

excerpt from

WorkSafeBC OHS Regulation Part 6

Substance Specific Requirements

ASBESTOS

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6.1 Definitions

In sections 6.2 to 6.32

"asbestos-containing material" means any manufactured article or other material which contains 1% or more asbestos by weight at the time of manufacture, or which contains 1% or more asbestos as determined in the *National Institute for Occupational Safety and Health Manual of Analytical Methods, Method 9002, Issue 2* (microscopy, stereo and polarized light, with dispersion staining) or other method acceptable to the Board; [Amended by B.C. Reg. 312/2003, effective October 29, 2003; B.C. Reg. 19/2006, effective May 17, 2006.]

"clean room" means a room in a high risk decontamination facility which is used by workers to change from street clothes into protective work clothing and equipment prior to entering the designated work area;

"clearance air sampling" means sampling to determine if the air inside a containment of a high risk work activity is sufficiently free of asbestos fibre to permit the dismantling of the containment;

"containment" means an isolation system designed to effectively contain asbestos fibre within a designated work area where asbestos-containing material is handled, removed, encapsulated or enclosed, and includes a glove bag;

"decontamination facility" means a series of rooms constructed so as to allow a person to enter and leave a containment without spreading asbestos fibre or waste material beyond the designated work area;

"designated work area" means an area for work with asbestos-containing material which is restricted to access by authorized persons by warning signs and by barricades, enclosures or other means of isolation, with due regard for the level of risk;

"encapsulation" means treatment of an asbestos-containing material or surface with a sealant which penetrates the material and binds the fibres together;

"enclosure" means isolation of asbestos-containing material from adjacent occupied areas in a building by physical barriers such as gyproc, plywood, or metal sheeting, to prevent the release of airborne asbestos fibres into these areas;

"friable material" means any material which, when dry, can be easily crumbled or powdered by hand pressure, or a material that is crumbled or powdered;

"high risk work activity" means work activity involving the handling of asbestos-containing material or working in proximity to friable asbestos-containing material, where there is a high level of control necessary to prevent exposure to excessive concentrations of airborne asbestos fibre;

"low risk work activity" means work activity in proximity to friable asbestos-containing material, where the material is not disturbed and there is no significant release of asbestos fibre;

"moderate risk work activity" means work activity involving the handling of asbestos-containing material or working in proximity to friable asbestos-containing material, not otherwise classified as low or high risk work activities.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

6.2 Application

Sections 6.3 to 6.32 apply to a workplace where a worker is or may be exposed to potentially hazardous levels of asbestos fibre, including

- (a) a workplace where asbestos-containing materials is present or is used,
- (b) operations involving the abatement of asbestos-containing material, and
- (c) an operation in which exposure to asbestos fibre, in excess of 50% of the exposure limits, may occur.

General Requirements

6.3 Exposure control plan

- (1) If a worker is or may be exposed to potentially harmful levels of asbestos, the employer must develop and implement an exposure control plan meeting the requirements of [section 5.54](#).
- (2) To ensure adequate coordination of the overall plan, the employer must ensure that it is administered by a properly trained person.

6.4 Inventory

The employer must ensure that an inventory of all asbestos-containing materials present in the workplace is prepared and kept current.

6.5 Identification

The employer must ensure that all asbestos-containing materials present in the workplace are identified by signs, labels or when these are not practicable, other effective means.

6.6 Assessment and classification

- (1) The employer must ensure that a risk assessment is conducted by a qualified person on asbestos-containing material identified in the inventory, with due regard for the condition of the material, its friability, accessibility and likelihood of damage, and the potential for fibre release and exposure of workers.
- (2) The employer must ensure that a risk assessment has been conducted before any demolition, alteration, or repair of machinery, equipment, or structures where asbestos may be disturbed.
- (3) Before work involving asbestos takes place the employer must ensure that a qualified person assesses the work activity and classifies it as a low, moderate, or high risk activity.
- (4) The qualified person referenced in subsections (1) and (3) must be an occupational health and safety professional with experience in the practice of occupational hygiene as it relates to asbestos management.

