Asbestos Management Program

Department of Risk Management - Environmental Health and Safety

November 2025

Carleton University

Asbestos Management Program

Approval

The signatures below certify that this health and safety management system program has been reviewed and accepted. They also demonstrate that the signatories are aware of the requirements contained herein and are committed to ensuring their provision.

	Name	Signature	Position	Date
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Amendment Record

This program is reviewed to ensure its continuing relevance to the systems and processes that it describes. A record of contextual additions or omissions is given below:

Page No.	Context	Revision	Date
All	New document format	1	10/07/25
5	Updated Roles and responsibilities. Reflecting new organizational structure in EHS	1	10/07/25
8	New section – Program elements that include previous section: remediation, waste disposal, type of operations	1	10/09/25
13	Change of internal process. Certain type of Type 2 operations will be performed by Carleton University employees.	1	10/11/25
18	Added new appendices and Reference section	1	11/04/25

Company Proprietary Information

The electronic version of this procedure is the latest revision. It is the responsibility of the individual to ensure that any paper material is the current revision. The printed version of this procedure is uncontrolled, except when provided with a document reference number and revision in the field below:

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Table of Contents

1 Introduction

Asbestos is a fibrous, silicate mineral that was commonly added to building materials such as insulation, fireproofing, plaster and tiles to improve the thermal and acoustical properties of these products.

For the purpose of hazard assessment, materials containing asbestos are generally classified as either friable or non-friable. Friable materials such as acoustical or thermal insulation can be easily crumbled, powdered, or pulverized by hand pressure when dry. Non-friable materials such as floor tiles or plaster cannot be easily crumbled by hand pressure. The use of asbestos as an additive in friable building materials ceased in the early 1980s, however, asbestos-containing materials are still present in many buildings constructed prior to this date.

When left intact and undisturbed, asbestos materials generally do not pose a health risk. Asbestos presents a health hazard when asbestos-containing material is disturbed or removed to cause asbestos fibers to become airborne. Inhalation of these airborne fibers can lead to serious respiratory health problems.

2 Purpose

The purpose of this program is to ensure that the University community is protected from hazards associated with the uncontrolled disturbance or removal of asbestos-containing materials.

Carleton University will maintain a safe and healthy work and study environment for faculty, staff, students, visitors, and contractors. It is the policy of Carleton University to maintain all asbestos-containing material in a safe condition during normal building operations and have all maintenance, repair or renovation undertaken using appropriate procedures.

The Asbestos Management Program establishes a comprehensive system to actively manage asbestos-containing materials in university buildings and activities that may disturb such materials. The purpose of this document is to acquaint all Carleton University workers and maintenance contractors of the presence of asbestos within university buildings and the procedures required when working with asbestos.

The Asbestos Management Program has been established to meet the requirements of Ontario Regulation 278/05, ***Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations***, made under the Occupational Health and Safety Act of Ontario.

Regulation 278/05 includes safe work measures, procedures, and enhanced respiratory protection for workers who may encounter asbestos in the course of their work.

3 Scope

This program applies to all employees, contractors, and students at Carleton University, as well as to all building occupants and visitors who may contact or disturb asbestos-containing materials in University-owned buildings.

The Asbestos Management Program applies to all buildings owned or operated by Carleton University, to all faculty, staff, and students of the University, other occupants/users of the University, including Carleton's contractors performing work with or near asbestos-containing material in university buildings, and who might disturb it.

Before any erection, alteration, repair, dismantling, demolition, structural maintenance, painting, boring, drilling, blasting, concreting, installation of any machinery, or any other destructive activities within a building, the following steps must be completed:

- All requests for alterations, repairs, maintenance, or physical changes to university facilities must be submitted to Facilities Management and Planning in accordance with the Alteration, Repair, and Maintenance of University Buildings and Outdoor Space policy.
- A review will be conducted to ensure there will be no disturbance of asbestos-containing materials.
- Any activity that could disturb asbestos must be completed following the Regulation, best practices, and the Asbestos Management Program.
- Employees and contractors must work in compliance with the Asbestos Management Program and in accordance with the Ontario Regulations.

