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CANADA LABOUR CODE

Regulations Amending Certain Regulations Made Under the Canada Labour Code

P.C. 2017-784 June 20, 2017

Whereas, pursuant to subsection 157(3) ([see footnote a](#)) of the *Canada Labour Code* ([see footnote b](#)), regulations of the Governor in Council under subsection 157(1) ([see footnote c](#)) or (1.1) ([see footnote d](#)) of that Act are to be made in respect of occupational safety and health of employees employed on ships, trains or aircraft, while in operation, on the recommendation of the Minister of Labour and the Minister of Transport and are to be made in respect of occupational safety and health of employees employed on or in connection with exploration or drilling for or the production, conservation, processing or transportation of oil or gas in frontier lands, as defined in the *Canada Petroleum Resources Act* ([see footnote e](#)), on the recommendation of the Minister of Labour, the Minister of Indian Affairs and Northern Development and the Minister of Natural Resources, the latter taking into consideration any recommendations made by the National Energy Board in relation to the regulations;

And whereas the National Energy Board has not made any recommendation in relation to the regulations;

Therefore, His Excellency the Governor General in Council, on the recommendation of the Minister of Labour, the Minister of Transport, the Minister of Indian Affairs and Northern Development and the Minister of Natural Resources, pursuant to sections 125 ([see footnote f](#)), 125.1 ([see footnote g](#)), 126 ([see footnote h](#)), 135.2 ([see footnote i](#)) and 157 ([see footnote j](#)) of the *Canada Labour Code* ([see footnote k](#)), makes the annexed *Regulations Amending Certain Regulations Made Under the Canada Labour Code*.

Regulations Amending Certain Regulations Made Under the Canada Labour Code

Canada Occupational Health and Safety Regulations

1 (1) The definition *airborne chrysotile asbestos* in section 10.1 of the *Canada Occupational Health and Safety Regulations* ([see footnote 1](#)) is repealed.

(2) Section 10.1 of the Regulations is amended by adding the following in alphabetical order:

airborne asbestos fibres means asbestos fibres that are longer than 5 µm (micrometres) with an aspect ratio equal to or greater than 3:1 and that are carried by the air; (*fibres d'amiante aéroportées*)

asbestos means actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite in their fibrous form; (*amiante*)

asbestos-containing material means

(a) any article that is manufactured and contains 1% or more asbestos by weight at the time of manufacture or 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; and

(b) any 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; (*matériau contenant de l'amiante*)

clearance air sampling means the action of taking samples to determine if the concentration of airborne asbestos fibres inside an enclosure is below the limit referred to in section 10.19 to permit the dismantling of a containment system; (*échantillonnage de l'air après décontamination*)

containment system means an isolation system that is designed to effectively contain asbestos fibre within a designated work area where asbestos-containing material is handled, removed, encapsulated or enclosed; (*système de confinement*)

encapsulation means the treatment of an asbestos-containing material with a sealant that penetrates the material and binds the asbestos fibres together, and the treatment of the surface of the asbestos-containing material with a sealant that creates a membrane on the surface, to prevent the release of asbestos fibres into the air; (*encapsulation*)

enclosure means a physical barrier such as drywall, plywood or metal sheeting that, as part of the containment system, isolates asbestos-containing material from adjacent areas in a building to prevent the release of airborne asbestos fibres into those areas; (*enclousonnement*)

friable means, in respect of asbestos-containing material, that the material, when dry, can be easily crumbled or powdered by hand pressure; (*friable*)

glove bag means a polyethylene or polyvinyl chloride bag that is affixed around an asbestos-containing source and that permits asbestos-containing material to be removed while minimizing the release of airborne asbestos fibres into the work place; (*sac à gants*)

HEPA filter means a high-efficiency particulate air filter that has been tested to ensure efficiency equal to or exceeding 99.97% for removal of airborne particles having a mean aerodynamic diameter of 0.3 µm (micrometres) from the air; (*filtre HEPA*)

high-risk activity means an activity that involves the handling or disturbance of friable asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that requires a high level of control to prevent exposure to excessive concentrations of airborne asbestos fibres and that includes

- (a) the removal or disturbance of more than 1 m² of friable asbestos-containing material in a work place, even if the activity is divided into smaller jobs,
- (b) the spray application of a sealant to a friable asbestos-containing material,
- (c) the cleaning or removal of air-handling equipment, other than filters, in a building that has sprayed-on fireproofing or sprayed-on thermal insulation that is asbestos-containing material,
- (d) the repair, alteration or demolition of all or part of a kiln, metallurgical furnace or similar structure that contains asbestos-containing material,
- (e) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are not attached to dust-collecting devices equipped with HEPA filters, and
- (f) the repair, alteration or demolition of all or part of a building in which asbestos is or was used in the manufacture of products, unless the asbestos was cleaned up and removed; (*activité à risque élevé*)

low-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to non-friable asbestos-containing material and that includes

- (a) the installation or removal of ceiling tiles that are made of non-friable asbestos-containing material and cover an area of less than 7.5 m²,
- (b) the installation or removal of other non-friable asbestos-containing material, if the material is not being broken, cut, drilled, abraded, ground, sanded or vibrated and dust is not being generated,
- (c) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools, and
- (d) the removal of less than 1 m² of drywall in which joint cement containing asbestos has been used; (*activité à faible risque*)

moderate-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that is not otherwise classified as a low-risk activity or high-risk activity and that includes

- (a) the removal of all or part of a false ceiling to gain access to a work area, if asbestos-containing material is likely to be found on the surface of the false ceiling,
- (b) the removal or disturbance of 1 m² or less of friable asbestos-containing material during repair, alteration, maintenance or demolition work in a work place,
- (c) the enclosure of friable asbestos-containing material,
- (d) the application of tape, sealant or other covering to pipe or boiler insulation that is asbestos-containing material,
- (e) the removal of ceiling tiles that are asbestos-containing material, if the tiles cover an area of greater than 2 m² and are removed without being broken, cut, drilled, abraded, ground, sanded or vibrated,
- (f) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is not wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools,
- (g) the removal of 1 m² or more of drywall in which joint cement that is asbestos-containing material has been used,
- (h) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are attached to dust-collecting devices equipped with HEPA filters,
- (i) the removal of insulation that is asbestos-containing material from a pipe, duct or similar structure using a glove bag, and
- (j) the cleaning or removal of filters used in air-handling equipment in a building that has sprayed-on fireproofing that is asbestos-containing material; (*activité à risque modéré*)

work activity means any low-risk activity, moderate-risk activity or high-risk activity or any activity that is ancillary to that activity, and the supervision of that activity and that ancillary activity. (*activité de travail*)

2 (1) Paragraph 10.19(1)(a) of the Regulations is replaced by the following:

- (a) an airborne chemical agent, other than grain dust or airborne asbestos fibres, in excess of the value for that chemical agent adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time; or

(2) Subsection 10.19(1) of the Regulations is amended by striking out “or” at the end of paragraph (b) and by repealing paragraph (c).

(3) Section 10.19 of the Regulations is amended by adding the following after subsection (1):

(1.1) An employer shall ensure that an employee’s exposure to a concentration of airborne asbestos fibres is as close to zero as is reasonably practicable, but in any event the employer shall ensure that the

concentration is not in excess of the value for airborne asbestos fibres adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time.

(4) The portion of subsection 10.19(3) of the Regulations before paragraph (a) is replaced by the following:

(3) If there is a likelihood that the concentration of an airborne chemical agent may exceed any value referred to in subsection (1) or that the concentration of airborne asbestos fibres may exceed zero, air samples shall be taken by a qualified person and the concentration of the chemical agent or the airborne asbestos fibres shall be determined

3 Paragraph 10.21(b) of the Regulations is replaced by the following:

(b) such use would result in a concentration of an airborne hazardous substance that is in excess of the value referred to in paragraph 10.19(1)(a) or subsection 10.19(1.1) or the limit referred to in subsection 10.20(1) or (2).

4 The Regulations are amended by adding the following before the heading “Identification” before section 10.27:

Asbestos Exposure Management Program

Asbestos-containing Material

10.26.1 (1) If asbestos-containing material is present in a work place and there is the potential for a release of asbestos fibres or employee exposure to asbestos fibres, an employer shall ensure that the qualified person who is carrying out a hazard investigation under section 10.4 takes into consideration the type of asbestos, the condition of the asbestos-containing material, the friability of the asbestos-containing material, the accessibility to and likelihood of damage to the asbestos-containing material and the potential for the release of asbestos fibres and employee exposure to asbestos fibres.

(2) At the completion of an investigation carried out under section 10.4, the employer shall ensure that a readily available record of the location, friability and condition of the asbestos-containing material and the type of asbestos contained in the asbestos-containing material is kept and maintained for examination by employees and is in any form as determined in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative.

Asbestos Exposure Control Plan

10.26.2 Before undertaking any work activity that involves asbestos-containing material, an employer shall, in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative, develop, implement and administer an asbestos exposure control plan that requires the employer to

(a) ensure that a hazard investigation under section 10.4 has been carried out by a qualified person and, in the event that there is a change in the work activity, review any report that was prepared as

a result of the investigation and, if necessary, have a qualified person carry out another investigation;

(b) ensure that a qualified person classifies the work activity as a low-risk activity, moderate-risk activity or high-risk activity;

(c) ensure that all asbestos-containing material present in the work place that is exposed or that will be disturbed is identified by signs and labels or by any other effective manner;

(d) ensure that all friable asbestos-containing material present in the work place is controlled by removal, enclosure or encapsulation or by any other effective manner to prevent employee exposure to asbestos;

(e) ensure that procedures and control measures for moderate-risk activities and high-risk activities are developed and implemented; and

(f) develop and implement an employee education and training program that is specific to asbestos-containing material.

10.26.3 If an employee who is undertaking automotive service procedures may be exposed to asbestos from friction material or dust arising from that material, an employer shall ensure that

(a) the use of compressed air, brushes or similar means to dry-remove friction material dust from automotive assemblies is prohibited; and

(b) signs to advise employees of the hazards and required precautions are posted in service work areas where friction material is handled or dust arising from that material is generated.

Asbestos Dust, Waste and Debris Removal

10.26.4 (1) During any work activities that involve friable asbestos-containing materials, an employer shall ensure that the following activities are carried out frequently and at regular intervals as determined by a qualified person, at the end of each work shift and immediately after the work activity is completed:

(a) all asbestos dust, waste and debris are removed by vacuuming with a vacuum cleaner that is equipped with a HEPA filter, damp-mopping or wet-sweeping the area that is contaminated with the asbestos dust, waste or debris; and

(b) any drop sheets that are contaminated with asbestos dust, waste or debris are wetted.

(2) All asbestos dust, waste or debris and any drop sheets that are contaminated with asbestos dust, waste or debris shall be placed in a container referred to in section 10.26.11.

10.26.5 If a glove bag is used for the removal of asbestos insulation from pipes, ducts and similar structures, an employer shall ensure that

(a) the glove bag is sealed to prevent the release of asbestos fibres into the work area;

(b) the glove bag is inspected for damage or defects immediately before it is attached to the pipe, duct or similar structure and at regular intervals during its use;

(c) all waste from asbestos-containing material that is on surfaces is washed to the bottom of the glove bag and all exposed asbestos-containing material is encapsulated when it is inside the glove

bag;

(d) the glove bag is evacuated using a vacuum cleaner that is equipped with a HEPA filter to remove the air inside the bag prior to the removal of the glove bag; and

(e) after the glove bag is removed, all exposed surfaces are cleaned with a damp cloth and a vacuum cleaner that is equipped with a HEPA filter.

Decontamination

10.26.6 (1) Before leaving a work area that is contaminated with asbestos-containing material, an employee shall

(a) if their protective clothing is to be reused, decontaminate the clothing with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter before taking the clothing off; or

(b) if their protective clothing is not to be reused, place the clothing in a container referred to in section 10.26.11.

(2) An employer shall provide employees with a facility reserved for washing their hands and face, and employees shall wash their hands and face using that facility before leaving a work area that is contaminated with asbestos-containing material.

10.26.7 As soon as practicable after any work activity that involves asbestos-containing material is completed, an employee shall clean reusable tools, equipment, rigid barriers and portable enclosures that are contaminated with asbestos with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter.

Air Sampling

10.26.8 (1) An employer shall ensure that a qualified person takes air samples to test for airborne asbestos fibres

(a) in the vicinity of the containment system during any work activity that involves asbestos-containing material and, in the case of a work activity that lasts longer than 24 hours, at least daily;

(b) in the clean room during removal and clean-up operations and, in the case of removal and clean-up operations that last longer than 24 hours, at least daily; and

(c) in contaminated areas that are inside the containment system as necessary during removal and clean-up operations.

