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## Code of Practice – Asbestos Management

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### PURPOSE

Where it has been established by inspection and bulk sample analysis that material containing asbestos has been used in an NBCC building, NBCC shall ensure that an asbestos management program is developed and maintained.

Asbestos is a general term which is used to describe a group of fibrous mineral silicates. The three main types of asbestos include: chrysotile (white asbestos), amosite (brown asbestos) and crocidolite (blue asbestos). A variety of lung diseases and cancers have been associated with exposure to airborne asbestos fibres. As a result, the use of asbestos has been restricted in many jurisdictions. Where asbestos products are still in use, a concerted effort has been made to minimize exposure of those employees handling the product and of the general public.

A **Code of Practice** was developed to provide safe handling procedures to minimize exposure to asbestos-containing materials and should not exceed the occupational exposure limit of 0.1 fibers/cc for all forms of asbestos.

Many different types of work activities can be undertaken when dealing with asbestos-containing materials. The potential exposure of employees to airborne asbestos fibres, and the risks involved, will vary with the type of work done.

Thus, for the purposes of the **Code of Practice**, asbestos-related work has been classified under three different classes (Low Risk, Moderate Risk and High Risk) depending on the degree of risk of exposure, and the controls that are required to keep the exposure as low as possible.

NBCC shall also take every precaution reasonable in the circumstances to ensure that every employee, and anyone who is not an employee of NBCC and who has access to the workplace, is protected. Every such employee shall comply with the requirements of this **Code of Practice**.

### SCOPE AND LIMITATIONS

NBCC's asbestos management program encompasses all work with asbestos-containing material ( $\geq 1\%$  asbestos) under NBCC control, including buildings, equipment, and grounds.

This program incorporates the requirements of "**A Code of Practice for Working with Materials Containing Asbestos in New Brunswick**". This **Code of Practice** is referenced in New Brunswick Regulation 91-191 under the Occupational Health and Safety Act. The program is reviewed annually by Manager – Health & Safety and NBCC Campus and Corporate Office's Joint Health and Safety Committees.

## 1.0 DEFINITIONS *(if applicable)*

### **Amended water**

- water to which a wetting agent has been added.

### **Approved**

- approved by an officer appointed under the *Occupational Health and Safety Act*;

### **Asbestos**

- any of the following fibrous silicates: chrysotile, amosite, crocidolite, actinolite, anthophyllite, or tremolite.

### **Asbestos-containing material**

- material, including fireproofing, friction products, textiles, insulation or reinforcing materials, which contains 1% or more by volume of asbestos.

### **Building**

- includes a structure, and without restricting the generality of the foregoing, includes electrical, plumbing, heating and air handling equipment, and rigid duct work;

### **Competent**

- qualified, because of such factors as knowledge, training, and experience to do assigned work in a manner that will ensure the health and safety of persons,
- knowledgeable about the provisions of the Act and the regulations that apply to the assigned work, and
- knowledgeable about potential or actual danger to health or safety connected with the assigned work.

### **Fibre**

- a fibre of asbestos that is more than five micrometres in length and that has a length-to-width ratio of not less than three to one as viewed in a phase-contrast optical microscope at four to five hundred magnifications.

### **Fibre/cm<sup>3</sup>**

- fibres of asbestos per cubic centimetre of air.

### **Friable material**

- material that, when dry, can be or has been crumbled, powdered, or pulverized by hand pressure.

### **HEPA filter**

- a High Efficiency Particulate Aerosol filter that is at least 99.97 per cent efficient in collecting a 0.3 micrometre aerosol.

### **Low Risk, Moderate Risk, High Risk**

- means an operation and procedure described in this document

### **NIOSH**

- National Institute of Occupational Safety and Health of the U.S. Department of Health and Human Services.

### **Officer**

- an occupational health and safety officer appointed under section 5 of the *Occupational Health and Safety Act*, Chapter O-0.2.

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#### **Waste material**

- any removed asbestos-containing material not intended for reuse and asbestos-contaminated material that cannot be cleaned adequately for reuse and includes disposable clothing and personal protective equipment.

#### **Wetting agent**

- any product that when added to water will lower the water viscosity and help to penetrate the asbestos material.

