# A Code of Practice for Working with Materials Containing Asbestos in New Brunswick

referenced in

New Brunswick

General Regulation 91-191

under the

Occupational Health and Safety Act

June 2023

# A Code of Practice for Working with Materials Containing Asbestos in New Brunswick

# For further information contact:

WorkSafeNB

1 Portland Street P.O. Box 160 Saint John, NB E2L 3S9

Toll free in New Brunswick: 1 800 999-9775

Fax: 506 738-4099

Email address: <u>prevention@ws-ts.nb.ca</u>

# TABLE OF CONTENTS

# **SUBJECT Section** Preface Introduction Definitions 1 amended water asbestos asbestos-containing material building competent fibre/cm<sup>3</sup> friable material HEPA filter Low Risk, Moderate Risk, High Risk NIOSH approved officer respirable fibre waste material wetting agent Application 2 Inspection and Determination of Asbestos 3 Asbestos Management Program 4 Low Risk Operations and Procedures 5 Low Risk Operations 5.1

Low Risk Procedures 5.2

Moderate Risk Operations and Procedures 6

Moderate Risk Operations 6.1

Moderate Risk Procedures 6.2

High Risk Operations and Procedures 7

High Risk Operations 7.1

High Risk Procedures 7.2

Preparation 7.2.1

Asbestos Removal 7.2.2

Clean-up of Removal Area 7.2.3

Clearance Sampling 7.2.4

Encapsulation 7.2.5

Education, Instruction and Training 8

Notification of High Risk Projects 9

Prohibitions 10

# **PREFACE**

This is an update from the first edition of the "A Code of Practice for Working with Materials Containing Asbestos in New Brunswick". This replaces the edition released in April, 2022.

The June 2023 revision includes:

- New definition of Asbestos-containing material
- Modified definitions of NIOSH approved and fibre
- Adding "or disturbance" to 7.1(a) High Risk-Operations
- Power tools used without HEPA filter added to high risk operations
- Addition in Section 3 to include "heat producing equipment" as asbestos-containing material in certain conditions

#### INTRODUCTION

Asbestos is a general term which is used to describe a group of fibrous mineral silicates.

The types of asbestos include:
(a) chrysotile;
(b) amosite;
(c) crocidolite;
(d) actinolite;
(e) anthophyllite; and
(f) tremolite

Commercially, asbestos has been used in such applications as fireproofing, textiles, friction products, reinforcing materials (i.e. cement pipes and structures) and insulation, both thermal and acoustical. Its properties, such as non-combustibility, high tensile strength, chemical resistance and flexibility contributed to its wide use.

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 individuals handling the product and of the general public.

This *Code of Practice* has been developed to provide safe handling procedures to minimize exposure to asbestoscontaining 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 greatly with the type of work done.

Thus, for the purposes of this *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.

Where a dispute arises as to the classification of an operation under this *Code of Practice*, any party to the dispute may notify an officer, who shall investigate, and deliver a decision in writing to the parties before further work is done.

Sections 5, 6 and 7 deal with Low Risk, Moderate Risk and High Risk respectively. Section 8 deals with instruction and training.

#### **SECTION 1**

#### **DEFINITIONS**

"amended water" means water to which a wetting agent has been added;

"asbestos" means any of the following fibrous silicates: chrysotile, amosite, crocidolite, actinolite, anthophyllite, or tremolite;

"asbestos-containing material" means

material that contains a concentration of 1% or more asbestos as determined in accordance with Method 9002 set out in the document entitled NIOSH Manual of Analytical Methods published by the National Institute for Occupational Safety and Health, as amended from time to time, or in accordance with a scientifically proven method used to collect and analyze a representative sample of the material.

"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" means

- (a) 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,
- (b) knowledgeable about the provisions of the Act and the regulations that apply to the assigned work, and
- (c) knowledgeable about potential or actual danger to health or safety connected with the assigned work;

"fibre/cm3" means fibres of asbestos per cubic centimetre of air;

"friable material" means material that, when dry, can be or has been crumbled, powdered or pulverized by hand pressure;

"HEPA filter" means 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 Sections 5, 6 and 7 respectively;

"NIOSH approved" means approved by the National Institute of Occupational Safety and Health of the U.S. Department of Health and Human Services, or under a Standard offering equivalent protection;

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

"fibre" means respirable fibre with a length greater than five micrometres (5  $\mu$ m); aspect ratio greater than 3:1, as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination;

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

#### **SECTION 2**

#### APPLICATION

- **2.1** This *Code of Practice* applies to every place of employment within the jurisdiction of the *Occupational Health* and *Safety Act*.
- **2.2** An owner of a place of employment, an employer and a contractor to whom this *Code of Practice* applies shall take every precaution reasonable in the circumstances, to ensure that every person who has access to the workplace is protected and complies with the requirements of this *Code of Practice*.

