

EPA Emergency Response Situation Report

Mercury Spill in Lead, SD

December 16, 2022

Safety Message

Levels of mercury in the residence and a few areas at the school are hazardous. Do not enter the residence and designated school areas without appropriate personal protective equipment.

The City of Lead and Deadwood are experiencing adverse winter conditions. Driving and working outside is hazardous.

[Images and Additional Information](#)

Incident Description

A school district nurse contacted the City of Lead's Volunteer Fire Department (VFD) regarding a student who had brought a bottle of mercury to the High School. The student admitted to playing with the mercury for 3 days. Lead VFD requested assistance from Rapid City Fire HazMat who responded to the residence of the student. 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 State of South Dakota requested assistance from EPA on December 13, 2022. On December 15, EPA's Response Team discovered detectable levels of mercury at the High School. The Team also monitored mercury levels residence of the student's residence that were hazardous to human health. The family voluntarily agreed to leave their home during a blizzard and the Response Team helped secure and moved them to alternate lodging.

Response Objectives

- Safety of the public and response personnel is top priority.
- Stabilize source areas to prevent the mercury from being spread.
- 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 16, 2022

Period Objectives

The objective of this Operations Period was to:

1. Conduct secondary entry and reconnaissance of the High School to develop a plan for removal and mitigation of mercury.
2. Visit the residence with additional members of the response team to identify possible staging areas and develop a plan for removal.
3. Shovel the homeowner's car out of a snowbank.

Period Accomplishments

EPA's Response Team entered the High School with a School District representative at 0900 on December 16, 2022. The Response Team scouted the areas where mercury was known to have been spilled and tracked. The Team identified initial response activities and discussed its plans with the School District. The District signed a Consent for Access for EPA to conduct emergency response actions.

The Response Team visited the residence at 1100 on December 16, 2022. The Team assessed the property and adjacent areas to determine areas for staging equipment and resources to conduct response actions. The Response Team assisted the family by recovering the homeowner's vehicle from a snow bank and EPA's On-Scene Coordinator discussed the scope of EPA's anticipated response activities in the home.

Next Steps

EPA's Response Team will remove elemental mercury beads from the school and assessing contaminated items to determine if they are salvageable. A mercury absorbing solution (Merc-X) solution will be applied to hard surfaces to facilitate the removal of mercury. Containment and decontamination zones will be erected and clearly defined, to prevent spreading of mercury during removal actions. The response team will be screening continuously during the removal actions to assess the effectiveness of the removal actions, guide further operations and monitor worker safety.