

Basis of Design

The purpose of this section is to provide the guidelines for the development of specifications for safe cleanup and proper disposal of mercury-contaminated materials.

Overview

Mercury has been used in many laboratory areas on campus. All laboratory areas and former laboratory areas should be surveyed for mercury contamination before construction. Some non-laboratory buildings, listed below, also have a history of mercury contamination and should also be suspected to have high levels of mercury. Cleanup by a hazardous materials contractor is required before demolition or construction can begin.

Likely locations of mercury contamination

Laboratories often have mercury contamination in crevices: inside drawers and cabinets, under and behind benches and furniture, under and behind fume hoods, along baseboards, under sinks and near floor drains, and in drain traps. In addition, medical and dental exam and treatment rooms contain mercury.

In addition to buildings currently containing laboratories, the following buildings are likely contaminated with mercury: Harris Hydraulics Laboratory, Kincaid Hall, Old Oceanography Building, Raitt Hall, Quaternary Research Center, and the Power Plant.

Mercury monitoring

If there is risk of mercury contamination, monitoring for airborne mercury levels and a visual survey is required. If airborne levels exceed background levels, the Environmental Consultant should do another survey (airborne and visual) after the space is vacated and prior to the start of construction or demolition. If measured airborne mercury levels are greater than 0.05 mg/m^3 , immediately disclose this information to the EH&S Occupational Health & Safety Office at 206.543.7388.

If mercury is detected, it must be cleaned up by a hazardous materials clean-up contractor prior to the start of construction. All waste from the cleanup will be managed by the EH&S Environmental Programs Office (EPO) as hazardous waste.

Drain traps

Use the following procedure for disposal of drain trap contents from demolitions or remodels of laboratory areas.

- Call EPO at 206.685.2849 prior to the start of work to obtain appropriate waste containers for the liquid and the drained traps.
- Wearing nitrile gloves, remove the trap, empty it into the liquid waste container and place the trap in the solid waste container.
- Have the liquid waste analyzed for mercury using EPA SW-846 methods. If there is visible metallic mercury, then this step can be skipped.
- Provide the analytical results (or report the presence of metallic mercury) to EPO. EPO will review the analytical and determines the appropriate disposal method for the materials. The costs of disposal will be recharged to the project.