#### **SECTION 3**

# 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.

Some equipment, like furnaces, incinerators or other high heat generating equipment, may have hidden asbestos containing material as a heat control system. If these types of equipment were put in place or built before the mid-1990s it is highly likely that it will contain asbestos and shall be considered asbestos-contained materials unless tested (may require destructive testing). It should be noted that a full asbestos ban only occurred in 2018, which should be considered during the determination of the presence of asbestos.

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

- **3.1** Before performing the demolition, alteration or repair of machinery or equipment, or of a building, aircraft, locomotive, railway car, vehicle or ship, or any part known to contain, or suspected of containing, asbestos, the owner of a place of employment, an employer 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. One sample shall be taken from each room or area containing the same material unless the owner of a place of employment, an employer or contractor deems the room to have asbestos.
- **3.2** For the purposes of this *Code of Practice*, an acceptable procedure for establishing whether asbestos is present in material is as follows:
  - (a) Unless the owner of a place of employment, an employer and contractor deems the work area as containing asbestos, samples for testing will be collected by a competent person as follows:
    - (i) 100 square feet (9.3 m2) or less at least one sample;
    - (ii) 101 square feet (9.4 m2) to 1000 square feet (93 m2) at least three samples;
    - (iii) 1001 square feet (93 m2) to 5000 square feet (465 m2) at least five samples;
    - (iv) greater than 5000 square feet (465 m2) at least seven samples;
  - (b) Separate samples should be taken where there is a difference in the texture or color of the material.

- (c) 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.
- (d) The material from which the sample is drawn should not be otherwise disturbed or damaged.
- (e) 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.
- (f) 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.
- (g) 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.
- (h) The damaged areas should be repaired or sealed with encapsulant, a cover or otherwise protected to prevent further fibre release.
- (i) 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.
- (j) The container lid should be taped to prevent the accidental opening of the container during shipment or handling.
- (k) The sample container shall be labelled to identify the location and the date the sample was taken, and include a unique identification number.
- (1) 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.
- (m) The bulk sample(s) obtained shall be analyzed in a specialized laboratory where analyses can be conducted with precision.
- (n) The request for analysis shall specify:
  - (i) Classification of the type of asbestos,
  - (ii) Per cent composition of asbestos in the sample.
- **3.3** Where, upon inspection and bulk sampling, any material has been found to contain asbestos, the owner of a place of employment, employer and a contractor shall prepare an inspection report in writing containing:
  - (a) the type and per cent of asbestos;
  - (b) drawings, plans and specifications, as appropriate, to show the location of the asbestos material; and
  - (c) the report shall document the condition of the asbestos-containing material and any repairs or other corrective action required.

#### ASBESTOS MANAGEMENT PROGRAM

- **4.1** Where it has been established by inspection, bulk sample analysis, or deemed by an owner of a place of employment, an employer or contractor that material containing asbestos has been used in a building, an owner of a place of employment, an employer and a contractor shall ensure that an asbestos management program is developed in writing and maintained while the asbestos-containing materials remain in the workplace.
- **4.2** The asbestos management program referred to in subsection 4.1 shall be developed in consultation with the Joint Health and Safety Committee (if any) or the health and safety representative.
- **4.3** The asbestos management program shall address the following elements:
  - (a) Safe procedures as required in sections 5, 6 and 7 to ensure that the damaged asbestos-containing material is cleaned up and removed;
  - (b) Safe procedures for the repairing, sealing, removing or permanently enclosing the asbestos-containing material where it has been determined that the material will continue to deteriorate;
  - (c) Records of location where asbestos-containing material is found;
  - (d) 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;
  - (e) Identification system for asbestos-containing material using colour coding, labels, placards or any other mode of identification:
  - (f) Procedures for inspection of the asbestos material at least once per year, in order to determine its condition:
  - (g) Provisions for the education, training and instruction for every employee in the building who is likely to work in close proximity to and may disturb the asbestos-containing material; and
  - (h) The education, training and instruction program in (g) shall include, but not limited to:
    - (i) the hazards of asbestos exposure;
    - (ii) the use, care and maintenance of required protective equipment, including personal protective equipment and clothing.
    - (iii) the work practices and procedures to be used in doing the work as prescribed by this *Code of Practice*;
    - (iv) the disposal procedures for asbestos contaminated materials; and
    - (v) personal hygiene.
- 4.4 Where respirators are required to be worn by employees, the employer and employee shall comply with the provisions of Section 45 to 47 of Regulation 91-191.

