

**United States Environmental Protection Agency**  
**Region V**  
**POLLUTION REPORT**

**Date:** Monday, October 27, 2008

**From:** Steven Renninger

**To:** Ed Frambes, Hamilton Co LEPC  
Bary Lusby, Hamilton Co LEPC  
Jeremy Hessel, Hamilton Co HD

Tim Ingram, Hamilton County Health Dept  
John Allen, Mt. Healthy Fire Department  
Chuck Dejonckheere@hamilton-co.org,  
Hamilton Co HD

Carol Ropski, EPA 5

**Subject:** Initial and Final POLREP  
Mount Healthy Mercury Response  
Huntridge Avenue, Mount Healthy, OH

**POLREP No.:** 1  
**Reporting Period:** October 17 through October 24, 2008  
**Start Date:** 10/17/2008  
**Mob Date:** 10/17/2008  
**Demob Date:** 10/24/2008  
**Completion Date:** 10/24/2008  
**CERCLIS ID #:**  
**RCRIS ID #:**

**Site #:**  
**D.O. #:**  
**Response Authority:** CERCLA  
**Response Type:** Emergency  
**NPL Status:** Non NPL  
**Incident Category:** Removal Action  
**Contract #**

**Site Description**

On October 16, 2008, at 1138 hours, Ohio EPA On-Scene Coordinator (OSC) Jim Crawford was notified of a mercury spill at a vacant residence located on Huntridge Road in Cincinnati, Ohio. Ohio EPA OSC Crawford notified EPA OSC Steve Renninger that assistance was potentially needed.

At 1330 hours, Ohio EPA OSC Crawford arrived at the scene and met with a representative of Regal Field Services (RFS), a local lawn mowing company. The residence is vacant because of foreclosure and Field Asset Services hired RFS to service the property. A mortgage company called NationStar owns the property and hired Field Asset Services to manage the property.

RFS reported that while its employees were mowing the lawn, trimming and using a leaf blower to blow the cut grass from the driveway, they observed puddles and beads of what appeared to be elemental mercury located on the rear driveway adjacent to the detached one-car garage. The garage is located in the backyard of the residence. RFS employees admitted to driving over the elemental mercury with the lawn mower and using a blower to blow the elemental mercury, along with the cut grass, off of the driveway. RFS employees became concerned after their actions and notified Ohio EPA.

The house is located in a residential area with small lots. The house has a small front yard with a driveway on the north side. At the back edge of the house, a chain link gate separates the front from the back yard of the residence. There is a detached, one-car garage in the back yard and the driveway is constructed of asphalt. There are numerous cracks in the driveway. Ohio EPA OSC Crawford observed numerous beads and small puddles of mercury on the driveway, approximately 15 feet from the entrance to the garage door. The act of the leaf blower pushed many of the beads into the cracks of the driveway. The garage door was unlocked, and when opened, numerous beads were present on the concrete floor and in the corners of the garage.

At 1348 hours, Ohio EPA OSC Crawford reported the spill to the National Response Center (NRC# 887332).

At 1351 hours, Ohio EPA OSC Crawford called the Mt. Health Fire Department and requested assistance.

At 1355 hours, Ohio EPA OSC Crawford called the Hamilton County Health Department for assistance.

At 1420 hours, Ohio EPA OSC Crawford contacted EPA OSC Steve Renninger and updated EPA on the findings, including the extent of the impacted area. Ohio EPA OSC Crawford requested EPA assistance. Ohio EPA OSC Crawford stated that the driveway would be secured by placing visqueen over the spill area, securing the garage door and marking the property with "caution" tape.

At 1430 hours, EPA activated START (EPA Technical Assistance Contractor) to meet Ohio EPA at 1000 hours on October 17, 2008 to assist with air monitoring and sampling.

### **Current Activities**

October 17, 2008 - Friday

On October 17, 2008 at 1000 hours, EPA OSC Renninger met with START member John Sherrard, Ohio EPA OSC Crawford and Mt. Healthy Fire Department representative John Allen.

At 1035 hours, Chris Gabor from Alegna Realty arrived on site and signed EPA's access agreement to allow air sampling within the vacant house and property.