4 Terms & Definitions

TERM	DEFINITION
ACM	ACM stands for Asbestos-Containing Material, which refers to any material or product that contains 0.5% or more of asbestos by dry weight. ACMs can be friable or non-friable and pose health risks when asbestos fibers become airborne and are inhaled. Proper management or abatement of ACMs is required to prevent exposure.
FRIABLE MATERIAL	Friable material refers to asbestos-containing materials (ACMs) that can be easily crumbled, pulverized, or reduced to powder by hand pressure, releasing asbestos fibers into the air. These materials pose a higher risk of asbestos exposure. Examples include sprayed-on insulation, pipe insulation, and ceiling tiles
NON-FRIABLE MATERIAL	Non-friable material refers to asbestos-containing materials (ACMs) that are solid and not easily crumbled, pulverized, or reduced to powder by hand pressure. Because the asbestos fibers are tightly bound in the material, they are less likely to become airborne and pose a lower risk of exposure unless disturbed by cutting, sanding, or other actions. Common examples include vinyl floor tiles and asbestos cement products.
HEPA	HEPA (High-Efficiency Particulate Air) is a type of air filter that is designed to capture at least 99.97% of airborne particles as small as 0.3 microns. HEPA filters are commonly used in asbestos abatement to prevent the spread of asbestos fibers by filtering contaminated air during removal operations.
WETTING AGENT	A wetting agent for asbestos operations is a liquid substance, often a surfactant or detergent mixed with water, used to suppress the release of asbestos fibers during handling or removal. The agent helps the water penetrate and saturate asbestos-containing materials (ACMs), reducing airborne fiber levels and minimizing exposure risks
ACM INVENTORY	An ACM (Asbestos-Containing Materials) inventory is a comprehensive record that identifies, documents, and tracks the location, condition, and type of asbestos-containing materials in a building or facility. This inventory helps ensure proper management, monitoring, and control of asbestos to prevent exposure and comply with health and safety regulations.
BULK SAMPLE	A bulk sample of asbestos is a physical sample taken from a material suspected to contain asbestos, such as insulation, flooring, or drywall. This sample is analyzed in a laboratory to determine whether asbestos fibers are present and in what quantity, helping assess the potential health risk and guide appropriate safety measures.
ENCAPSULATION	Asbestos encapsulation is a method of controlling asbestos exposure by applying a sealant or protective coating over asbestos-containing materials (ACMs) to prevent the release of asbestos fibers into the air, without removing the material. This process helps to safely contain the hazard while maintaining the integrity of the ACM.
ABATEMENT	Asbestos abatement refers to the process of safely reducing or eliminating asbestos hazards through removal, enclosure, or encapsulation of asbestos-containing materials (ACMs) to prevent exposure to harmful asbestos fibres. The abatement (or removal) of

	asbestos-containing materials is strictly regulated and controlled under Regulation 278/05 of the Ontario Occupational Health and Safety Act.

5 Roles & Responsibilities

5.1 Department of Risk Management

5.1.1 Environmental Health and Safety

- Maintain an Asbestos Management Program appropriate to the needs of the university, which responds to regulatory requirements.
- Administer the Asbestos Management Program.
- Monitor compliance with the Asbestos Management Program.
- Review the Asbestos Management Policy and Program regularly & update the inventory of asbestos-containing materials.
- Ensure the regular inspection requirements of the Asbestos Management Program are implemented with the managers of FMP.
- Administer training requirements of the Asbestos Management Program. These include both General Awareness and more advanced operations training.
- Administer the respiratory protection program (including respirator fit testing) in accordance with the Asbestos Management Program.
- Oversee medical surveillance requirements of the Asbestos Management Program. ***– in development***
- Provide technical advice on asbestos identification, hazard assessment & control measures.
- Respond to reports of asbestos disturbance or the discovery of previously undocumented locations of asbestos-containing material and ensure appropriate remediation and documentation procedures are followed.
- Notify the Ministry of Labour, Immigration, Training and Skills Development (MLITSD), orally and in writing, if, during demolition, alteration or repair, material that was not referred to in the survey report prepared before undertaking the work and that may be asbestos containing, is discovered as per O.Reg. 278/05 s. 10 (8) (a).
- Notify the Carleton University Joint Health & Safety Committee of asbestos management activities that require environmental testing (bulk and air), visual inspections, and abatement. The Carleton University Joint Health & Safety Committee will receive any reports resulting from the testing.

