

OHS Regulation, Guideline  
Part 20, Section 20.112

- (b) a report made under subsection (6)(e);
  - (c) a written confirmation under subsection (8).
- (5) All employers responsible for containing or removing any of the hazardous materials identified under subsection (2) or (6) must safely contain or remove those hazardous materials.
- (6) If, after written confirmation is provided under subsection (8), a person discovers material that may be hazardous material on or in the machinery, equipment, building or structure or at the worksite, not previously determined to be hazardous material under this section, all employers responsible for the demolition or salvage of the machinery, equipment, building or structure, or the renovation of the building or structure, and the owner, must ensure that a qualified person does the following:
- (a) collects representative samples of the material;
  - (b) identifies each representative sample and determines whether it is hazardous material;
  - (c) if the actions under paragraphs (a) and (b) are not practicable, or not appropriate in the circumstances, uses other sufficient means to determine if the material is hazardous material;
  - (d) based on the actions taken under paragraphs (a) and (b) or (c), determines the location of the hazardous material, if any;
  - (e) makes a written report, including,
    - (i) if the actions under paragraphs (a) and (b) were taken,
      - (A) the location of each representative sample, and
      - (B) the identity of each representative sample and whether it is hazardous material,
    - (ii) if the actions under paragraph (c) were taken, the identity of the hazardous material, if any, and
    - (iii) if hazardous material was identified, the location of the hazardous material, including by using drawings, plans or specifications.
- (7) All employers responsible for the demolition or salvage of the machinery, equipment, building or structure, or the renovation of the building or structure, and the owner, must ensure that, with respect to the hazardous materials identified under subsection (2) or (6),
- (a) no demolition, salvage or renovation work that may disturb the hazardous materials, other than work necessary to safely contain or remove the hazardous materials, is carried out until the hazardous materials are safely contained or removed, and
  - (b) a qualified person complies with subsection (8).
- (8) A qualified person must ensure, and confirm in writing, that the hazardous materials identified under subsection (2) or (6) are safely contained or removed.

### Purpose of guideline

Demolition, renovation, and salvage work involve the taking apart and destruction, in whole or in part, of buildings, structures, equipment, and machinery. These processes have the potential to create harmful exposures to hazardous materials. Section **20.112(1)** [[Part20.asp#SectionNumber:20.112](#)] of the *Regulation* lists several types of hazardous materials which must be identified and either safely contained or safely removed prior to demolition, renovation, or salvage work. Asbestos is one of these materials.

The purpose of this guideline is to explain the hazards associated with the uncontrolled release of asbestos. It also provides information for owners, employers, consultants, workers, and other involved persons on what constitutes a compliant asbestos inspection, arranging for and confirming the safe abatement of asbestos, and what to do if additional materials suspected to contain asbestos are encountered during demolition, renovation, or salvage work.

Note: Demolition work is often a necessary component of restoration work following a fire or flood, and the requirements of section **20.112** [[Part20.asp#SectionNumber:20.112](#)] of the *Regulation* and the information in this guideline also apply when demolition work is part of restoration work.

### Background information

Demolition, renovation, and salvage work, if performed incorrectly, can create harmful dust exposures to a variety of workers and other persons, including owners, developers, demolition, renovation, and salvage workers, inspectors, transportation workers, landfill workers, and the public. If demolition of a house/building proceeds without first ensuring the identification and safe removal of the asbestos hazards, asbestos dust can be released, and remain airborne for a long period of time, potentially exposing workers. During the demolition of the interior walls and ceilings, the demolition, renovation, or salvage workers may then be exposed to airborne asbestos fibres in the dust from the gypsum board filling compound (sometimes called drywall mud) and from textured ceilings and walls. Vermiculite attic insulation containing asbestos fibres can spill out of the attic when the ceiling material is removed. Asbestos-containing dusts from these activities can contaminate the site and disperse to neighbouring properties exposing other persons. As asbestos-containing debris is loaded into a disposal truck the excavator operator and the truck driver can be exposed to asbestos-containing dusts which can also drift into neighbouring properties. As the disposal truck travels to the landfill site, dust that contains asbestos can blow out of the truck, spreading asbestos dust along its travel route.

When the truck discharges its asbestos contaminated load at the landfill, unprotected landfill site workers can be exposed to the airborne hazard. These work practices are unacceptable and non-compliant with the *Regulation*.

