

Frequently Asked Questions (FAQs) on Asbestos – St. George Campus

General Information about Asbestos

1. What is asbestos?

Asbestos is a general term given to a group of naturally occurring mineral silicates that are made up of long thin fibres. These fibrous minerals were used in a wide range of products in construction and industry, because of their unique properties which include heat resistance, chemical resistance, and heat and electrical insulation.

2. Why do UofT buildings have asbestos?

Asbestos is not unique to University of Toronto buildings. Asbestos is found in many buildings built after World War II in Canada and internationally. This includes hospitals, schools, government buildings, banks, commercial properties and residential homes.

Due to its unique physical and chemical properties, asbestos was added to a wide variety of products to strengthen them, to provide heat or electrical insulation, to offer fire or chemical resistance, and/or to absorb sound. Many building materials manufactured during the peak years of use (WWII to the 1980s) such as sprayed fire-proofing, thermal insulation, ceiling tiles, floor tiles, electrical insulation and roofing materials contain asbestos.

3. I heard asbestos is naturally in the air. Is this true?

Asbestos is a geological mineral and fibres are naturally occurring. As a result, it is present in ambient outdoor air. This, combined with the widespread use of asbestos in products such as automotive brake linings, means that we are all exposed to very small amounts of asbestos in our daily lives. Asbestos fibres can also be found in drinking water.

4. What is friable asbestos material?

“friable material” means material that,

- (a) when dry, can be crumbled, pulverized or powdered by hand pressure, or
- (b) is crumbled, pulverized or powdered;

5. I work in a building that contains asbestos. Should I be concerned?

Extensive studies have been conducted in buildings containing asbestos have not shown an elevated risk to occupants simply working in a building with asbestos.

6. I heard that sometimes family members can get asbestos-related illnesses. Should I be worried for my family if I work in a building with asbestos?

Studies have shown that family members of asbestos workers (e.g. construction, trades, shipyards) may be at risk of contracting illnesses but not those simply occupying a building that contains asbestos.

7. Is exposure to 1 (one) fibre sufficient to cause asbestos-related illnesses?

Available scientific literature has consistently shown that asbestos-related disease are caused by high levels of asbestos over an extended period of time and that they primarily affect workers in certain industries such as construction, trades, shipyards, factories and asbestos mining. Also, asbestos is naturally in the air. So on a daily basis, all people are being exposed to small amounts of asbestos.

8. What should I do if I encounter broken or damaged building materials in my work area is damaged?

Do not disturb the material. Leave the area. Call 416-978-3000 during regular business hours and Campus Police at 416-978-2222 during non-business hours.

If you believe you have been exposed to asbestos dust or debris, please report it immediately to your supervisor. Your supervisor will complete an online incident report form and submit it to the Office of Environmental Health and Safety (EHS) for follow up. Students should report to their academic supervisor who can complete the online incident report on their behalf. EHS can also be contacted at 416-978-4467.

Online incident report forms are available here: <https://ehs.utoronto.ca/report-an-incident/>

9. I work in a building with sprayed asbestos fire-proofing. What should I do if a ceiling tile falls down?

Do not disturb the material. Leave the area. Call 416-978-3000 during regular business hours and Campus Police at 416-978-2222 during non-business hours.

10. What if I need to make changes to my workspace, such as installing new furniture, shelving, alarms, etc.? How can this be done safely if asbestos is in so many building materials?

Any work that causes disturbance (e.g. drilling, screwing in, cutting, grinding, scraping, demolition) of the building fabric (e.g. walls, ceilings, flooring) should be vetted through a UofT facilities and/or property management contact to ensure that Designated Substances such as asbestos are identified ahead of time. This ensures appropriate work procedures are used if asbestos, or other Designated Substances, are present. Occupants should not perform repairs, maintenance or new installations on their own.

11. How is asbestos exposure determined?

Asbestos is a respiratory hazard. Air sampling is the most relevant and recognized way to assess exposure to asbestos.

12. What is the role of the Joint Health and Safety Committee (JHSC) when an asbestos incident has occurred?

The JHSC plays an important role in the internal responsibility system as set out by the Ontario Occupational Health and Safety Act. Employees may contact the JHSC with queries which they can help facilitate by conveying questions and concerns to the relevant UofT party/unit. The JHSC is also notified of any air sampling that may take place to evaluate asbestos exposure and a copy of the air sampling results are provided to the JHSC.

