

## EPA Emergency Response Site Update

Helena Mercury Release

Operations Period 04

June 4, 2024

### Safety Message

Mercury is a contaminant that is toxic to humans at very low levels and is easily spread.

The bathhouse has been cleared for use by guests of the retreat. The garage has been secured as an Exclusion Zone and EPA's response team is blocking a significant portion of the retreat center's parking lot.

### [Website](#)

### Site Description

On May 30, 2024, an employee picked up an unlabeled bottle while cleaning out a detached garage at a yoga retreat center. The bottle was heavier than expected and slipped from his hand. The bottle hit a work bench and shattered, which resulted in a reported 500mL of mercury being released to the garage (note the response team has already collected more than 500mL of mercury). The employee left the garage, bagged their contaminated clothing just outside the door, walked to a nearby bathhouse and rinsed themselves in a common shower used by guests. Staff at the retreat center closed and isolated the garage before calling the National Response Center.

An EPA response team arrived on May 31, 2024 and initiated a response effort.

### Site Objectives

- Safety of the employees of the retreat center, its guests and response personnel is top priority.
- Collect and dispose of recoverable mercury.
- Clear the bathhouse for use (**complete**).
- Clear the garage for use to the extent practical.
- Provide timely and accurate communication of response information to the public and stakeholders.

### Operations Period Objectives

1. Maintain exclusion, contaminant reduction and support zones.
2. Continue effort in the garage.

### Operations Period Accomplishments

EPA's response team discovered a few pockets of mercury in the garage once all the items had been removed. This mercury was collected with a vacuum designed to recover elemental mercury. The team then vacuumed exposed surface in the garage, except the ceiling, inch by inch, paying particular attention to cracks and tiny gaps.

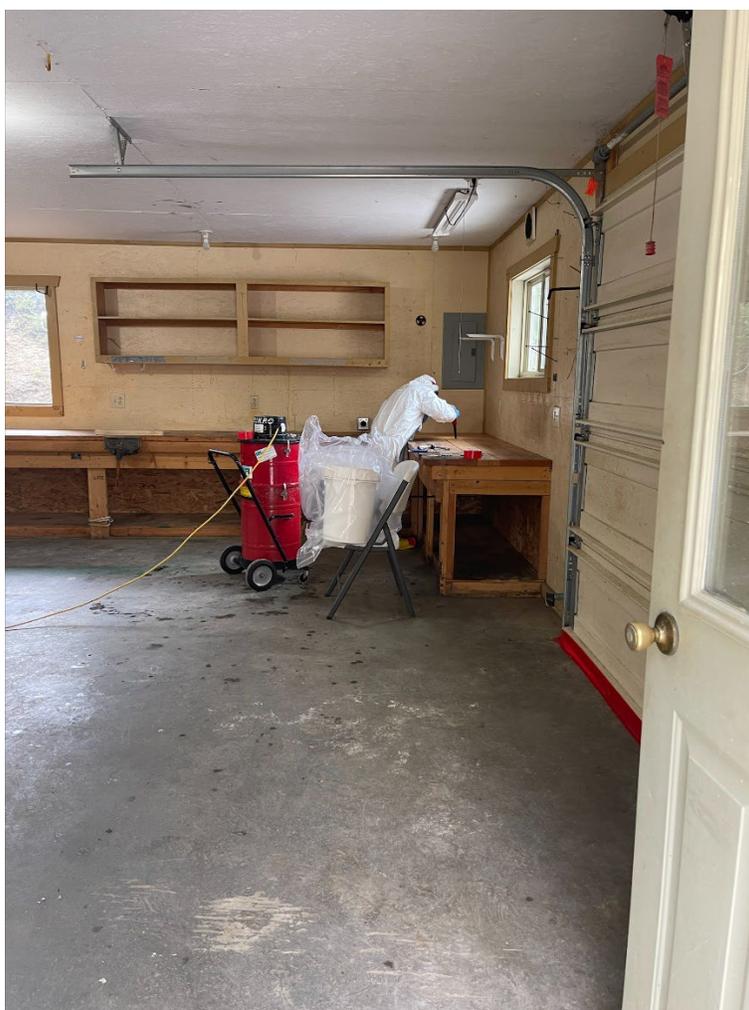
The team used plastic sheeting to isolate the area around the workbench and began to slowly dismantle the shelves and bench in that area. Once a portion of the workbench was removed, the team found 2-inch pools of mercury and the element seeped from several newly exposed cavities. This element then dispersed across the floor of the containment within the exclusion zone each time requiring meticulous use of the mercury vacuum to clear the containment area. Work in this area will continue into the next Operations Period until the bench and plywood wall behind it is fully removed.

The response team continued to decontaminate several items that the non-profit will have difficulty replacing and requested that EPA salvage. The items include, but are not limited to, power tools, a riding mower and a charger for a golf cart. The team treated many of these items a second time with a chemical reagent designed to produce a non-vaporizing sulfide when it comes in contact with mercury and also actively heated several items with a portable heater before they were allowed to vent further. Many of these items screened at less than 6000 nanograms per cubic meter ( $\text{ng}/\text{m}^3$ ) and were transferred to a nearby shed for release to the property owner. Many items are still contaminated and are being processed further.

Once the workbench area has been cleared, the team will liberally apply the chemical reagent to all surfaces in the garage except for the ceiling. The building will then be vented. The team expects to perform this procedure several times during the day. If hot spots are discovered, the mercury vacuum will be used again.

The response team is planning for a small crew to stay at the garage the night of June 5 to actively heat and vent the building to draw out as much residual mercury as possible. This will be followed by sealing the garage floor and running an 8-hr clearance test to accurately measure the amount of residual mercury vapor in the breathing zone.

*Preparing to remove the workbench.*



*Isolating the work bench.*



*Clearing mercury as the workbench is removed.*