Asbestos hazards must be controlled through the identification and safe abatement of asbestos, by trained persons, before demolition, renovation, or salvage work. This guideline provides information for acceptable identification, assessment, reporting, and removal of asbestos hazards in buildings and structures (refer also to the "[Ten Steps to Compliance](#)" [#TableName:TenSteps] chart at the end of this guideline).

The requirements in section [20.112](#) [Part20.asp#SectionNumber:20.112] of the *Regulation* are related to other requirements in both the *Regulation* and the *Workers Compensation Act* ("Act"). For example, when asbestos is removed, other requirements in [Part 6-Asbestos](#) [Part6.asp] of the *Regulation* are also applicable. The requirements in [sections 115](#) [WorkersCompensationAct.asp#SectionNumber:Part3Div3Sec115] (General duties of employers) and [119](#) [WorkersCompensationAct.asp#SectionNumber:Part3Div3Sec119] (General duties of owner) in the *Act* also apply.

More information related to asbestos hazard assessment and control measures for building demolition, renovation, and salvage work can be found in the following:

- OHS Guideline [G6.8 "Procedures for abatement of asbestos materials during house and building demolition/renovation"](#)
- WorkSafeBC publication BK27 "[Safe Work Practices for Handling Asbestos](#)"
- WorkSafeBC hazard bulletin [WS03-03 "Asbestos Hazards in Demolition, Renovation and Salvage"](#)
- WorkSafeBC bulletin [WS2008-03 "The dangers of exposure to asbestos in vermiculite attic insulation"](#)

### Responsibilities and qualifications

Sections [20.112\(2\), \(4\), \(5\), \(6\), and \(7\)](#) [Part20.asp#SectionNumber:20.112] of the *Regulation* specify explicit responsibilities for the owner and the employers. As per section [124](#) [WorkersCompensationAct.asp#SectionNumber:Part3Div3Sec124] of the *Act*, these parties need not duplicate the same compliance efforts providing they coordinate their actions to ensure that compliance with all provisions of section [20.112](#) [Part20.asp#SectionNumber:20.112] is achieved.

Prior to asbestos removal occurring, the owner or prime contractor must ensure that a Notice of Project (NOP) for asbestos, including detailed written safe work procedures, as required under section [20.2](#) [Part20.asp#SectionNumber:20.2] of the *Regulation*, is submitted to WorkSafeBC at least 24 hours in advance of the actual removal of asbestos.

Under sections [20.112\(2\), \(3\), and \(6\)](#) [Part20.asp#SectionNumber:20.112] a qualified person has responsibilities regarding inspection, sample collection, identification, and report-writing. The qualifications required by the person fulfilling these requirements are defined in section 20.112(1). These qualifications would typically be held by an asbestos consultant or specialist. A qualified person is also required to fulfill duties in sections 20.112(7) and (8). The qualifications required of this person are described in section [1.1](#) [Part1.asp#SectionNumber:1.1] of the *Regulation* as being knowledgeable of the work, the hazards involved, and the means to control the hazards, by reason of education, training, experience, or a combination thereof. This person may be a different person than the qualified person described in sections [20.112\(2\), \(3\), and \(6\)](#) [Part20.asp#SectionNumber:20.112].

The following activities should also be conducted by a qualified person with education, training, and experience in the management and control of asbestos hazards:

- Collection and interpretation of air samples during asbestos abatement projects
- Preparation of inspection reports
- Conduction of workplace inspections

### Inspection for and identification of any asbestos-containing materials

Section [20.112\(2\)](#) [Part20.asp#SectionNumber:20.112] of the *Regulation* requires that before work begins on the demolition or salvage of machinery, equipment, buildings, or structures, or the renovation of a building or structure, the employer or owner must ensure a qualified person inspects the site to identify any asbestos-containing materials. This is separate from an inventory required by section [6.4](#) [Part6.asp#SectionNumber:6.4] of the *Regulation*. The inventory prepared under section 6.4(3) is required for the protection of workers who may occupy a building. Although it may not include asbestos that wasn't readily accessible (e.g., hidden behind concrete walls or under a number of layers of flooring), the inventory required by section [6.4\(3\)](#) [Part6.asp#SectionNumber:6.4] will be a useful aid in conducting inspection and identification specified in section 20.112(2). The purpose of the inspection required by section 20.112(2) is to locate and identify all asbestos-containing material prior to renovation, demolition, and salvage activities.

