U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Amasia Cove Mercury Release - Removal Polrep
Final Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: **POLREP #2**
Final
Amasia Cove Mercury Release
A6KW
Austin, TX
Latitude: 30.4554610 Longitude: -97.7608540

To:
From: Eric Delgado, OSC
Date: 1/12/2015
Reporting Period: 12/23/14-12/29/14

1. Introduction

1.1 Background

Site Number:	A6KW	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	12/16/2014	**Start Date:**	12/16/2014
Demob Date:		**Completion Date:**	1/26/2015
CERCLIS ID:	TXN000604296	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Mercury Spill

1.1.2 Site Description
On 15 December 2014, a representative of the Texas Department of State Health Services reported a spill of mercury to the EPA Region 6 Prevention and Response Branch (PRB). The spill site is at a private residence located in, Austin, Williamson County, Texas. The spill reportedly occurred in August 2014, inside the garage. The homeowners reportedly self-performed a cleanup of the spilled mercury at the time of the spill, and then again in October 2014 when additional mercury was discovered in the garage. The three children who live at the house were later admitted to the Dell Hospital in Austin with elevated blood mercury concentrations. The property owners have temporarily relocated to a local hotel.

1.1.2.1 Location
The site is located in, Austin, Williamson County, Texas.

1.1.2.2 Description of Threat
The residence houses a family of five, two adults and three children. The three children who live in the house, ages 16, 10, and 9, reported not feeling well in the months following the mercury spill and attempted clean up, and were subsequently admitted to Dell Hospital in Austin approximately three weeks ago. The three children exhibited elevated blood mercury levels.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

On 16 December 2014, the Texas Commission on Environmental Quality (TCEQ) initiated an investigation and assessment of the mercury contamination at the residence. EPA On Scene Coordinator (EPA OSC) Eric Delgado mobilized EPA START contractors to the site to provide air monitoring support to TCEQ and Williamson County Hazmat. EPA START contractors entered the house on 16 December 2014 and performed air monitoring using a Lumex RA-915+ Mercury Vapor Analyzer. The initial air monitoring indicated concentrations of mercury vapors throughout the house that exceeded the Agency for Toxic

Substances and Disease Registry (ATSDR) recommended residential action level of less than 1.0 micrograms per cubic meter (ug/m3). The maximum concentration in the breathing zone was observed to be approximately 13.9 ug/m3 in a downstairs bathroom. The bathroom is adjacent to the bedroom of one of the children. The maximum concentration observed within the garage was approximately 15.2 ug/m3.

Following the initial assessment, EPA and TCEQ representatives were briefed by EPA START of the air monitoring results. Based on the results of the initial air monitoring, EPA OSC Delgado and TCEQ representatives initiated an emergency removal action, with TCEQ as the lead agency.

On 17 December 2014, TCEQ remediation contractors SWS Environmental Services mobilized to the site, and began mercury removal activities. Initial activities focused on removing the source of mercury from the spill location inside the garage. All items located within the garage were bagged, or wrapped in poly sheeting and removed from the garage.

On 18 December 2014, mercury removal activities continued at the site. Free mercury within the garage was removed with a mercury vacuum. Following initial mercury vacuuming, mercury vapor concentrations were monitored with the Lumex at the base of the back wall of the garage where the spill occurred. Mercury vapor concentrations at the floor level along the wall were measured at greater than 50 ug/m3, indicating that mercury had migrated beneath and behind the garage wall. This necessitated removal of a section of the wall to access any mercury behind it. The back wall was assessed by the Austin Fire Department and it was determined that the wall to be removed was not a load bearing wall. However, the AFD constructed wooden supports for the wall as a precaution. The bottom section of the wall at the back of the garage was then removed by SWS, along with the wood framing and footer. Pooled mercury was observed beneath the removed framing footer, and was removed using a mercury vacuum. SWS crews also began bagging soft items such as clothes and blankets from within the parent's bedroom, and removing and staging the bags on poly sheeting in the front yard, for later screening for mercury vapors.

On 19 December 2014, SWS continued mercury removal activities. SWS crews continued to bag and remove personal items from the bedrooms of the residence. In the garage, mercury vapor concentrations along the back garage wall were screened with the Lumex, and concentrations of greater than 20 ug/m3 were observed. Several small beads of mercury were also observed. SWS re-vacuumed the spill area with a mercury vacuum. Following vacuuming, SWS washed the entire garage floor, including the back wall area, with HgX mercury decontaminant. Once the garage floor was dry following the application of HgX, the area was screened with the Lumex, and mercury vapor concentrations greater than 20 ug/m3 were observed. Mercury beads were also observed along the secondary, inner wall beneath the framing footer.

