

Asbestos Management Program Overview

January 2015

Health & Safety Department

Lambton Kent District School Board

What is Asbestos?

- Asbestos is the generic name for a number of mineral fibers found in rock formations. Because of its strength, durability and fire resistance, asbestos was used in the past in construction and other industries, and was added to a variety of building products, including insulation, fireproofing, ceiling tiles, floor tiles, shingles, plaster, drywall compound, etc.
- Ontario Regulation 278/05, governs provincially how asbestos must be managed on Construction Projects and in Buildings and Repair Operations. It defines an “Asbestos Containing Material (ACM)” as a material that contains 0.5 per cent or more asbestos by dry weight.
- Because asbestos was often mixed with other substances, it is very difficult to visually identify. The only way to know for certain if asbestos is present in a product is to submit it for testing to an accredited asbestos laboratory. Where a product is suspected to contain asbestos, but has not been tested, it must be presumed to contain asbestos and treated as such. For example, most older floor tiles used within LKDSB Schools, have not been tested, and are “presumed” to contain asbestos.
- In Canada, the use of asbestos has declined since the mid-1970s and early 1980s.

Why is Asbestos a Concern?

- Health studies indicate that breathing in asbestos fibres can lead to an increased risk of certain types of lung diseases such as mesothelioma, asbestosis, pleural thickening, and other asbestos-related lung cancers.
- According to the Canadian Centre for Occupational Health & Safety (CCOHS), people are more likely to experience asbestos-related disorders if they:
 - are exposed to high concentrations of asbestos,
 - are exposed for longer periods of time, and/or
 - are exposed to asbestos more frequently.
- Asbestos-related diseases usually develop many years (15 to 30 years) after a person has been exposed to asbestos.
- Smoking, combined with inhaled asbestos, greatly increases the risk of lung cancer.
- Most experts agree that if asbestos fibres are properly enclosed within a product, there are no significant health risks. The potential danger occurs when asbestos fibres are disturbed, released into the air and then inhaled. This is why it is important that you know where asbestos is located within your work area.

Asbestos Categories & Types

- Asbestos materials are usually divided into two main categories: Friable materials and non-friable. Regulation 278/05 defines a friable material as a material that when dry, can be crumbled, pulverized or powdered by hand pressure or is crumbled, pulverized or powdered. Friability of asbestos materials is important as non-friable materials are less likely to release fibers.
- There are six main types of asbestos/ fibrous silicates covered by Regulation 278/05, but the main three that can be found in LKDSB schools include:
 - Chrysotile (White Asbestos) – the majority of asbestos containing building products within our schools contain chrysotile.
 - Amosite (Brown Asbestos) – rarely found in our schools
 - Crocidolite (Blue Asbestos) – rarely found in our schools
- Actinolite, Anthophyllite, and Tremolite are the other three types of asbestos listed in the regulation.

Asbestos Products

The EPA (United States Environment Protection Agency) provides the following list of possible building products that may contain asbestos. It is intended to be used as a guide and is not a complete list of all asbestos containing products. Many of these products can be found in our schools.

| | | |
|---|---|--|
| <ul style="list-style-type: none">• Cement Pipes• Cement Wallboard• Cement Siding• Asphalt Floor Tile• Vinyl Floor Tile• Vinyl Sheet Flooring• Flooring Backing• Construction Mastics (floor tile, carpet, ceiling tiles, etc.)• Acoustical Plaster• Texture Paints / Coatings• Ceiling Tiles and Lay-in Panels• Spray- Applied Insulation• Blown-in Insulation• Fireproofing Materials• Taping Compounds (Thermal) | <ul style="list-style-type: none">• Packing Materials (for wall/floor penetrations)• High Temperature Gaskets• Laboratory Hoods / Table Tops• Laboratory Gloves• Fire Blankets• Fire Curtains• Elevator Equipment Panels• Elevator Brake Shoes• HVAC Duct Insulation• Boiler Insulation• Breaching Insulation• Ductwork Flexible Fabric Connections• Cooling Towers• Pipe Insulation (Corrugated aircell, block, etc.) | <ul style="list-style-type: none">• Heating and Electrical Ducts• Electrical Panel Partitions• Electrical Cloth• Electrical Wiring Insulation• Chalkboards• Roofing Shingles• Roofing Felt• Base Flashing• Thermal Paper Products• Fire Doors• Caulking/Putties• Adhesives• Wall Board• Joint Compounds• Vinyl Wall Covering• Spackling Compounds• Wall Fill / Vermiculate |
|---|---|--|