6.7 Control of friable asbestos

- (1) The employer must ensure that a friable asbestos-containing material in the workplace is controlled by removal, enclosure or encapsulation so as to prevent the release of airborne asbestos fibre.
- (2) The employer must not allow any work that would disturb friable asbestos-containing material unless necessary precautions have been taken to protect workers.

6.8 Procedures

- (1) The employer must ensure that procedures for handling or using asbestos-containing material prevent or minimize the release of airborne asbestos fibres.
- (2) The employer must ensure that the procedures for control, handling or use of asbestos are in accordance with procedures acceptable to the Board.
- (3) The procedures must address
 - (a) containment of asbestos operations where applicable,
 - (b) control of the release of asbestos fibre,
 - (c) provision, use and maintenance of appropriate personal protective equipment and clothing,
 - (d) means for the decontamination of workers, and
 - (e) removal of asbestos waste and cleanup of asbestos waste material.
- (4) The procedures must provide a worker with task-specific work direction that addresses both hazards and necessary controls.

Note: The WorkSafeBC publication *Safe Work Practices for Handling Asbestos* provides procedures acceptable to the Board. [[PDF 899 KB](#)]

6.9 Prohibitions

- (1) Except for waste intended for disposal, the employer must ensure crocidolite asbestos or material containing crocidolite asbestos is not brought into or used in a workplace.
- (2) The spraying of asbestos or asbestos-containing material is not permitted.
- (3) Pressure spraying equipment of any type must not be used to remove asbestos insulation or other asbestos-containing material from buildings or structures.
- (4) The employer must not permit the use of compressed air to clean up or remove asbestos-containing dust or debris, or dry sweeping or dry mopping of asbestos-containing waste.

6.10 Substitution

- (1) The employer must substitute material less hazardous than asbestos when practicable.
- (2) If such substitution is not practicable, the employer must document the reasons why less hazardous material cannot be substituted for asbestos-containing material, and make this documentation available to workers and to the joint committee or the worker health and safety representative, as applicable.

6.11 Instruction and training

The employer must ensure that a worker who is at risk of exposure to asbestos is adequately instructed and trained in

- (a) the hazards of asbestos,
- (b) the means of identifying asbestos-containing material at the worksite,
- (c) the work procedures to be followed,
- (d) the correct use of the required personal protective equipment, and operation of the required engineering controls, and
- (e) the purpose and significance of any required health monitoring.

6.12 Monitoring

- (1) Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]
- (2) During a high risk work activity, except where glove bags are used as the containment, the employer must sample for airborne asbestos fibre in
 - (a) areas outside of the containment but in its vicinity, at least daily if there are unprotected workers in the area,
 - (b) the clean room, at least daily during removal and cleanup operations, and
 - (c) contaminated areas inside the containment, as necessary during removal and cleanup to ensure that workers are adequately protected.
- (3) The employer must make the results of all air samples taken during a high risk activity available to the workers involved, within 24 hours of completing the collection of the samples.
- (4) Except where glove bags are used as the containment, prior to dismantling a containment used in a high risk work activity and after all asbestos waste has been cleaned up, removed or otherwise controlled, the employer must ensure that
 - (a) clearance air sampling is conducted in previously contaminated areas inside the containment, and
 - (b) the airborne asbestos fibre levels in these areas do not exceed 0.02 f/ml.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

* See also [Part 5 \(Chemical Agents and Biological Agents\)](#) of the OHS Regulation.

Designated Work Areas and Containments

6.13 Designated area

(1) Before starting work with asbestos-containing material, the employer must, with due regard for the level of risk,

- (a) identify and mark the boundary of the designated work area by barricades, fences, or similar means,
- (b) ensure that the immediate work area is cleared of objects, materials and equipment other than that required to do the work, and
- (c) ensure that windows, doorways and all other openings are adequately secured to prevent the release of asbestos fibre into other work areas.

