

Asbestos Management Code of Practice

Asbestos

Asbestos is the common name given to a family of naturally occurring mineral silicates that are composed of fibres. The most common types of asbestos that have had significant use include chrysotile, amosite, and crocidolite.

Asbestos was used extensively prior to 1985 because of its valuable reinforcing, insulating, fire-proofing and corrosion-resisting properties. It was used in various building materials including floor coverings, ceiling tiles, cement pipes and sheeting, decorative and acoustical coatings, mechanical equipment insulation and fire-proofing materials. Since 1985 asbestos-containing materials have not been used in the construction of school facilities.

Intact and undisturbed asbestos-containing materials present no health hazard. With proper management of asbestos-containing materials, the release of asbestos fibres is prevented or minimized, and the risk of disease as a result of exposure to asbestos fibres is negligible.

Prolonged exposure to high concentrations of asbestos fibres has been linked to health problems such as asbestosis (scarring of the lungs), lung cancer, mesothelioma (rare cancer of the lining of the chest or abdomen) and other cancers.

Regulations and Guidelines

In the province of Alberta, the Occupational Health and Safety Act, Regulation and Code is enforced by Alberta Human Resources and Employment – Workplace Health and Safety. This legislation establishes the rights and obligations of workers, employers, and the government, outlines the general requirements for employers, outlines administrative and policy issues and contains detailed technical requirements that support the Occupational Health and Safety Act, Regulation, and Code.

The Occupational Health and Safety Code (Part 4) requires the development, implementation, and maintenance of an effective code of practice for the safe and responsible management of asbestos-containing materials.

The Division's *Asbestos Management Plan* addresses the following areas:

- Management Options.
- Identification of Asbestos-containing Materials.
- Procedures and Protocols for Staff.
- Communication Process.
- Renovation and Maintenance Projects.

Asbestos Management Plan

The Division's Asbestos Management Plan follows an acceptable industry standard, and is intended to protect the wellbeing of employees, students and others by meeting or exceeding all the requirements of Occupational Health and Safety legislation. This includes the selection of the most appropriate asbestos management option, the prevention of asbestos fibre release and the proper disposal of all asbestos waste.

Management Options

The asbestos management options that are available to the Division are as follows:

Removal – Asbestos-containing material is completely taken out of a facility.

Removal shall be the only management option if:

- the facility is to be demolished.
- required by building codes.
- the type of asbestos is crocidolite (highly friable form of asbestos).

Removal shall be the preferred management option if:

- planned work cannot be completed without disturbing the asbestos-containing materials.
- friable asbestos-containing materials are easily accessed by students, staff, and others.

Encapsulation – Asbestos-containing material is coated with a sealant. The sealant penetrates and hardens the material or covers the surface of the material with a protective coating. All encapsulated materials shall be routinely inspected for deterioration or damage through the annual site inspection process and/or by the Division Occupational Health and Safety Officers.

- Encapsulation shall only be used as a temporary management option dependent on the condition of the material.
- Encapsulation shall be limited to asbestos-containing materials that:
 - will not be subject to further damage by any contact.
 - are capable of supporting the additional weight of the sealant.
- Encapsulation shall not be used:
 - where the surface of the asbestos-containing materials is highly friable.
 - if the fire rating of the asbestos-containing material would be compromised.

Enclosure – Asbestos-containing material is separated from the facility environment by appropriate barriers. All enclosures shall be systematically inspected for deterioration or damage on an annual basis.

- Enclosure shall not be used in areas where students, staff and others may impact the integrity the enclosure.
- Access behind enclosed locations containing asbestos materials will be restricted to appropriately trained employees.

Manage-in-place – Asbestos-containing material is maintained “as is”. All manage-in-place materials shall be systematically inspected for deterioration or damage on an annual basis.

Manage-in-place shall be the preferred management option if the asbestos-containing materials are in good condition and pose no significant risk to students, staff, and others.

The Division has made the decision to only use removal, enclosure, or manage-in-place as options in its facilities.

Asbestos Management Considerations

Once a material has been identified as being asbestos-containing, the management option selected will be determined by the Division Health and Safety Officers and depends on one or more of the following factors:

- **Condition**

An assessment of the condition of asbestos-containing materials considers the quality of the installation, adhesion to the underlying substrate, deterioration, and damage.

