

Asbestos-Containing Materials (ACMs) in Buildings to be Demolished

OHS information for employers and workers

Introduction

During previous revisions to the occupational health and safety legislation, asbestos requirements from the Alberta Building Code 1997 were transferred to the Occupational Health and Safety (OHS) Code. Consolidation of the asbestos provisions into one piece of legislation under the jurisdiction of one department was done at the request of stakeholders to simplify the requirements for users.

One of the requirements transferred dealt with the removal of asbestos from a building before demolition of the structure (Section 8.1.2.2 of the Building Code, Section 34 of the OHS Code).

Under the requirement in Section 34 of the OHS Code, all building materials with the potential to release asbestos fibers must be removed prior to demolition. There are some exceptions to this.

Some examples include:

- vinyl floor tiles containing less than five per cent asbestos (with no asbestos backing and no asbestos-containing leveling compounds or adhesives present) need not be removed prior to demolition; and

- asbestos-containing building materials may be left in place if an acceptance from Section 34 has been granted.

Criteria for receiving an acceptance from section 34

Applications for acceptances from Section 34 of the OHS Code are evaluated using specific criteria. Acceptances may be granted where the application meets these criteria:

Some examples include:

- material is problematic to remove and removal would create more of a hazard to workers; and
- alternative work procedures will provide equivalent or better protection to workers.
- asbestos content of the specific material is less than 5% chrysotile;
- the material is not friable (easily crumbled by hand pressure);
- demolition will be done by machine; and
- water will be used for dust control (this criteria may be waived if freezing will create a hazard to workers, however dust control must still be considered).

Typically acceptances are not granted for vermiculite insulation contaminated with asbestos fibers, even when it contains less than 1% asbestos by weight.

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This is because this material tends to create a “restricted area” (area of the work site where there is a reasonable chance that the airborne concentration of asbestos will exceed the OEL) when it is disturbed.

Acceptances are reviewed on a case-by-case basis. The applicant is responsible to ensure that documentation is provided in support of their request.

Procedure to obtain an acceptance from section 34 of the code

Send a letter/email requesting an Acceptance from Section 34 of the OHS Code. The request must be in writing. The OHS Contact Centre should be contacted for more information regarding where the request should be sent.

Provide a description of the project and rationale for why the asbestos should not be removed prior to demolition. The following information must be included in the application:

- name of company/organization requesting the Acceptance, including their full mailing address and fax number;
- contact name for project;
- name of site where the work will occur, including address;
- date and duration of work;
- description of the structure and material(s) involved;
- detailed work procedures;
- worker personal protective equipment;
- air monitoring to be done;

- waste disposal procedures; and
- decontamination facilities and procedures.

The acceptance, if granted, will be specific to the company who applied and specific to the project described in the application. The applicant should ensure that the application is sent well in advance of the project to ensure that there is time for it to be properly reviewed.

ADDITIONAL REQUIREMENTS

Once an acceptance is granted, the employer must comply with the requirements in the legislation that relate to the acceptance and with any conditions included in the acceptance. Section 10 of the OHS Regulation requires an employer to:

- post a copy of the acceptance at the work site;
- keep a copy or record of the acceptance with equipment it applies to; or
- communicate the information in some other way appropriate to the workers who may be affected by it.

The Controls – How do employers ensure safe removal of debris?

TYPICAL DEMOLITION WORK PROCEDURES OF A STRUCTURE UNDER ACCEPTANCE

In addition to the submitted procedures the employer, contractor, prime contractor, and workers must comply with all applicable sections of the Alberta OHS legislation.

The work procedures may vary according to the work site. The specifics of the work site must be considered and reflected in the accompanying work procedures.

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Set-up:

- A work perimeter of 30 metres or up to the property boundary, where possible, must be established including visible separation and signage (specify how this will be accomplished).
- The signage must state the following:
 - Danger;
 - Asbestos;
 - Authorized personnel only; and
 - Eating, drinking, and smoking are prohibited.
- When no work is occurring the work site must be secured (specify how this will be accomplished in the application).
- The waste receptacles and equipment used for the project must be inside the perimeter.