On 20 December 2014, EPA OSC Delgado mobilized the EPA Emergency and Rapid Response Service (ERRS) contractors to support TCEQ cleanup efforts. EPA ERRS contractors will conduct mercury clean-up operations within the house and the garage. TCEQ will conduct the transportation and disposal of mercury and mercury-contaminated items. ERRS crews continued to bag and remove personal items from the bedrooms of the residence. Following the removal of items from the residence, mercury vapor concentrations within the residence were monitored, with a maximum observed concentration of 1.8 ug/m3. Maximum mercury concentrations within the garage were observed at 10 ug/m3.

On 21 December 2014, contaminated debris was removed from the residence. Two roll off boxes have been removed from the property. All carpeting and the pad have been removed from the residence. The heat was turned up to 80 degrees F. Additional screening for mercury vapors are planned on Monday.

On 22 December 2014, contaminated debris is being removed from the house. One more roll off box is being filled. The roll off box should be moved on the 23 December. The mercury levels in the home continue to be reduced.The levels in the home range from about 1.2 ug/m3 to 1.8 ug/m3.

On 23 December 2014, the last roll off box was removed from the property. The crews are demobbing from the site and will return on 27 December 2014.

On 27 December 2014, OSC Brandi Todd, two START and a smaller ERRS support team arrived on Site to re- assess the conditions of the home's interior and the garage. Slightly elevated levels were still present above the 1 ug/m3 action level predominantly at the master bedroom shower drain and in garage. Heating and venting activities continued in the garage and a hose and small a pressure bladder was purchased for the upstairs shower to direct the flow and apply more water pressure inside the drain. After a few hours of flushing and venting the house was retested with a Lumex by START and found to be at acceptable levels for final clearance air sampling. ERRS set the home thermostat to 81 degrees F and closed all windows and openings. The garage heater was turned off for the evening for safety reasons.

On 28 December 2014, START returned to an 81 degree home and turned on the heater in the garage to get the interior temperature to approximately 90 degrees before sampling. A total of seven sample locations were established inside the four bedroom home and one outside. One sample was collected in each bedroom (4); one from the kitchen/dining room area; one from the garage; a duplicate from bedroom #4 (designated as AMR-122814-BR5); and a background sample from the back yard. Samples were collected with Hopcalite tubes and low flow GilAir *Plus* sample pumps for just over a 6 hour period. Approximately 96 liters of sample were collected as required by the NIOSH method. The sample tubes were placed at appropriate breathing zone levels at each location of the house and the garage at approximately 3'-4' from the floor level. The samples were analyzed by TestAmerica Laboratory located in Phoenix, Arizona laboratory for NIOSH 6009.

On 29 December 2014, the samples were received by the laboratory at 0925 and results were completed by the end of the business as requested. All 8 samples were below the 1.0 ug/m3 action level with all but two below the laboratory Reporting Limit.

On the evening of 9 January 2015, the ERRS selected subcontractor Lewis Renovation, completed the home renovations that were damaged during the mercury removal/decontamination work activities. The home owner Mr. Jeff Askew was allowed to do a walk through of the house to do a final inspection of the renovations which he found satisfactory. ERRS indicated there will be an additional charge ($300) to

insulate the garage because it was considered an exterior wall of the house by the City and was previously insulated as required by the City code. This insulation was removed prior to ERRS's mobilization to the site. The presence of this insulation was also confirmed with the SWS-TCEQ foreman, who was there at the beginning of the TCEQ response. The project site work is now completed.

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

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Household	Variety of household items, toys etc	75 CY- 3-RO boxes			TCEQ
E-Waste	TV,Video game	1 of each			TCEQ
Tires (large)	Rubber	3			TCEQ
White Goods	Steel-2 refrigerators,washer/dryer and a freezer	5			TCEQ

2.2 Planning Section

2.2.1 Anticipated Activities

ERRS will continue mercury cleanup activities within the residence and garage, bagged personal items will be heated to 80 degrees F, and the headspace will be screened for mercury vapors with the Lumex. TCEQ will provide transportation and disposal of mercury and mercury contaminated waste.

2.2.1.1 Planned Response Activities

Mercury removal activities will continue until mercury vapor concentrations within the residence and garage are observed to be below 1 ug/m3 at over 80 degrees F, based on screening with the Lumex. Once that occurs, confirmatory air samples will be collected according to an approved Quality Assurance Sampling Plan (QASP), following NIOSH method 6009, and sent to an accredited laboratory for mercury analysis with short turnaround time.

2.2.1.2 Next Steps

Next step is to have ERRS identify a contractor to replace the damaged areas in the garage.

2.2.2 Issues

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

3.2 Cooperating Agencies

Williamson County Hazmat, Austin Fire Department, and the Texas Department of State Health Services

4. Personnel On Site

Eric Delgado, EPA OSC
Jon Rinehart, EPA OSC
Brandi, Todd, EPA OSC
Marty Herrin, Williamson County Emergency Services
Kelly Cook, TCEQ
Anthony Buck, TCEQ

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.