5.2 Facilities Management and Planning, Directors and Managers

- Ensure that employees are aware of, and understand, which of their activities may involve encountering Asbestos Containing Materials
- Consult with Environmental Health & Safety (EHS) in the Department of Risk Management (DRM), to jointly classify and plan all asbestos remediation activities prior to the actions taking place.
- Obtain a Designated Substances Review prior to initiating activities.
- Ensure that a pre-job review of all maintenance, repair, renovation or construction activity is conducted to verify that asbestos-containing materials will not be disturbed by such activities. In situations where asbestos-containing materials will be disturbed by maintenance, repair, renovation or construction activity, ensure that adequate control and / or remediation measures are implemented prior to beginning the activity.

- Ensure that employees, contractors and consultants are informed about the location of asbestos-containing material prior to beginning any activities in the area.
- Ensure that all personnel work in compliance with the Asbestos Management Policy and Program.

Note: Only Type 1 and certain Type 2 asbestos operations will be performed by trained Carleton employees. Any operations involving Type 2 glove bag or Type 3 work will be performed by trained contractors.

- Ensure that all personnel who perform work that disturbs building materials near asbestos-containing materials are trained. Training to include how to identify asbestos and assess condition, as well as report potential asbestos disturbances or exposures.

5.3 Campus Safety Services (CSS)

- Ensure that Campus Safety Services (CSS) personnel are trained to identify & report potential asbestos hazards.
- Officers who discover or are advised of any damaged material believed to contain asbestos will advise their supervisor to report the discovery. The CSS supervisor will, in turn, contact the Environmental Health & Safety Office, which will investigate and arrange remedial action as required.

5.4 Information Technology Services (ITS)

- Ensure that a pre-job review of all installation, maintenance or repair activity is conducted to verify that asbestos-containing materials will not be disturbed by such activities.
- In the case where asbestos-containing materials will be disturbed by installation, maintenance, or repair activity, contact the Environmental Health & Safety Office in the Department of Risk Management, which will ensure that adequate control and/or remediation measures are implemented before beginning the activity.
- Ensure that employees and contractors are informed about the location of asbestos-containing material prior to beginning any activities in the area.
- Ensure that all personnel work in compliance with the Asbestos Management Policy and Program.
- Ensure that all personnel who will work in proximity to asbestos-containing materials are trained to identify & report potential asbestos hazards.
- Consult with Environmental Health & Safety to jointly classify and plan all asbestos remediation activities.

5.5 Other Groups

All members of the university community are responsible for complying with all applicable legislated requirements and University policies and procedures to ensure there are no unintended exposures to Asbestos Containing Materials. Specifically:

5.5.1 Department Heads, Managers & Supervisors (All)

- Ensure that all departmental personnel are familiar with the Asbestos Management Policy and Program.
- Ensure that departmental personnel are aware of the presence of asbestos-containing materials in their work area.

- Ensure that departmental personnel do not perform activities which could disturb asbestos containing materials, including removing ceiling tiles to access the space above a false ceiling as asbestos-containing insulation may be present in certain buildings.
- Ensure that occupants are notified of scheduled asbestos-related work in their workplace.
- Report the presence of any damaged material, located within departmental space that is believed to contain asbestos to Environmental Health & Safety through CU WorkSafe.

5.5.2 Employees

- Be familiar with the Asbestos Management Policy and Program (EH&S Webpage).
- Be aware of the presence of asbestos-containing materials in their work area (EH&S Webpage).
- Work in compliance with the Asbestos Management Policy and Program.
- Refrain from performing activities that could disturb other asbestos-containing materials such as removing ceiling tiles under any circumstance to access the space above a false ceiling in buildings where asbestos-containing insulation may be present or drilling holes in asbestos-containing plaster walls.
- Notify a supervisor to report the presence of any damaged material believed to contain asbestos.

5.5.3 CU Contractor Representative & Project Managers (All)

- Ensure that all contract work is carried out in compliance with Ontario Regulations governing asbestos and the Carleton University Asbestos Management Program as well as the Carleton University Contractor Safety Management Program.
- Ensure that all contractors under their supervision are informed about the location of asbestos-containing material in their work area.
- Ensure that all contractors under their supervision refrain from disturbing asbestos-containing material.
- Ensure that all contractors under their supervision, who will be working in proximity to asbestos-containing materials, are trained to identify & report potential asbestos hazards.
- Stop work immediately and notify Environmental Health & Safety Office, of the discovery of a previously unidentified source, the unintentional disturbance of, or the presence of any damaged asbestos-containing material.