## **2.0 INSPECTION AND DETERMINATION OF ASBESTOS**

The inspection, sampling and analysis of suspected asbestos-containing material is extremely important. Visual inspection and checking of the building's records may not be adequate to establish the presence of asbestos. The suspect material could contain glass fibres, cellulose, or other non-asbestos mineral fibres.

It is critical, therefore, that bulk sampling of suspected materials in buildings be carried out properly, and that laboratory analyses are performed accurately.

Before performing the demolition, alteration or repair of machinery or equipment, or of a building, or any part known to contain, or suspected of containing, asbestos, NBCC employees and a contractor shall inspect and carry out bulk sample analysis to establish whether or not any material that is likely to be handled, dealt with, disturbed or removed contains asbestos.

For the purposes of this **Code of Practice**, an acceptable procedure for establishing whether asbestos is present in material is as follows:

- Unless the owner of a place of employment, an employer and contractor deem the work area as containing asbestos, samples for testing will be collected by a competent person as follows:
  - 100 square feet (9.3 m<sup>2</sup>) - or less - at least one sample;
  - 101 square feet (9.4 m<sup>2</sup>) to 1000 square feet (93 m<sup>2</sup>) - at least three samples;
  - 1001 square feet (93 m<sup>2</sup>) to 5000 square feet (465 m<sup>2</sup>) - at least five samples;
  - greater than 5000 square feet (465 m<sup>2</sup>) - at least seven samples;
- Separate samples should be taken where there is a difference in the texture or color of the material.
- A small container can be used, such as a plastic 35 mm film canister, a small wide-mouth glass jar with a screw-on lid, or a re-sealable plastic bag. The container should be dry and clean.
- The material from which the sample is drawn should not be otherwise disturbed or damaged.
- The area around where the sample is collected should be sprayed with a light mist of water to prevent further damage and fibre release during collection.
- If a solid container is used, the open end of the container should be gently twisted into the material. A core of the material should fall into the container. A sample can also be taken by using a knife to cut out or scrape off a small piece of material, and then place it into the container. Be sure to penetrate any protective coating and all the layers of material.
- The sample container should be tightly closed. The exterior of the container should be wiped with a damp cloth to remove any material which may have adhered to it.

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- The damaged areas should be repaired or sealed with encapsulant, a cover or otherwise protected to prevent further fibre release.
- Floors or other surfaces contaminated with debris generated during sample collection should be wiped clean with a damp cloth or HEPA vacuumed. Collected debris should be treated as asbestos waste.
- The container lid should be taped to prevent the accidental opening of the container during shipment or handling.
- The sample container shall be labelled to identify the location and the date the sample was taken and include a unique identification number.
- A written record of each sample shall be made by noting the date the sample was taken, the location of the material sampled, the area or room sampled, and the identification number.
- The bulk sample(s) obtained shall be analyzed in a specialized laboratory where analyses can be conducted with precision.
- The request for analysis shall specify:
  - Classification of the type of asbestos,
  - Per cent composition by volume of asbestos in the sample.

Where, upon inspection and bulk sampling, any material has been found to contain asbestos, NBCC and a contractor shall prepare an inspection report in writing containing:

- the type and per cent of asbestos;
- drawings, plans and specifications, as appropriate, to show the location of the asbestos material;
- the report shall document the condition of the asbestos-containing material and any repairs or other corrective action required.

NBCC shall:

- inform the Joint Health and Safety Committee of the findings
- ensure that the damaged asbestos-containing material is cleaned up and removed using the appropriate procedures detailed in sections on asbestos classifications
- repair, seal, remove or permanently enclose the asbestos-containing material where it is readily apparent that the material will continue to deteriorate
- prepare and maintain on the premises a record of the location of the asbestos material
- Communication procedures to notify in writing anyone who may be at or adjacent to the location of the asbestos material and advise them not to disturb it;
- identify where practicable the asbestos-containing material using color coding, labels, placards, or any other mode of identification
- inspect the asbestos material at reasonable intervals to determine its condition

NBCC shall also institute and maintain a program in consultation with the Joint Health and Safety Committee for the training and instruction of every worker employed in the building who is likely to work near and may disturb the asbestos material. This training and instruction shall include, but not necessarily be limited to:

- the hazards of asbestos exposure,
- the use, care and maintenance of protective equipment and clothing to be used and worn,
- the work practices and procedures to be used in doing the work as prescribed by this Code of Practice,
- the disposal procedures for asbestos-contaminated materials; and

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- personal hygiene.

