

ASBESTOS MANAGEMENT IN OWNED AND SUPPORTED INFRASTRUCTURE

BACKGROUND

Many Alberta Infrastructure owned facilities were constructed during periods when asbestos-containing materials (ACMs) were widely used in building construction and mechanical systems. As a result, ACMs may remain present in various building components throughout the portfolio.

In the early 1980s, Alberta Infrastructure implemented a formal asbestos management program to identify and control asbestos-related risks within its facilities. In many instances, approved control measures such as enclosure and encapsulation were employed to effectively manage ACMs in place. When properly maintained, these methods provide an effective means of preventing fibre release and protecting building occupants while allowing the ACMs to remain undisturbed.

However, the condition of ACMs can deteriorate over time due to aging, environmental factors, or physical damage. Disturbance of these materials during routine maintenance, equipment repair or replacement, renovation, demolition, or other construction-related activities may result in the release of asbestos fibres and create a potential exposure hazard. Consequently, ongoing monitoring, assessment, and management of ACMs are essential to ensure their continued safe condition and to minimize the risk of asbestos exposure.

Common asbestos-containing materials (ACMs) found in buildings may be present in a variety of construction, mechanical, and finishing materials, including:

1. Spray-applied fireproofing and thermal insulation installed on structural steel components such as columns, beams, joists, and decking systems.
2. Architectural and interior finish materials, including decorative or acoustic ceiling textures, suspended ceiling tiles, asbestos-containing boards, and wall or siding panels used for fire resistance, thermal protection, or mechanical system enclosures.

3. Mechanical insulation systems, including thermal insulation applied to hot water and steam piping, air handling and sheet metal ductwork, boilers, pressure vessels, and other mechanical equipment.
4. Flooring systems, including vinyl asbestos floor tiles, sheet flooring backings, underlays, mastics, adhesives, and certain cementitious floor levelling compounds.
5. Roofing materials, including asphalt shingles, roofing felts, base sheets, flashing materials, and components used in built-up roofing assemblies.

The presence of ACMs can vary depending on the age, construction type, and renovation history of a building. As such, suspect materials should be assessed through a hazardous building materials survey and, where necessary, laboratory analysis to confirm asbestos content prior to disturbance.

A more comprehensive list of building materials known to contain asbestos is provided in the appendix to this bulletin.

As a best practice, any building material suspected of containing asbestos should be treated as a potential asbestos-containing material (ACM) until proven otherwise. Where uncertainty exists, representative samples should be collected by a qualified and competent individual and submitted under an appropriate chain-of-custody protocol to an accredited laboratory for analysis.

Confirmation of asbestos content should be obtained prior to any activity that may disturb the material. Adopting a precautionary approach is essential to minimizing the potential for inadvertent asbestos exposure.

ACMs identified within Alberta Infrastructure-owned and supported facilities must be managed in accordance with applicable legislation, regulatory requirements, and established best practices.

Effective asbestos management requires a balanced approach that combines regulatory compliance, risk

assessment, operational practicality, and sound judgment to support informed decision-making.

A successful asbestos management program must be proactive and adaptable, recognizing that building conditions, occupancy, maintenance activities, and personnel responsibilities evolve over time. Accordingly, management systems should incorporate appropriate controls, communication processes, training requirements, and monitoring mechanisms to ensure the continued safe management of ACMs throughout the lifecycle of the facility.

WHAT IS ASBESTOS MANAGEMENT PROGRAM

The Asbestos Management Program provides a structured framework and procedural guidance for Facility Managers, Facility Coordinators, Property Management personnel, and contractors responsible for managing ACMs within buildings. The program is designed to support the effective identification, control, and communication of asbestos-related risks, thereby minimizing the potential for occupant and worker exposure.

The primary objective of the program is to establish standardized requirements for the safe management of ACMs and to ensure compliance with applicable occupational health and safety legislation, regulatory requirements, and industry best practices. The program is intended to be a living document that is reviewed periodically and updated as necessary to reflect changes in legislation, organizational requirements, and operational practices.