(2) The employer shall ensure that the following air samples are taken:

(a) two samples for every area in an enclosure that is 10 m² or less;

(b) three samples for every area in an enclosure that is more than 10 m² and not more than 500 m²; and

(c) five samples for every area in an enclosure that is more than 500 m².

(3) Within 24 hours after obtaining the air sampling test results, the employer shall

(a) post a copy of the results in a conspicuous place in the work place; and

(b) make the results available to the policy committee, if any, the work place committee and the health and safety representative.

Clearance Air Sampling

10.26.9 (1) Before dismantling a containment system and after all asbestos dust, waste and debris have been cleaned up, removed or encapsulated, an employer shall ensure that clearance air samples are taken inside the enclosure and that the concentration of airborne asbestos fibres is determined in accordance with Method 7400 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 airborne asbestos fibres.

(2) When conducting clearance air sampling, the employer shall ensure that forced air is used inside the enclosure to dislodge any asbestos fibres from all surfaces and keep them airborne.

(3) Clearance air sampling shall be taken until the concentrations of airborne asbestos fibres do not exceed the values referred to in subsection 10.19(1.1).

10.26.10 Within 24 hours after obtaining the clearance air sampling test results, the employer shall

(a) post a copy of the results in a conspicuous place in the work place; and

(b) make the results available to the policy committee, if any, the work place committee and the health and safety representative, and provide a copy of the results to the Minister.

Containers for Asbestos Dust, Waste and Debris

10.26.11 Containers for the containment of asbestos dust, waste and debris and asbestos-containing material shall be

(a) dust-tight;

(b) suitable to contain asbestos dust, waste or debris;

(c) impervious to asbestos;

(d) identified as containing asbestos dust, waste or debris;

(e) cleaned with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter immediately before being removed from the work area; and

(f) removed from the work place frequently and at regular intervals as determined by a qualified person.

On Board Trains Occupational Health and Safety Regulations

5 Section 7.1 of the *On Board Trains Occupational Health and Safety Regulations* (see footnote 2) is amended by adding the following in alphabetical order:

airborne asbestos fibres means asbestos fibres that are longer than 5 µm (micrometres) with an aspect ratio equal to or greater than 3:1 and that are carried by the air; (*fibres d'amiante aéroportées*)

asbestos means actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite in their fibrous form; (*amiante*)

asbestos-containing material means

(a) any article that is manufactured and contains 1% or more asbestos by weight at the time of manufacture or 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, and

(b) any 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; (*matériau contenant de l'amiante*)

clearance air sampling means the action of taking samples to determine if the concentration of airborne asbestos fibres inside an enclosure is below the limit referred to in section 7.20 to permit the dismantling of a containment system; (*échantillonnage de l'air après décontamination*)

containment system means an isolation system that is designed to effectively contain asbestos fibre within a designated work area where asbestos-containing material is handled, removed, encapsulated or enclosed; (*système de confinement*)

encapsulation means the treatment of an asbestos-containing material with a sealant that penetrates the material and binds the asbestos fibres together, and the treatment of the surface of the asbestos-containing material with a sealant that creates a membrane on the surface, to prevent the release of asbestos fibres into the air; (*encapsulation*)

enclosure means a physical barrier such as drywall, plywood or metal sheeting that, as part of the containment system, isolates asbestos-containing material from adjacent areas in a building to prevent the release of airborne asbestos fibres into those areas; (*encloisonnement*)

friable means, in respect of asbestos-containing material, that the material, when dry, can be easily crumbled or powdered by hand pressure; (*friable*)

glove bag means a polyethylene or polyvinyl chloride bag that is affixed around an asbestos-containing source and that permits asbestos-containing material to be removed while minimizing the release of airborne asbestos fibres into the work place; (*sac à gants*)

HEPA filter means a high-efficiency particulate air filter that has been tested to ensure efficiency equal to or exceeding 99.97% for removal of airborne particles having a mean aerodynamic diameter of 0.3 µm (micrometres) from the air; (*filtre HEPA*)

high-risk activity means an activity that involves the handling or disturbance of friable asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that requires a high

level of control to prevent exposure to excessive concentrations of airborne asbestos fibres and that includes

- (a) the removal or disturbance of more than 1 m² of friable asbestos-containing material in a work place, even if the activity is divided into smaller jobs,
- (b) the spray application of a sealant to a friable asbestos-containing material,
- (c) the cleaning or removal of air-handling equipment, other than filters, in a building that has sprayed-on fireproofing or sprayed-on thermal insulation that is asbestos-containing material,
- (d) the repair, alteration or demolition of all or part of a kiln, metallurgical furnace or similar structure that contains asbestos-containing material,
- (e) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are not attached to dust-collecting devices equipped with HEPA filters, and
- (f) the repair, alteration or demolition of all or part of a building in which asbestos is or was used in the manufacture of products, unless the asbestos was cleaned up and removed; (*activité à risque élevé*)

low-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to non-friable asbestos-containing material and that includes

- (a) the installation or removal of ceiling tiles that are made of non-friable asbestos-containing material and cover an area of less than 7.5 m²,
- (b) the installation or removal of other non-friable asbestos-containing material, if the material is not being broken, cut, drilled, abraded, ground, sanded or vibrated and dust is not being generated,
- (c) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools, and
- (d) the removal of less than 1 m² of drywall in which joint cement containing asbestos has been used; (*activité à faible risque*)

moderate-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that is not otherwise classified as a low-risk activity or high-risk activity and that includes

- (a) the removal of all or part of a false ceiling to gain access to a work area, if asbestos-containing material is likely to be found on the surface of the false ceiling,
- (b) the removal or disturbance of 1 m² or less of friable asbestos-containing material during repair, alteration, maintenance or demolition work in a work place,
- (c) the enclosure of friable asbestos-containing material,
- (d) the application of tape, sealant or other covering to pipe or boiler insulation that is asbestos-containing material,
- (e) the removal of ceiling tiles that are asbestos-containing material, if the tiles cover an area of

greater than 2 m² and are removed without being broken, cut, drilled, abraded, ground, sanded or vibrated,

(f) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is not wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools,

(g) the removal of 1 m² or more of drywall in which joint cement that is asbestos-containing material has been used,

(h) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are attached to dust-collecting devices equipped with HEPA filters,

(i) the removal of insulation that is asbestos-containing material from a pipe, duct or similar structure using a glove bag, and

(j) the cleaning or removal of filters used in airhandling equipment in a building that has sprayed-on fireproofing that is asbestos-containing material; (*activité à risque modéré*)

work activity means any low-risk activity, moderate-risk activity or high-risk activity or any activity that is ancillary to that activity, and the supervision of that activity and that ancillary activity. (*activité de travail*)

6 (1) Paragraph 7.20(1)(a) of the Regulations is replaced by the following:

(a) an airborne chemical agent, other than airborne asbestos fibres, in excess of the value for that chemical agent adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time; or

(2) Section 7.20 of the Regulations is amended by adding the following after subsection (1):

(1.1) An employer shall ensure that an employee's exposure to a concentration of airborne asbestos fibres is as close to zero as is reasonably practicable, but in any event the employer shall ensure that the concentration is not in excess of the value for airborne asbestos fibres adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time.

(3) The portion of subsection 7.20(2) of the Regulations before paragraph (a) is replaced by the following:

(2) If there is a likelihood that the concentration of an airborne chemical agent may exceed the value referred to in paragraph (1)(a), the concentration of airborne asbestos fibres may exceed zero or that there is a concentration of an airborne hazardous substance that is hazardous to the health and safety of the employee, air samples shall be taken by a qualified person and the concentration of the chemical agent, airborne asbestos fibres or hazardous substance shall be determined

7 Paragraph 7.21.1(b) of the Regulations is replaced by the following:

(b) that use would result in either a concentration of an airborne chemical agent that is in excess of the values referred to in paragraph 7.20(1)(a) or subsection 7.20(1.1) or a concentration of an

airborne chemical agent or combination of airborne chemical agents that is in excess of the maximum concentration set out in subsection 7.21(1) or (2).

8 The Regulations are amended by adding the following before the heading “Identification” before section 7.24:

Asbestos Exposure Management Program

Asbestos-containing Material

7.23.1 (1) If asbestos-containing material is present in a work place and there is the potential for a release of asbestos fibres or employee exposure to asbestos fibres, an employer shall ensure that the qualified person who is carrying out a hazard investigation under section 7.3 takes into consideration the type of asbestos, the condition of the asbestos-containing material, the friability of the asbestos-containing material, the accessibility to and likelihood of damage to the asbestos-containing material and the potential for the release of asbestos fibres or employee exposure to asbestos fibres.

(2) At the completion of an investigation carried out under section 7.3, the employer shall ensure that a readily available record of the location, friability and condition of the asbestos-containing material and the type of asbestos contained in the asbestos-containing material is kept and maintained for examination by employees and is in any form as determined in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative.

Asbestos Exposure Control Plan

7.23.2 Before undertaking any work activity that involves asbestos-containing material, an employer shall, in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative, develop, implement and administer an asbestos exposure control plan that requires the employer to

(a) ensure that a hazard investigation under section 7.3 has been carried out by a qualified person and, in the event that there is a change in the work activity, review any report that was prepared as a result of the investigation and, if necessary, have a qualified person carry out another investigation;

(b) ensure that a qualified person classifies the work activity as a low-risk activity, moderate-risk activity or high-risk activity;

(c) ensure that all asbestos-containing material present in the work place that is exposed or that will be disturbed is identified by signs and labels or by any other effective manner;

(d) ensure that all friable asbestos-containing material present in the work place is controlled by removal, enclosure or encapsulation or by any other effective manner to prevent employee exposure to asbestos;

(e) ensure that procedures and control measures for moderate-risk activities and high-risk activities are developed and implemented; and

(f) develop and implement an employee education and training program that is specific to

asbestos-containing material.

7.23.3 If an employee who is undertaking automotive service procedures may be exposed to asbestos from friction material or dust arising from that material, an employer shall ensure that

- (a) the use of compressed air, brushes or similar means to dry-remove friction material dust from automotive assemblies is prohibited; and
- (b) signs to advise employees of the hazards and required precautions are posted in service work areas where friction material is handled or dust arising from that material is generated.

Asbestos Dust, Waste and Debris Removal

7.23.4 (1) During any work activities that involve friable asbestos-containing materials, an employer shall ensure that the following activities are carried out frequently and at regular intervals as determined by a qualified person, at the end of each work shift and immediately after the work is completed:

- (a) all asbestos dust, waste and debris are removed by vacuuming with a vacuum cleaner that is equipped with a HEPA filter, damp-mopping or wet-sweeping the area that is contaminated with the asbestos dust, waste or debris; and
- (b) any drop sheets that are contaminated with asbestos dust, waste or debris are wetted.

(2) All asbestos dust, waste or debris and any drop sheets that are contaminated with asbestos dust, waste or debris shall be placed in a container referred to in section 7.23.11.

7.23.5 If a glove bag is used for the removal of asbestos insulation from pipes, ducts and similar structures, an employer shall ensure that

- (a) the glove bag is sealed to prevent the release of asbestos fibres into the work area;
- (b) the glove bag is inspected for damage or defects immediately before it is attached to the pipe, duct or similar structure and at regular intervals during its use;
- (c) all waste from asbestos-containing material that is on surfaces is washed to the bottom of the glove bag and all exposed asbestos-containing material is encapsulated when it is inside the glove bag;
- (d) the glove bag is evacuated using a vacuum cleaner that is equipped with a HEPA filter to remove the air inside the bag prior to the removal of the glove bag; and
- (e) after the glove bag is removed, all exposed surfaces are cleaned with a damp cloth and a vacuum cleaner that is equipped with a HEPA filter.

Decontamination

7.23.6 (1) Before leaving a work area that is contaminated with asbestos-containing material, an employee shall

- (a) if their protective clothing is to be reused, decontaminate the clothing with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter before taking the clothing off; or
- (b) if their protective clothing is not to be reused, place the clothing in a container referred to in

section 7.23.11.

(2) An employer shall provide employees with a facility reserved for washing their hands and face, and employees shall wash their hands and face using that facility before leaving a work area that is contaminated with asbestos-containing material.

7.23.7 As soon as practicable after any work activity that involves asbestos-containing material is completed, an employee shall clean reusable tools, equipment, rigid barriers and portable enclosures that are contaminated with asbestos with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter.

Air Sampling

7.23.8 (1) An employer shall ensure that a qualified person takes air samples to test for airborne asbestos fibres

- (a)** in the vicinity of the containment system during any work activity that involves asbestos-containing material and, in the case of a work activity that lasts longer than 24 hours, at least daily;
- (b)** in the clean room during removal and clean-up operations and, in the case of removal and clean-up operations that last longer than 24 hours, at least daily; and
- (c)** in contaminated areas that are inside the containment system as necessary during removal and clean-up operations.