#### LOW RISK — OPERATIONS AND PROCEDURES

# 5.1 Low Risk — Operations

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

- (a) 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;
- (b) the opening of ceiling tiles for inspection purposes;
- (c) the opening of brake drums, and replacement or repair of brake pads;
- (d) repair or replacement of clutches; and
- (e) handling of asbestos waste that has been double bagged.

#### 5.2 Low Risk—Procedures

An owner of a place of employment, an employer and a contractor shall ensure that the following procedures applying to Low Risk operations are complied with:

- (a) before beginning work, visible dust is removed with a damp cloth or a 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;
- (b) 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;
- (c) compressed air hoses are not used to clean;
- (d) NIOSH approved N95 disposable respirators (or better) are made available for use by employees;
- (e) waste material is discarded according to the requirements of the New Brunswick Department of the Environment and Local Government; and
- (f) waste material is transported in accordance with the Transportation of Dangerous Goods Act.

#### MODERATE RISK — OPERATIONS AND PROCEDURES

#### 6.1 Moderate Risk — Operations

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

- (a) the removal of a false ceiling, or part of it, to obtain access to a work area, where a significant quantity of friable material containing asbestos is likely to be lying on the surface of the false ceiling;
- (b) the minor removal or minor disturbance (less than 30 square feet (2.8 m<sup>2</sup>)) 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;
- (c) the application of tape or a sealant or other covering to pipe or boiler insulation containing asbestos;
- (d) the removal of pipe insulation containing friable asbestos with the help of a commercial containment bag (glove bag);
- (e) the enclosure of asbestos-containing material;
- (f) the use of a power tool having a dust collection device equipped with a HEPA filter to cut, grind or abrade a product mentioned in paragraph 5.1(a);
- (g) the cutting, drilling or shaping of a product mentioned in paragraph 5.1(a) by the use of hand operated tools;
- (h) the removal of drywall where asbestos joint-filling compounds have been used;
- (i) the clean-up of small quantities of friable asbestos debris that has detached from insulation;
- (j) 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;
- (k) any encapsulation work where the actual damaged area of the entire encapsulation project is less than 30 square feet  $(2.8 \text{ m}^2)$ ;
- (1) removal of vinyl asbestos floor coverings; and
- (m) 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.

# 6.2 Moderate Risk — Procedures

- **6.2.1** The owner of a place of employment, an employer and a contractor shall ensure that:
  - (a) amended water is used to control the spread of asbestos dust, unless wetting creates a hazard or causes damage;
  - (b) eating, drinking, chewing or smoking is not permitted in the work area;

- (c) no person shall enter the work area unless they are wearing proper protective equipment;
- (d) every employee who enters the work area is provided with NIOSH approved N, R or P100, reusable, air purifying respirators (or better);
- (e) protective clothing is provided to every employee who enters the work area, and that:
  - (i) the protective clothing consists of full body covering, including head covering, with snug-fitting cuffs at the wrists, ankles and neck, and footwear;
  - (ii) it is repaired or replaced if torn;
  - (iii) it is left inside the work area, or is decontaminated using a vacuum equipped with a HEPA filter before leaving the contaminated work area; and
  - (iv) it is discarded as asbestos contaminated material, (or washed if reusable), upon completion of the removal project;
- (f) facilities for washing hands and face are made available to an employee, and are used by every employee, when leaving the work area;
- (g) the work area is identified by clearly visible signs warning of the asbestos-dust hazard;
- (h) compressed air is not used to clean;
- (i) before commencing work that is likely to disturb friable material containing asbestos that is crumbled, pulverized or powdered, and that is lying on any surface, the friable material is cleaned up and removed by damp-wiping, or by using a vacuum equipped with a HEPA filter;
- (j) the spread of asbestos-dust from the work area is prevented, by
  - (i) an enclosure of polyethylene or other suitable material thick enough to withstand wear and tear where walls do not enclose the work area;
  - (ii) the use of drop sheets; and
  - (iii) disabling the mechanical ventilation system serving the work area, and by sealing the ventilation ducts to and from the work area;
- (k) frequently and regularly during the work, and immediately upon completion,
  - (i) dust and waste containing asbestos is cleaned up and removed by damp-mopping, and placed in a suitably lined container or a six mil polyethylene bag or by using a vacuum equipped with a HEPA filter:
  - (ii) drop sheets and barriers that are to be reused are thoroughly cleaned;
- (1) drop sheets and barriers that are to be discarded are considered and treated as asbestos contaminated material; and
- (m) waste materials, including discarded polyethylene sheeting, sealing tape, cleaning materials, protective clothing, vacuum bags, and other contaminated materials, are