At 1045 hours, START, EPA and Ohio EPA entered the house and conducted Lumex air sampling to determine if mercury was tracked within the house. In summary, the carpet in front of the bathroom and just off of the kitchen showed mercury vapor levels as high as 17 ug/m<sup>3</sup>, which indicated the carpet to be contaminated.

At 1155 hours, Hamilton County Health Department (HCHD) representatives Chuck DeJonckheere and Jeremy Hessel arrived on site. EPA and Ohio EPA explained the mercury indoor air levels. HCHD placed a posting on the front door that said "Home must not be occupied because of elevated levels of mercury."

At 1300 hours, START began screening the front yard of the residence. A total of 30 locations were sampled in the front yard. All locations showed mercury vapor levels less than 2.5 ug/m<sup>3</sup>.

At 1730 hours, the owner of the residence, NationStar Mortgage, contacted Ohio EPA OSC Crawford and agreed to hire a local environmental company (Environmental Enterprises Incorporated [EEI]) to conduct the cleanup.

At 1810 hours, Ohio EPA OSC Crawford spoke with the owner of the residence immediately adjacent to the spill area. The owner of the house signed an EPA access agreement to allow Lumex screening within their house.

From 1730 to 2200 hours, EEI personnel completed vacuuming the mercury from the driveway and the garage areas. See images section of EPA website for photos.

October 18, 2008 - Saturday

At 1400 hours, START arrived on site to conduct screening of the backyard of the vacant residence. START used air monitoring to determine if contamination existed in the yard. Lumex readings greater than 10 ug/m<sup>3</sup> indicated a contaminated soil location. See images section of EPA website for air monitoring photos.

From 1425 to 1730 hours, START collected approximately 250 samples and determined that about 80% of the backyard was contaminated with mercury. The highest Lumex reading that was observed in the backyard was 92.3 ug/m<sup>3</sup>.

At 1800 hours, START conducted indoor air sampling in the neighbor's house adjacent to the spill area. The mercury vapor readings inside the house were all less than 0.3 ug/m<sup>3</sup>.

October 20, 2008 - Monday

At 1000 hours, EPA OSC Renninger met with START member John Sherrard and Ohio EPA OSC Jim Crawford. EEI was on site. EPA and Ohio EPA formulated a plan to clean up the spill:

- 1)excavate contaminated soil in vacant residence's backyard and any other areas determined to be contaminated after screening was conducted in the backyard of the adjacent resident (EEI to complete);
- 2)remove first 10-feet of asphalt driveway off of garage door (EEI to complete);
- 3)vacuum, HgX and seal garage floor (EEI to complete);
- 4)heat and vent garage (EEI);
- 5)heat and vent house (EEI);
- 6)remove carpet from within vacant residence (EEI);
- 7)restore all excavated areas with grass seed or equivalent (EEI);

- 8)conduct post excavation sampling (EPA START); and
- 9)conduct clearance Lumex air sampling (EPA START).

At 1015 hours, START began screening the backyard of the adjacent resident.

From 1020 to 1200 hours, EPA OSC Renninger and START screened the backyard of the adjacent resident. A total of 70 samples were collected, with 7 of those samples showing a mercury vapor level greater than 10 ug/m3. The highest mercury vapor level observed was 45 ug/m3.

At 1400 hours, EEI began excavating the backyard of the vacant house. The excavated soil was stockpiled until a rolloff box was mobilized.

October 21, 2008 - Tuesday

At 1330 hours, START was on site and met with Ohio EPA OSC Crawford and EEI. EEI completed the following:

- 1)removal of hallway carpet in the vacant house;
- 2)HgX the hardwood floor beneath the carpet that was removed;
- 3)HgX the kitchen linoleum flooring; and
- 4)Soil excavation in the backyards of the vacant house and the house adjacent to the spill area. A total of 2 rolloff boxes were filled for off-site disposal.

At 1400 hours, START collected four post excavation soil samples for total mercury analysis.

At 1445 hours, START and Ohio EPA conducted air monitoring inside the vacant residence. The breathing zone within the house showed less than 1 ug/m3, but the carpeting that remained in the house continued to emit mercury vapors as high as 4.2 ug/m3. Ohio EPA and EPA requested EEI to remove all of the carpet in the house.