(2) The employer shall ensure that the following air samples are taken:

- (a)** two samples for every area in an enclosure that is 10 m² or less;
- (b)** three samples for every area in an enclosure that is more than 10 m² and not more than 500 m²; and
- (c)** five samples for every area in an enclosure that is more than 500 m².

(3) Within 24 hours after obtaining the air sampling test results, the employer shall

- (a)** post a copy of the results in a conspicuous place in the work place; and
- (b)** make the results available to the policy committee, if any, the work place committee and the health and safety representative.

Clearance Air Sampling

7.23.9 (1) Before dismantling a containment system and after all asbestos dust, waste and debris have been cleaned up, removed or encapsulated, an employer shall ensure that clearance air samples are taken inside the enclosure and that the concentration of airborne asbestos fibres is determined in accordance with Method 7400 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 airborne asbestos fibres.

(2) When conducting clearance air sampling, the employer shall ensure that forced air is used inside the enclosure to dislodge any asbestos fibres from all surfaces and keep them airborne.

(3) Clearance air sampling shall be taken until the concentrations of airborne asbestos fibres do not exceed the values referred to in subsection 7.20(1.1).

7.23.10 Within 24 hours after obtaining the clearance air sampling test results, the employer shall

- (a) post a copy of the results in a conspicuous place in the work place; and
- (b) make the results available to the policy committee, if any, the work place committee and the health and safety representative, and provide a copy of the results to the Minister.

Containers for Asbestos Dust, Waste and Debris

7.23.11 Containers for the containment of asbestos dust, waste and debris and asbestos-containing material shall be

- (a) dust-tight;
- (b) suitable to contain asbestos dust, waste or debris;
- (c) impervious to asbestos;
- (d) identified as containing asbestos dust, waste or debris;
- (e) cleaned with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter immediately before being removed from the work area; and
- (f) removed from the work place frequently and at regular intervals as determined by a qualified person.

Oil and Gas Occupational Safety and Health Regulations

9 Section 11.1 of the *Oil and Gas Occupational Safety and Health Regulations* ([see footnote 3](#)) is amended by adding the following in alphabetical order:

airborne asbestos fibres means asbestos fibres that are longer than 5 µm (micrometres) with an aspect ratio equal to or greater than 3:1 and that are carried by the air; (*fibres d'amiante aéroportées*)

asbestos means actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite in their fibrous form; (*amiante*)

asbestos-containing material means

- (a) any article that is manufactured and contains 1% or more asbestos by weight at the time of manufacture or 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, and
- (b) any 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; (*matériau contenant de l'amiante*)

clearance air sampling means the action of taking samples to determine if the concentration of airborne asbestos fibres inside an enclosure is below the limit referred to in section 11.23 to permit the dismantling of a containment system; (*échantillonnage de l'air après décontamination*)

containment system means an isolation system that is designed to effectively contain asbestos fibre within a designated work area where asbestos-containing material is handled, removed, encapsulated or enclosed; (*système de confinement*)

encapsulation means the treatment of an asbestos-containing material with a sealant that penetrates the material and binds the asbestos fibres together, and the treatment of the surface of the asbestos-containing material with a sealant that creates a membrane on the surface, to prevent the release of asbestos fibres into the air; (*encapsulation*)

enclosure means a physical barrier such as drywall, plywood or metal sheeting that, as part of the containment system, isolates asbestos-containing material from adjacent areas in a building to prevent the release of airborne asbestos fibres into those areas; (*enclousonnement*)

friable means, in respect of asbestos-containing material, that the material, when dry, can be easily crumbled or powdered by hand pressure; (*friable*)

glove bag means a polyethylene or polyvinyl chloride bag that is affixed around an asbestos-containing source and that permits asbestos-containing material to be removed while minimizing the release of airborne asbestos fibres into the work place; (*sac à gants*)

HEPA filter means a high-efficiency particulate air filter that has been tested to ensure efficiency equal to or exceeding 99.97% for removal of airborne particles having a mean aerodynamic diameter of 0.3 µm (micrometres) from the air; (*filtre HEPA*)

high-risk activity means an activity that involves the handling or disturbance of friable asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that requires a high level of control to prevent exposure to excessive concentrations of airborne asbestos fibres and that includes

(a) the removal or disturbance of more than 1 m² of friable asbestos-containing material in a work place, even if the activity is divided into smaller jobs,

(b) the spray application of a sealant to a friable asbestos-containing material,

(c) the cleaning or removal of air-handling equipment, other than filters, in a building that has sprayed-on fireproofing or sprayed-on thermal insulation that is asbestos-containing material,

(d) the repair, alteration or demolition of all or part of a kiln, metallurgical furnace or similar structure that contains asbestos-containing material,

(e) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are not attached to dust-collecting devices equipped with HEPA filters, and

(f) the repair, alteration or demolition of all or part of a building in which asbestos is or was used in the manufacture of products, unless the asbestos was cleaned up and removed; (*activité à risque élevé*)

low-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to non-friable asbestos-containing material and that includes

- (a)** the installation or removal of ceiling tiles that are made of non-friable asbestos-containing material and cover an area of less than 7.5 m²,
- (b)** the installation or removal of other non-friable asbestos-containing material, if the material is not being broken, cut, drilled, abraded, ground, sanded or vibrated and dust is not being generated,
- (c)** the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools, and
- (d)** the removal of less than 1 m² of drywall in which joint cement containing asbestos has been used; (*activité à faible risque*)

moderate-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that is not otherwise classified as a low-risk activity or high-risk activity and that includes

- (a)** the removal of all or part of a false ceiling to gain access to a work area, if asbestos-containing material is likely to be found on the surface of the false ceiling,
- (b)** the removal or disturbance of 1 m² or less of friable asbestos-containing material during repair, alteration, maintenance or demolition work in a work place,
- (c)** the enclosure of friable asbestos-containing material,
- (d)** the application of tape, sealant or other covering to pipe or boiler insulation that is asbestos-containing material,
- (e)** the removal of ceiling tiles that are asbestos-containing material, if the tiles cover an area of greater than 2 m² and are removed without being broken, cut, drilled, abraded, ground, sanded or vibrated,
- (f)** the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is not wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools,
- (g)** the removal of 1 m² or more of drywall in which joint cement that is asbestos-containing material has been used,
- (h)** the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are attached to dust-collecting devices equipped with HEPA filters,
- (i)** the removal of insulation that is asbestos-containing material from a pipe, duct or similar structure using a glove bag, and

(j) the cleaning or removal of filters used in air-handling equipment in a building that has sprayed-on fireproofing that is asbestos-containing material; (*activité à risque modéré*)

work activity means any low-risk activity, moderate-risk activity or high-risk activity or any activity that is ancillary to that activity, and the supervision of that activity and that ancillary activity. (*activité de travail*)

10 (1) Paragraph 11.23(1)(a) of the Regulations is replaced by the following:

(a) an airborne chemical agent, other than grain dust or airborne asbestos fibres, in excess of the value for that chemical agent adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time;

(2) Section 11.23 of the Regulations is amended by adding the following after subsection (1):

(1.1) An employer shall ensure that an employee's exposure to a concentration of airborne asbestos fibres is as close to zero as is reasonably practicable, but in any event the employer shall ensure that the concentration is not in excess of the value for airborne asbestos fibres adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time.

(3) The portion of subsection 11.23(2) of the Regulations before paragraph (a) is replaced by the following:

(2) If there is a likelihood that the concentration of an airborne chemical agent may exceed any value referred to in paragraph (1)(a) or (b), the concentration of airborne asbestos fibres may exceed zero or there is a concentration of an airborne hazardous substance that is hazardous to the safety and health of the employee, the air shall be sampled by a qualified person and the concentration of the chemical agent, airborne asbestos fibres or hazardous substance determined by means of a test in accordance with

11 Subsection 11.25(2) of the Regulations is replaced by the following:

(2) The use of compressed air shall not result in a concentration of an airborne hazardous substance that is in excess of the values for the hazardous substance referred to in subsections 11.23(1) or (1.1).

12 The Regulations are amended by adding the following before the heading "Identification" before section 11.29:

Asbestos Exposure Management Program

Asbestos-containing Material

11.28.1 (1) If asbestos-containing material is present in a work place and there is the potential for a release of asbestos fibres or employee exposure to asbestos fibres, an employer shall ensure that the qualified person who is carrying out a hazard investigation under section 11.3 takes into consideration the type of asbestos, the condition of the asbestos-containing material, the friability of the asbestos-containing material, the accessibility to and likelihood of damage to the asbestos-containing material and the potential for the release of asbestos fibres or employee exposure to asbestos fibres.

(2) At the completion of an investigation carried out under section 11.3, the employer shall ensure that a readily available record of the location, friability and condition of the asbestos-containing material and the type of asbestos contained in the asbestos-containing material is kept and maintained for examination by employees and is in any form as determined in consultation with the policy committee or, if there is no policy committee, the safety and health committee or the safety and health representative.

Asbestos Exposure Control Plan

11.28.2 Before undertaking any work activity that involves asbestos-containing material, an employer shall, in consultation with the policy committee or, if there is no policy committee, the safety and health committee or the safety and health representative, develop, implement and administer an asbestos exposure control plan that requires the employer to

- (a)** ensure that a hazard investigation under section 11.3 has been carried out by a qualified person and, in the event that there is a change in the work activity, review any report that was prepared as a result of the investigation and, if necessary, have a qualified person carry out another investigation;
- (b)** ensure that a qualified person classifies the work activity as a low-risk activity, moderate-risk activity or high-risk activity;
- (c)** ensure that all asbestos-containing material present in the work place that is exposed or that will be disturbed is identified by signs and labels or by any other effective manner;
- (d)** ensure that all friable asbestos-containing material present in the work place is controlled by removal, enclosure or encapsulation or by any other effective manner to prevent employee exposure to asbestos;
- (e)** ensure that procedures and control measures for moderate-risk activities and high-risk activities are developed and implemented; and
- (f)** develop and implement an employee education and training program that is specific to asbestos-containing material.

11.28.3 If an employee who is undertaking automotive service procedures may be exposed to asbestos from friction material or dust arising from that material, an employer shall ensure that

- (a)** the use of compressed air, brushes or similar means to dry-remove friction material dust from automotive assemblies is prohibited; and
- (b)** signs to advise employees of the hazards and required precautions are posted in service work areas where friction material is handled or dust arising from that material is generated.

Asbestos Dust, Waste and Debris Removal

11.28.4 (1) During any work activities that involve friable asbestos-containing materials, an employer shall ensure that the following activities are carried out frequently and at regular intervals as determined by a qualified person, at the end of each work shift and immediately after the work activity is completed:

- (a)** all asbestos dust, waste and debris are removed by vacuuming with a vacuum cleaner that is

equipped with a HEPA filter, damp-mopping or wet-sweeping the area that is contaminated with the asbestos dust, waste or debris; and

(b) any drop sheets that are contaminated with asbestos dust, waste or debris are wetted.

(2) All asbestos dust, waste or debris and any drop sheets that are contaminated with asbestos dust, waste or debris shall be placed in a container referred to in section 11.28.11.

11.28.5 If a glove bag is used for the removal of asbestos insulation from pipes, ducts and similar structures, an employer shall ensure that

(a) the glove bag is sealed to prevent the release of asbestos fibres into the work area;

(b) the glove bag is inspected for damage or defects immediately before it is attached to the pipe, duct or similar structure and at regular intervals during its use;

(c) all waste from asbestos-containing material that is on surfaces is washed to the bottom of the glove bag and all exposed asbestos-containing material is encapsulated when it is inside the glove bag;

(d) the glove bag is evacuated using a vacuum cleaner that is equipped with a HEPA filter to remove the air inside the bag prior to the removal of the glove bag; and

(e) after the glove bag is removed, all exposed surfaces are cleaned with a damp cloth and a vacuum cleaner that is equipped with a HEPA filter.

Decontamination

11.28.6 (1) Before leaving a work area that is contaminated with asbestos-containing material, an employee shall

(a) if their protective clothing is to be reused, decontaminate the clothing with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter before taking the clothing off; or

(b) if their protective clothing is not to be reused, place the clothing in a container referred to in section 11.28.11.

(2) An employer shall provide employees with a facility reserved for washing their hands and face, and employees shall wash their hands and face using that facility before leaving a work area that is contaminated with asbestos-containing material.

11.28.7 As soon as practicable after any work activity that involves asbestos-containing material is completed, an employee shall clean reusable tools, equipment, rigid barriers and portable enclosures that are contaminated with asbestos with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter.