Training:

- Workers must be trained in accordance with section 37 of the OHS Code (specify the type of asbestos training for all workers involved in the project in the application).
- Transport drivers must have asbestos training in accordance with section 37 of the OHS Code in addition to emergency spill procedures.

Work Procedures:

- Workers, including equipment operators, transport drivers, and labourers must be protected with appropriate personal protective equipment (PPE). This includes:
 - disposable coveralls;
 - rubber steel toe boots;
 - respirators; and

- at minimum, a properly fitted half-mask respirator equipped with combination organic vapour/P100 cartridges (provide description of PPE that will be used in the application).
- Demolition must be done by machine.
- The structure must be pre-wetted and continuously wetted during the demolition process with enough volume to ensure the material is saturated (indicate how this will be accomplished in the application).
- Work must be suspended when wind speeds are above 20 km/hr (measured by an anemometer). The material must be wetted and covered if possible (specify how the waste will be covered in the application).
- All asbestos debris will be placed in properly lined waste bins or trailers, if the bins/trailers are not lined, provisions must be in place to decontaminate them (specify what will be done in the application).
- The bins/trailers must be covered before leaving the work site to prevent dust from escaping during transport.
- Additional procedures must be developed to address a possible collapse of the whole or part of the structure during demolition (specify the procedures in the application).
- Should the work take more than one day to complete, the debris and waste must be wetted and covered overnight (specify how this will be accomplished in the application).

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- All materials must be handled as “asbestos waste”, as defined in the OHS Code. Note that disposal as asbestos waste may not be required (contact local disposal site for confirmation).
- Any materials, such as the foundation, that are to be recycled must be cleaned and encapsulated (if this is the case, specify the materials and how they will be cleaned/sealed in the application).
- Any visible contamination on the ground from the demolition must be cleaned.

Decontamination:

- Workers, including equipment operators, must decontaminate prior to leaving the work perimeter (specify how this will be done, note that showers are not mandated, but at minimum workers must have an area where they can clean their face and hands, take off equipment, dispose of used PPE and clean boots/respirators).
- All PPE, equipment and tools must be decontaminated prior to leaving the work perimeter (specify how this will be done).

Waste Handling and Disposal:

- All asbestos-contaminated materials, including used protective clothing and respirator cartridges, must be packaged for disposal as asbestos waste (as defined in the OHS Code).
- The truck transporting the waste must do so in accordance with Transportation of Dangerous Goods (TDG) requirements.
- Truck drivers must be in the trucks during loading with the windows up and air off.

- All necessary information regarding the asbestos content of the waste, if it is available, must be forwarded to the landfill and transport company.
- Documentation stating that the landfill has agreed to accept the asbestos containing waste must be submitted as part of the application package.
- Waste must be covered overnight if it will be stored on site for more than one day.

Air Monitoring:

- At least one occupational air sample must be collected each day of work.
- Air monitoring must be conducted in appropriate locations at the work perimeter including downwind (specify how many samples).
- If any results are at 50 per cent or greater than the OEL of 0.1 f/cc within the work perimeter or at 10 percent of the OEL at the work perimeter, work must be suspended and procedures re-evaluated.
- Air sample results must be available prior to the start of work the following day.

ACMs in Buildings to be Demolished

Contact Us

OHS Contact Centre

Edmonton & Surrounding area

- 780-415-8690

Throughout Alberta

- 1-866-415-8690

Deaf or hearing impaired:

- 780-427-9999 (Edmonton)
- 1-800-232-7215 (Alberta)

Website

work.alberta.ca/ohs-contact-us

FOR MORE INFORMATION:

[Alberta Occupational Health and Safety Code](#)

[Alberta Asbestos Abatement Manual](#)

[Asbestos Project Notification On-Line Form](#)

[Occupational Health and Safety Acceptances](#)

Get Copies of OHS Act, Regulation and Code

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www.qp.gov.ab.ca

Occupational Health and Safety

work.alberta.ca/ohs-laws

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