(2) The employer must post signs at the boundaries of the designated work area indicating asbestos work is in progress, the hazards, and the precautions required for entering the work area.

(3) The employer must restrict entry into the designated work area to authorized persons who are adequately protected against the level of risk within the designated work area.

6.14 Permanent enclosure design

When asbestos-containing material in the workplace is controlled by a permanent enclosure, the employer must ensure that the enclosure is airtight, and if practicable, that electrical, plumbing, ventilation and similar services are located outside the enclosure.

6.15 Glove bags

The employer must ensure that when a prefabricated glove bag is used for the removal of asbestos insulation from pipes, ducts and similar structures

- (a) the glove bag is sealed to prevent the release of asbestos fibres into the work area outside the bag,
- (b) waste materials on surfaces are washed to the bottom of the glove bag and all exposed asbestos insulation is encapsulated while inside the glove bag enclosure,
- (c) all glove bags are evacuated through a HEPA vacuum to remove the air inside the bag, prior to removal of the bag, and
- (d) after removing the glove bag, all exposed surfaces are cleaned again.

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

* See also section [4.3](#) of the OHS Regulation.

6.16 High risk work

(1) For high risk work activity the employer must provide and maintain a containment and a decontamination facility, except that a decontamination facility is not required if the containment is a glove bag.

(2) The employer must inspect a containment and a decontamination facility used for high risk work activity at least daily to ensure their effectiveness is maintained.

(3) The employer must ensure that the design of the decontamination facility includes

- (a) a physical connection to the containment,
- (b) a shower facility, and
- (c) provision for the safe entry and exit of workers.

(4) If the high risk activity involves encapsulation of asbestos-containing material, the employer must ensure that the encapsulant penetrates the material and effectively binds the asbestos fibres together, and has not disturbed the bonding of the material to the supporting surface.

(5) At the completion of a high risk activity and before dismantling the containment, the employer must

- (a) visually inspect the area inside the containment to ensure that an effective cleanup has been completed, and
- (b) treat all exposed surfaces inside the containment with a sealant to bind any remaining asbestos fibres and prevent them from becoming airborne.

Ventilation

6.17 Containment ventilation

The employer must, with the exception of a glove bag, ventilate a containment to ensure that

- (a) air flows only from clean outside areas into the contaminated area,
- (b) exhaust air from the containment ventilation system is directed to the outdoors through an effective HEPA filter, and
- (c) there is an inward airflow through the decontamination facility into the containment.

6.18 Local exhaust ventilation

The employer must provide local exhaust ventilation with exhaust air discharged through a HEPA filter for all dust-producing operations outside a containment where asbestos or asbestos-containing dust is handled or used.

6.19 Filter testing

(1) The employer must assess the effectiveness of HEPA filters by DOP (dioctyl phthalate) testing or similar means at least annually, after a HEPA filter is replaced in a vacuum cleaner or ventilation system, and before use in high risk work activity.

(2) Repealed. [B.C. Reg. 312/2003, effective October 29, 2003.]

[Amended by B.C. Reg. 312/2003, effective October 29, 2003.]

* See section [4.3](#) of the OHS Regulation.

Other Means of Controlling Exposure to Asbestos

6.20 Protecting work surfaces

(1) Before starting work where exposed, friable asbestos-containing material is present or asbestos-containing material has been handled, the employer must remove all asbestos dust from contaminated work surfaces with a damp cloth or similar material, or with a vacuum cleaner equipped with a HEPA-filtered exhaust.

(2) Work surfaces in the work area must be kept as free as practicable from accumulations of asbestos dust.

(3) Work surfaces in a designated work area must, with due regard for the level of risk, be covered with plastic sheets, tarpaulins or similar materials to help control the spread of asbestos-containing material.

6.21 Preventing spread

The employer must prevent the spread of asbestos dust and debris to other work areas during the work.

6.22 Wetting material

Asbestos-containing material that is to be removed or disturbed must be effectively wetted before and during the work, whenever practicable.

