

Mercury Spill Response



Presented by
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Local Health Department Role

- Phone Investigation
- Education
- Resources
- On-site Investigation
- Vapor Readings
- Clean up



The Phone Rings...

- Ask a lot of questions
- Determine if site visit is needed
 - When did spill occur?
 - What was the source?
 - How much?
 - Where did the spill occur?
 - Who was in the area? Pets?
 - Did any clean up occur?
 - How did they clean it up?
 - What cleaning tools did they use? Vacuum?
 - Where is the 'trash stored'?
 - Was the area ventilated?
 - Are people or pets still in the area?
 - Who has been notified?

How bad is it...really?

- How much mercury is release? (> 2 tbsp)
- Heat source present?
- Is the area contained?
- Who has been in contact with the mercury?
- Are there children involved?



Prior to Arrival on Site

- Occupants out of spill area
- Contain the area - close doors and windows
- Maintain the temperature with out circulating vapors
- If small enough, cover with plastic



Equipment to Bring On-site

- Lumex
- Clipboard, Investigation forms
- Educational information
- Emergency Phone Numbers
- Business Cards
- The Bag



The Bag!

- Flash Light (+batteries)
- Booties
- Gloves
- Tape
- Eye Dropper
- Index Cards
- Ziploc Baggies
- Trash Bags
- Digital Thermometer



Take the Jewelry Off!



A note on Cleanliness...

- Start Clean!
- Stay Clean!
- Keep your equipment clean!
- Bag Down!
- Wear your booties!
- Double bag removable items!
- Use disposable items and cheap replaceable items whenever possible.

Upon Arrival

- Fire up the Lumex
 - outside if possible
 - initial air sample - in the breathing zone just inside the door
 - $> 50 \text{ ug/m}^3$ do not enter, evacuate the building
 - $20\text{-}50 \text{ ug/m}^3$ open windows and doors and request evacuation



Work from Cold to Hot

- Start in a clean environment
- Work where mercury is least probable
- Work toward the spill zone
- Allow occupant to point out things, but don't allow into contamination



Mercury Vapor Sampling



Breathing Zone

Floor

Spill Area Vapor Readings

- Floors / Carpet
- Walls / Floor Seams
- Traffic Flow Areas
- Impacted furniture - counter tops, beds, tables, dressers, drawers
- Appliances - washer, dryer, always check the vacuum!
- Other items - trash cans, toys, critter's feet, jewelry, clothing, shoes

In the Hot Spot

- Use your flashlight!
 - Mercury beads will glisten / wink
- Use the tape on hard surfaces
- Eye dropper on textured



If occupants must leave...

- Friends & Family
- Salvation Army
- American Red Cross
- Local Hotels/Motels
- What if they refuse to leave?

NOTICE!
THIS BUILDING IS NOT TO BE OCCUPIED
FOR THE FOLLOWING REASON(S):

 **NORTHWEST MICHIGAN COMMUNITY HEALTH AGENCY**

<small>ASTORIA 4000 Knight Dr. Baltimore, MD 21286 (410) 326-6800</small>	<small>CHARLESTON 227 W. Center St. Charleston, MD 21040 (410) 326-6800</small>	<small>ESSEX 1000 E. Bay View Rd., Suite A Perry Springs, MD 21850 (410) 326-6800</small>	<small>GRAND 200 W. 1st St. Lexington, MD 21752 (301) 461-1000</small>
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Date: _____

Environmental Health Director: _____ Environmental Sanitarian: _____

This card is to be removed by Health Department Agent Only!

Disposal?

- Is there a location for mercury disposal?
 - Clean Sweep, Household hazardous waste programs
- Do not leave broken thermometers, mercury in jars, etc. at site
- Other items may be disassembled and placed for normal waste collection, if not going to incinerator

Residential Values

Indoor Air Concentration (ug/m ³)	Application / Action
< 1.0	Re-Occupancy of residential structure after all mercury has been cleaned up and removed
> 10	Action level for determining if resident may remain in the home during remediation
> 10	Action level for determining if household items (clothing, books, and furniture) may be safely maintained.
> 20	Level at which occupants are asked to leave the structure and one can enter the home and open windows and doors to ventilate area, but not remain to characterize site
> 50	Do not enter, Evacuate the structure and call for assistance

Commercial / Occupational

Indoor Air Concentration (ug/m ³)	Application / Action
< 3.0	Re-Occupancy for commercial structure where mercury is not usually handled, after all mercury has been cleaned up and removed
> 10	Action level for determining if personal items (clothing, shoes) may be safely maintained.

Need advice?

- MI-Toxic Hotline, MDCH
 - 800.MI.TOXIC
- National Poison Control Center
 - 800.222.1222
- EPA Emergency Response Branch
 - 312.353.2318
- Agency for Toxic Substances & Disease Registry
 - 800.447.1544