- **Friability**

Asbestos-containing materials that can be crumbled, pulverized, or reduced to dust by hand pressure are friable and have a greater potential for asbestos fibre release.

- **Accessibility**

Asbestos-containing materials that can be easily accessible are subject to accidental or intentional contact or damage.

- **Activity and movement**

Contact with or damage to asbestos-containing materials may be caused by air movement, facility vibration (from equipment or any other source), or activity and movement of facility occupants.

- **Exposed surface area**

The exposed surface area of asbestos-containing materials affects the potential for asbestos fibre release and the potential for contact or damage.

- **Asbestos content**

Asbestos-containing materials with higher percentages of asbestos have a greater potential for asbestos fibre release.

- **Water damage**

Water can dislodge, delaminate, and disturb asbestos-containing materials that are in otherwise good condition. Water can carry asbestos fibres to other areas and cause release of the asbestos fibres after evaporation.

- **Air plenum or direct air stream**

If asbestos-containing materials are located in an air plenum or direct air stream, asbestos fibres may be carried by ventilation throughout a facility.

- **Cost Efficiencies**

If more than one management option is acceptable, the cost efficiencies of each option will be considered. When possible, removal will be the preferred option.

Identification of Asbestos-containing Materials

Alberta Infrastructure has conducted previous audits of school facilities, including portable classrooms, to inventory asbestos-containing materials that could be identified through a visual inspection process.

It will be critical that this information be kept current. As alterations are made to Division facilities, any changes to the state of asbestos-containing materials must be brought to the attention of the Division Facilities Manager. Once provided with this information, the Facilities Manager can ensure that the *Scope of Asbestos- containing Materials Survey* and relevant maps are kept current.

Procedures and Protocols for Staff

Division employees must **not** do anything to disturb asbestos-containing materials. When an employee has concerns that asbestos-containing materials have been compromised, they should complete a *Hazard Report* and submit it through the Public SchoolWorks program. *Hazard Reports* will result in a System Service Request (SSR) being submitted by administration.

Certified asbestos abatement contractors, approved by the Division, are to be used when removing any asbestos containing materials. These contractors must follow all requirements of the Alberta Occupational Health and Safety Act, Regulation and Code and the Alberta Asbestos Abatement Manual. The Division also contracts for, or ensures that, an approved external environmental health and safety consultant monitors the air quality at any site where asbestos-containing materials are being removed. The Division will also ensure that the consultant completes site inspections and a review of the asbestos abatement contractor's required documentation. Any air quality reports produced by the consultant will be shared with the principal or non-school based department head. When appropriate, this information will in turn be shared with staff.

The Division has provided asbestos awareness programs for caretaking and maintenance staff. This will assist these employees in identifying any concerns in their facilities related to asbestos-containing materials. These individuals are often in the best position to identify areas of concern and should be consulted if concerns arise.

The annual Work Site Inspection process is another means of identifying the possible deterioration of asbestos- containing materials in a facility. Reference should be made to the *Scope of Asbestos-containing Materials Survey* and relevant floor plan map.

If an accidental release of asbestos fibres should occur, the following protocols should be followed according to the severity of the release.

Minor Releases of asbestos fibres could result from such things as a crack in an asbestos pipe sleeve, broken asbestos-containing floor tile, etc.

- Area should be isolated (approximately one metre around material).
- *Hazard Report* should be completed and coded medium hazard on Public SchoolWorks. This will ensure that all such releases are recorded on a Division basis. A Division's Facilities Manager should be notified of the situation by telephone.
- Asbestos-containing material should only be removed by a certified abatement contractor. Air quality testing will be conducted as required.
- Minor releases do not require the notification of all staff.

Major Releases of asbestos fibres could include such things as a portion of a ceiling falling, structural compromise due to fire, water, etc.

- Evacuate area and control access to the area.
- Immediately have caretaking staff shut off ventilation to prevent migration of fibres to other areas of the facility.
- Immediately notify the office of the Superintendent, and the Director of Business and Operations.
- *Hazard Report* should be completed and coded high hazard on the Public SchoolWorks program.
- Asbestos-containing material should only be removed by a certified abatement contractor. Air quality testing will occur in these situations.
- All staff in the facility should be informed of the situation and the actions which will be taken.

