U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Post Falls Mercury Site - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region X

Subject: **POLREP #1**
Post Falls Mercury Site Initial Polrep
Post Falls Mercury Site

Post Falls, ID
Latitude: 47.7116780 Longitude: -116.9395410

To:
From: Michael Boykin, OSC
Date: 11/28/2015
Reporting Period: November 24 - 27, 2015

1. Introduction

1.1 Background

Site Number:		**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:	11/24/2015	**Start Date:**	11/25/2015
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	Idaho BHS, DEQ, RRT
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

Elemental mercury was spilled in a classroom at a private school in Post Falls, Idaho on November 20, 2015. The private school campus consists of 8 buildings (Chapel, Rectory/Clergy residence, 2 main school buildings, a kindergarten, a locker room/ maintenance building, teacher residence/library). The private school campus is located in a residential area and near to an onramp of Interstate 90, which runs through the City of Post Falls.

Upon discovery, teachers and students attempted to cleanup the spilled mercury and may have inadvertently caused migration of contamination to other rooms and floors of adjacent buildings, including the Chapel, on the school campus. In addition, contamination may have migrated via students personal belongings and clothes/shoes to student's homes in the area.

1.1.2.1 Location

606 E 5th Avenue, Post Falls, Idaho 83854

1.1.2.2 Description of Threat

Elemental Mercury spilled in a classroom and migrating via cleaning materials, students clothing and school supplies, to other rooms, floors, and buildings at the school campus, to the outside environment, and potentially to student's families and homes.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The Idaho State Regional Response Team 1 and Kootenai County Fire (Team) responded to the mercury release on November 23, 2015. It was reported that the mercury spill occurred on Friday, November 20, however, the spill was not discovered until Monday, Nov. 23. Evidently, the teacher that discovered the spilled mercury, directed a group of high school students to clean up the visible mercury beads utilizing cleaning rags and brooms. The cleanup materials were then disposed of in a dumpster.

Reportedly, after the teacher and students identified the visible mercury beads in several classrooms, the

Principal determined that mercury is a toxin, he ordered evacuation of the high school students to the Chapel basement and contacted Poison Control. Then the Principal canceled school for all students by early afternoon, November 24 and sent the students home.

The Team utilized a Lumex Mercury Analyzer to assess 7 of the 8 buildings on the school campus on November 23-24, 2015. Numerous containers of elemental mercury were observed in a chemistry locker and numerous beads of free mercury were observed on the floor in several rooms on the top floor of the south school building.

Building assessment results are as follows: Rectory = 200 ng/m3, safe to occupy; Chapel = 1300 - 1900 ng/m3, closed to occupation; north school building (2 floors) = 1300-6400 ng/m3, closed to occupation; south school building (1st floor) = 40 - 800 ng/m3 with 2 hotspots ranging up to 25,000 ng/m3, closed to occupation; south school building (2nd floor) = 1000 - 50,000 ng/m3, closed to occupation; kindergarten building = 50 ng/m3, safe to occupy but need another survey; locker room/maintenance building = 300 - 5700 ng/m3, closed to occupation; teacher residence/library not assessed because students did not access.

No assessments of students, school officials, or their families and respective homes were conducted by the Team.

Clergy and school staff started collected information from the students and families about which students opened the chemistry cabinet and mercury containers, which students played with the mercury, who had taken some home, and who participated in cleanup. In addition, Clergy and school staff arranged for the high school students to return any containers of mercury and the clothes/shoes, backpacks, school supplies the students wore or brought to school on November 20 and 23, 2015.

The EPA OSC/START were requested to assist by School officials, Kootenai Fire, and Idaho State officials and deployed the evening of November 24, 2015.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The EPA OSC and 2 START responders were deployed and arrived in Post Falls late evening, November 24, 2015. Two additional START responders with a response rig, equipment, and supplies departed the morning of November 25, 2015, arriving later that day.

The OSC, START, and an EPA ERRS contractor (ERRS) representative, attended an 0800 Situational Briefing at the school with School Clergy/Staff, Idaho Department of Environmental Quality (DEQ), Panhandle Health District 1, and Kootenai County Fire/Regional Response Team personnel. Unified Command (UC) was established and roles, resources, and a preliminary Incident Action Plan were established.

Sixteen high school students were identified as having some form of exposure to mercury during the two days of release and clean up. In order to evaluate potential migration of mercury contamination from the school to the homes and families of the sixteen students, the UC established a primary objective of assessing the public health exposure of the students and families by assessing each of the 16 homes.

The UC established 1000 ng/m3 as the residential action level for residential ambient air and building surfaces and identified an action level range of 1000 to 3000 ng/m3 for school/Chapel ambient air and surfaces. During home assessments, if personal effects were found to be contaminated up to 3000 ng/m3, the Assessment team would advise the families to retain for use or they could dispose of in regular municipal waste. If personal effects were found to be contaminated between 3000 and 6000 ng/m3, the Assessment team outlined 3 options: 1. continue using; 2. provide to Team for decontamination/possible return, or; 3. dispose of in regular municipal waste. If personal effects were found to be contaminated above 6000 ng/m3, the Team strongly urged the homeowner to relinquish the item for decontamination and possible return. Any contaminated items were bagged and transported to the Decontamination Area.

