

General SOP for Asbestos Type 2 Operations

1. Purpose and scope

The purpose of this procedure is to ensure that personnel within Carleton University's Department of Facilities Management and Planning perform Type 2 asbestos abatement work in accordance with applicable regulations within Carleton University's facilities.

What is a Type 2 Asbestos Operation?

With proper training, Carleton FMP personnel can safely perform Type 2 asbestos operations. Type 1 asbestos operations outline some of the preparation work for Type 2 operations. As outlined in O.Reg. 278/05, Type 2 asbestos abatement operations may include the following:

- Entry into any ceiling space, wall chase or other area in which friable asbestos-containing debris is present.
- Removal of any part of a false ceiling if asbestos-containing debris is likely to be lying on the surface of the false ceiling.
- Clean up of asbestos-containing debris.
- Removal of asbestos insulation from a pipe, duct or similar structure using a glove bag. (Note that FMP staff will not be completing glove bag removals)
- Removal of non-friable materials with hand-tools where the material has not been wetted
- Removal of more than 1 m² (10.7 ft²) of drywall to which asbestos-containing compound has been applied.
- Removal of up to 1 m² (10.7 ft²) of friable asbestos containing material.
- Removing intact ACM ceiling tiles that cover an area of 7.5 m² (807 ft²) or more
- Breaking, cutting, drilling, abrading, grinding, sanding, or vibrating non-friable ACM using non-powered hand-held tools if the material is not wetted
- Breaking, cutting, drilling, abrading, grinding, sanding, or vibrating non-friable ACM using powered hand-held tools attached to the dust-collecting devices with HEPA filters.
- Emptying a HEPA vacuum used for asbestos operations.
- Any operation not defined as an asbestos operation but may expose a worker to asbestos.

Very limited Type 2 work can be carried out by Carleton University trained maintenance personnel (see Appendix 7) All other Type 2 and all Type 3 asbestos abatement work on campus will be performed by trained asbestos abatement contractor and their workers.

2. Equipment

Equipment required for the work must be on site before proceeding.

HEPA Vacuum: An asbestos-approved vacuum (HEPA filtered) equipped with brushes, fittings, etc. A vacuum can be opened to empty only by a fully protected worker within a Type 2 enclosure. HEPA vacuums to be DOP (Dispersed Oil Particulate) tested by a third party annually to ensure guidance with the (Environmental Abatement Council of Canada) EACC guideline.

Respirators: Workers within the work area must wear an approved respirator. Respirators and filters will be provided by the employer and individually assigned to workers. Respirator shall be a half-facepiece respirator with high efficiency (P100) filters, for all classifications of Type 2 work, except as follows: Full face piece air purifying respiratory or powered air purifying respirator with high

efficiency (P100 or HEPA filters) shall be used for ceiling access with ACM debris on ceiling or for use of power tools equipped with HEPA filtered dust collector to cut, grind or abrade non-friable ACM. Respirators must be kept in position on the face during the entire time the worker is in the Type 2 Work Area. This is the period from the first removal of the ceiling tile, opening of hatches or the first disturbance of the asbestos material until the final cleaning of the area and the bagging of all materials and waste is completed.

Change filters after 24 hours of wear or sooner if breathing resistance increases as filters become damp. **No person wearing a respirator shall wear facial hair which affects the seal between the respirator and face.**

- **Protective Clothing:** All workers shall wear disposable Tyvek coveralls (or equivalent) with an attached hood. Coveralls should be snug at wrist and ankles and must be always worn with the hood in place. Suit and head cover shall remain in place until worker leaves the Type 2 enclosure or work area. Boot covers are required if wet wiping or HEPA vacuuming cannot effectively clean footwear. Disposable coveralls must be disposed of as asbestos waste each time leaving the work area. Polyethylene (6 mil polyethylene) - to erect a total enclosure or to serve as drop sheet; Wood framing or clips to support polyethylene sheeting, as appropriate to work area
- Duct tape to fasten plastic enclosure to ceiling, walls, or to tape drop sheet to floor; 3/4" double-sided tape recommended for attaching polyethylene to T-bar ceiling
- Yellow asbestos waste bag (6 mil) - for all asbestos waste, disposable suit, plastic for disposal, etc.
- Pump sprayer containing water with wetting agent to wet asbestos as necessary; dilute wetting agent 2 oz. per gallon of water.
- Asbestos warning signs
- Encapsulating sealer, for brush or airless spray application or for Glove Bag operations.
- Cleaning supplies - e.g. scouring pads, sponges, brushes, buckets, etc.

