actions to Date

1) ERRS removed household items including furniture, clothing, food, plastic cups and plates, and other items, the living room carpet and the kitchen flooring. The spill occurred by the kitchen table which is in the vicinity of the living room's carpet.

2) ERRS returned all furniture from the living room and kitchen area that required decon.

3) Contaminated items such as some clothing, food, and plastic items were discarded into one roll-off box for disposal at a nonhazardous landfill in Mt. Gilead, North Carolina.

4) Residents were informed it was safe to re-occupy home after obtaining results from confirmation sampling. Confirmation sampling consisted of an taking eight measurements with the Lumex at two to three feet above the floor in each room. Measurements were taken once per hour for eight consecutive hours from 0700 to 1400 hours. A time-weighted-average was then calculated for each room and compared to EPA's Residential Removal Action Level. Room temperature was constantly above 70 degrees and the air filter was changed prior to the test. The highest time-weighted-average calculated was 696 ng/m3 which is well below EPA's Residential Removal Action Level.

5) A company vehicle used by the resident for business purposes was found to have mercury concentration above EPA's Industrial Removal Action Level 25,000 ng/m3. To decon the vehicle, cleanup efforts included disposing of floor mats, heating and venting, and using a mercury vacuum to remove elemental mercury. After decon efforts, the vehicle was returned to the resident after its air concentration was found to be below EPA's Industrial Cleanup Level of 3,000 ng/m3.

6) The one roll-off box containing contaminated items has been sent for disposal to a nonhazardous landfill.

7) The mercury switch which was the source and elemental mercury collected by a mercury vacuum have been sent to a recycling facility. The switch was placed in a quart mason jar and the vacuumed elemental mercury was placed in two pint canisters. The jar and canisters were then placed in a secured five gallon pail and sent for recycling at a facility in Allentown, Pennsylvania.

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

The residents of the impacted home appear to the be the PRP. It appears the father was showing his child how a mercury switch operates in the kitchen area and it dropped onto the floor and broke.

2.1.3 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Elemental Mercury	**Liquid**	**5 gallon pail**	**NA**	**None**	**Recycled**
Nonhazardous Debris	**Solid**	**1 roll off box**	**0221765**	**None**	**Completed**

2.2 Planning Section

2.2.1 Planned Response Activities

None.

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

No information available at this time.

3. Participating Entities

3.1 Unified Command

Participating agencies for this incident included Forsyth County EMA, North Carolina DENR, ATSDR, and EPA.

3.2 Cooperating Agencies

4. Personnel On Site

No information available at this time.

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.