

EPA Emergency Response Situation Report

Mercury Spill in Lead, SD

December 20, 2022

The Response Team night shift is grateful to the City of Lead for providing a heated break room.

Safety Message

Levels of mercury in student's residence are hazardous. Levels of mercury in the Lead-Deadwood High School (High School) are elevated. Do not enter the residence or High School without appropriate personal protective equipment.

Incident Overview

A Lead-Deadwood School District Nurse contacted City of Lead Volunteer Fire Department (VFD) regarding a student who brought a bottle of mercury to the High School. The student had been playing with the mercury for three days and at least 16 students may have been in contact with the material. Lead VFD requested assistance from Rapid City Fire HazMat (HazMat) who responded to the residence of the student that brought the mercury to school. HazMat reported that an unknown amount of elemental mercury from three bottles had spilled in a bedroom. HazMat identified multiple beads of mercury ranging in size from "pinhead to dime." The mercury came from the belongings of a relative of the student's who worked at a mine.

The State of South Dakota requested assistance from EPA on December 13, 2022. On December 15, 2022, EPA's Response Team (Response Team) discovered detectable levels of mercury at the High School. The Response Team also monitored and determined that mercury levels at the student's residence were hazardous to human health. The family voluntarily agreed to leave their home. The Response Team helped secure alternate lodging for the family during a blizzard and assisted with moving them out of their home.

The Lead-Deadwood School District Nurse spoke with the parents of the other 16 students and extended EPA's recommendation that they contact the On-Scene Coordinator and have their homes screened.

Response Objectives

- Safety of the public and response personnel is top priority.
- Stabilize source areas to prevent the spread of mercury.
- Minimize or, if possible, eliminate threats to human health posed by the mercury.
- Provide timely and accurate communication of response information to the public and affected stakeholders.

Operations Period December 20, 2022

Period Objectives

The objectives of this Operations Period were to:

1. Continue decontamination efforts at the High School.
2. Response operations at the student's residence were initiated.
3. Screen additional residences.

Period Accomplishments

At the High School, EPA's Response Team is using a mercury vacuum to remove tiny, but visible, beads of elemental mercury. Hard surfaces are being treated with a solution to chemically react with the mercury and create a non-hazardous product. After this treatment, rooms are heated and vented before additional screening is performed. EPA was able to treat and clear one additional room in the High School.

The Response Team continued to process household items and decontamination efforts at the student's residence.

To date, EPA has been contacted by eight (8) property owners for additional screening. Seven (7) homes have been screened to date. All were positive for mercury. Three homes had minimal levels and no action was required. Two homes were cleared after removal of clothing and book bags. One home requires additional screening, and one home will require a removal action.

Next Steps

The High School will be closed on December 21st to allow EPA's Response Team to continue decontamination procedures. Due to safety concerns, 24/7 operations will not be performed.