6 Program Elements

6.1 Inventory

An inventory of known and suspected locations of asbestos-containing materials will be maintained as part of the Asbestos Management Program. The inventory of asbestos-containing material includes the type, estimated quantity, location and condition of asbestos-containing material. The inventory will be reviewed at least yearly and updated on an ongoing basis to reflect changes due to asbestos remediation activity or discoveries of previously unknown sources of asbestos-containing materials.

It must be noted that the inventory project is conducted in a non-destructive fashion; therefore, if there are previous layers of building materials (such as walls, floors, etc.), it is prudent to ensure that the necessary information is available and communicated to the necessary parties (including contractors, subcontractors, etc.) prior to the commencement of the project. If there are suspect additional layers and

there is no information available, CU Contractor Representative / Project Manager must arrange sampling of the suspect sub-layer(s).

The inventory is managed by EHS and includes student residences, ancillary and academic buildings. These reports, as well as subsequent amendments, are available in full, through Environmental Health and Safety as well as directly to workers within Facilities, Management and Planning. A summary table intended to identify locations with asbestos-containing materials is provided in Appendix 8 of this document. **Before conducting any work, the ACM inventory must be consulted. If information is not available for the subject space or area, sampling must be conducted before further work is pursued.** The inventory must be made available to all workers who may perform work that disturbs building materials near asbestos-containing materials and to all building occupants.

6.1.1 Newly Discovered Materials

If during work, asbestos-containing material is discovered that was not referred to in the Carleton University ACM inventory and may be asbestos-containing material, the work shall immediately cease.

The constructor or employer will immediately notify the Ministry of Labour, Immigration, Training and Skills Development, the CU Contractor Representative or Project Manager, EHS, and associated contractor (s, as well as the project joint health and safety committee representative (as applicable). EHS will advise the Carleton University joint health and safety committee. The notice template can be found in Appendix 2.

No work shall be done unless the status of the material is determined, or the material is treated as if asbestos-containing and appropriate measures are implemented in accordance with Ontario Regulation 278/05.

6.2 Managing asbestos during building operations

Asbestos-related work can be encountered during the following building operations

- Regular maintenance.
- Planned repair, renovation, and capital projects; and
- Building occupant activities

6.2.1 Regular Maintenance

The work practices undertaken by building maintenance staff or as part of normal building repair or maintenance work are covered under Ontario Regulation 278/05. These activities will most likely fall under Type 1 or Type 2 work. **The employees of Carleton University will perform only Type 1 and limited Type 2 operations (refer to the list of approved operations in Appendix 7).** All other Type 2 and Type 3 operations are restricted to specialized contractors contracted specifically for asbestos management.

To ensure that maintenance operations consider asbestos-containing material, the supervisor of the project or operation must implement procedures that check for the initial presence of asbestos-containing material and allow proper action to manage such material. The verification procedures can include but are not limited to, verification of previously conducted assessments, project-specific sampling activities, visual inspections, consultation with specialized asbestos consultants, follow-up investigations, etc. Regular maintenance operations that could disturb asbestos-containing materials can be divided into further subgroups:

- Mechanical installations, investigations, and/or repairs.
- Electrical, mechanical, or other work above suspended ceilings in areas where sprayed asbestos may be present (e.g., stipple coat, insulation, etc.)
- IT cabling work

Supervisors and lead hands who assign tasks to workers must be aware of the presence of asbestos and the implications of the asbestos-containing material on the scope of work. Supervisors and maintenance workers will require training in asbestos operations to identify suspect materials properly, supervise the work, and implement the necessary hazard controls.

6.2.2 Planned Repair, Renovation and Capital Projects

The presence and condition of asbestos must be considered by all project managers in the development of the various repairs and renovation contracts tendered by the University.

Asbestos considerations must be addressed at the project design stage. The asbestos surveys must be reviewed (and updated, where required). These activities must include a review of asbestos precautions or abatement procedures that are to be undertaken in conjunction with the project. The possibility of expanding the scope of asbestos abatements related to the project should be considered, where feasible.