- (i) double bagged in a six mil polyethylene bag and identified as containing asbestos. Label must also state hazards of exposure to asbestos, precautionary statements and handling required;
- (ii) secured against unauthorized removal or damage;
- (iii) transported in accordance with the Transportation of Dangerous Goods Act; and
- (iv) discarded according to the requirements of the New Brunswick Department of the Environment and Local Government.

#### HIGH RISK — OPERATIONS AND PROCEDURES

### 7.1 High Risk — Operations

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

- (a) the removal or disturbance 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, aircraft, ship, locomotive, railway car or vehicle, or any machinery or equipment or part thereof;
- (b) the spray application of a sealant to friable material containing asbestos;
- (c) the cleaning or removal of air-handling equipment, including rigid ducting, in a building that has sprayed-fireproofing containing asbestos;
- (d) an outdoor operation involving the removal or stripping of friable asbestos-containing materials;
- (e) the repair, alteration or demolition of a kiln, metallurgical furnace or similar device or part thereof, made in part of refractory materials containing asbestos; and
- (f) the use of a power tool without a dust collection device equipped with a HEPA filter to cut, grind or abrade a product mentioned in paragraph 5.1(a).

## 7.2 High Risk — Procedures

#### 7.2.0 Emergency Response

The owner of a place of employment, an employer or a contractor shall develop an emergency response procedure for use in the event of serious injury and other emergencies in the work area.

#### 7.2.1 Preparation

The owner of a place of employment, an employer and a contractor shall ensure that:

- (a) signs are posted around the perimeter of the removal area to restrict access;
- (b) the signs required in paragraph (a) are posted in sufficient numbers to warn of the hazard, and state in large clearly visible letters that

- (i) there is an asbestos-dust hazard; and
- (ii) access to the work area is restricted to persons wearing protective clothing and respiratory protective equipment;
- (c) respiratory protection is worn by all employees on-site during the preparation of work areas for asbestos removal, where any disturbance of the material may occur;
- (d) respiratory protection includes:
  - (i) a NIOSH approved P100 reusable air purifying respirator with a minimum assigned protection factor of 10 or better when asbestos is not disturbed, or
  - (ii) a NIOSH approved P100 respirator with a minimum assigned protection factor of 50 or better when asbestos is disturbed;
- (e) the mechanical ventilation system serving the work area is rendered inoperative for the duration of the asbestos work to prevent contamination and fibre dispersal to other areas, by
  - (i) switching off the system where possible; and
  - (ii) sealing the ventilation ducts to and from the work area; or
  - (iii) where the ventilation system cannot be switched off, blanking off the main ventilation duct to the area with rigid impervious material such as metal or wood;
- (f) all moveable equipment and material is removed from the work area;
- (g) floors, walls and any items remaining in the room are sealed with polyethylene sheeting, and that
  - (i) the polyethylene on the floor shall be extended at least 12 inches (30 cm) up each wall and rip-stop poly shall be placed over the polyethylene on the floor;
  - (ii) any damage to the polyethylene sheeting that occurs as the work proceeds is repaired immediately;
  - (iii) the polyethylene sheeting has a minimum thickness of six mil; and
  - (iv) if the enclosure is opaque, one or more transparent window areas are installed to allow observation of the entire work area from outside the enclosure,
- (h) drop sheets are used during outdoor removal operations;
- (i) every precaution is taken to avoid electric shock, including disconnection of electric power to permanent fixtures, except that temporary connections may be made for illumination purposes and for the operation of asbestos removal equipment;
- (j) the electrical equipment used in wet removal operations is
  - (i) battery operated;
  - (ii) double insulated;

