



LAB SAFETY INFORMATION FOR DEMOLITION






Introduction

At the University, researchers within Academic Departments commonly use potentially hazardous materials in research areas and with equipment. These potential hazards are specific to the research activities and must be identified to all persons with access to these areas. Physical Plant staff, Contractors, EHSO and Security Services staff may enter the facility during the course of the decommissioning and demolition work. As researchers are unlikely to be present during the demolition, researchers have the obligation **to protect the health and safety of these workers by clearly communicating the hazards with hazard signage, and working with Physical Plant or other agents to ensuring engineering or administrative controls including personal protective equipment or engineering controls are effective.**






Potential Hazards: Contamination may occur by touching surfaces or being exposed to airborne contamination from dispersal (grinding, breaking, sanding, sawing or similar actions) of particulate from solid materials contaminated with radioactive material or hazardous liquids in the lab. Opening of vents and drains (including dilution tanks) may create possible radioactive contamination if previously contaminated with long-lived radioactive material or residual hazardous liquids such as mercury. Consideration should be given to **collecting the drain traps for radioactive monitoring or presence of mercury or other heavy hazardous liquid** by staff **following the appropriate procedure** to protect themselves from exposure to or the spread of contamination. Other hazardous chemicals may also be present in drain traps and inaccessible areas.








At any time, should the contractor or worker discover chemicals, radioactive material or warning symbols such as a tri-fold, biohazards, or discover or suspect asbestos or mould, they should cease operations and immediately contact the University of Manitoba project coordinator.

Required Procedure prior to demolition

















-  Ensure all workers are familiar with the potential hazards involving chemicals, biohazards, radiation, asbestos and mould in the area to be demolished.
-  Workers shall be instructed not to disturb hazards that are found and notify their supervisor immediately. The supervisor shall then notify the University of Manitoba project coordinator.
-  Workers shall wear proper personal protective equipment which may include but not limited to safety headwear, safety footwear, proper respirator, tyvek suit, chemical resistant gloves, face shield, etc.
-  All surfaces shall be wiped with a solution of 10% household bleach in water (i.e 1 part household bleach to 9 parts water). The concentration of sodium hypochlorite in the household bleach shall not exceed 6% sodium hypochlorite.
-  Only equipment with a proper decommissioned sticker (green) can be removed for disposal to land fill.

Procedure for dismantling laboratory sink traps at unions

-  Wear appropriate personal protective equipment
-  Ensure there is a plastic 20-litre pail for each trap.
-  Flush the sink traps with water for a minimum of 15 minutes.
-  Place pail under the trap
-  Thoroughly wet the outside of the trap and dismantle the trap at the unions taking care not to spill the contents of the trap.







-  Pour the contents of the trap in the plastic 20-litre pail.
-  Check for the presence of Mercury. **If Mercury is found or suspected,**
 -  place the trap in the pail,
 -  seal the pail and using a felt tip pen,
 -  identify on the outside of the pail the building name and location the trap came from,
 -  notify EHSO at 474-6633 when all traps have been removed.
-  If no Mercury is visible, dispose the liquid through regular drain and the trap as regular construction waste.

Procedure for dismantling laboratory sink traps that do not have unions

-  Wear appropriate personal protective equipment
-  Ensure there is a plastic 20-litre pail for each trap.
-  Flush the sink traps with water for a minimum of 15 minutes.
-  Place pail under the trap
-  The recommended tool is a pipe cutter. Where a pipe cutter cannot be used, a hacksaw can be used.
-  Thoroughly wet the outside of the trap and cut on the sink side, 6 inches above the top and six inches below the bottom of the p-trap taking care not to spill the contents of the trap.
-  Pour the contents of the trap in the plastic 20-litre pail.
-  Check for the presence of Mercury. **If Mercury is found or suspected,**
 -  place the trap in the pail,
 -  seal the pail and using a felt tip pen,
 -  identify on the outside of the pail the building name and location the trap came from,
 -  notify EHSO at 474-6633 when all traps have been removed.
-  If no Mercury is visible, dispose the liquid through regular drain and the trap as regular construction waste.
-   place the trap in the pail, seal the pail and using a felt tip pen, identify on the outside of the pail the building name and location the trap came from. Notify EHSO at 474-6633 when all traps have been removed.
-  If no Mercury is visible, dispose the liquid through regular drain and the trap as regular construction waste.

Procedure for dismantling fume hoods exhaust ducts

NOTE: This procedure is for standard fume hoods. For Perchloric Acid fume hoods a special procedure is required. Contact EHSO at 474-6633 for further information.

-  Wear appropriate personal protective equipment
-  Flush the exhaust duct with a 5% sodium bicarbonate in water solution collecting the effluent. The effluent must be tested for pH. If pH is between 5.5 and 9.0, the effluent may be discharged in the city sewer system and the duct is ready for dismantling.
-  Continue flushing with a 5% sodium bicarbonate in water solution if pH is outside of acceptable limit and collect the effluent. The effluent is considered hazardous waste and must be identified accordingly.
-  The recommended tool is a hacksaw. A reciprocating saw can be used.
-  Thoroughly wet the inside and outside of the duct and cut only small sections that can be easily manipulated.
-  Dispose of duct in appropriate trash bin and send to land fill.