October 22, 2008 - Wednesday

EEI completed the following:

- 1)removed remaining carpet on first floor, all the carpet on the steps leading to the 2nd floor, the 2nd floor carpet and the carpet on the steps leading down to the basement;
- 2)HgX all of the flooring;
- 3)heated and vented the garage;
- 4)heated and vented house from 1140 to 1400 hours;
- 5)sealed the garage floor with a concrete floor sealer;
- 6)excavated approximately 10' of asphalt driveway off of the garage door;
- 7)excavated small strip of soil between driveway and fence; and
- 8)filled one rolloff box (about 1/3 full). A total of 3 rolloff boxes have been used to date.

At 1500 hours, START collected a post excavation soil sample from the small strip of soil area between driveway and fence.

At 1515 hours, START conducted air monitoring in the vacant house. The first floor of the house was between 0.3 and 0.8 ug/m3, with mercury vapor levels on the second floor less than 0.5 ug/m3. START observed random spikes on the Lumex as high as 1.4 ug/m3 on various areas of the hardwood floor.

At 1530 hours, START conducted air monitoring inside the garage and observed mercury vapor levels of 2 to 3 ug/m3 in the breathing zone.

At 1600 hours, EPA conducted a conference call with START, Ohio EPA and EEI. EPA recommended heating and venting the house and the garage another time.

October 23, 2008 - Thursday

At 1315 hours, START arrived on site and met with EEI. EEI heated and vented the house and garage in the morning.

At 1400 hours, START conducted air monitoring inside the vacant house and observed mercury vapor levels on the first floor less than 0.4 ug/m3, less than 0.25 ug/m3 on the second floor, and less than 0.25 ug/m3 in the basement. The breathing zone in the garage showed 15 ug/m3. ATSDR advised EPA OSC Renninger that an action level of 10 ug/m3 was to be used in the breathing zone of the detached garage.

At 1600 hours, a conference call was conducted with START, Ohio EPA and EEI. EEI stated they would obtain a product called "Grayling Industries Control Lockdown Encapsulant" to seal the wooden walls and ceiling of the garage. EPA explained that START would resample the air in the garage once the

sealing was completed.

October 24, 2008 – Friday

EEI used two 5-gallon containers of the encapsulant sealant to seal the wooden garage walls and ceiling. START used the Lumex and obtained mercury vapor readings between 1.3 and 1.4 ug/m<sup>3</sup> within the breathing zone of the garage.

The final post excavation soil sample result was provided from the laboratory with a total mercury concentration of 4.88 ppm. In summary, all five post excavation soil samples showed a total mercury concentration less than 5 ppm, which is less than the Ohio EPA residential total mercury action level of 16 ppm.

At 1500 hours, EPA conducted a conference call with START, Ohio EPA, the Hamilton County Health Department, EEI and the company (NationStar) that funded the cleanup. EPA explained the following:

- 1) the cleanup efforts within the vacant house were completed because clearance Lumex air sampling showed mercury vapor levels less than the action level of 1 ug/m<sup>3</sup>
- 2) the cleanup efforts within the garage were completed because clearance Lumex air sampling showed mercury vapor levels less than the action level of 10 ug/m<sup>3</sup>.
- 3) No additional soil excavation was required because all five EPA-collected post excavation soil samples showed total mercury levels less than the Ohio EPA residential total mercury action level of 16 ppm
- 4) The only additional work that will be required is to repair the approximately 10-feet of asphalt driveway that was excavated in front of the garage and restoring all areas where soil excavation was conducted.

#### **Planned Removal Actions**

All removal activities are completed. No further EPA assistance is required.

#### **Next Steps**

All removal activities are completed. No further EPA assistance is required.

#### **Key Issues**

- 1) Final clearance air sampling within the vacant house showed total mercury vapor levels less than 1 ug/m<sup>3</sup>.
- 2) All five post excavation soil samples showed total mercury levels less than 5 ppm, which is less than the Ohio EPA residential soil action level of 16 ppm.
- 3) NationStar funded the cleanup efforts performed by contractor EEI.

#### **Disposition of Wastes**

<b>Waste Stream</b>	<b>Quantity</b>	<b>Manifest #</b>	<b>Disposal Facility</b>
Elemental Mercury	unknown		EEI
Contaminated Soil	45 cubic yards		EEI

[response.epa.gov/mounthealthymercuryresponse](http://response.epa.gov/mounthealthymercuryresponse)