3. Other protective measures

Do not eat, drink, chew, vape or smoke in the work area. On completing the clean-up of the work area, use a vacuum or wet cloth to clean hands, face, respirator, and boots. Remove protective equipment and proceed to the nearest washroom to wash exposed skin on your hands and face.

Scheduling of work

Schedule work when occupants are absent. If persons are present, do not start work. If work is required on an emergency basis and the area is occupied, the Project Manager is to advise occupants to vacate the area until work is complete, and clearance is given to return.

THE FOLLOWING MEASURES AND PROCEDURES APPLY TO TYPE 2 OPERATIONS:

- Signs warning of an asbestos dust hazard must be posted and must be in sufficient numbers to warn of the hazard
- Clearly visible signs must also say that access to the work area is restricted to persons wearing protective clothing and equipment and that there is an asbestos hazard
- Drop sheets made of polyethylene or other material that is impervious to asbestos or other measures appropriate to the work must be used to control the spread of dust from a work area

Note: The following 5 items apply only to the preparation of the work area for Type 2 operations the removal of a false ceiling.

1. When removing all or part of a false ceiling where ACM may be lying on the top surface of the ceiling tiles see procedure below;
 - Slightly lift tile on one edge, HEPA vacuum track, and work around the tile perimeter.
 - Lift tile flat and straight up
 - Slide over onto adjacent tile
 - Clean back of all reachable tiles.

1. Before beginning work that is likely to disturb friable ACM that is crumbled, pulverized or powdered and that is lying on any surface, the friable material must be cleaned up by damp wiping or HEPA vacuuming
2. If the operation is carried on indoors the spread of dust from the work area must be prevented, if practicable, using an enclosure made of material that is impervious to asbestos
3. If the operation is carried on indoors the spread of dust from the work area must be prevented, if practicable, by disabling the mechanical ventilation system serving the area
4. If the operation is carried on indoors the spread of dust from the work area must be prevented, by sealing the ventilation ducts to and from the work area and a static pressure enclosure or using negative pressure (HEPA vacuum).

Additional requirements for Type 2 Operations

- A wetting agent must be added to water used to control the spread of dust and fibres
- Eating, drinking, chewing, vaping smoking must not be permitted in the work area
- Friable ACM that is not crumbled, pulverized or powdered and that may be disturbed or removed must be thoroughly wetted and kept wet unless wetting would create hazard or cause damage Before commencing work on friable ACM that is crumbled, pulverized or powdered and is lying on any surface, the friable material shall be cleaned up and removed by damp wiping or HEPA vacuuming Compressed air must not be used to clean up and remove dust from any surface Containers for dust and waste must be dust tight, suitable for the type of waste, impervious to asbestos and identified as asbestos waste.
- Frequently and at regular intervals during the work and immediately upon completion of the work dust and waste must be cleaned up and removed by damp mopping, wet sweeping or HEPA vacuuming and placed in a prescribed asbestos waste container
- Prescribed containers for asbestos waste must be cleaned with a damp cloth or by HEPA vacuuming immediately before being removed from the work area
- Prescribed containers for asbestos waste must be removed from the workplace frequently and at regular intervals.
- When asbestos dust and waste have been cleaned up and removed upon completion of the work drop sheets must be wetted and placed in a prescribed asbestos waste container as soon as practicable
- Drop sheets must not be reused
- After the completion of the work polyethylene sheeting and similar materials used for barriers and enclosures shall not be reused and shall be wetted and placed in an asbestos waste container as soon as practicable.
- Barriers and enclosures must not be reused unless they are rigid and can be cleaned thoroughly
- After the work is completed, barriers and enclosures that will be reused must be cleaned by damp wiping or HEPA vacuuming as soon as practicable.