Please note that the Carleton University Asbestos-Containing Materials (ACM) Inventory should be considered a preliminary tool for identifying the presence of asbestos. Due to the non-invasive nature of the ACM survey, projects involving major renovations or repairs will require a more detailed Designated Substances Report (DSR) conducted by an external third-party contractor. It is important to note that the Environmental Health and Safety (EHS office does not maintain DSRs for entire buildings.

6.2.3 Building occupant activities

In the course of routine building operations, occupants must be made aware that asbestos-containing materials (ACM) may be present in walls, ceilings, mechanical spaces, and service shafts; consequently, any activity that could penetrate, abrade, or otherwise disturb suspect materials—including hanging pictures, installing shelving, running cabling, or relocating ceiling tiles—must not proceed without prior review of the campus-wide ACM inventory, contacting EHS and should be consulted with FMP as per Alteration, Repair and Maintenance of University Buildings and Outdoor Space Policy.

6.2.4 Access Control

Mechanical rooms, service shafts, and service tunnels that contain friable asbestos material will be secured, and access will be restricted to authorized personnel from Facilities Management and Planning, or their authorized contractors.

In areas where asbestos-containing insulation is present or is suspected to be present, access to the space above false ceilings will be restricted (as it may disturb asbestos-containing material) to trained Facilities Management and Planning, and ITS personnel and/or contractors approved by Facilities Management and Planning, or the Director, Environmental Health and Safety.

6.3 Inspections

Visual inspection of locations where asbestos-containing material is present will be conducted regularly by FMP staff or others as determined by Environmental Health and Safety to ensure that damaged or degraded material is properly identified and managed. Written records of the inspections will be maintained by Environmental Health & Safety.

Damaged asbestos-containing material identified by employees during their normal day-to-day activities must be reported to their supervisors/managers who will ensure that appropriate remediation steps are taken (see Appendix 1 for the asbestos notification form and who will advise Environmental Health & Safety,).

6.4 Classification of Asbestos Operations

Ontario Regulation 278/05: Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations classifies operations that may expose workers to asbestos into three different categories based on the severity of the potential hazard.

6.4.1 Type 1 Operations

The following are Type 1 (lower risk) operations as per Ontario Regulation 278/05, Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations:

- Installing or removing less than 7.5 m^2 asbestos-containing ceiling tile without breaking, cutting, drilling, abrading, grinding, sanding or vibrating the tile.
- Installing or removing non-friable asbestos-containing material, other than ceiling tile, if the material is installed or removed without being broken, cut, drilled, abraded, ground, sanded or vibrated.
- Breaking, cutting, drilling, abrading, grinding, sanding, or vibrating non-friable asbestos-containing material if:
    - the material is wetted to control the spread of dust or fibres and
    - the work is done only using non-powered hand-held tools.
- Removing less than one square metre of drywall in which joint-filling compounds that are asbestos-containing material have been used.

6.4.2 Type 2 Operations

The following are ***Type 2 (moderate risk)*** operations as per Ontario Regulation 278/05, Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations:

- Removing all or part of a false ceiling to obtain access to a work area, if asbestos-containing material is likely to be lying on the surface of the false ceiling.
- The removal or disturbance of one square metre or less of friable asbestos-containing material during the repair, alteration, maintenance or demolition of all or part of machinery or equipment or a building.
- Enclosing friable asbestos-containing material.
- Applying tape or a sealant or other covering to pipe or boiler insulation that is asbestos-containing material.
- Installing or removing ceiling tiles that are asbestos-containing material, if the tiles cover an area of 7.5 m^2 or more and are installed or removed without being broken, cut, drilled, abraded, ground, sanded or vibrated.
- Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable asbestos-containing material if:
    - the material is not wetted to control the spread of dust or fibres, and
    - the work is done only by means of non-powered hand-held tools.

- Removing one square metre or more of drywall in which joint filling compounds that are asbestos-containing material have been used.
- Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable asbestos-containing material if the work is done by means of power tools that are attached to dust-collecting devices equipped with HEPA filters.
- Removing insulation that is asbestos-containing material from a pipe, duct or similar structure using a glove bag.
- Cleaning or removing filters used in air handling equipment in a building that has sprayed fireproofing that is asbestos-containing material.
- An operation that:
    - is not mentioned in any of the paragraphs,
    - may expose a worker to asbestos and,
    - is not classified as a Type 1 or Type 3 operation.