Asbestos Management During Construction Projects, Maintenance and Repairs

1. Does the University identify asbestos prior to a Construction Project?

Yes, as required by Ontario regulation, the University maintains a comprehensive inventory of asbestos-containing materials (ACM) present in University buildings. The inventory is part of a report called “Asbestos-Containing Building Materials Survey Report”. The survey report provides an overview of asbestos in a building. These survey reports are available online at <https://asbestos.fs.utoronto.ca/>

During the planning phase of a Construction Project, the scope of the project is reviewed in detail (for example, which walls, floor tiles, ceilings, etc. will be removed) and a Designated Substances Report, which includes asbestos, that is specific to the project is generated. Additional samples are collected and analyzed for the project as needed.

2. Who is responsible for ensuring a Designated Substances Report is produced?

The person who is tendering or contracting out the work is responsible for providing this report to prospective Contractors during the tendering process, prior to signing of contracts. This ensures the Contractor knows of the location of asbestos in the building prior to bidding on the work. The Contractor is responsible for providing this information to their employees and other subcontractors they may engage for this project.

3. What happens to the Designated Substances Report once it is produced?

The person who is tendering or contracting out the work is responsible for providing this report to prospective Contractors during the tendering process, prior to signing of contracts. This ensures the Contractors know of the location of asbestos in the building prior to bidding on the work. The successful Contractor is responsible for providing this information to their employees and other subcontractors they may engage for this project.

4. How do we ensure asbestos abatement Contractors have the training and knowledge to handle asbestos in a safe manner both for themselves and for building occupants?

The Project Management Group prequalifies abatement contractors upon a thorough confirmation of financial capabilities, previous completed projects, experience of working in educational institutes, membership and reputation with the WSIB, workers training, health & safety policy and industry references.

The contract between the University and the Contractor outlines the requirements the Contractor must follow. This includes working in compliance with Ontario regulation with

respect to asbestos and/or the University of Toronto Asbestos Management Program (AMP) (whichever is more stringent) and requiring the contractor's employees and supervisor to have completed asbestos training. The contract also requires the Contractor to provide proof of training for their employees who are sent to UofT. For Type 3 work (see below), a third party consultant is engaged to regularly inspect the enclosure where the asbestos abatement work is taking place.

5. How is asbestos abatement planned to ensure the right procedures are being followed?

During the planning stage of a construction project, the asbestos abatement work is classified as either Type 1, 2 or 3 asbestos abatement work. The "Type" of work is defined by Ontario Regulation 278/05 with Type 1 being the lowest risk, then up to a Type 3. Once the work is classified, the Contractor is required to follow procedures as outlined in the Ontario Regulation or the University of Toronto Asbestos Management Program (whichever is more stringent).

6. What is the difference between Type 1, 2 and 3 abatement work?

Asbestos work is categorized into Type 1, 2 and 3 work depending on the level of risk. Type 1 work is low risk, Type 2 is moderate risk and Type 3 is higher risk. The level of precautions, therefore, increases for each type of work. Here are some examples of each type of work:

Type 1 asbestos work:

- installation or removal of ACM (asbestos containing material) ceiling tiles (less than 7.5 m²) without being broken, cut, drilled, abraded, ground, sanded or vibrated ;
- installation or removal of non-friable ACM, other than ceiling tiles and vinyl floor tiles, without damage;
- breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable ACM that is wetted and where the work is done using non-powered hand-held tools; and,
- removal of less than one square metre of drywall where ACM joint-filling compounds were used.

Type 2 asbestos work:

- the removal of all or part of a false ceiling to access a work area, if ACM is likely to be lying on the surface of the false ceiling;
- removal or disturbance of one m² or less of friable ACM
- enclosing friable ACM;
- removal of non-friable ACM vinyl floor tiles
- application of tape, a sealant or other covering to pipe or boiler insulation that is ACM;
- installing or removing ACM ceiling tiles that cover an area of 7.5 m² or more if the work is done without damaging the tiles;
- breaking, cutting, drilling, abrading, grinding, sanding, or vibrating non-friable ACM using non-powered hand-held tools if the material is not wetted;
- cleaning or removing filters used in air handling equipment in a building that has sprayed ACM fireproofing;

- removal or disturbance of one square metre or less of friable ACM during the repair, alteration, maintenance or demolition of all or part of machinery or equipment or a building, aircraft, locomotive, railway car; and
- glove bag removals of ACM insulation.
- Drilling holes into non-friable ACM material

Type 3 work:

- removal or disturbance of more than one square metre of friable ACM;
- spray application of a sealant to friable ACM;
- cleaning or removal of air-handling equipment, including rigid ducting but not including filters, in a building that has sprayed ACM fireproofing;
- repair, alteration or demolition of a kiln or furnace made, in part, of refractory materials that are ACM;
- breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable ACM with power tools not attached to dust-collecting devices with HEPA filters.