2.1.2 Response Actions to Date

Wednesday, November 25 - Two 2-person Lumex air monitoring teams (START and RRT) were dispatched to assess students personal effects that had not been turned in already and assess their family's homes (bedroom, shoes, entryway, washer, dryer, backpacks, etc.). A total of 7 homes were assessed with one home having a hotspot in the student's bedroom. Several items (municipal trash can, vacuum cleaners, additional student clothing/shoes, backpacks) were bagged, removed from a few homes and transported to the Decontamination Area at a later time. The parents in the house with a contaminated hotspot were advised to isolate the student's room, have the boys sleep elsewhere, raise the heat and ventilate the room overnight followed by reassessment the next day.

A third 2-person Lumex air monitoring team (RRT) reassessed the Chapel's two floors, confirming the ambient air and floor concentrations found in an earlier survey. A hotspot was found in the janitorial closet due to a contaminated broom being placed in the closet. Because the ambient air concentrations fell below the 3000 ng/m3 action level, the UC determined that the Chapel could be reopened for services but the janitors closet would remain closed off until decontamination could be effected.

The ERRS made an entry into the South School Building and recovered all mercury containers, inventoried and secured in a safe, controlled location. The ERRS also inventoried the contents of all the bags of personal belongings brought to the school by students and their families. A vial of mercury (1 of 3 believed to have been taken home by students) was returned in one of the student's bags dropped at the school on Tuesday, November 24.

Thursday, November 26 - Two 2-person Lumex air monitoring teams (START) continued assessing students' homes and belongings. An additional 7 homes were assessed, two of which had elevated ambient air concentrations and one floor hotspot in each, associated with the students' bedrooms. Some personal items were identified as contaminated and bagged for removal/decontamination. One of the teams reassessed the elevated home identified on November 25 and determined to be below the Action Level of 1000 ng/m3.

The ERRS procured two shipping containers (Conex) to be utilized for storage and thermal decontamination. The ERRS segregated bags of personal belongings into 3 contamination categories (Low, Medium, High) by headspace measurement of the opened bags, after the bags were brought to room temperature in a Conex box. Uncontaminated or Low contaminated bags were opened at the top and placed in a Conex box for heating. Quality assurance spot checks were conducted after heating via small forced air to confirm that the initial screening was accurate and test efficiency of thermal treatment. The contents of Medium contaminated bags were removed and hung up in the second Conex box for thermal treatment/decontamination. Large forced-air heaters were placed at the front of the Conex boxes to warm the contents for measurement and/or treatment.

Friday, November 27 - One Lumex air monitoring team assessed the 15th of the original 16 targeted homes. Additional student personal belongings bagged and removed for decontamination. A hotspot in student's room pegged at 50,000 ng/m3. OSC and team advised family to mitigate with isolation, heat and ventilation and we would return for reassessment. A second Lumex air monitoring team entered the 2nd floor of the south school building to reassess ambient air levels and surfaces.

It was reported earlier in the week that the student in the 16th targeted home (residing in Washington State) had taken home a vial of mercury and that the family was not consenting to grant access to an air monitoring team to assess their home. Repeated contact by the Clergy and school officials was not effective at gaining access. A review of the records by school officials found a potential error in record-keeping about who took home vials of mercury. The parent of the student in the 16th home, verbally confirmed with a school official that no vials of mercury were brought home.

The ERRS commenced with decontaminating the 2 classrooms with the highest contamination, using a mercury absorbent/cleaning agent and elevated heat with ventilation. Reassessment of cleaned rooms found elevated levels. Plan was to increase heat, modify heating patterns and adjust window openings to focus thermal treatment on two cleaned rooms overnight. The ERRS also continued thermal treatment of personal belongings and a START assisted with managing the inventory and measurement of efficacy. Approximately 75% of the medium contaminated belongings were determined to be cleaned below the action level of 3000 ng/m3 and were staged in a clean room for return to families. Items not deemed cleaned yet will be put back through a second round of thermal treatment.

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

To be determined.

2.1.4 Progress Metrics

2.2 Planning Section

2.2.1 Planned Response Activities

1. Continue decontamination and assessment of contamination removal in buildings.
2. Continue segregation and thermal treatment of personal belongings.
3. Confirm assessment results in other less-contaminated buildings to determine next course of action.
4. Reassess homes with hotspots to determine efficacy of mitigation.
5. Identify faculty/staff that may have been exposed and offer assessment of belongings/homes.

2.2.2 Issues

1. Cold weather is hampering thermal treatment and proper measurement of personal items decontamination
2. School and church functions/events are still occurring which increases chances that school members will stray into the site exclusion zone.
3. Ineffective heating and lack of control causes difficulties in utilizing heating/venting techniques to aid in decontamination.

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

School Clergy and Principal

Kootenai County Fire/Regional Response Team

Idaho Department of Environmental Quality

US EPA

3.2 Cooperating Agencies

Panhandle Health District 1

4. Personnel On Site

1 EPA OSC

4-5 START contractors

4-7 ERRS Contractors

1-2 IDEQ personnel

3-5 Kootenai Fire/RRT members on as needed basis.

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.