

Responding to Mercury Spills: Large Spill Response

Cleaning Up Large Mercury Spills

If one pound or more (more than one fluid ounce or two tablespoons) has been spilled and gets into the environment, i.e., outdoors, sewer, groundwater or surface water, or that threatens public health, it must be reported immediately. Call the Wisconsin Department of Natural Resources Spill Response hotline at 800-943-0003.

Before cleaning any mercury spills, be sure to read and follow the precautions (<http://dhs.wisconsin.gov/eh/HlthHaz/fs/MercSpill.htm>) found in the general mercury spill fact sheet on the web.

EVACUATE THE SPILL AREA

Before people leave the spill site, be sure they had not come in contact with or stepped in the mercury. When directing people out of the area, be sure to avoid traffic going through the spill site. Those who may have come into contact with mercury should be directed to the nearest safe location and asked to stay there until contamination can be assessed and clean up completed. Once immediately outside of the spill area, contaminated (direct contact with mercury) shoes and clothes should be removed, double-bagged and sealed. Not doing so can result in mercury being tracked around the building or home, making the situation worse.

SEEK PROFESSIONAL ASSISTANCE FOR CLEAN UP

Call either the local fire department or a contractor listed under “Resources” on the web (<http://dhfs.wisconsin.gov/eh/HlthHaz/fs/hgresources.htm>). Spills of this size require specialized equipment and demanding control measures. It is also likely larger spills will release dangerous levels of vapors into air and specialized protective equipment, such as self contained breathing apparatus, will be necessary for responders.

TEST CLOTHING/PERSONAL BELONGINGS

Clothing and personal belongings that were contaminated or suspected of being contaminated can be placed in a plastic bag, which should then be sealed and allowed to sit for about an hour. Test the headspace of the air in the bag with a mercury vapor analyzer capable of reliably detecting concentrations less than 0.1 ug/m^3 . If the level in the headspace in the bag is less than 10 ug/m^3 , the clothes and belongings can be returned to the owners. Other procedural guidance for decontamination can be found at the Ohio EPA website:

http://www.epa.state.oh.us/opp/mercury_pbt/mercury.pdf. It should be noted that the cost to clean and monitor clothes and belongings could exceed the value of those items. Clean up cost should be weighed against item value to prevent unnecessary expense.

CONTINUE VENTILATION

Ventilate as much as possible to completely air out the room or spill zone with outside air.

MONITOR

Air in the spill area should be tested using NIOSH Method 6009 (<http://www.cdc.gov/niosh/nmam/>) or similar method with comparable limit of detection. Levels should be below 1 ug/m³ for residential environments and 3 ug/m³ for commercial environments.

INVENTORY ALL REMAINING MERCURY-CONTAINING DEVICES AND REPLACE THEM WITH MERCURY FREE ALTERNATIVES

The best way to address a mercury spill is to prevent it from ever happening in the first place. For assistance with reducing mercury use contact Wisconsin Department of Natural Resources at 608-267-7639.

MEDICAL TESTING

If significant exposure is believed to have occurred, you should discuss with your family doctor whether urine mercury tests should be conducted for the people who use the area the most. Results should not be above 20 micrograms per liter of urine (20ug/L).