6.4.3 Type 3 Operations

The following are Type 3 (higher risk) operations as per Ontario Regulation 278/05, Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations:

- The removal or disturbance of more than one square metre of friable asbestos-containing material during the repair, alteration, maintenance or demolition of all or part of a building, vehicle or any machinery or equipment.
- The spray application of a sealant to friable asbestos-containing material.
- Cleaning or removing air handling equipment, including rigid ducting but not including filters, in a building that has sprayed fireproofing that is asbestos-containing material.
- Repairing, altering or demolishing all or part of a kiln, metallurgical furnace or similar structure that is made in part of refractory materials that are asbestos-containing materials.
- Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable asbestos-containing material, if the work is done by means of power tools that are not attached to dust-collecting devices equipped with HEPA filters.

  Repairing, altering or demolishing all or part of any building in which asbestos is or was used in the manufacture of products, unless the asbestos was cleaned up and removed before March 16, 1986.

Note: Work on ceiling tiles, drywall, or friable asbestos-containing material is classified according to the total area on which work is done consecutively in a room or enclosed area, even if the work is divided into smaller jobs.

6.5 Remediation

Damaged or degraded asbestos-containing material must be remediated via removal, encapsulation or enclosure to ensure that asbestos fibers do not become airborne.

6.5.1 Removal

Removal is a remediation method whereby all materials containing asbestos fibers are permanently removed from an area. Whenever possible, removal will be chosen as the preferred method of remediation

6.5.2 Encapsulation or enclosure

Encapsulation or enclosure are alternative methods of remediation whereby asbestos-containing material is left in place and covered to prevent the release of asbestos fibers into the air. Encapsulation or enclosure are safe and effective remediation methods that are typically used in areas where removal is not technically feasible. A risk assessment will be completed to evaluate encapsulation feasibility. Locations with encapsulated or enclosed asbestos remain subject to the requirements of the Asbestos Management Program.

6.6 Waste disposal

All asbestos waste generated during Type 1, 2, or 3 operations will be placed in appropriate containers/waste bags as outlined in O.Reg. 278/05. Furthermore, all cleaned and sealed containers or bags will have the following label:

The words must be displayed in large, easily legible letters (O.Reg. 347 s. 17).

All asbestos waste disposal will be handled as per O.Reg. 347 General - Waste Management.

7 Procedures for Asbestos Operations

7.1 Type 1 and Type 2 Operations

Specific procedures must be applied to all Type 1 and Type 2 asbestos operations as detailed in Appendix 3 and 4

NOTE: Only trained Carleton personnel will perform Type 1 Operations, and a limited Type 2 asbestos operations (see Appendix 8)

Carleton personnel will only be considered "Trained" when they have completed Asbestos Awareness training AND Asbestos Operational Training.

Other than the limited Type 2 Operations identified in Appendix 8, all Type 2/or Type 3 Operations will be performed by third-party qualified and authorized contractors.

Specifically, Type 2 – Glove Bag procedures will not be performed by Carleton University staff. Only trained contractors will perform this procedure as detailed in O.Reg. 278/05, s. 15, 18.

7.2 Type 3 Procedures

Type 3 Procedures will not be performed by Carleton University staff. Only trained contractors will perform Type 3 procedures as detailed in O.Reg. 278/05, s. 15, 18.

7.3 Emergency Procedures

7.3.1 Unexpected Discovery of Potential Asbestos-Containing Material

In the event that potentially asbestos-containing material is discovered in an unexpected area, the supervisor/manager is to be advised who will contact Environmental Health & Safety. An assessment of the area will be initiated to determine if the material does contain asbestos, and if so, initiate remediation action as required and ensure the location is added to the Inventory of Asbestos-containing Materials.

7.3.2 Unintentional Disturbance of Asbestos-containing Material

If material believed to contain asbestos is unintentionally disturbed, specific steps must be taken to ensure the suspect material is correctly identified and effectively handled to minimize occupant exposure and degree of asbestos fiber release. For all suspected disturbances in asbestos-containing materials, the following procedures **shall** be followed:

- The worker/contractor will immediately stop all work activity in the area to avoid further disturbance of the material.
- The worker/contractor will ensure that any clothing and/or tools contaminated with asbestos fibers are decontaminated via damp wiping or HEPA vacuuming.
- The worker /contractor will notify his or her supervisor (and Project Co-ordinator, if applicable) and Facilities Management and Planning will be informed of the incident via the worker, supervisor, or Project Co-ordinator.
- If it is believed that asbestos fibers could enter the HVAC system, Facilities Management and Planning (FMP) calls personnel to modify or shutdown and seal off the system to prevent fiber entry. FMP will call Environmental Health & Safety to assess the area and initiate appropriate clean-up and remediation actions as per the Unintentional Asbestos Release SOP (see Appendix 2 for Unintentional Asbestos Release SOP).