A key component of the program is the roles and responsibilities matrix, which clearly defines the duties and accountabilities of all individuals involved in asbestos management. The matrix also includes current contact information and emergency response contacts to facilitate effective communication and incident response. To maintain program effectiveness, responsibility assignments, contact information, and emergency contact details should be reviewed annually and revised as required.

The plan development will include the following components:

- purpose of the hazardous materials management plan;

- scope of the hazardous materials management plan;
- health hazards associated with hazardous materials;
- regulations specific to hazardous materials present;
- delegation of responsibilities outlining the program participants and responsibilities (emergency contact list etc.);
- communication of hazardous materials awareness;
- preparation of a Contractor Awareness Package for the buildings; and
- preparation of a training matrix outlining required training requirements for facility staff.
- development of site specific safe work procedures;
- outline the requirements for posting of signs warning of ACMs;
- development of tracking sheet inventory of identified ACMs and assess the condition of the materials utilizing an Exposure Assessment Algorithm.
- development of procedures to control release or generation of ACMs; and
- annual inspection requirements to re-assess the quantity and condition of visible and accessible ACMs previously identified within the building.

WHO SHOULD INVESTIGATE

Multiple stakeholders may be involved in the identification, assessment, and resolution of hazardous building materials related concerns, including building owners, property managers, maintenance personnel, and building occupants.

Hazmat assessments and sampling activities shall be conducted by qualified personnel with demonstrated experience in inspecting and testing hazardous building materials.

Individuals responsible for measurements, analytical interpretation, and evaluation of findings shall possess a thorough understanding of applicable methodologies, sampling protocols, and building science principles relevant to Hazmat assessments.

Occupational hygiene professionals engaged in hazardous building materials assessments shall possess the appropriate education, training, experience, and competencies required to perform their duties. At a minimum, personnel shall meet the competency requirements outlined in the following Alberta Occupational Health and Safety publications:

- Occupational Hygiene Reports: Requirements and Tips (GS019); and
- Occupational Hygiene Competency: Frequently Asked Questions (GS020).

For Alberta Infrastructure Owned and Supported facilities, additional project-specific requirements related to sample collection, interpretation of analytical results, evaluation of findings and technical report sign-off may be required to ensure the quality and completeness of assessment deliverables and support Alberta Infrastructure compliance with applicable Occupational Health and Safety legislation.

APPLIED ECOSCIENCES UNIT

Typical Support Services

Historically, Alberta Infrastructure has adopted an opportunistic removal approach to the management of asbestos-containing materials (ACMs). Under this strategy, ACMs that are in good condition and do not present an immediate risk of fibre release may remain in place, provided they remain undisturbed and are subject to ongoing inspection and condition monitoring.

When renovation, repair, or demolition activities are planned that may disturb ACMs, consideration should be given to the removal of these materials as part of the project scope. Any proposed asbestos abatement activities should be reviewed in consultation with the Applied Ecosciences Unit to ensure that appropriate risk management measures, regulatory requirements, and project considerations are addressed.

The Applied Ecosciences Unit provides technical expertise and support related to asbestos assessment and management, including but not limited to:

- Hazardous building materials surveys and asbestos inventories;
- Preparation of technical specifications, scopes of work, and contract documents;

- Development and delivery of asbestos management workshops;
- Asbestos awareness and educational presentations; and
- Technical guidance and support for the development and implementation of asbestos management plans.

These services support the proactive management of ACMs and helps maintain a safe and healthy environment for building occupants as well as support building operations and integrity of Government facilities while maintaining compliance with applicable regulatory requirements and industry best practices.

CONTACT INFORMATION

Technical Services Branch

The above services may be provided by Alberta Infrastructure and/or a private occupational hygiene consultant.

Where the engagement of an external consultant is identified as the preferred delivery model, the Applied Ecosciences Unit can provide technical support in the development of the project scope, preparation of detailed terms of reference, and oversight support throughout project implementation and construction activities.

Additionally, our Unit offers a comprehensive range of applied hazardous materials management, indoor air quality and occupational hygiene advisory services to support project planning, regulatory compliance, assessment, and operational execution.

For information or assistance, contact the Manager of Applied Ecosciences Unit at 780-422-7472.