Air Sampling

11.28.8 (1) An employer shall ensure that a qualified person takes air samples to test for airborne asbestos fibres

(a) in the vicinity of the containment system during any work activity that involves asbestos-containing material and, in the case of a work activity that lasts longer than 24 hours, at least daily;

(b) in the clean room during removal and clean-up operations and, in the case of removal and clean-up operations that last longer than 24 hours, at least daily; and

(c) in contaminated areas that are inside the containment system as necessary during removal and clean-up operations.

(2) The employer shall ensure that the following air samples are taken:

(a) two samples for every area in an enclosure that is 10 m² or less;

(b) three samples for every area in an enclosure that is more than 10 m² and not more than 500 m²; and

(c) five samples for every area in an enclosure that is more than 500 m².

(3) Within 24 hours after obtaining the air sampling test results, the employer shall

(a) post a copy of the results in a conspicuous place in the work place; and

(b) make the results available to the policy committee, if any, the safety and health committee and the safety and health representative.

Clearance Air Sampling

11.28.9 (1) Before dismantling a containment system and after all asbestos dust, waste and debris have been cleaned up, removed or encapsulated, an employer shall ensure that clearance air samples are taken inside the enclosure and that the concentration of airborne asbestos fibres is determined in accordance with Method 7400 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 airborne asbestos fibres.

(2) When conducting clearance air sampling, the employer shall ensure that forced air is used inside the enclosure to dislodge any asbestos fibres from all surfaces and keep them airborne.

(3) Clearance air sampling shall be taken until the concentrations of airborne asbestos fibres do not exceed the values referred to in subsection 11.23(1.1).

11.28.10 Within 24 hours after obtaining the clearance air sampling test results, the employer shall

(a) post a copy of the results in a conspicuous place in the work place; and

(b) make the results available to the policy committee, if any, the safety and health committee and the safety and health representative, and provide a copy of the results to the Minister.

Containers for Asbestos Dust, Waste and Debris

11.28.11 Containers for the containment of asbestos dust, waste and debris and asbestos-containing material shall be

(a) dust-tight;

(b) suitable to contain asbestos dust, waste or debris;

- (c) impervious to asbestos;
- (d) identified as containing asbestos dust, waste or debris;
- (e) cleaned with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter immediately before being removed from the work area; and
- (f) removed from the work place frequently and at regular intervals as determined by a qualified person.

Maritime Occupational Health and Safety Regulations

13 (1) The definition *airborne chrysotile asbestos* in section 243 of the *Maritime Occupational Health and Safety Regulations* ([see footnote 4](#)) is repealed.

(2) Section 243 of the Regulations is amended by adding the following in alphabetical order:

airborne asbestos fibres means asbestos fibres that are longer than 5 µm (micrometres) with an aspect ratio equal to or greater than 3:1 and that are carried by the air; (*fibres d'amiante aéroportées*)

asbestos means actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite in their fibrous form. (*amiante*)

asbestos-containing material means

(a) any article that is manufactured and contains 1% or more asbestos by weight at the time of manufacture or 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; and

(b) any 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. (*matériau contenant de l'amiante*)

clearance air sampling means the action of taking samples to determine if the concentration of airborne asbestos fibres inside an enclosure is below the limit referred to in section 255 to permit the dismantling of a containment system. (*échantillonnage de l'air après décontamination*)

containment system means an isolation system that is designed to effectively contain asbestos fibre within a designated work area where asbestos-containing material is handled, removed, encapsulated or enclosed. (*système de confinement*)

encapsulation means the treatment of an asbestos-containing material with a sealant that penetrates the material and binds the asbestos fibres together, and the treatment of the surface of the asbestos-containing material with a sealant that creates a membrane on the surface, to prevent the release of asbestos fibres into the air. (*encapsulation*)

enclosure means a physical barrier such as drywall, plywood or metal sheeting that, as part of the containment system, isolates asbestos-containing material from adjacent areas in a building to prevent the release of airborne asbestos fibres into those areas. (*encloisonnement*)

friable means, in respect of asbestos-containing material, that the material, when dry, can be easily crumbled or powdered by hand pressure; (*friable*)

glove bag means a polyethylene or polyvinyl chloride bag that is affixed around an asbestos-containing source and that permits asbestos-containing material to be removed while minimizing the release of airborne asbestos fibres into the work place; (*sac à gants*)

HEPA filter means a high-efficiency particulate air filter that has been tested to ensure efficiency equal to or exceeding 99.97% for removal of airborne particles having a mean aerodynamic diameter of 0.3 µm (micrometres) from the air. (*filtre HEPA*)

high-risk activity means an activity that involves the handling or disturbance of friable asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that requires a high level of control to prevent exposure to excessive concentrations of airborne asbestos fibres and that includes

- (a) the removal or disturbance of more than 1 m² of friable asbestos-containing material in a work place, even if the activity is divided into smaller jobs,
- (b) the spray application of a sealant to a friable asbestos-containing material,
- (c) the cleaning or removal of air-handling equipment, other than filters, in a building that has sprayed-on fireproofing or sprayed-on thermal insulation that is asbestos-containing material,
- (d) the repair, alteration or demolition of all or part of a kiln, metallurgical furnace or similar structure that contains asbestos-containing material,
- (e) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are not attached to dust-collecting devices equipped with HEPA filters, and
- (f) the repair, alteration or demolition of all or part of a building in which asbestos is or was used in the manufacture of products, unless the asbestos was cleaned up and removed; (*activité à risque élevé*)

low-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to non-friable asbestos-containing material and that includes

- (a) the installation or removal of ceiling tiles that are made of non-friable asbestos-containing material and cover an area of less than 7.5 m²,
- (b) the installation or removal of other non-friable asbestos-containing material, if the material is not being broken, cut, drilled, abraded, ground, sanded or vibrated and dust is not being generated,
- (c) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is wetted to control the spread of dust or fibres and the activity is

carried out only by means of non-powered hand-held tools, and

(d) the removal of less than 1 m² of drywall in which joint cement containing asbestos has been used; (*activité à faible risque*)

moderate-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that is not otherwise classified as a low-risk activity or high-risk activity and that includes

(a) the removal of all or part of a false ceiling to gain access to a work area, if asbestos-containing material is likely to be found on the surface of the false ceiling,

(b) the removal or disturbance of 1 m² or less of friable asbestos-containing material during repair, alteration, maintenance or demolition work in a work place,

(c) the enclosure of friable asbestos-containing material,

(d) the application of tape, sealant or other covering to pipe or boiler insulation that is asbestos-containing material,

(e) the removal of ceiling tiles that are asbestos-containing material, if the tiles cover an area of greater than 2 m² and are removed without being broken, cut, drilled, abraded, ground, sanded or vibrated,

(f) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is not wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools,

(g) the removal of 1 m² or more of drywall in which joint cement that is asbestos-containing material has been used,

(h) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are attached to dust-collecting devices equipped with HEPA filters,

(i) the removal of insulation that is asbestos-containing material from a pipe, duct or similar structure using a glove bag, and

(j) the cleaning or removal of filters used in airhandling equipment in a building that has sprayed-on fireproofing that is asbestos-containing material; (*activité à risque modéré*)

work activity means any low-risk activity, moderate-risk activity or high-risk activity or any activity that is ancillary to that activity, and the supervision of that activity and that ancillary activity. (*activité de travail*)

14 (1) Paragraph 255(1)(a) of the Regulations is replaced by the following:

(a) an airborne chemical agent, other than grain dust or airborne asbestos fibres, in excess of the value for that chemical agent adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time;

(2) Subsection 255(1) of the Regulations is amended by adding “or” at the end of paragraph (b) and by repealing paragraph 255(1)(c).

(3) Section 255 of the Regulations is amended by adding the following after subsection (1):

(1.1) An employer must ensure that an employee's exposure to a concentration of airborne asbestos fibres is as close to zero as is reasonably practicable, but in any event the employer must ensure that the concentration is not in excess of the value for airborne asbestos fibres adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time.

(4) The portion of subsection 255(2) of the Regulations before paragraph (a) is replaced by the following:

(2) If there is a likelihood that the concentration of an airborne chemical agent may exceed the applicable value referred to in paragraph (1)(a) or (b), the concentration of airborne asbestos fibres may exceed zero or there is a concentration of an airborne hazardous substance that is hazardous to the health and safety of the employee, the air must be sampled by a qualified person and the concentration of the chemical agent, airborne asbestos fibres or hazardous substance must be determined by means of a test in accordance with

15 Paragraph 256(1)(b) of the Regulations is replaced by the following:

(b) that use would result in a concentration of an airborne hazardous substance that is in excess of the values referred to in paragraph 255(1)(a) or subsection 255(1.1) or the limits referred to in subsections 255(5) or (6).

16 The Regulations are amended by adding the following before section 258:

Asbestos Exposure Management Program

Asbestos-containing Material

257.1 (1) If asbestos-containing material is present in a work place and there is the potential for a release of asbestos fibres or employee exposure to asbestos fibres, an employer must ensure that the qualified person who is carrying out a hazard investigation under section 245 takes into consideration the type of asbestos, the condition of the asbestos-containing material, the friability of the asbestos-containing material, the accessibility to and likelihood of damage to the asbestos-containing material and the potential for the release of asbestos fibres or employee exposure to asbestos fibres.

(2) At the completion of an investigation carried out under section 245, the employer must ensure that a readily available record of the location, friability and condition of the asbestos-containing material and the type of asbestos contained in the asbestos-containing material is kept and maintained for examination by employees and is in any form as determined in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative.

Asbestos Exposure Control Plan

257.2 Before undertaking any work activity that involves asbestos-containing material, an employer must, in consultation with the policy committee or, if there is no policy committee, the work place committee or

the health and safety representative, develop, implement and administer an asbestos exposure control plan that requires the employer to

- (a) ensure that a hazard investigation under section 245 has been carried out by a qualified person and, in the event that there is a change in the work activity, review any report that was prepared as a result of the investigation and, if necessary, have a qualified person carry out another investigation;
- (b) ensure that a qualified person classifies the work activity as a low-risk activity, moderate-risk activity or high-risk activity;
- (c) ensure that all asbestos-containing material present in the work place that is exposed or that will be disturbed is identified by signs and labels or by any other effective manner;
- (d) ensure that all friable asbestos-containing material present in the work place is controlled by removal, enclosure or encapsulation or by any other effective manner to prevent employee exposure to asbestos;
- (e) ensure that procedures and control measures for moderate-risk activities and high-risk activities are developed and implemented; and
- (f) develop and implement an employee education and training program that is specific to asbestos-containing material.

257.3 If an employee who is undertaking automotive service procedures may be exposed to asbestos from friction material or dust arising from that material, an employer must ensure that

- (a) the use of compressed air, brushes or similar means to dry-remove friction material dust from automotive assemblies is prohibited; and
- (b) signs to advise employees of the hazards and required precautions are posted in service work areas where friction material is handled or dust arising from that material is generated.

Asbestos Dust, Waste and Debris Removal

257.4 (1) During any work activities that involve friable asbestos-containing materials, an employer shall ensure that the following activities are carried out frequently and at regular intervals as determined by a qualified person, at the end of each work shift and immediately after the work activity is completed:

- (a) all asbestos dust, waste and debris are removed by vacuuming with a vacuum cleaner that is equipped with a HEPA filter, damp-mopping or wet-sweeping the area that is contaminated with the asbestos dust, waste or debris; and
- (b) any drop sheets that are contaminated with asbestos dust, waste or debris are wetted.

(2) All asbestos dust, waste or debris and any drop sheets that are contaminated with asbestos dust, waste or debris must be placed in a container referred to in section 257.92.

257.5 If a glove bag is used for the removal of asbestos insulation from pipes, ducts and similar structures, an employer must ensure that

- (a) the glove bag is sealed to prevent the release of asbestos fibres into the work area;

- (b)** the glove bag is inspected for damage or defects immediately before it is attached to the pipe, duct or similar structure and at regular intervals during its use;
- (c)** all waste from asbestos-containing material that is on surfaces is washed to the bottom of the glove bag and all exposed asbestos-containing material is encapsulated when it is inside the glove bag;
- (d)** the glove bag is evacuated using a vacuum cleaner that is equipped with a HEPA filter to remove the air inside the bag prior to the removal of the glove bag; and
- (e)** after the glove bag is removed, all exposed surfaces are cleaned with a damp cloth and a vacuum cleaner that is equipped with a HEPA filter.

Decontamination

257.6 (1) Before leaving a work area that is contaminated with asbestos-containing material, an employee must

- (a)** if their protective clothing is to be reused, decontaminate the clothing with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter before taking the clothing off; or
- (b)** if their protective clothing is not to be reused, place the clothing in a container referred to in section 257.92.