The asbestos inspection process is referred to as a pre-renovation or pre-demolition *asbestos survey* and the person conducting the inspection is often referred to as the *surveyor*. The asbestos survey includes a walk-through inspection, sample collection, sample analysis, reporting, and communication of the results. Surveyors must be familiar with proper walk-through and sample collection practices. There are a number of recognized industry standards which provide guidance on conducting asbestos surveys, and include the following:

- [The Ontario Regulation 278/05 Designated Substance – "Asbestos on Construction Projects and in Buildings and Repair Operations"](#)
- [Asbestos: The Survey Guide \(HSE – HSG264\)](#)
- [EPA How to Manage Asbestos in School Buildings EPA 910-B-96-001 \(PDF 653 kb\)](#)

The first step in the asbestos survey is to identify asbestos hazards by a thorough and systematic walk-through inspection of the site. The site may be a building (commercial, industrial, or residential), a structure, a machine, or a piece of equipment. Asbestos identification and recognition is a specialized skill and it is essential that the surveyor be adequately instructed, trained, and experienced in identifying materials known to, or likely to, contain asbestos.

Table 1 lists some of the materials that commonly contain asbestos in older commercial, industrial, and residential buildings.

**Table 1: Asbestos Materials in Older Commercial, Industrial, and Residential Buildings**

<b>Exterior</b> <ul style="list-style-type: none"> <li>▪ Asbestos cement pipes (e.g., drain pipes)</li> <li>▪ Roof felting</li> <li>▪ Asphalt shingles</li> <li>▪ Soffit boards</li> <li>▪ Stucco</li> <li>▪ Asbestos cement siding</li> <li>▪ Brick mortar</li> <li>▪ Window putty</li> <li>▪ Deck undersheathing</li> <li>▪ Asbestos cement shingles</li> </ul>	<b>Interior insulation</b> <ul style="list-style-type: none"> <li>▪ Spray-applied insulation (acoustic and fireproofing)</li> <li>▪ Vermiculite (blown-in) insulation (e.g., in attics)</li> <li>▪ Paper backing on fibreglass insulation</li> </ul>
<b>Flooring</b> <ul style="list-style-type: none"> <li>▪ Vinyl sheet flooring and mastic</li> <li>▪ Vinyl floor tile and mastic</li> <li>▪ Poured flooring/levelling compound</li> <li>▪ Asphalt flooring</li> </ul>	<b>Heating (HVAC) and ducting</b> <ul style="list-style-type: none"> <li>▪ Furnace duct tape</li> <li>▪ Furnace/boiler insulation</li> <li>▪ Pipe (mechanical) insulation</li> <li>▪ Hot water tank insulation</li> <li>▪ Mastic</li> <li>▪ Asbestos rope and gaskets</li> <li>▪ Asbestos cement board</li> <li>▪ Asbestos cardboard insulation</li> </ul>
<b>Walls &amp; Ceilings</b> <ul style="list-style-type: none"> <li>▪ Drywall mud</li> <li>▪ Plaster</li> <li>▪ Asbestos cement board</li> <li>▪ Textured coatings</li> <li>▪ Ceiling tiles</li> </ul>	<b>Other</b> <ul style="list-style-type: none"> <li>▪ Fireplace box and mantel</li> <li>▪ Artificial fireplace logs and ashes</li> <li>▪ Fire doors</li> <li>▪ Insulation on electrical wiring</li> <li>▪ Fire blankets</li> <li>▪ Chalk boards</li> <li>▪ Heat reflectors</li> <li>▪ Penetration firestopping</li> <li>▪ Candescent light fixture backing (pot lights)</li> </ul>

Note: This list does not include every product that may contain asbestos. It is intended as a general guide (refer also to the online WorkSafeBC Bulletin **WS 03-03** [<http://www.worksafebc.com/i/posters/pdfs/2003/ws0303.pdf>]).

During the initial walk-through inspection the surveyor systematically goes through each area and room in the building observing the wall, ceiling, floor, and other materials including any machinery or equipment (e.g., an old boiler or HVAC system) and hidden insulating materials to make a preliminary determination if asbestos could be present. During this walk-through, the surveyor will also consider where to collect representative bulk samples of suspected asbestos material. Once the walk-through is complete, the surveyor has the necessary information to begin the sampling process (refer to the next section).

The following Asbestos Inspection Results worksheet (and completed worksheet example) illustrates an acceptable method by which asbestos survey results can be summarized for an owner or contractor. Refer also to sections **20.112(3)(e)(iii)-(v)** [Part20.asp#SectionNumber:20.112] of the Regulation. It may be necessary to include drawings or plans.

<b>Asbestos Inspection Results</b>			
Project Name:		Date of Survey:	
Address:		Survey Company:	
Description:		Surveyor:	
Previous Renovations?		Age of Structure:	