6.23 Repairing damaged material

When damaged asbestos-containing material is repaired, the employer must ensure that

- (a) the repair methods will seal all exposed, friable ends or edges, and

(b) the methods used disturb the least amount of asbestos-containing material necessary to complete the repair.

6.24 Friction materials

If automotive service procedures may involve asbestos-containing friction material or dust arising from such material, the employer must ensure that the following control measures are implemented:

- (a) dry removal of friction material dust from automotive assemblies using compressed air, brushes, or other similar means is prohibited;
- (b) service work areas where friction material is handled are posted with signs to advise workers of the hazards and required precautions;
- (c) suitable work procedures are followed to minimize the generation of airborne dust;
- (d) a worker handling equipment or assemblies contaminated with dust from friction material, outside of a HEPA-filtered vacuum enclosure system, wears suitable personal protective equipment, including disposable coveralls and at least a HEPA-filtered dual cartridge half face respirator;
- (e) waste material that may be contaminated with asbestos is promptly collected and disposed of in accordance with applicable requirements;
- (f) contaminated tools, equipment and work surfaces are cleaned after work is completed.

Waste Handling and Disposal

6.25 Sealed containers

The employer must ensure that all asbestos waste and other waste contaminated with asbestos, including disposable protective clothing and cleanup equipment, is placed into sealed containers which are labelled as containing asbestos.

6.26 Cleaning containers and equipment

- (1) The employer must ensure that the exterior of a container of asbestos waste is cleaned with a damp cloth or a vacuum cleaner equipped with a HEPA-filtered exhaust before being removed from a designated work area.
- (2) Reusable tools and equipment contaminated with asbestos must be cleaned after work is completed.

6.27 Waste removal

The employer must remove all asbestos dust and debris from the work area with a vacuum cleaner equipped with a HEPA-filtered exhaust, or by other means acceptable to the Board, while the work is in progress, at the end of each work shift, and at the completion of work involving asbestos.

[Amended by B.C. Reg. 253/2001, effective January 28, 2002.]

6.28 Waste disposal

The employer must dispose of containers of asbestos waste promptly to prevent the accumulation of large amounts of asbestos waste.

Personal Protective Clothing and Equipment

6.29 Respiratory protection

- (1) The employer must supply, and ensure that workers within a designated work area wear, respirators which are adequate for the anticipated level of exposure.
- (2) The employer must ensure that a single use respirator is not used for protection against asbestos.

[Amended by B.C. Reg. 312/2010, effective February 1, 2011.]

6.30 Protective clothing

- (1) The employer must ensure that all persons within a designated work area wear protective clothing which is made of material resistant to penetration by asbestos fibres, fits snugly at the neck, wrists and ankles, and as necessary to protect against the risk, covers the head and feet as well as the body.
- (2) The employer must replace or repair any torn or damaged protective clothing immediately.
- (3) Before a worker removes protective clothing and equipment, the employer must ensure that the worker cleans this gear with a damp cloth or a vacuum cleaner equipped with a HEPA-filtered exhaust.
- (4) The employer must ensure that a worker removes protective clothing and equipment before leaving the designated work area.
- (5) The employer must ensure that protective clothing contaminated with asbestos is, before reuse, cleaned with a vacuum cleaner equipped with a HEPA-filtered exhaust, and placed in a water-soluble plastic bag, which is sealed and labelled before being sent to an acceptable laundry facility.

6.31 Information to laundry workers

The employer must ensure that workers who launder clothing contaminated with asbestos are informed of the hazards of asbestos and the precautions required for handling the clothing.

Documentation

6.32 Types of records

- (1) The employer must maintain for at least 10 years, records of asbestos-containing materials inventories and risk assessments, inspections and air monitoring results.
- (2) The employer must maintain for at least 3 years, records of corrective actions to control fibre release, training and instruction of workers, written work procedures and written notification of the Board.

Source; <http://www2.worksafefbc.com/publications/ohsregulation/part6.asp#SectionNumber:6.1>