(2) An employer must provide employees with a facility reserved for washing their hands and face, and employees must wash their hands and face using that facility before leaving a work area that is contaminated with asbestos-containing material.

257.7 As soon as practicable after any work activity that involves asbestos-containing material is completed, an employee must clean reusable tools, equipment, rigid barriers and portable enclosures that are contaminated with asbestos with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter.

Air Sampling

257.8 (1) An employer must ensure that a qualified person takes air samples to test for airborne asbestos fibres

- (a)** in the vicinity of the containment system during any work activity that involves asbestos-containing material and, in the case of a work activity that lasts longer than 24 hours, at least daily;
- (b)** in the clean room during removal and clean-up operations and, in the case of removal and clean-up operations that last longer than 24 hours, at least daily; and
- (c)** in contaminated areas that are inside the containment system as necessary during removal and clean-up operations.

(2) The employer must ensure that the following air samples are taken:

- (a)** two samples for every area in an enclosure that is 10 m² or less;
- (b)** three samples for every area in an enclosure that is more than 10 m² and not more than 500 m²; and

(c) five samples for every area in an enclosure that is more than 500 m².

(3) Within 24 hours after obtaining the air sampling test results, the employer must

(a) post a copy of the results in a conspicuous place in the work place; and

(b) make the results available to the policy committee, if any, the work place committee and the health and safety representative.

Clearance Air Sampling

257.9 (1) Before dismantling a containment system and after all asbestos dust, waste and debris have been cleaned up, removed or encapsulated, an employer must ensure that clearance air samples are taken inside the enclosure and that the concentration of airborne asbestos fibres is determined in accordance with Method 7400 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 airborne asbestos fibres.

(2) When conducting clearance air sampling, the employer shall ensure that forced air is used inside the enclosure to dislodge any asbestos fibres from all surfaces and keep them airborne.

(3) Clearance air sampling shall be taken until the concentrations of airborne asbestos fibres do not exceed the values referred to in subsection 255(1.1).

257.91 Within 24 hours after obtaining the clearance air sampling test results, the employer must

(a) post a copy of the results in a conspicuous place in the work place; and

(b) make the results available to the policy committee, if any, the work place committee and the health and safety representative, and provide a copy of the results to the Minister.

Containers for Asbestos Dust, Waste and Debris

257.92 Containers for the containment of asbestos dust, waste and debris and asbestos-containing material must be

(a) dust-tight;

(b) suitable to contain asbestos dust, waste or debris;

(c) impervious to asbestos;

(d) identified as containing asbestos dust, waste or debris;

(e) cleaned with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter immediately before being removed from the work area; and

(f) removed from the work place frequently and at regular intervals as determined by a qualified person.

Aviation Occupational Health and Safety Regulations

17 Section 5.1 of the *Aviation Occupational Health and Safety Regulations* (see footnote 5) is amended by adding the following in alphabetical order:

airborne asbestos fibres means asbestos fibres that are longer than 5 µm (micrometres) with an aspect ratio equal to or greater than 3:1 and that are carried by the air; (*fibres d'amiante aéroportées*)

asbestos means actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite in their fibrous form. (*amiante*)

asbestos-containing material means

(a) any article that is manufactured and contains 1% or more asbestos by weight at the time of manufacture or 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; and

(b) any 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. (*matériau contenant de l'amiante*)

clearance air sampling means the action of taking samples to determine if the concentration of airborne asbestos fibres inside an enclosure is below the limit referred to in section 5.16 to permit the dismantling of a containment system. (*échantillonnage de l'air après décontamination*)

containment system means an isolation system that is designed to effectively contain asbestos fibre within a designated work area where asbestos-containing material is handled, removed, encapsulated or enclosed. (*confinement*)

encapsulation means the treatment of an asbestos-containing material with a sealant that penetrates the material and binds the asbestos fibres together, and the treatment of the surface of the asbestos-containing material with a sealant that creates a membrane on the surface, to prevent the release of asbestos fibres into the air. (*encapsulation*)

enclosure means a physical barrier such as drywall, plywood or metal sheeting that, as part of the containment system, isolates asbestos-containing material from adjacent areas in a building to prevent the release of airborne asbestos fibres into those areas. (*enclouissement*)

friable means, in respect of asbestos-containing material, that the material, when dry, can be easily crumbled or powdered by hand pressure; (*friable*)

glove bag means a polyethylene or polyvinyl chloride bag that is affixed around an asbestos-containing source and that permits asbestos-containing material to be removed while minimizing the release of airborne asbestos fibres into the work place; (*sac à gants*)

HEPA filter means a high-efficiency particulate air filter that has been tested to ensure efficiency equal to

or exceeding 99.97% for removal of airborne particles having a mean aerodynamic diameter of 0.3 µm (micrometres) from the air. (*filtre HEPA*)

high-risk activity means an activity that involves the handling or disturbance of friable asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that requires a high level of control to prevent exposure to excessive concentrations of airborne asbestos fibres and that includes

- (a) the removal or disturbance of more than 1 m² of friable asbestos-containing material in a work place, even if the activity is divided into smaller jobs,
- (b) the spray application of a sealant to a friable asbestos-containing material,
- (c) the cleaning or removal of air-handling equipment, other than filters, in a building that has sprayed-on fireproofing or sprayed-on thermal insulation that is asbestos-containing material,
- (d) the repair, alteration or demolition of all or part of a kiln, metallurgical furnace or similar structure that contains asbestos-containing material,
- (e) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are not attached to dust-collecting devices equipped with HEPA filters, and
- (f) the repair, alteration or demolition of all or part of a building in which asbestos is or was used in the manufacture of products, unless the asbestos was cleaned up and removed; (*activité à risque élevé*)

low-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to non-friable asbestos-containing material and that includes

- (a) the installation or removal of ceiling tiles that are made of non-friable asbestos-containing material and cover an area of less than 7.5 m²,
- (b) the installation or removal of other non-friable asbestos-containing material, if the material is not being broken, cut, drilled, abraded, ground, sanded or vibrated and dust is not being generated,
- (c) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools, and
- (d) the removal of less than 1 m² of drywall in which joint cement containing asbestos has been used; (*activité à faible risque*)

moderate-risk activity means an activity that involves the handling of asbestos-containing material or is carried out in proximity to friable asbestos-containing material, that is not otherwise classified as a low-risk activity or high-risk activity and that includes

- (a) the removal of all or part of a false ceiling to gain access to a work area, if asbestos-containing material is likely to be found on the surface of the false ceiling,
- (b) the removal or disturbance of 1 m² or less of friable asbestos-containing material during repair,

alteration, maintenance or demolition work in a work place,

(c) the enclosure of friable asbestos-containing material,

(d) the application of tape, sealant or other covering to pipe or boiler insulation that is asbestos-containing material,

(e) the removal of ceiling tiles that are asbestos-containing material, if the tiles cover an area of greater than 2 m² and are removed without being broken, cut, drilled, abraded, ground, sanded or vibrated,

(f) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the material is not wetted to control the spread of dust or fibres and the activity is carried out only by means of non-powered hand-held tools,

(g) the removal of 1 m² or more of drywall in which joint cement that is asbestos-containing material has been used,

(h) the breaking, cutting, drilling, abrading, grinding, sanding or vibrating of non-friable asbestos-containing material, if the activity is carried out by means of power tools that are attached to dust-collecting devices equipped with HEPA filters,

(i) the removal of insulation that is asbestos-containing material from a pipe, duct or similar structure using a glove bag, and

(j) the cleaning or removal of filters used in air-handling equipment in a building that has sprayed-on fireproofing that is asbestos-containing material; (*activité à risque modéré*)

work activity means any low-risk activity, moderate-risk activity or high-risk activity or any activity that is ancillary to that activity, and the supervision of that activity and that ancillary activity. (*activité de travail*)

18 (1) Subsection 5.16(1) of the Regulations is replaced by the following:

5.16 (1) No employee shall be exposed to a concentration of an airborne chemical agent, other than airborne asbestos fibres, in excess of the value for that chemical agent adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time.

(2) Section 5.16 of the Regulations is amended by adding the following after subsection (1):

(1.1) An employer shall ensure that an employee's exposure to a concentration of airborne asbestos fibres is as close to zero as is reasonably practicable, but in any event the employer shall ensure that the concentration is not in excess of the value for airborne asbestos fibres adopted by the American Conference of Governmental Industrial Hygienists in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)*, as amended from time to time.

(3) The portion of subsection 5.16(2) of the Regulations before paragraph (a) is replaced by the following:

(2) If there is a likelihood that the concentration of an airborne chemical agent may exceed the value referred to in subsection (1) or that the concentration of airborne asbestos fibres may exceed zero, air samples shall be taken by a qualified person and the concentration of the chemical agent or the airborne

asbestos fibres shall be determined

19 The Regulations are amended by adding the following before section 5.20:

Asbestos Exposure Management Program

Asbestos-containing Material

5.19.1 (1) If asbestos-containing material is present in a work place and there is the potential for a release of asbestos fibres or employee exposure to asbestos fibres, an employer shall ensure that the qualified person who is carrying out a hazard investigation under section 5.4 takes into consideration the type of asbestos, the condition of the asbestos-containing material, the friability of the asbestos-containing material, the accessibility to and likelihood of damage to the asbestos-containing material and the potential for the release of asbestos fibres or employee exposure to asbestos fibres.

(2) At the completion of an investigation carried out under section 5.4, the employer shall ensure that a readily available record of the location, friability and condition of the asbestos-containing material and the type of asbestos contained in the asbestos-containing material is kept and maintained for examination by employees and is in any form as determined in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative.

Asbestos Exposure Control Plan

5.19.2 Before undertaking any work activity that involves asbestos-containing material, an employer shall, in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative, develop, implement and administer an asbestos exposure control plan that requires the employer to

- (a)** ensure that a hazard investigation under section 5.4 has been carried out by a qualified person and, in the event that there is a change in the work activity, review any report that was prepared as a result of the investigation and, if necessary, have a qualified person carry out another investigation;
- (b)** ensure that a qualified person classifies the work activity as a low-risk activity, moderate-risk activity or high-risk activity;
- (c)** ensure that all asbestos-containing materia present in the work place that is exposed or that will be disturbed is identified by signs and labels or by any other effective manner;
- (d)** ensure that all friable asbestos-containing material present in the work place is controlled by removal, enclosure or encapsulation or by any other effective manner to prevent employee exposure to asbestos;
- (e)** ensure that procedures and control measures for moderate-risk activities and high-risk activities are developed and implemented; and
- (f)** develop and implement an employee education and training program that is specific to asbestos-containing material.

5.19.3 If an employee who is undertaking automotive service procedures may be exposed to asbestos from friction material or dust arising from that material, an employer shall ensure that

- (a) the use of compressed air, brushes or similar means to dry-remove friction material dust from automotive assemblies is prohibited; and
- (b) signs to advise employees of the hazards and required precautions are posted in service work areas where friction material is handled or dust arising from that material is generated.

Asbestos Dust, Waste and Debris Removal

5.19.4 (1) During any work activities that involve friable asbestos-containing materials, an employer shall ensure that the following activities are carried out frequently and at regular intervals as determined by a qualified person, at the end of each work shift and immediately after the work activity is completed:

- (a) all asbestos dust, waste and debris are removed by vacuuming with a vacuum cleaner that is equipped with a HEPA filter, damp-mopping or wet-sweeping the area that is contaminated with the asbestos dust, waste or debris; and
- (b) any drop sheets that are contaminated with asbestos dust, waste or debris are wetted.

(2) All asbestos dust, waste or debris and any drop sheets that are contaminated with asbestos dust, waste or debris shall be placed in a container referred to in section 5.19.11.

5.19.5 If a glove bag is used for the removal of asbestos insulation from pipes, ducts and similar structures, an employer shall ensure that

- (a) the glove bag is sealed to prevent the release of asbestos fibres into the work area;
- (b) the glove bag is inspected for damage or defects immediately before it is attached to the pipe, duct or similar structure and at regular intervals during its use;
- (c) all waste from asbestos-containing material that is on surfaces is washed to the bottom of the glove bag and all exposed asbestos-containing material is encapsulated when it is inside the glove bag;
- (d) the glove bag is evacuated using a vacuum cleaner that is equipped with a HEPA filter to remove the air inside the bag prior to the removal of the glove bag; and
- (e) after the glove bag is removed, all exposed surfaces are cleaned with a damp cloth and a vacuum cleaner that is equipped with a HEPA filter.

