Mercury Spill Clean-Up Guidelines

1. Evacuate the spill area — do not walk near the spill area - liquid mercury spreads out easily in all directions and can form hundreds of tiny droplets that can be tracked to other locations and contaminate shoes, clothing and facilities. Lower the room temperature — liquid mercury will release toxic vapors that are odorless at room temperature — the lower the temperature the less vapor that will be released into the air. Mercury vapor density is heavier than air and will usually accumulate near the spill site about 6” above the liquid mercury/residue.

2. Close the room/lab door and place a Do Not Enter – Mercury Spill sign to warn other occupants not to enter until the clean-up process has been completed.

3. Larger spills — barometers — more than 4 tablespoons — call physical plant and ask for priority response to shut down re-circulating ventilation systems. Labs with fume hoods do not need to shut down ventilation — open sash slightly to help ventilate the room air to the exterior.

4. All spills — ventilate the room to the outdoors for two days.

5. Take care to inspect the area very carefully and thoroughly and work from the outer perimeter inward. Use a flashlight to help locate tiny droplets of mercury.

6. Wear latex or nitrile gloves to avoid skin contact in case of open skin or ingestion.

7. Use your readily available mercury spill kit and supplies.
   a. Use mercury kit per instructions — (spread metallic binder powder on mercury, sprinkle with water to form a metallic amalgam), OR
   b. Collect mercury with an eye dropper or plastic ruler or old credit card and gently place/roll the collected mercury into an empty 35mm film canister or plastic vial with sealed cap and then place inside a second zip lock bag OR
   c. Use mercury absorbent sponge activated with small amount of water — see instructions. Collect mercury on sponge and place contaminated sponge in a small zip lock bag and place inside a second zip lock bag.
   d. Decontaminate surfaces with disposable towels and a mild solution of dish detergent — wipe all surfaces twice with clean towels to remove mercury residue. Place contaminated gloves, paper towels, etc in a zip lock bag and label as “mercury contaminated items”.

8. Disposal - place a hazardous waste label — Mercury Waste - on outer bag and place the waste in the appropriate container marked mercury waste in Fondren-Jones hazardous waste area — room 305. Complete a hazardous waste disposal form and leave it with the waste.

9. Sprinkle sulfur powder on spill area and in hard to reach cracks/areas. The sulfur will:
   a. Help to bind any left over mercury droplets or residue
   b. Reduce mercury vapors
   c. Act as an indicator stain. If the yellow powder turns reddish brown over the next 24 – 48 hrs, mercury residue/droplets are still present and need to be re-cleaned.

HAZARD PREVENTION: Please replace all mercury containing instruments/thermometers, with mercury free alternatives. Dispose of all mercury instruments/glassware as “hazardous waste” — apply label and complete the waste disposal form and place in mercury waste section in FJS room 305. Mercury will be sent to a haz. waste recycler.

DO NOT: use a vacuum OR a broom to clean-up mercury. Never pour mercury down the drain!
For large spill or ineffective clean-up: Mercury vapor monitoring may be prudent – Depending on occupancy time, ATSDR guideline ranges from < 1 to <5 ug/m3. Analytical methods/equipment: NIOSH 6009, Jerome mercury vapor monitor (0.001 mg/m3) or mercury vapor passive badges (0.005 mg/m3) can be considered.

Items that may contain mercury:
Thermometers, thermostats, barometers, electrical switches, silver dental filings, medical or laboratory equipment/instruments, certain light bulbs including; fluorescent, high intensity, high pressure sodium, metal halide, mercury vapor.

Health Hazard Information: Mercury vapors are toxic at very low levels and should be minimized or avoided. ATSDR (Agency for Toxic Substances and disease Registry) recommended guideline for occupancy is < 1 ug/m3.

Porous items must usually be bagged and disposed of as mercury waste. Decontaminating is difficult and requires bake out of vapors and testing.

For long term or serious exposure, urine or blood plasma testing may be considered. Urine mercury levels should not exceed 20 ug/L.