Where respirators are required to be worn by employees, the employer and employee shall comply with the provisions of *OHS Regulation 91-191 Section 45 to 47*.

## 2.1 Low Risk – Operations and Procedure

### Low Risk — Operations

For the purposes of this Code of Practice, operations under Low Risk are:

- the installation or wet removal of manufactured products containing asbestos, including products such as vinyl or acoustic tiles, gaskets, seals, packing, friction products, or asbestos cement products;
- the opening of ceiling tiles for inspection purposes;
- the opening of brake drums, and replacement or repair of brake pads;
- repair or replacement of clutches; and
- handling of asbestos waste that has been double bagged

### Low Risk — Procedures

NBCC and the contractor shall ensure that:

- before beginning work, visible dust is removed with a damp cloth or a certified vacuum equipped with a HEPA filter, from any surface in the work area, including the surface to be worked on, if the dust on that surface is likely to be disturbed;
- the spread of asbestos dust from the immediate work area is controlled by measures appropriate to the work to be done, which may include the use of drop sheets of polyethylene or other suitable material;
- compressed air hoses are not used to clean;
- NIOSH approved N95 disposable respirators (or better), or a Standard offering equivalent protection, are made available for use by employees;
- waste material is discarded according to the requirements of the New Brunswick Department of the Environment and Local Government [Disposal of Friable Asbestos](#) ; and waste material is transported in accordance with the Transportation of Dangerous Goods Act

**Moderate Risk and High Risk - Operations and Procedures will only be conducted by a certified abatement contractor following *A Code of Practice for Working with Materials Containing Asbestos in New Brunswick referenced in the General Regulation 91-191 under the OHS Act June 2023.***

Listed are the Moderate and High-Risk Operations

## 2.2 Moderate Risk - Operations

For the purposes of this Code of Practice, operations classified under Moderate Risk are:

- the removal of a false ceiling, or part of it, to obtain access to a work area, where significant quantity of friable material containing asbestos is likely to be lying on the surface of the false ceiling;
- the minor removal or minor disturbance (less than 30 square feet (2.8 m<sup>2</sup>) of surface area) of friable material containing asbestos during the repair, alteration, maintenance or demolition of a building, aircraft, ship, locomotive, railway car or vehicle, or any machinery or equipment;
- the application of tape or a sealant or other covering to pipe or boiler insulation containing

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- asbestos;
- the removal of pipe insulation containing friable asbestos with the help of a commercial containment bag (glove bag);
- the enclosure of asbestos-containing material;
- the use of a power tool having a dust collection device equipped with a certified HEPA filter to cut, grind, or abrade a product mentioned in Low Risk – Operations (a)
- the cutting, drilling, or shaping of a product mentioned in Low Risk – Operations (a) using hand operated tools;
- the removal of drywall where asbestos joint-filling compounds have been used;
- the clean-up of small quantities of friable asbestos debris that has detached from insulation;
- the dry removal of manufactured products containing asbestos, including products such as vinyl or acoustic tiles, gaskets, seals, packing, friction products, or asbestos cement products;
- any encapsulation work where the actual damaged area of the entire encapsulation project is less than 30 square feet (2.8 m<sup>2</sup>);
- removal of vinyl asbestos floor coverings; and
- any operation not mentioned in paragraphs (a) to (l) that may cause exposure of an employee to asbestos, and that is not classified as a Low Risk or a High-Risk operation.