Decontamination

5.19.6 (1) Before leaving a work area that is contaminated with asbestos-containing material, an employee shall

- (a) if their protective clothing is to be reused, decontaminate the clothing with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter before taking the clothing off; or
- (b) if their protective clothing is not to be reused, place the clothing in a container referred to in section 5.19.11.

(2) An employer shall provide employees with a facility reserved for washing their hands and face, and employees shall wash their hands and face using that facility before leaving a work area that is contaminated with asbestos-containing material.

5.19.7 As soon as practicable after any work activity that involves asbestos-containing material is completed, an employee shall clean reusable tools, equipment, rigid barriers and portable enclosures that are contaminated with asbestos with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter.

Air Sampling

5.19.8 (1) An employer shall ensure that a qualified person takes air samples to test for airborne asbestos fibres

- (a)** in the vicinity of the containment system during any work activity that involves asbestos-containing material and, in the case of a work activity that lasts longer than 24 hours, at least daily;
- (b)** in the clean room during removal and clean-up operations and, in the case of removal and clean-up operations that last longer than 24 hours, at least daily; and
- (c)** in contaminated areas that are inside the containment system as necessary during removal and clean-up operations.

(2) The employer shall ensure that the following air samples are taken:

- (a)** two samples for every area in an enclosure that is 10 m² or less;
- (b)** three samples for every area in an enclosure that is more than 10 m² and not more than 500 m²; and
- (c)** five samples for every area in an enclosure that is more than 500 m².

(3) Within 24 hours after obtaining the air sampling test results, the employer shall

- (a)** post a copy of the results in a conspicuous place in the work place; and
- (b)** make the results available to the policy committee, if any, the work place committee and the health and safety representative.

Clearance Air Sampling

5.19.9 (1) Before dismantling a containment system and after all asbestos dust, waste and debris have been cleaned up, removed or encapsulated, an employer shall ensure that clearance air samples are taken inside the enclosure and that the concentration of airborne asbestos fibres is determined in accordance with Method 7400 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 airborne asbestos fibres.

(2) When conducting clearance air sampling, the employer shall ensure that forced air is used inside the enclosure to dislodge any asbestos fibres from all surfaces and keep them airborne.

(3) Clearance air sampling shall be taken until the concentrations of airborne asbestos fibres do not

exceed the values referred to in subsection 5.16(1.1).

5.19.10 Within 24 hours after obtaining the clearance air sampling test results, the employer shall

- (a) post a copy of the results in a conspicuous place in the work place; and
- (b) make the results available to the policy committee, if any, the work place committee and the health and safety representative, and provide a copy of the results to the Minister.

Containers for Asbestos Dust, Waste and Debris

5.19.11 Containers for the containment of asbestos dust, waste and debris and asbestos-containing material shall be

- (a) dust-tight;
- (b) suitable to contain the dust, waste or debris;
- (c) impervious to asbestos;
- (d) identified as containing asbestos dust, waste or debris;
- (e) cleaned with a damp cloth or a vacuum cleaner that is equipped with a HEPA filter immediately before being removed from the work area; and
- (f) removed from the work place frequently and at regular intervals as determined by a qualified person.

Coming into Force

20 These Regulations come into force on the day on which they are registered.

REGULATORY IMPACT ANALYSIS STATEMENT

(This statement is not part of the Regulations.)

Issues

Asbestos and all commercial forms of asbestos are known to be human carcinogens based on evidence of carcinogenicity from studies in humans. In 2011 alone, there were 2 331 new Canadian cases of mesothelioma and lung cancer which were attributed to occupational and para-occupational exposures to asbestos (Institute for Work and Health). During the period 2007–2011, there were, on average, approximately 13 asbestos-related occupational fatalities per year and 8 asbestos-related occupational injuries per year in the federal jurisdiction.

With the current occupational exposure limit (OEL) for airborne chrysotile asbestos of one fibre per cubic centimetre (f/cc), an argument could be made that Canada does not meet its international commitments under the Asbestos Convention, 1986 (No. 162) that could result in national and international criticism, as well as questions from the International Labour Organization and stakeholders. As better management of asbestos becomes easier and more commonplace in Canada due to improvements in technology, in order for Canada to remain in compliance with this Convention, changes to regulations and exposure limits must

also occur.

Subsequently, on December 15, 2016, the Government of Canada announced a set of comprehensive measures to ban asbestos and asbestos-containing products by 2018. These measures include new regulations under the *Canadian Environmental Protection Act, 1999*, updates to national building codes to prohibit the use of asbestos in new construction and renovation projects across Canada and new federal work place health and safety rules that will drastically limit the risk of people coming into contact with asbestos on the job. The goal of the asbestos ban is to reduce the incidence of asbestos-related diseases over time.

Background

Legislative framework

The Labour Program of Employment and Social Development Canada (ESDC) administers the *Canada Labour Code* (the Code). Part II of the Code establishes the legislative framework for occupational health and safety in work places under federal jurisdiction.

Employers under federal jurisdiction have a general obligation to ensure that the health and safety of every person they employ are protected while they are working. This can be achieved by complying with Part II of the Code and the standards set out in the *Canada Occupational Health and Safety Regulations* (COHSR), the *Maritime Occupational Health and Safety Regulations* (MOHSR), the *On Board Trains Occupational Health and Safety Regulations* (OTOHSR), the *Oil and Gas Occupational Safety and Health Regulations* (OGOSHR) and the *Aviation Occupational Health and Safety Regulations* (AOHSR). Employers have specific duties in regard to each work place they control and every work activity under their authority. In order to meet this goal, work place parties (employees and employers) are encouraged to work together to develop practices and policies, and to assess and address occupational health and safety (OHS) issues effectively and in a timely manner. In addition, employers are required to provide employees with the information, education, training and supervision necessary to ensure their health and safety at work.

The Labour Program oversees implementation, in partnership with Transport Canada and the National Energy Board, of the requirements for federally regulated work places. Transport Canada is responsible for on-board work places in the aviation, marine and rail sectors under federal jurisdiction, the National Energy Board is responsible for work places in the oil and gas sector under federal jurisdiction, and the Labour Program is responsible for work places in all other sectors under federal jurisdiction, such as banking; telecommunication; broadcasting; road transportation; shipping and related services; grain elevators, feed and seed mills; Crown corporations; and the federal public administration.

Part X of the COHSR, Part XX of the MOHSR, Part V of the AOHSR, Part VII of the OTOHSR and Part XI of the OGOSHR prescribe the work place requirements and the exposure limits for hazardous substances, including asbestos.

Occupational exposure limits (OEL)

An OEL is an upper limit on the acceptable concentration of a hazardous substance in work place air for a particular material or class of materials over an eight-hour time weighted average. The American

Conference Governmental Industrial Hygienists (ACGIH[®]) is the pre-eminent international organization in the industrial hygiene and occupational health and safety field. The ACGIH[®] provides critical information and recommends best practices to industrial hygienists worldwide. As part of its mandate, the ACGIH[®] publishes science-based occupational exposure guidelines known as Threshold Limit Values (TLVs[®]) and Biological Exposure Indices (BEIs[®]), which are recognized internationally as establishing the scientific basis for the development of work place standards. TLV[®] and BEI[®] are reserved terms of the ACGIH[®].

Currently, the COHSR prescribe that all exposure to a concentration of an airborne chemical agent should follow the ACGIH[®] TLVs[®], except for airborne chrysotile asbestos and grain dust.

Asbestos

Asbestos is the generic name for a variety of fibrous mineral found naturally in rock formations around the world. Its strength, ability to withstand high temperatures, and resistance to many chemicals made it useful in hundreds of applications. Asbestos was a popular material used commercially in North America since the late 1800s and its use increased greatly during World War II. Since then, asbestos has been used in many industries. For example, the building and construction industries have used it for strengthening cement and plastics as well as for insulation, roofing, fireproofing, and sound absorption. The shipbuilding industry has used asbestos to insulate boilers, steam pipes, and hot water pipes. The automotive industry uses asbestos in vehicle brake shoes and clutch pads. Asbestos has also been used in ceiling and floor tiles; paint coatings and adhesives; and plastics. Asbestos does not burn and it is practically non-destructible, which is why it has had such a wide application.

Towards the end of the 1970s, it became known that exposure to friable asbestos (all forms) causes cancer based on the scientific evidence. When exposed to friable asbestos, the fibre gets into the lungs causing health problems, such as asbestosis, which is a chronic inflammatory and scarring disease affecting the tissue of the lungs and causing an increased risk of lung cancer and mesothelioma. The accumulation process takes 20–30 years before the first signs of the disease show up. There is no cure.

A government public registry of over 2 000 federal properties leased or owned across Canada indicates that about one in three contain asbestos. If these buildings are representative of the Canadian real estate infrastructure, it can be inferred that the potential for asbestos release exists in a third of federally regulated work places, which amounts to approximately 10 000 worksites.

Furthermore, some employees under federal jurisdiction may be exposed to asbestos while working with asbestos-containing materials (ACM), such as brake linings or insulation, or during demolition, asbestos removal and building maintenance.

Currently, Canada's occupational health and safety (OHS) regulations prescribe that all exposure to a concentration of an airborne chemical agent, including all forms of airborne asbestos, except for airborne chrysotile asbestos, should follow the ACGIH[®] TLVs[®]. The Government of Canada distinguished one form of asbestos for a higher threshold, namely chrysotile, which was mined and in existence in Canada. As a result, the current Occupational Exposure Limit for airborne chrysotile asbestos, as prescribed in Canada's OHS regulations, is too high in relation to the levels recommended by scientific consensus to protect the health and safety of employees at risk.

Currently in the COHSR, an employee shall be kept free from exposure to a concentration of airborne chrysotile asbestos in excess of one fibre per cubic centimetre. However, most provincial and territorial legislation (British Columbia, Alberta, Manitoba, Ontario, Quebec, Nova Scotia, Newfoundland and Labrador, Nunavut and Northwest Territories) prohibits exposure above 0.1 f/cc. As a result, Labour Program officials have long advised employers to reduce worker exposure to below 0.1 fibres per cubic centimeter (f/cc).

The Government of Canada is committed to work with the health, labour, trade and commercial sectors, among others, to fulfill its commitment to ban asbestos by 2018.

Objectives

The main objectives of the amendments to the OHS regulations are as follows:

- protect the health of employees in the federal jurisdiction and provide regulatory certainty by setting an appropriate OEL for airborne asbestos fibre;
- ensure consistency with most provincial and territorial regulatory regimes for airborne asbestos fibre;
- protect the health of employees in the federal jurisdiction by regulating work activities such as handling, removal, repair or disturbance of asbestos-containing material that could expose employees to friable asbestos; and
- ensure that the Government of Canada is in compliance with the Asbestos Convention, 1986 (No. 162).

Description

Occupational exposure limit

The amendments to the COHSR, MOHSR, AOHSR, OTOSHR, and OGOSHR

- remove the current OEL of one fibre per cubic centimetre for airborne chrysotile asbestos;
- reduce the OEL for all forms of airborne asbestos fibre to as close to zero as reasonably practicable ([see footnote 6](#)) and not exceeding the value adopted by the ACGIH[®], in its publication entitled *Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs)* as amended from time to time, which is currently 0.1 f/cc;
- repeal the definition of airborne chrysotile asbestos to replace it by a definition of asbestos that would include all forms of asbestos, namely actinolite, amosite, anthophyllite, chrysotile, crocidolite and tremolite; and
- include definitions of: airborne asbestos fibre, asbestos-containing material, clearance air sampling, containment system, encapsulation, enclosure, friable, glove bag, HEPA filter, high-risk activity, low-risk activity, moderate-risk activity and work activity.

Asbestos Exposure Management Program

The amendments include new provisions that prescribe the requirements for an asbestos exposure

management program where asbestos-containing material is disturbed or exposed in a work place and where there is the potential for a release of asbestos fibre or employee exposure to airborne asbestos fibre.

The Asbestos Exposure Management Program includes obligations for employers to ensure that an Asbestos Exposure Control Plan is developed, implemented and administered for employees involved in asbestos-related work activities, including procedures and control measures for moderate-risk activities and high-risk activities and an employee education and training program.

The Asbestos Exposure Control Plan also requires the employer to ensure that an investigation is carried out by a qualified person and the work activity is classified as a low-risk activity, moderate-risk activity or high-risk activity. All ACM exposed or disturbed have to be identified by signs and labels and all friable ACM have to be controlled by removal, enclosure, encapsulation or any other effective manner to prevent an employee's exposure to asbestos.

The employer also has to ensure that a readily available record of the location, friability and state of the disturbed ACM and the type of asbestos contained in the ACM is kept and maintained in the work place for examination by employees.

Some other preventive measures, such as asbestos dust, waste and debris removal, decontamination, air sampling, and clearance air sampling have to be put in place by the employer to eliminate or reduce hazardous exposure to all forms of asbestos.

