

ASBESTOS MANAGEMENT

In the early 1980's, Alberta Infrastructure embarked on a program of asbestos management. In a number of cases, enclosure or encapsulation were utilized to provide the necessary control measures. These methods, while providing proper protection to the building occupants, allow the known asbestos containing materials (ACMs) to remain in the building. The condition of these materials changes with time and may become potentially unhealthful or hazardous if the materials are disturbed during routine maintenance, equipment maintenance or replacement, building renovations, building demolition or similar activities. Some of the more common ACMs which may be present in buildings are in the following forms and places:

1. Sprayed-on fireproofing to structural columns, beams, joists, etc.
2. Decorative/acoustic ceiling textures, suspended ceiling tiles and asbestos board used for fire, heat, and mechanical protection, siding and interior panels.
3. Insulation on mechanical equipment such as hot water/steam lines, sheet metal air ducts, and steam and hot water vessels and boilers.
4. Flooring materials such as vinyl asbestos tiles or as a backing or underlayment beneath sheet vinyl goods. Also found in some concrete floor levelling compounds.
5. Roofing materials such as asphalt shingles or as a base sheet under the shingles or in built-up roofing.

A more detailed list of building materials known to contain asbestos follows this article.

As a general rule of thumb, when there is any concern or doubt about a material it should be considered as potentially harmful. A sample of any material in your building(s), which you suspect contains asbestos, should be analyzed by a laboratory to determine whether or not it contains asbestos prior to any disturbance. We feel that a policy of preventative caution is the only attitude to assume.

ACMs encountered in Alberta Infrastructure facilities

must be dealt with in accordance with present legislation in a responsible manner. Practicality and common sense should take a leading role in determining required action and establishing a proactive management program.

A proactive management program must take into account that the human resources and physical conditions of a building are in constant change, and must contain "safeguards" to accommodate these variables.

Historically, Alberta Infrastructure has followed a policy of "opportunistic removal", that is, if an ACM is in good condition it may be left in place, so long as it remains undisturbed and its condition is monitored on an ongoing basis.

If a renovation or demolition project is planned where ACMs are to be disturbed, the opportunity should be taken to remove them in a proper manner.

ACMs located in air distribution systems require special attention as dictated by the Alberta Building Code.

The Architectural Sciences Unit has been dedicated to provide asbestos management advice including, but not limited to, such services as:

1. Building surveys
2. Hazard assessments
3. Contract document preparation
4. Construction management
5. Asbestos management workshops
6. Asbestos awareness seminars
7. Assistance with log book preparation

The above services may be provided by Alberta Infrastructure and/or a private consultant. Where provision of services by an outside consultant is selected as the route to follow, the Architectural Sciences Unit is available to assist in setting the scope of work, terms of reference and to assist with contract and construction administration.

Should you require information or assistance, please do not hesitate to contact us at 422-7440 and 422-7472.

PROPERTY DEVELOPMENT

ISSUE No. 20A

TECHNICAL RESOURCES AND STANDARDS BRANCH

MAY, 2000

ASBESTOS CONTAINING MATERIALS FOUND IN BUILDINGS

CATEGORY	DESCRIPTION	ASBESTOS %	DATE OF MANUFACTURE	USE	FRIABILITY
CEILINGS, WALL, & TEXTURES	Drywall Taping Compounds	1 - 10	1950 - present	Gypsum wall or ceiling board edge treatment	Low to Moderate
	Sprayed on texture or troweled on texture	1 - 95	1935 - 1970	Fire resistance acoustic treatment thermal insulation condensation control	Moderate to Extremely High
	Ceiling Tiles	1 - 10	1960 - present	acoustical suspended ceiling finish	Moderate to High
	Plaster brown or finish coat, stucco, drywall joint cement	2 - 10	1930 - present	Wall - Ceiling finish rough or smooth	Low
FLOORING	Vinyl Asbestos (V.A.) Tile	30 - 50	1950 - present	Hard wearing floor covering	Non-Friable
	Resilient Sheet	30 - 50	1950 - present	Backing layer to vinyl facing	Moderate
	Concrete Levelling Compounds	1 - 10	1950 - present	Concrete floor leveller and finished flooring	Moderate to High
	Asphalt/Asbestos Tile	20 - 30	1920 - present	Roof or exterior walls finish	Low
MECHANICAL	Rigid block insulation	40 - 60	1926 - 1949	Boiler or pipework insulation	Moderate to High
	Paper like insulation	50 - 70	1910 - present	Pipework insulation	Moderate
	Insulating Cement	10 - 80	1949 - 1971	Pipework insulation at elbows and fittings	Moderate to High
	Corrugated paper sheets	70 - 80	1925 - present	Duct and pipe insulation	Moderate
	Insulating Cement Parging	10 - 80	1910 - 1980	Duct parging or pipe insulation applied over glass fiber	Moderate to High
ELECTRICAL	Wire Insulation	90 - 100	1910 - present	High heat applications	Moderate
	Insulator Board	40 - 60	1930 - present	Electrical insulation	Non-Friable
	Reflective Layers	70 - 90	Unknown	Heat resistant incandescent light reflector	Low to Moderate Highly Friable when disturbed

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CATEGORY	DESCRIPTION	ASBESTOS %	DATE OF MANUFACTURE	USE	FRIABILITY
CEMENT LIKE PRODUCTS	Millboard	40 – 50	1930 – present	Industrial type siding, heat shields, water proofing	Non-Friable
	Roof Tiles	20 – 30	1930 – present	Roof Finish	Non-Friable
	Cement Pipe	20 – 30	1935 – present	Subterranean Water Pipes	Non-Friable
	Siding and shingles	20 - 40	Unknown	Domestic and Comercial Cladding	Non-Friable
	Mortars	1 - 10	Unknown	Brick or concrete block mortar	Low
ROOFING	Shingles	1 – 5	1971 – 1974	Ashpalt Roof Shingles	Low
	Roofing Felts	10 – 15	1910 – present	Built-Up Roofing	Low
	Slip Layers	70 – 80	Unknown	Base layer for Built-Up Roofing	Moderate
TEXTILES	Woven Cloth	90 – 100	1910 – present	Fire Blankets Stage/Welding Curtains Isolation Joints in Ductwork Heat Shields Fire Hoses Gland Packing	High
Other	Caulking	20 – 30	1930 – present	For Flowability in mastic	Non-Friable
	Coatings	5 – 15	1900 – present	Roof – Coatings and Air Barriers	Non-Friable
	Brake/Clutch Linings	30 – 40	1920 – present	Elevator Motors Mechanical Plant	Non-Friable
	Filters	50 – 70	1930 – present	Cooling Towers Humidifiers	Low to Moderate
	Gaskets	20 – 60	1900 – present	Mechanical Equipment	Low to High
	Vinyl Wallpaper & Textured Paints	5 – 10	Unknown	Decorative Wallcovering	Low
	Fire Doors	50 – 70	Unknown	Fire Rating	Highly Friable but enclosed within wood or steel door.