- The supervisor or Project coordinator will complete a CU WorkSafe Incident Investigation Report Form to document the disturbance and allow appropriate investigation, corrective actions and lessons learned to prevent re-occurrence.
- Employee(s) and EHS (employer) will complete the WSIB Form – Potential Exposure

8 Information & Training

8.1 Asbestos Awareness

All members of the University community who perform work that may disturb building materials in close proximity with asbestos-containing materials must receive Asbestos Awareness training. The training will cover the following:

- The hazards of asbestos
- Building materials that may contain asbestos
- Locations where asbestos may be present at Carleton University
- Procedures related to reporting

In addition to the Asbestos Awareness training provided, a listing of possible asbestos materials within each building will be available on the EHS website.

8.2 Type 1 Asbestos Operations Safety Training

All personnel engaged in Type 1 Asbestos Operations must also complete an Asbestos Operations Safety training program that includes, but not limited to, the following elements:

- The hazards of asbestos
- Personal hygiene and work practices
- The use, cleaning and disposal of respirators and protective clothing.
- Respirator specific training
    - Respirator fit & use
    - The limitations of the equipment
    - Inspection and maintenance of the equipment
    - Proper fitting of a respirator, and
    - Respirator cleaning and disinfection
- Carleton Standard Operating Procedures for Type 1 Asbestos Operations (See Appendix 3a for Carleton's SOP for Type 1 Asbestos Operations)

8.3 Type 2 Asbestos Operations Training

All personnel engaged in limited Type 2 Asbestos Operations must also complete an Asbestos Operations Safety training program that includes, but is not limited to, the following elements:

- The hazards of asbestos
- Personal hygiene and work practices
- The use, cleaning, and disposal of respirators and protective clothing.
- Respirator-specific training
    - Respirator fit & use
    - The limitations of the equipment
    - Inspection and maintenance of the equipment
    - Proper fitting of a respirator, and
    - Respirator cleaning and disinfection

- Carleton Standard Operating Procedures for Type 1 Asbestos Operations (See Appendix 3 for Carleton's SOP for Type 1 Asbestos Operations)
- Carleton Standard Operating Procedures for limited Type 2 Asbestos Operations (See Appendix 4 for Carleton's SOP for Type 2 Limited Asbestos Operations)

Carleton staff will not perform Type 3 Asbestos Operations. These activities will be performed by approved third-party contractors. All contractors engaged in these operations must have received training from their employers, as detailed in O. Reg. 278/05, s. 19,

9 Recordkeeping

9.1 Inventory of Asbestos-containing materials

Environmental Health & Safety will administer and update the Inventory of asbestos-containing materials on an ongoing basis.

9.2 Training Records

Training records for Carleton University employees participating in Asbestos Awareness training and Type 1 and Type 2 Asbestos Operations training will be maintained by Environmental Health & Safety. Contractors engaged in asbestos operations at Carleton must maintain training records for all their employees working on-site at Carleton and present the records upon request to Environmental Health & Safety and/or CU Contractor Representative.

9.3 Notification of Project – Ministry of Labour

Contractors retained to perform asbestos abatements are required to complete and file a "Notification of Project" document and forward to the Ministry of Labour for asbestos remediation projects. Copies of the documents are to be maintained by the appropriate project manager and forwarded to Environmental Health & Safety. The NOP should contain following information:

- The name and address of the person giving the notice.
- The name and address of the owner of the place where the work will be carried out.
- The municipal address or other description of the place where the work will be carried out, sufficient to permit an inspector to locate the workplace (if necessary).
- A description of the work that will be carried out.
- The starting date and expected duration of the work; and
- The name and address of the supervisor in charge of the work.

9.4 Clearance Air Tests

Clearance air test results must be provided to the CU Contractor Representative and Environmental Health & Safety and will be maintained by Environmental Health & Safety, for at least one year as per O. Reg. 278.05, s. 18(9), and will be made available to the Joint Health and Safety Committee.