## 2.3 High Risk - Operations

For the purposes of this **Code of Practice**, operations classified under High Risk are:

- the removal of 30 square feet (2.8 m<sup>2</sup>) or more, of friable material containing asbestos during the repair, alteration, maintenance or demolition of a building, or any machinery or equipment or part thereof;
- the spray application of a sealant to friable material containing asbestos,
- the cleaning or removal of air-handling equipment, including rigid ducting, in a building that has sprayed-fireproofing containing asbestos,
- an outdoor operation involving the removal or stripping of friable asbestos-containing materials; and,
- the repair, alteration or demolition of a kiln, metallurgical furnace or similar device or part thereof, made in part of refractory materials containing asbestos

### Clearance Sampling

Except for outdoor operations, NBCC and a contractor shall ensure that:

- at least two clearance samples are collected in work areas up to 1235 square feet (115 m<sup>2</sup>) and one clearance sample for every additional 1235 square feet (115 m<sup>2</sup>) or part thereof; and
- a value for clearance sampling is 0.01 fibre/cm<sup>3</sup>

## 3.0 INSPECTION OF WORK BEFORE DURING AND AFTER ABATEMENT

When asbestos removal is required by NBCC for construction work, a third party will be contracted to complete visual inspections, air quality sampling etc. before, during and after abatement. The JHSC may conduct their own visual inspections before the area is to resume regular functions.

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## 4.0 EDUCATION, INSTRUCTION AND TRAINING

NBCC shall ensure that:

- every employee who is likely to work near and may disturb asbestos containing material are educated, trained, and instructed by a competent person in;
  - the hazards of asbestos exposure;
  - the use, care, and maintenance of required protective equipment, including personal protective equipment and clothing.
  - the work practices and procedures to be used in doing the work as prescribed by this Code of Practice;
  - the disposal procedures for asbestos contaminated materials; and
  - personal hygiene

The manager of Health and Safety will provide Asbestos Awareness training and arrange for Asbestos Worker Low Risk training.

Health Risks related to Asbestos can be found here [Asbestos Health Effects](#)

## 5.0 NOTIFICATION OF HIGH-RISK PROJECTS

- Before commencing any High-Risk project, the contractor or the employer shall notify WorkSafeNB at least 10 days in advance of the commencement of the project;
- Notwithstanding (a), the contractor or employer will notify the Commission immediately should emergency High Risk work be required;
- When notifying the commission, the contractor or NBCC shall supply the following information:
  - the name, address and telephone number of the person giving the notice,
  - the name, address, and telephone number of the owner of the place where the work will be conducted,
  - the municipal address or other description of the place where the work will be conducted,
  - a description of the work that will be conducted,
  - the starting date and expected duration of the work,
  - the name and telephone number of the supervisor in charge of the work
  - the total number of employees involved in the asbestos removal, enclosure, or encapsulation.

## 6.0 PROHIBITIONS

- No person shall apply, or install by spraying, any material which contains more than one per cent by volume of asbestos that can become friable.
- No person shall apply or install, as pipe or boiler insulation, material which contains more than one per cent by volume of asbestos that can become friable.

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## Appendix A: Notifications

To ensure that workers and occupants of buildings as well as contractors are not exposed to asbestos, various notification procedures are required.

### Notification to building occupants and workers

- Every entrance to locations containing friable asbestos material shall be posted with readily visible warning sign stating:

**Example: Notice: This is to remind you that asbestos may be present in the ceiling. When working in the ceiling area, adhere to the “Code of Practice for Working with Materials Containing Asbestos in New Brunswick”**

**Example: NBCC buildings may contain asbestos and therefore caution must be exercised prior to doing any work that may disturb asbestos containing material.**

**Example: Asbestos awareness training session for all workers who may work with or in proximity to materials that are (or are presumed to be) friable or non-friable asbestos.**

- Supervisors shall advise their workers of asbestos locations when the workers are working near friable or non-friable asbestos containing material.

### Notification to contractors/sub-contractors

- The Facilities Manager or designate must inform their contractor/sub-contractor of the location of friable or non-friable asbestos containing material that is in proximity and may be disturbed by the work in the tender package and during the job meeting.
- The Facilities Manager or designate contracting work is responsible for ensuring that the contractor/sub-contractor follow work procedures under A Code of Practice for Working with Materials Containing Asbestos in New Brunswick and NBCC’s Asbestos Management Program.

If the type of friable asbestos is not known, it shall be treated as though it contained a type of asbestos other than chrysotile.