“One-for-One” Rule

The amendments do not place any new administrative burden on industry, and as a result, the “One-for-One” Rule does not apply.

The Asbestos Exposure Management Program includes a requirement to keep records in order to document the asbestos testing of airborne levels and asbestos handling when it comes to removing, enclosing or encapsulating the hazardous material. For employers under federal jurisdiction, this record keeping would not increase or decrease their administrative burden because reporting and keeping records of all hazardous substances including asbestos levels exceeding those currently allowed, is already addressed under Part X of the COHSR, Part XX of the MOHSR, Part V of the AOHSR, Part VII of the OTOHSR and Part XI of the OGOSHR.

Small business lens

This regulatory initiative is expected to carry a nationwide cost impact under \$1 million annually; therefore the small business lens does not apply.

Small businesses are not expected to incur any disproportionate costs from this regulatory initiative. There would be a cost for businesses only if an exposure or potential exposure to asbestos is identified. The employer's size, as denoted by the number of employees, is expected to be positively correlated with an overall exposure to asbestos or the risk of exposure to asbestos. This positive correlation with employer size also includes the magnitude of the overall costs incurred in relation to asbestos abatement. The risk of

asbestos exposure depends on a number of factors pertaining to repairs, renovations or pre-existing hazards in the work place.

Although more than 90% of employers under federal jurisdiction are classified as small (less than 100 employees), they employ only 10% of the federally regulated workforce and would consequently incur only 10% of the total costs of the proposed Asbestos Exposure Management Program. It is worth noting that many smaller employers rent the premises in which they operate. They will thus not likely bear the costs related to this program, which would ultimately be absorbed by the owner of the buildings hosting the work places where a risk of asbestos exposure is identified.

Stakeholder groups, such as Federally Regulated Employers - Transportation and Communications (FETCO), representing at least 60% of all federally regulated employers, were consulted through the Regulatory Review Committee (RRC) and Occupational Health and Safety Advisory Committee (OHSAC) and did not raise any concerns pertaining to the impact of this regulatory initiative on small businesses. FETCO represents road transportation, air, telecommunications, feed, flour and seed sectors. Stakeholder groups are expecting the amendments and they are urging the Government to take the necessary action to protect the health and safety of all Canadians employees against the harmful effects of asbestos.

Consultation

In 2009, the RRC, comprising employer, employee and Labour Program representatives, including FETCO, created a working group with the intent to review in depth Part X of the COHSR (Hazardous Substances), including asbestos. The working group was composed of employers, employees and Labour Program experts in the area of occupational health and safety. Stakeholders met 18 times. Consultations were completed in spring 2014.

The Part X working group arrived at a consensus that “all forms of airborne asbestos, including chrysotile, are human carcinogens, and that workers continue to face serious risks from airborne asbestos exposure, the exemption for airborne chrysotile asbestos should be removed, lowering the OEL for airborne chrysotile asbestos to the ACGIH[®] TLVs[®] for all forms of airborne asbestos, which is 0.1 f/cc.”

Since then, ongoing meetings with stakeholders through the OHSAC were held and each time, stakeholders (FETCO, Canadian Labour Congress, etc.) reiterated their support for the proposed amendments and their desire to see them enforced as soon as possible.

Comments received following prepublication of the proposed Regulations in the *Canada Gazette*, Part I, on December 24, 2016

The proposed Regulations were prepublished in the *Canada Gazette*, Part I, on December 24, 2016, followed by a 45-day public comment period. During that period, a number of questions and comments were received from stakeholders.

Comments received following prepublication of the proposed Regulations were supportive of the proposed OEL and the asbestos exposure management program.

Comments were reviewed and addressed, bearing in mind the objectives of protecting the health of employees in the federal jurisdiction, providing regulatory certainty by setting appropriate OEL for airborne

asbestos fibres, ensuring consistency with most provincial and territorial regulatory regimes for airborne asbestos fibres, and ensuring that the Government of Canada is in compliance with the Asbestos Convention, 1986 (No. 162).

In total, the Labour Program received 39 comments from four stakeholders. Two stakeholders were under federal jurisdiction while the other two were under provincial jurisdiction. Research and technical discussions were initiated with the technical team and program experts. After analysis, it was determined that two comments would result in drafting amendments; and the remainder in the development of Interpretations, Policies and Guidelines (IPGs). General clarifications would be provided to respond to the stakeholders' comments.

Three comments were considered outside the scope of the Regulations and were related to

- disclosing the list of establishments under the Government of Canada's responsibility that likely contain asbestos;
- developing a real industrial redevelopment strategy for Quebec's asbestos region; and
- asbestos mines.

It is the policy intention of the Labour Program to develop IPGs for the Regulations to ensure that they are interpreted consistently and that programs are delivered effectively across the country by Labour Program employees trained in interpretation of regulatory requirements. In support of the Government's commitment to reduce regulatory red tape burden for employers, the Labour Program ensures that its IPGs are updated, easily accessible, written in plain language, and based on stakeholder needs and feedback.

Two comments resulted in drafting amendments:

Employer implementation of procedures and control measures

Stakeholders suggested that rather than being responsible for developing and implementing the procedures and control measures, as required in the Asbestos Exposure Control Plan, the employer should "ensure" that the procedures and control measures are in place.

The Labour Program agrees that the employer should "ensure" that the procedures and control measures are developed and implemented and, consequently recommended appropriate drafting changes to sections 10.26.2(e), 7.23.2(e), 11.28.2(e), 257.2(e), and 5.19.2(e) of the Regulations. It is a qualified person who develops and implements the procedures and control measures. Drawings, plans and specifications of known ACM in the work place are a useful component of an asbestos exposure control plan and the employer should ensure that they are developed. The qualified person could also be a provincial contractor subject to his own provincial requirements.

Additionally, if normal work continues in a building during asbestos removal, the employer needs to set up sampling in the periphery of the enclosure. A contractor's obligations may not go that far. Also, an employer may need to instruct employees not to enter or disturb the enclosure. The employer has to ensure that their own employees and person granted access are well-protected in a work place to the extent that the employer controls the activity.

The IPG will provide more guidance.

Definition of “high-risk activity”

Stakeholders raised the issue that the definition of high-risk activity, which includes certain work activities, would require unnecessary control measures. For example, the presence of a small amount of friable ACM isolated in the ceiling of one part of a large building would make any cleaning or removing of the building’s air handling equipment a high-risk activity. They recommend that the definition be changed to be specific to the work area where cleaning or removing of air handling equipment takes place, instead of the whole building. The same stakeholders also added many technical terms related to the work activities in the existing definition in their proposed definition of high-risk activity that they requested to be included. These terms are: sprayed thermal insulation, rigid ducts, mixing boxes, and diffusers.

The Labour Program disagrees with restricting the definition to a work area, since this would raise significant issues related to the segregation of areas in which high-risk activities are taking place from other parts of the building from an air quality standpoint. The parameters in the definition of high-risk activity also require 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. That would not be the case if there was a small amount of friable ACM isolated in the ceiling of one part of a large building and cleaning or removing the air handling equipment was occurring in a different part of the building.

However, the Labour Program agrees that adding the phrase “or sprayed thermal insulation” in the high-risk activity definition will benefit the definition of high-risk activity, since ACM used for thermal insulation is currently not captured in the definition, which specifies only ACM used for fireproofing. Thermal insulation is usually applied to water and steam pipes and less commonly to heating, ventilation, and air conditioning (HVAC) air-handling equipment. Other suggestions that the stakeholders made to add to the definition such as rigid ducts, mixing boxes, and diffusers are redundant, as these components are just parts of air-handling equipment. So adding these terms does not add anything new.

Comments seeking clarification

The Labour Program received a variety of stakeholder comments on technical issues, such as definitions and clarifications of asbestos-related terminology, including training programs, clearance air sampling, decontamination, heavy equipment, and waste removal. The Labour Program will directly follow up with stakeholders regarding these technical comments. Other main concerns expressed were related to the following comments which have been grouped by subject:

- Implementation of the Regulations in a collaborative environment between unions and employers;
- Scope of application of the Regulations;
- Asbestos Exposure Management Program;
- Air sampling;
- Definition of “asbestos-containing material;”
- Summary of impacts; and
- Asbestos Exposure Control Plan.

Implementation of the Regulations in a collaborative environment between unions and employers

Stakeholders were of the opinion that it was critical to implement new regulations in a collaborative

environment between unions and employers. They suggested that a joint process be established to protect everyone's health, a monitoring mechanism be created, and tools to employers and employees be provided to effectively apply the new Regulations.

The Labour Program response is that although under the Code, the employer has the ultimate responsibility for protecting the health and safety of employees, it is clearly stated throughout the Code and its regulations that the employer must work in collaboration with the various committees.

Before undertaking any work activity that involves ACM, the employer shall, in consultation with the policy committee or, if there is no policy committee, the work place committee or the health and safety representative, develop, implement and administer an asbestos exposure control plan. The employer shall consult the work place committee or the health and safety representative in the implementation of changes that might affect occupational health and safety, including work processes and procedures.

Scope of application of the Regulations

Stakeholders raised concerns on the level of control and feasibility for federally regulated employers to implement all requirements (e.g. signage, labelling) in scenarios where the federally regulated employer may not own the building that contains their work place, such as a provincially regulated multi-tenant building, food court in a multi-tenant building, work at client site, specialized asbestos-abatement contractors.

The Labour Program response is that the Code stipulates that every employer shall ensure that the health and safety at work of every person employed by the employer is protected. Every employer shall, in respect of every work place controlled by the employer and, in respect of every work activity carried out by an employee in a work place that is not controlled by the employer, to the extent that the employer controls the activity, ensure that the health and safety of its employees is protected.

The Regulations apply to the work place and the exposure to hazardous substances; not to the building. In this way, the treatment of asbestos is consistent with the way all other hazardous substances are regulated under the Code. Regarding signs and labels in the Regulations, the employer is required to “ensure that all ACM in the work place that is exposed or that will be disturbed is identified by signs and labels or by any other effective manner.” It speaks to expectations before any work that will disturb asbestos is carried out. The “work place” in a multi-tenant building will be within the space that is leased/rented by the federal employer.

There is, however, in the Code, an obligation to provide safe access to and egress from the leased space of the work place. Employees should not be exposed to airborne asbestos while entering their work place. Thus, applicable signage and labelling requirements at the entrance of the work place still apply to these scenarios.

If an employee is required to work at a client site, the employer is required to follow the Regulations to provide employees with training to recognize situations of potential asbestos exposure hazards and training in the use of respiratory protective equipment (RPE) and personal protective equipment (PPE). Additionally, the employer must also provide appropriate RPE to employees. Thus, the employee will have the proper tools to take precautions before starting any work. PPE includes a respirator, gloves and

protective clothing. The employer should document and maintain records of employee use of RPE and PPE in a private home.

Asbestos Exposure Management Program

1. Stakeholders suggested that the Regulations specify that when a construction material loses its integrity and produces asbestos dust, the employer must immediately carry out the necessary repairs.

The Labour Program response is that if ACM is present in a work place and there is the potential for a release of asbestos dust (including fibres), or employee exposure to asbestos dust (including fibres), an employer shall put in place an asbestos exposure control program. Thus, the Labour Program agrees that when an ACM loses integrity and produces asbestos dust, the employer must immediately carry out the necessary repairs. This is already addressed in the Regulations.

2. Stakeholders sought clarification on when surveys or asbestos audits were expected on buildings. They raised concerns about having “the potential for a release of asbestos fibres” as a trigger for an assessment of ACM.

The Labour Program affirms that the potential for a release of asbestos fibres is a trigger for a hazard investigation. However, the Regulations do not require asbestos audits of work places where work on suspected ACM will not be conducted. A hazard investigation of suspected ACM must be conducted if asbestos-containing material exists in a work place and there is the potential for a release of asbestos fibres or employee exposure to asbestos fibres, prior to any work activity on the suspected ACM in accordance with COHSR section 10.4. The hazard investigation must be conducted by a qualified person. The purpose of a hazard investigation is to determine if the suspected ACM contains asbestos. The IPG will provide more guidance.

3. Lastly, stakeholders suggested that the Asbestos Exposure Management Program should be required only for “employees involved in asbestos-related work activities” and limited to moderate- and high-risk activities only.

The Labour Program disagrees with this comment and instead asserts that the Asbestos Exposure Management Program applies where there is a risk that an employee could be exposed to airborne asbestos fibres. The employee doesn't have to be specifically involved in asbestos-related work activities.

As well, before undertaking any work activity that involves asbestos-containing material, an employer shall develop, implement and administer an asbestos exposure control plan. Then, the qualified person classifies the work activity as a low-risk activity, moderate-risk activity or high-risk activity.