- (iii) bonded to ground, extra low voltage, not exceeding 30 volts and 100 volt-amps; or
- (iv) bonded to ground, and equipped with a ground fault circuit interrupter of the Class A type, which is tested before each use;
- (k) a decontamination area is set up adjacent to the work area which consists of:
  - (i) a clean changing room suitable for changing into clean protective clothing or street clothes, and for storing clean clothing and equipment;
  - (ii) a shower room as described in paragraph (m);
  - (iii) a room suitable for donning reusable protective clothing, and for storing contaminated protective clothing and equipment;
- (1) air lock doors are provided and used between the different rooms, and that
  - (i) they consist of layers of polyethylene with at least a three foot (1 m) overlap,
  - (ii) these sheets are weighted at the bottom to keep the flaps closed,
  - (iii) they are arranged in sequence, and
  - (iv) they are constructed so as to prevent the spread of asbestos dust;
- (m) the shower room in the decontamination facility
  - (i) is located between the contaminated change room and the clean change room,
  - (ii) is provided with hot and cold water, or water of a constant temperature that is not less than 40° Celsius or more than 50° Celsius,
  - (iii) has controls inside the room to regulate water flow and temperature,
  - (iv) is capable of providing an adequate supply of hot water to maintain a water temperature of at least  $40^{\circ}$  Celsius, and
  - (ame as 5.2v) is provided with clean towels;
- (n) adequate toilet facilities exist in the work area, or that where such facilities do not exist in the work area, employees go through the proper decontamination sequence before going to the toilet facilities; and
- (o) once the enclosure has been established, a competent person must verify the integrity of the containment and the effectiveness of the negative air system. A record of this inspection must be maintained as part of the project records.

#### 7.2.2 Asbestos Removal

An owner of a place of employment, an employer and a contractor shall ensure that:

- (a) During a high risk work activity, except where commercial containment bag (glove bags) are used as the containment:
  - (i) sampling for airborne asbestos fibre in areas outside of the containment, but in its vicinity, is performed at least daily if there are unprotected employees in the area,
  - (ii) sampling for airborne asbestos fibres in the clean room is performed at least daily during removal and clean-up operations, and
  - (iii) the results of all air samples taken during a high risk activity are available to the employees involved,
- (b) negative air pressure is established inside the work area before removal of any asbestos-containing material is begun;
- (c) the exhaust unit(s) are equipped with HEPA filters and that the units are used, inspected, maintained and repaired according to manufacturer's specifications;
- (d) they are operated on a 24-hour basis;
- (e) a minimum of four air changes per hour is maintained in the removal area,
- (f) where practicable, the air is exhausted to the outdoors;
- (g) personal protective clothing
  - (i) is provided by the employer, and worn by every employee who enters the work site,
  - (ii) consists of full body covering, including head covering, with snug fitting cuffs at the wrists, ankles and neck, (disposable coveralls are strongly recommended),
  - (iii) is replaced or repaired if torn,
  - (iv) includes suitable footwear, which must not be taken from the work site unless covered adequately while on the work site,
  - (v) is worn by all persons in the work area where there is asbestos stripping or clean-up,
  - (vi) is donned in the clean changing room, and that street clothes are left in the clean changing room, preferably in individual lockers, and
  - (vii) is removed when leaving the work site and is stored, or discarded in the room, as defined in subparagraph 7.2.1(k)(iii);
- (h) personal respiratory protection
  - (i) for the removal of wet material containing asbestos consists of Powered Air Purifying Respirators (PAPR) fitted with NIOSH approvedP100 cartridges, or
  - (ii) where it is not practical to wet the material containing asbestos, consists of a NIOSHapproved airline respirator for dry removaland