9.5 Inspection, Checklists, and Notification Records

Written records of the visual inspections of asbestos-containing materials, completed notification, and checklists (i.e., Checklist for Type 1 and Type 2 Asbestos Work Procedures) will be maintained by respective departments and periodically revied by EHS as a part of program evaluation.

9.6 Respirator Fit Testing

All Carleton employees involved in Type 1 and Type 2 Asbestos Operations will complete appropriate respirator fit testing as per Carleton University Respiratory Protection Program. As such, the records of respirator fit tests will be maintained by Environmental Health and Safety.

10 Notification

10.1 Unexpected Discovery of Asbestos-containing Material

Unexpected discoveries of asbestos-containing material must be immediately reported to Environmental Health & Safety. As detailed in O. Reg. 278/05, 10(8) notifications will be sent to the Ministry of Labour and the Joint Health & Safety Committee when asbestos-containing material is discovered during demolition, alteration or repair operations (See Appendix 7 for Carleton's Discovery of ACM Notification template).

10.2 Type 1 and Type 2 Operations Performed by Carleton Personnel

All Carleton employees performing in Type 1 and Type 2 Asbestos Operations must notify their supervisor prior to the start of any work. In addition, all Carleton employees must complete the Checklist for Type 1 (Appendix 5) and Type 2 Asbestos Work Procedures checklist (Appendix 6) which must be signed by their supervisor.

10.3 Asbestos Work Report

An employer of the worker in a Type 2 or Type 3 operation must complete an asbestos work report at least once every 12 months and immediately upon the termination of the worker's employment. The asbestos work report must be sent to the Ministry of Labour Provincial Physician, and a copy given to the worker.

10.4 Advance Notice of Type 2 (including glove bag) and Type 3 Operations

All contractors engaged in Type 2 glove bag and Type 3 operations must notify the Ministry of Labour in advance of such operations as detailed in O. Reg 278/05, s.11. A copy of the notification is to be provided to the specific project manager/ the CU Contractor Representative and forwarded to Environmental Health and Safety.

11 Waste Disposal

Contractors and sub-contractors are responsible for disposing of asbestos waste generated under their contract.

Asbestos waste generated by FMP Operations will be handled as follows:

- Asbestos waste must be transported as per Transport of Dangerous Goods Regulations. Only accredited waste haulers may transport asbestos waste.
- Asbestos waste is wetted and double bagged in approved asbestos disposal bags and then sealed with duct tape.
- The exterior of the bags is to be cleaned with a damp cloth or a HEPA vacuum immediately before removal from the work area.
- Place asbestos waste in a designated area (permanent bin) located in the FMP yard
- FMP will arrange for a roll-off bin designed for the transport of asbestos waste in accordance with Transportation of Dangerous Goods Regulations and the Environmental Protection Act, Reg. 347, Section 17.

12 Medical Surveillance

While Carleton University employees will not be engaged in most Type 2 or any Type 3 operations, employees who wish to participate in medical surveillance should contact Environmental Health and Safety for information and to be enrolled.

Contractors engaged in Type 2 and Type 3 Asbestos Operations must comply with the worker medical surveillance requirements as detailed in O.Reg. 278/05 s.21, 22. Through their employers.

13 Review

The Asbestos Management Program will be reviewed on a regular basis and updated to reflect regulatory or best practice changes. As a minimum, the Program will be fully reviewed every three (3) years.

14 Appendices

1. Asbestos notification form
2. SOP for Abatement of Unintentionally Released Asbestos
3. General SOP for Asbestos Type 1 Operations
4. General SOP for Asbestos Type 2 Operations
5. Checklist for Type 1 asbestos work procedures
6. Checklist for Type 2 asbestos work procedures
7. Discovery of ACM Notification Form to MOL
8. Summary of TYPE 1 and TYPE 2 asbestos operations performed by Carleton employees
9. Asbestos-containing materials in Carleton University Buildings

15 Reference

- Carleton University Respiratory Protection Program
- Asbestos Management Policy
- Alteration, Repair and Maintenance of University Buildings and Outdoor Space Infrastructure Health and Safety Association (IHSA) – Asbestos. Controls for Construction, Renovation, and Demolition.