Air sampling

Stakeholders raised concerns regarding the technical details of air sampling to detect a concentration of zero airborne asbestos and the need for asbestos air sampling.

The Labour Program response is that the concentration of zero airborne asbestos corresponds to a recognized asbestos analysis method, such as the National Institute for Occupational Safety and Health (NIOSH) Method 7400, used to analyze an asbestos sample that returns a result that is below the limit of detection (LOD) of the analysis method. The LOD of NIOSH Method 7400 is less than 0.01 f/cc. When a

result is below the limit of detection for that method, the asbestos sample can be effectively considered to be “none detected” or “zero.”

Employees performing their regular work near the asbestos-containment system area, but are not given access to the asbestos abatement area should not be expected to use protection equipment or receive asbestos training. Therefore, air sampling in the vicinity of the containment system will ensure that those employees are not exposed to asbestos. The air of those employees who work with asbestos and wear respiratory protection must be sampled to ensure that the concentrations are within the protection factors of the respirators.

Furthermore, since an employer should be aiming for zero exposure to airborne asbestos fibres in the work place, consideration by the qualified person must be given to any release of fibres in moderate- or high-risk activities. A qualified person could also require air sampling for low-risk activities.

The IPG will provide more guidance.

Definition of “asbestos-containing material”

Stakeholders raised concerns regarding the definition of “asbestos-containing material” related to the analytical technique to determine the concentration of asbestos (NIOSH 9002) and the 1% concentration level for asbestos bulk sampling being different than the 0.5% concentration level retained in some provinces.

The Labour Program response is that it was determined by the Part X working group that representative bulk samples of suspected ACM would be taken by a qualified person following NIOSH Method 9002 or an equivalent scientifically proven method used to collect and analyze a representative sample of the material. Therefore, an equivalent sampling method used by the qualified person would be accepted.

It was also determined by Part X working group that 1% asbestos is the minimum level of asbestos concentration for a sampled material to be considered an ACM instead of 0.5% or another percent. One percent was chosen primarily because it is in the U.S. *Occupational Safety and Health Act* definition of ACM, which is followed by the ACGIH[®] TLVs[®] and BEIs[®] manual and the NIOSH Manual of Analytical Methods that are cited in the COHSR. One percent asbestos is also the level chosen by Manitoba, Saskatchewan, New Brunswick, Prince Edward Island, Newfoundland and Labrador, Nunavut, Northwest Territories and Yukon.

The IPG will provide more guidance.

Summary of impacts

Some stakeholders suggested that the valuation for subsequent asbestos air sampling of \$636 contained within the “Summary of impacts” section of the *Canada Gazette*, Part I, publication of the Regulatory Impact Analysis Statement was far too low.

The Labour Program response is that a review of asbestos air sampling costs quoted by Canadian laboratories indicated that the valuation for subsequent asbestos air sampling included in the “Summary of impacts” section is consistent with the commercial pricing commonly available for these tests. Therefore,

this value has not been updated.

Asbestos Exposure Control Plan

Stakeholders needed some clarification on the Asbestos Exposure Control Plan, specifically

1. Stakeholders were questioning whom it pertains to.

The Labour Program response is that the Asbestos Exposure Control Plan must be created by the employer and employees in a collaborative manner. The plan must effectively address all aspects of asbestos in the work place to prevent employee exposure to asbestos; including regulatory requirements, roles and responsibilities, education and training of employees, initiation of work on ACM and suspected ACM, emergencies, asbestos air sampling, and ACM labelling.

Under the Code, the general duty of the employer states that the employer shall ensure that the health and safety at work of every person employed by the employer is protected. The employer is also required to collaborate with employees on occupational health and safety through a work place health and safety committee or health and safety representative. When an employer does not have full control or ownership over a work place, the employer must take all reasonable precautions to ensure the health and safety of its employees.

The Asbestos Exposure Control Plan applies to both building maintenance and contractors. External provincially regulated contractors will have to comply with the act and regulations of the province. The federally regulated employer is required to ensure that the procedures at least meet the requirements of the Regulations for his own employees or persons granted access whether work activities are being done by a contractor or the employer's own employees.

In situations where a federally regulated employer is a tenant in a provincially regulated multi-tenant building, such as a shopping mall, the federally regulated employer must comply with federal regulations that apply to the work place instead of provincial regulations. The work place in a multi-tenant building is within the space that is leased or rented by the federally regulated employer. Under the Code, the employer must also provide employees safe entry to and exit from the leased space.

2. Stakeholders were questioning the use of “or” instead of “and” between “that is exposed or that will be disturbed” in paragraphs 10.26.2(c), 7.23.2(c), 11.28.2(c), 257.2(c), and 5.19.2(c) of the Regulations.

The Labour Program response is that the employer shall ensure that all ACM exposed or that will be disturbed during planned construction in the work place is identified by signs and labels. This is because an occupational health hazard of asbestos fibres release exists in both cases.

3. Stakeholders had concerns regarding the phrase: “present in the work place” and the interpretation of “any other effective manner” in paragraphs 10.26.2(d), 7.23.2(d), 11.28.2(d), 257.2(d), and 5.19.2(d) of the Regulations. They raised that it was a powerful statement and could be used to force removal, enclosure or encapsulation of ACM in impractical situations.

The Labour Program response is that the phrase “present in the work place” is interpreted as accessible to employees performing their normal work. For example, friable ACM that is enclosed behind a surface, such as a wall or ceiling, would be in compliance with the Regulations, as long as employees are not exposed to

asbestos fibres, since it is already enclosed and not accessible to employees performing their normal work.

Thus, sprayed-on asbestos-containing fire proofing in good condition located above a drop ceiling does not need to be removed, further enclosed, or encapsulated. However, the employer must monitor the condition of ACM and monitor for the release of asbestos fibres into the work place air by air sampling for asbestos in the vicinity of the ACM by a qualified person.

The phrase “any other effective manner” is inclusive of any method that effectively prevents the exposure of employees to asbestos. This may include maintaining the ACM in good condition and would require frequent and regular visual inspections and air sampling in the vicinity of the ACM by a qualified person to monitor the ACM integrity. As well, the employer must ensure that the integrity of the ACM is maintained by protecting it from physical damage and from other sources of damage, such as water damage. When the ACM integrity degrades to worse than a good condition, as determined by a qualified person, then the employer must use another control method to prevent the exposure of employees to asbestos.

4. Stakeholders questioned whom the training program applies to.

Lastly, the Labour Program response is that in regard to the employee education and training program specific to ACM, it applies to federally regulated employers and employees; not to provincially regulated asbestos abatement contractors who should be trained by their employers in accordance with relevant provincial regulations. However, the federally regulated employer should ensure that contractors have a training program in place, but not have to train provincially regulated employees.

The IPG will provide more guidance.

Rationale

The adoption of the 0.1 f/cc OEL for airborne asbestos fibres codifies the Government’s commitment to

- prescribe a lower and safer asbestos exposure level;
- work towards the gradual elimination of asbestos from federally regulated work places; and
- align itself with the highest asbestos safety standards in effect in other jurisdictions, both in Canada and internationally.

In practical terms, it ensures that the health and safety of Canadians working in federal jurisdiction work places are better protected.

Summary of impacts

Although many employers are believed to comply with the proposed OEL for all forms of asbestos already, the amendments ensure that all federally regulated employers are required to adhere to a safer OEL of 0.1 f/cc for all forms of airborne asbestos and to implement an asbestos exposure control plan if a risk of exposure to airborne asbestos exists.

Currently if asbestos is identified, employers have to ensure there is no risk of exposure potentially compromising the health and safety of its employees. The Asbestos Exposure Management Program enables employers to implement a structured process tailored to asbestos hazards that minimizes the

chances of exposure to all employees, protecting their health and safety.

There are no anticipated incremental costs to Government, consumers or Canadians for the development and implementation of the Asbestos Exposure Management Program. However, there are some potential incremental compliance costs for federally regulated employers.

The following table summarizes the estimated implementation costs per incident (“incident” is defined as an occurrence where friable asbestos is disturbed or carries the potential to be disturbed) of the “Asbestos Exposure Management Program.”

Description	Estimated Cost
Asbestos Exposure Management Program	\$9,100
Waste Disposal	\$1,396
Decontamination	\$4,159
Subsequent air sampling	\$636
TOTAL	\$15,291

The total potential incremental cost for federal jurisdiction worksites to address new situations of friable asbestos exposure and removal is estimated at \$15,291 per incident.

According to the Association of Workers’ Compensation Board of Canada (AWCBC), between 2007 and 2014 there were an average of 162 annual accepted lost time claims related to asbestos incidents.

Considering that about 8% of all employers in Canada are under federal jurisdiction, we can estimate that the same proportion, or $162 \times 8\% = 13$ incidents/year take place in federal jurisdiction worksites.

Therefore:

$\$15,291/\text{incident} \times 13 \text{ incidents/year} = \$198,783/\text{year}$. Using a 7% discount rate, this regulatory proposal entails a discounted total cost of \$1,396,169, in 2016 Canadian dollars, over a period of 10 years.

The amendments are expected to contribute positively to the health and safety of employees by minimizing employee exposure to asbestos and ensuring that all employers follow an asbestos exposure management program where asbestos is disturbed, and there is a potential for exposure. While some Canadian jurisdictions (British Columbia, Manitoba, Ontario, Quebec and New Brunswick) already prescribe asbestos exposure management programs to mitigate the risk of asbestos exposure, the extended latency period for asbestos-related health outcomes, which may last decades, currently precludes any statistical confirmation of the effectiveness of asbestos exposure management programs in the work place.

Implementation, enforcement and service standards

The employers under federal jurisdiction will have to comply with the new requirements regarding the OELs when these Regulations come into force on the day on which they are registered.

Overall, the Labour Program's compliance policy outlines the proactive and reactive activities used by delegated officials to ensure compliance. While OHS policy committees and work place committees are the primary mechanisms through which employers and employees work together to solve job-related health and safety problems, the employer remains ultimately responsible for work place health and safety. Delegated officials assist the industry in establishing and implementing policy committees and work place committees, and related programs.

Statutory powers allow delegated officials to enter work sites and perform various activities to enforce compliance with the Code and the COHSR. For example, delegated officials may conduct safety audits and inspections. They may also investigate the circumstances surrounding the report of a contravention, work accident, refusal to work, or hazardous occurrence.

If violations of the Regulations are observed and are not resolved internally via policy and work place committees, enforcement actions towards the employer for non-compliance would be used by a delegated official. Enforcement actions may range from the issuance of a written notice to further steps, such as the initiation of prosecution. Initially, an attempt to correct non-compliance with the Regulations, when non-compliance does not represent a dangerous condition, is made through the issuance of an Assurance of Voluntary Compliance (AVC). An AVC is a written commitment that a contravention will be corrected within a specified time. Failure to complete the corrective actions specified in the AVC may lead the delegated official to issue a direction. A direction is issued whenever a serious contravention or dangerous condition exists and when an AVC is not obtainable or has not been fulfilled. Failure to comply with a direction is a violation of the Code and, as a result, is enforceable by prosecution. Offences can lead to imprisonment. The maximum penalty for offences is, on summary conviction, a fine of \$1M, or on conviction on indictment, imprisonment for up to two years and/or a fine of \$1M.

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Footnote a

S.C. 1994, c. 41, par. 37(1)(p)

[Footnote b](#)

R.S., c. L-2

[Footnote c](#)

S.C. 2000, c. 20, s. 20(1)

[Footnote d](#)

S.C. 2000, c. 20, s. 20(2)

[Footnote e](#)

R.S., c. 36 (2nd Supp.)

[Footnote f](#)

S.C. 2013, c. 40, s. 177

[Footnote g](#)

S.C. 2014, c. 20, s. 140

[Footnote h](#)

S.C. 2013, c. 40, s. 178

[Footnote i](#)

S.C. 2000, c. 20, s. 10

[Footnote j](#)

S.C. 2013, c. 40, s. 198

[Footnote k](#)

R.S., c. L-2

[Footnote 1](#)

SOR/86-304; SOR/94-263, s. 1; SOR/2002-208, s. 1

[Footnote 2](#)

SOR/87-184; SOR/95-105, s. 1; SOR/2015-143, s. 1

[Footnote 3](#)

SOR/87-612; SOR/94-165, s. 2

[Footnote 4](#)

SOR/2010-120

[Footnote 5](#)

SOR/2011-87

Footnote 6

LABOUR PROGRAM, Criteria for Reasonably Practicable, and Reasonably Possible - 920-1-IPG-055, [Online], <http://www.labour.gc.ca/eng/resources/ipg/055.shtml>.

Government of Canada activities and initiatives

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