7. How do procedures vary between Type 1, 2 and 3 asbestos work?

As the risk to abatement workers increases from Type 1 to Type 3 operations, the protective measures and procedures become increasingly stringent. In general, there are five (5) important elements: preparation of work area, dust control, personal protective equipment, clean-up of work area and asbestos waste removal.

To put things into perspective, respiratory protection is not required, but is optional, for workers performing Type 1 work. Type 2 work requires respiratory protection and, depending on the level of activity, may require the use of enclosures and isolation of ventilation system. Some requirements for Type 3 work are listed below.

8. What are examples of procedures that take place for higher risk Type 3 work?

Full requirements are outlined in Ontario regulation 278/05 with respect to asbestos. Some examples are:

- More stringent training for workers.
- Ventilation shutdown and sealing air supply and exhaust in/out of the asbestos work area.
- Performing work within an enclosure that is under negative pressure.
- Enclosing the work space with polyethylene sheeting to prevent migration of fibres/dust from the abatement area to adjacent areas.
- The enclosure includes a shower facility which all workers must use prior to leaving the enclosure and entering public corridors. Workers are only allowed to enter public hallways after showering and wearing regular street clothes.
- All tools, equipment, including personal protective equipment (PPE), used during the asbestos abatement work are left inside the enclosure.
- All discharged air from inside the enclosure passes through a negative air pressure machine equipped with a HEPA (High Efficiency Particulate Aerosol) filter at least 99.97 percent efficient in collecting the smallest fibres/particles from the air. The

- negative air machine is tested prior to use to ensure that the machine will work properly during the abatement.
- Engaging a third-party consultant to inspect enclosures on a regular basis and conducting clearance air-testing prior to dismantling the enclosure.

For the Type 3 abatement work that is currently occurring in MSB, a third party consultant has also been engaged to collect ambient air samples (which differs from clearance air testing) outside of the enclosure in adjacent work areas. This is not required by law but is a procedure the University has been proactively following to monitor the asbestos work.

9. Who is the contact if my workplace has been impacted by a Construction Project?

UofT employees should report their concerns to their supervisor who will then follow up with the appropriate party. Depending on the organizational structure of the department, this may mean expressing the concern with a building/facilities contact who would then follow up with the Project Manager. The Project Manager investigates and reviews the issues with the Contractor.

For matters that require immediate attention (e.g. flood, fallen ceiling tile that exposes the asbestos sprayed fireproofing above, etc.), employees should call 416-978-3000 during regular business hours and Campus Police at 416-978-2222 during non-business hours.

10. What is the role of the Hazardous Construction Materials Group (HCMG)?

Provide services and oversight of the administration, implementation and enforcement of the Asbestos Management Program (AMP).

Administer, implement and monitor the requirements of the AMP for all asbestos work, or activities which may disturb asbestos-containing materials, planned or unplanned.

Work in close liaison with all divisions who may be involved with asbestos-related work to ensure compliance with the AMP.

Maintain an on-line Asbestos Inventory of all buildings with asbestos-containing materials, and update the inventory at least once in each 12 month period.

Ensure that ACM fireproofing locations are identified or labeled according to established requirements and to ensure that appropriate signage is posted.

Provide the Designated Substances Report to departments that may be authorizing or tendering work that may involve removal or disturbance of asbestos-containing materials.

Ensure that the Ministry of Labour, Construction Health and Safety Branch, is notified of certain Type 2 and Type 3 asbestos abatement work

11. What is the role of the Office of Environmental Health and Safety (EHS)?

EHS maintains the Asbestos Management Program, which outlines the requirements that must be followed by each party at the University, including those involved in Construction

Projects. As outlined above, Contractors are required to following the AMP and/or Ontario regulation, whichever is more stringent.

EHS develops and provides training on asbestos to employees. All employees who engage in Type 1 and 2 asbestos training and respiratory protection training before performing asbestos-related repair and maintenance work. Asbestos awareness training is also available in the UofT community who would like to learn more about asbestos.

12. Who do I contact if I have personal health concerns related to asbestos?

EHS may also be contacted if employees and students have concerns regarding health and safety. In general UofT employees should first report their concerns to their supervisor. In the case of a student, concerns should be reported to a UofT contact (e.g. academic supervisor, administrative unit manager).

13. What about UofT staff who performs asbestos work?

Some facilities staff at UofT perform limited Type 1 and 2 work only. Supervisors of these employees scope out the work and provide written information of asbestos-containing materials ahead of time. These employees also receive training from EHS prior to qualifying to do any asbestos work. Written procedures (Standard Operating Procedures, SOPs) are available to ensure that proper procedures are being followed.