## Appendix B: Discovery of Suspected Asbestos

If any unexpected discovery of suspected asbestos-containing material is made during the course of work:

- The worker shall report the discovery immediately to the Facilities Manager or Regional Facilities Manager.
- The Facilities Manager shall stop any work that may disturb the suspected asbestos-containing material.
- The Facilities Manager shall notify WorkSafe NB, the campus JHSC and the Regional Facilities Manager.
- The Regional Facilities Manager will notify the Director, Facilities and Ancillary Services.
- The Facilities Manager will arrange the collection and analysis of bulk samples as well as the communication of results to the Regional Facilities Manager.
- No work will be performed unless it is determined that the material is not asbestos or, the work is performed after inspection and determination of asbestos.

### Suspected Exposure to Asbestos

- If a worker believes they have had an occupational exposure to asbestos in the course of employment, the worker should:
  - Report on the suspected exposure to the Facilities Manager.
  - Complete the *NBCC Injury / Incident Report Form and WorkSafe NB Application for Workers Benefits*

## Appendix C: Roles and Responsibilities

### Executive

President, Vice-Presidents, Directors including Director - Facilities and Ancillary Services, Dean, Regional Facilities Manager, Academic Chairs :

- Provide direction and resources required to support and maintain the NBCC Asbestos management program
- Enforcement of the program and confirm that occupants are notified of the NBCC Asbestos Management Program

### Facilities Managers

Regional Facilities Manager and Facilities Manager:

- Prepare detailed plans and specifications showing the locations of all asbestos materials
- **Hire asbestos abatement contractors with proper training, experience, certifications and required insurance. COR (Certificate of Recognition) program is preferred. Maintain a record of approved contractors**
- Notify Director, Facilities and Ancillary Services, Academic Chairs, WorkSafeNB and the campus JHSC of all projects that involve direct and/or potential contact with ACM
- All asbestos abatement work involving repairs, removals, renovations, and demolition to be documented to keep the asbestos record (inventory) current
- Arrange inspection and air monitoring by a third party and to have the JHSC attend the sampling if required
- Inform employees about planned asbestos abatement
- Share inspection/air monitoring results with third party, required by the Asbestos Management Program for final clearance of High-Risk Operations
- Ensure that WorkSafeNB is advised in writing of all projects involving High Risk operations
- Provide notification to workers and contractors who may work near and could disturb the asbestos and;
- Maintain the NBCC Asbestos Management Program
- Prepare a record containing both friable and non-friable asbestos for all NBCC-owned buildings, updating when new information is made available
  - [Moncton Campus](#)
  - [Miramichi Campus](#)
  - [Saint John Campus](#)
  - [St. Andrews Campus](#)
- Conduct annual asbestos inspections to evaluate the condition of ACM
- Provide notification to building occupiers of asbestos in the area(s) they occupy

### Manager Health and Safety

- Maintain the NBCC Asbestos Management Program

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## **Maintenance Staff**

Responsibilities include repair and removal of asbestos excluding Moderate Risk and High-Risk asbestos operations (to be performed by an approved third-party asbestos abatement contractor):

- Asbestos is to be maintained in good condition
- Ensure all work procedures are compliant under the NBCC Asbestos Management Program
- Provide notification to workers and contractors who may work near and could disturb the asbestos
- All asbestos abatement work involving repairs, removals, renovations, and demolition to be documented and forwarded to the Facilities Manager to keep the asbestos record (inventory) current
- Adhere to asbestos waste containment and disposal procedures
- Follow task-specific procedure that address both the hazards and the necessary controls required to perform the requested work
- Inform Facilities Manager of any discovery of suspected asbestos and any asbestos containing material that requires repair or removal
- Complete asbestos training as required for specific work duties.
- Personal protective equipment- cleaning and maintenance of equipment as required
- Performing repairs or removals of asbestos containing material (ACM) must be documented for the Facilities Manager to maintain the asbestos record
- Ensure that the Facilities Manager is made aware of any repairs and removals that would affect the inventory for proper record keeping.

## **Support Staff and Faculty**

- Notify workers who may be affected by asbestos work and;
- Adhere to the requirements of the Asbestos Management Program prior to any repair, modification, or renovation of buildings.

## **Joint Health and Safety Committee**

- Review the NBCC Asbestos Management Program on a scheduled basis
- Review asbestos records on an annual basis and;
- Review and participate in air clearance testing for High-Risk operations.

## **Contractors/Subcontractors:**

- Work in compliance with NBCC Asbestos Management Program and Regulation 91-191 under the Occupational Health and Safety Act.