- (iii) is worn by all persons in the work area where there is asbestos stripping or clean-up,
- (i) special precautions are taken for employees inside the removal area, that include:
  - (i) no person eats, drinks or smokes inside the removal area, the change room, shower room, hall ways, storage room(s);
  - (ii) persons undergo complete decontamination upon leaving the removal area;
  - (iii) respiratory protective equipment is worn at all times inside the removal area;
  - (iv) only authorized personnel are permitted to enter the area;
  - (v) wet methods are employed in all cases except when wetting creates a hazard or causes damage;
  - (vi) amended water is sprayed with airless spray equipment, and with the equipment set at the lowest operable pressure;
  - (vii) asbestos-containing material that is thoroughly sprayed with amended water is left untouched for at least two hours, and re-sprayed immediately prior to beginning removal, in order to ensure that the material has been sufficiently saturated so that water can be easily squeezed out by hand;
  - (viii) removal is done before the material dries and the wet fallen material is placed in a six mil (or thicker) polyethylene bag;
  - (ix) work clothes are removed and left in the work area, or in the room between the work area and the shower room:
  - (x) respiratory protection is only removed as the employee enters the shower;
  - (xi) after thorough showering the employee proceeds to the clean change room;
  - (xii) where the protective clothing (including work boots) will be reused, it is decontaminated using a vacuum equipped with a HEPA filter or by damp wiping prior to removing; and
  - (xiii) where the protective clothing will not be reused, it is discarded in the same manner as asbestos contaminated material.

#### 7.2.3 Clean-up of Removal Area

An owner of a place of employment, an employer and a contractor shall ensure that:

- (a) following removal of asbestos, the entire area, including the decontamination area, is wet cleaned and vacuumed with HEPA filters to remove all visible residue;
- (b) the equipment used during the removal is
  - (i) wet wiped;
  - (ii) washed and wrapped in polyethylene; or

- (iii) placed in plastic bags;
- (c) a sealant is sprayed on the entire area using an airless spray which is used in accordance with the manufacturer's recommendations while negative pressure is maintained inside the enclosure.
- (d) employees involved in clean-up use personal protective equipment and respiratory protection such as described in paragraph 7.2.2(h);
- (e) employees involved in the clean-up follow the same personal decontamination procedure as described in paragraph 7.2.2(i)(ii);
- (f) the showers are dismantled and removed last, in order that they can be used by employees engaged in the clean-up procedures;
- (g) waste materials, including discarded polyethylene sheeting, sealing tape, cleaning materials, protective clothing, vacuum bags, and other contaminated materials, are:
  - (i) double bagged in a six mil polyethylene bag and identified as containing asbestos. Label must also state hazards of exposure to asbestos, precautionary statements and handling required;
  - (ii) secured against unauthorized removal or damage;
  - (iii) transported in accordance with the Transportation of Dangerous Goods Act, and
  - (iv) discarded according to the requirements of the New Brunswick Department of the Environment and Local Government.

### 7.2.4 Clearance Sampling

Except for outdoor operations, the owner of a place of employment, an employer and a contractor shall ensure that:

- (a) 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
- (b) a value for clearance sampling is 0.01 fibre/cm<sup>3</sup>.

#### 7.2.5 Encapsulation

This section applies only if the actual damaged area of the entire encapsulation project is 30 square feet (2.8 m<sup>2</sup>) or more.

An owner of a place of employment, an employer and a contractor shall ensure that:

- (a) the preparation of a work area is conducted as for the removal of asbestos-containing material (High Risk), i.e. subsection 7.2.1;
- (b) personal protective clothing is used as described in paragraph 7.2.2(g);
- (c) personal respiratory protective equipment is used as described in paragraph 7.2.2(h);
- (d) requirements outlined in paragraph 7.2.2(i) are taken during these procedures;

- (e) encapsulant (either the bridging or the penetrating type) is applied over the surface of the asbestos-containing material using airless spray equipment at low pressure setting;
- (f) the clean-up procedures are as described in subsection 7.2.3; and
- (g) a liquid sealant or encapsulant is not applied to friable material that contains asbestos, if the friable material has deteriorated, or if there is insufficient strength and adhesion to support the weight of the sealant and the friable materials.

#### EDUCATION, INSTRUCTION AND TRAINING

## An employer shall ensure that:

- (a) every employee working in a Low Risk, Moderate Risk or High Risk operations are educated, instructed and trained by a competent person in;
  - (i) the hazards of asbestos exposure;
  - (ii) personal hygiene and work practices; and
  - (iii) the use, cleaning and disposal of respirators and protective clothing.

#### **SECTION 9**

## NOTIFICATION OF HIGH RISK PROJECTS

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

# **PROHIBITIONS**

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