Communication

It is essential that general information regarding asbestos and the *Division's Asbestos Management Plan* be shared with employees and long-term service contractors. Employees should also be made aware of the scope of asbestos-containing materials present in the facility in which they work. Any employee who has questions related to the Division's Asbestos Management Plan should direct questions through their principal or non-school based department head to the Division's Director of Business and Operations. Long-term service contractors must also be provided with a *Scope of Asbestos-Containing Materials Survey* for the Division facility in which their employees work.

Renovation and Maintenance Projects

Division Maintenance Department staff and the prime contractor on a renovation or maintenance project must conduct an assessment for asbestos-containing materials that may potentially impact the project. This assessment will occur prior to the commencement of any work, and will ideally occur during the planning phases of the project. This assessment must not only address asbestos-containing materials identified through the Division's visual inspection process, but also potential asbestos-containing materials enclosed in areas that may be impacted by the project.

Certified asbestos abatement contractors, approved by the Division, are to be used when removing any asbestos containing materials. These contractors must follow all requirements of the Alberta Occupational Health and Safety Act, Regulation and Code and the Alberta Asbestos Abatement Manual. The Division will contract an approved external environmental health and safety consultant who will monitor the air quality at any site where asbestos containing materials are being removed. The consultant will also conduct site inspections and a review of the asbestos abatement contractor's required documentation. Any air quality reports produced by the consultant will be shared with the Division's Director of Business and Operations, who will in turn share them with the principal or non-school based department head.

Prior to commencing the removal of asbestos-containing materials, relevant Division staff, including those whose work area is being impacted, must be informed of the nature of the project and the procedures being put in place to protect them while work is in progress.

Attachment I – Asbestos Questions and Answers

What is asbestos?

Asbestos is the common name given to a family of naturally occurring mineral silicates that are composed of fibres. The most common types of asbestos that have had significant use include chrysotile, amosite, and crocidolite.

Why was asbestos used?

Asbestos was used extensively prior to 1980 because of its valuable reinforcing, fire-proofing, insulating, and corrosion-resisting properties. It was used in various building materials including floor covering, ceiling tile, cement pipe and sheeting, decorative and acoustical coatings, mechanical equipment insulation, and fire-proofing materials.

What are the health hazards associated with asbestos?

Prolonged exposure to high levels of asbestos fibres has been linked to such health problems as asbestosis (scarring of the lungs), lung cancer, mesothelioma (rare cancer of the lining of the chest or abdomen), and other cancers. These diseases do not develop immediately after asbestos fibre exposure. It may be 20 years or more before symptoms appear.

Is there any legislation regarding asbestos?

Alberta Human Services, Occupational Health and Safety regulates work with asbestos through the Occupational Health and Safety Act, Regulation and Code and the Alberta Building Code. The legislation provides specific requirements for asbestos removal including air monitoring, project notification, and worker training and certification.

Is it safe to be in a building that contains asbestos?

YES. Industry standards have determined that intact and undisturbed asbestos presents no health hazard. With proper management of asbestos, the release of asbestos fibres is prevented or minimized, and the risk of disease as a result of exposure to asbestos fibres is negligible.

What is the Division's approach to asbestos management?

The Division has made the decision to only use removal, enclosure, or manage-in-place as options in its facilities.

Removal – Asbestos-containing material is completely taken out of a facility.

Enclosure – Asbestos-containing material is separated from the facility environment by appropriate barriers. All enclosures shall be systematically inspected for deterioration or damage on an annual basis.

Manage-in-place – Asbestos-containing material is maintained “as is”. All manage-in-place materials shall be systematically inspected for deterioration or damage on an annual basis.

Ongoing inspections of Division facilities will help to ensure that the integrity of asbestos-containing materials has not been compromised.

Is it safe to remove asbestos during the school year?

YES. Asbestos removal work during the school year is completed while the facility is unoccupied (evenings, weekends, breaks). Employees and students are not allowed to return to the removal area and/or facility until air quality testing indicates that it is safe to do so. All asbestos removal work is completed in accordance with all requirements outlined in the Alberta Human Services, Occupational Health and Safety, Alberta Asbestos Abatement Manual.

What do I do if I have a question or concern about asbestos in my workplace?

Discuss the question/concern with your school administrator. School administration may call upon the resources and expertise of the Division’s Director of Business and Operations. Additional information regarding asbestos and asbestos removal may also be obtained from the current Alberta Asbestos Abatement Manual.