

United States Environmental Protection Agency
Region III
POLLUTION REPORT

Date: Wednesday, March 4, 2009

From: Gregory Ham

Subject: Cleanup action nearing completion.

Lutherville Mercury
213 Margate Road, Lutherville, MD
Latitude: 39.4300000
Longitude: -76.6081000

POLREP No.:	4	Site #:	A3MS
Reporting Period:		D.O. #:	
Start Date:	2/17/2009	Response Authority:	CERCLA
Mob Date:		Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:			

Site Description

The site is a residential property located in Lutherville, Maryland, a northern suburb of Baltimore. The site consists of a single house and its associated property. The property is located within a residential neighborhood.

MDE responded to the property on December 20th, and based upon air quality readings and the visible presence of mercury requested that the family evacuate the home. Elemental mercury contamination was observed by MDE personnel in the basement and on the ground floor.

The magnitude of the spill is estimated at approximately 1 1/2 pounds onto a hard floor (porous, non-friable asbestos tile). Mercury was also observed on the hardwood steps and flooring of the ground level floor. Additionally, Mercury was observed on and around the furnace, which was located in the immediate proximity to the spill. MDE conducted a gross cleanup of the visible mercury, but was not able to remove all of it due to its distribution throughout the basement and into the cracks of the floors.

On Thursday, February 12, 2009, EPA On Scene Coordinator Ham and START mobilized to the Site and met with MDE and the homeowner. START conducted air monitoring using a Lumex mercury vapor analyzer. Concentrations up to 10,000 ng/m3 were detected in the basement of the residence. Mercury vapor was also detected at elevated levels in the kitchen of the home. Beads of elemental mercury were also visibly present in the area around the furnace, in cracks in both rooms of the basement floor, and on the steps leading up to the first floor. Trace levels of mercury vapor were identified in the remaining areas of the house. Undoubtedly, if the heat were turned up to normal levels, these vapor levels would be much higher. Based on these readings and observations, the OSC issued a Special Bulletin on February 12, 2009 authorizing cleanup of the mercury. EPA, START, and an EPA cleanup contractor mobilized to the site on February 17, 2009, to begin the cleanup of the site.

Current Activities

A public fact sheet was distributed by EPA personnel on February 25, 2009 to the surrounding vicinity. The fact sheet is available in the documents section of this website.

The downstairs family room and utility room were revacuumed using a mercury HEPA vacuum. Mercury beads were identified throughout the utility room during vacuum operations.

MercX solution was reapplied to the downstairs family room and utility room floors. Residual material was mopped up and contained in a poly drum for disposal.

Items previously bagged and taken outside of the home for assessment were screened using the Lumex 915+. Any bag with a resulting concentration of less than 5,000 nanograms per cubic meter was returned

to the home. Any bags or items identified with concentrations greater than 5,000 nanograms per cubic meter of mercury will be heated and ventilated prior to additional screenings. The current level of 5,000 nanograms per cubic meter of mercury vapor for safe return to the property was determined based on recommendations from the Agency for Toxic Substances and Disease Registry and the OSC. To date about 80% of the items have been cleaned and returned, 5% will be disposed of, and the remainder are still being decontaminated.

The downstairs utility room was sealed and heated overnight using space heaters. Upon return to the site in the morning, a temperature in the room of 73 degrees was documented. Mercury vapor readings were not detected greater than 1,000 nanograms per cubic meter. The entire home was heated using the property heating system and vented.

Following a full day of heating and venting the home, clearance sampling was performed the evening of February 26, 2009. Samples were collected in the upstairs hall, kitchen, living room, family room, and utility room over an eight hour period. In the family room and utility room, samplers were placed in the breathing zone (approximately 4 foot above the floor), and at 1 foot above the floor, since the family has two young children. In the upper floors, the samplers were placed at the 4 foot level only. Prior to sampling, the home was heated to approximately 80 degrees and allowed to stabilize for approximately 2 hours. During the sampling period, the temperature in the home ranged between 71 and 86 degrees. The home was heated in combination with both the house heater and space heaters.

Each hour during the sampling the Lumex 915+ was used to monitor the mercury vapor levels at each of the sampling stations. The average of these hourly readings ranged from 408 to 865 nanograms per cubic meter, which are all below the cleanup goal of 1,000 nanograms per cubic meter. On Tuesday, 3/3/09, additional mercury vapor readings were obtained in the home using the Lumex 915+. No readings above 200 nanograms per cubic meter were observed.

Next Steps

Items that are screened above 5,000 nanograms per cubic meter of mercury will be allowed to vent and rescreened individually.

Evaluation of all air monitoring data from the Lumex 915+ and the air samplers will be conducted to ensure conformance with NIOSH analytical method 6009 and to ensure the home is safe for rehabilitation.

response.epa.gov/LuthervilleHg