Some Common Asbestos Product Usage Dates:

Friable ACMs (years of use)

- Sprayed fireproofing <1976
- Sprayed thermal insulation <1976
- Sprayed decorative/acoustic/stipple finishes <1986
- Mechanical/pipe insulation <1981

Non-Friable ACMs (year of use)

- Vinyl floor tile <1983
- Vinyl sheet flooring <1983
- Drywall joint compound <1986
- Roofing materials <1992
- Asbestos – Cement (Transite) – Still in use today
- Vermiculite/Zonolite <1990
- Ceiling Tiles <1986
- Textile Products – Still in use today
- Gaskets – Still in use today

Source: Environmental Abatement Council of Ontario &
Golder Associates Asbestos Awareness Presentation for Custodians

LKDSB's Asbestos Management Program

- The LKDSB's Program is a comprehensive program which oversees the management of asbestos at all LKDSB Buildings. The program lays out the criteria for asbestos inspections, reports, abatements, and specific work procedures (i.e. Ceiling Tile Entry, Drilling ACM Plaster, etc.)
- The program is overseen by the LKDSB's Health & Safety Department in conjunction with the Building Services Department.
- All LKDSB Buildings contain asbestos to some extent with the exception of P. E. McGibbon and Sir John Moore.

Asbestos Consultants

- Currently the LKDSB works with three consulting firms that have extensive knowledge in the area of asbestos.

AMEC

EXP.

Golder Associates

- Each LKDSB Building has one of the above consultants assigned to it. The consultant is responsible for assisting the LKDSB with implementing the Asbestos Program at their set of assigned schools. They also work with the LKDSB and our Architectural Consultants whenever renovations & construction are planned for a site.

Asbestos Inspections

Each summer & early fall, the asbestos consultants re-visit their assigned schools to:

- Visually reassess the condition of previously identified asbestos containing materials.
- Identify priority asbestos-containing materials for removal or repair based on observed conditions - Priority One, Two, Three.
- Update the LKDSB's asbestos database software (Hazmat) / Room by Room Sheets and re-issue revised Asbestos Building Product Surveys for each school – also known as Asbestos Assessments. Updated Asbestos Assessments are required to be submitted by the consultants to LKDSB by October 31 of each year.
- A moisture intrusion inspection is also performed during the asbestos re-assessment.

Asbestos Assessment/Building Product Survey Reports

- Each School has its own individual Asbestos Building Product Survey known as the asbestos assessment.
- Two updated hard copies are sent to each school in November of each year.
- Electronic copies can also be found in the School Folders in the Health & Safety Section of the Staff Portal at <https://portal.lkdsb.net/Pages/default.aspx>
- Each school is responsible to ensure that a copy is kept in an area that is accessible to all school staff and any contractors who may enter the building to perform work.
- The Health & Safety Department recommends that a hard copy be kept in the School Office, Staff Room and the Custodial Room.
- Building Services has posted the floor plan, from the Asbestos Assessment, in the custodial room at each school as a quick reference to identify where asbestos is located within that school.

Review of Asbestos Assessment Survey

- School Principals are asked to review the School's Asbestos Assessment with all staff after they receive their updated report in November of each year. This review should include all staff in the building (i.e. teaching, non-teaching, evening staff, etc.) At some schools, the Health & Safety Reps assist with this review. The Health & Safety Department is also available to assist with this review upon request.
- All staff members need to review the Asbestos Assessment for their building prior to touching the fabric of the building. **All staff members need to be knowledgeable as to where the asbestos products are located in their work area.** No alterations are to be made to the fabric of any LKDSB building without consent from Building Services.
- Contractors also need to review the Asbestos Assessment for the building prior to touching the fabric of the building especially if work changes from the original work order. Building Services typically reviews work areas for asbestos issues as per Admin Procedure A-BU-526-09 – Work Requests and Work Orders prior to contracting for work.
- When in doubt as to whether a material contains asbestos, contact your Principal/Supervisor and/or the Health & Safety Department.

Asbestos Assessment - Structure

Asbestos Assessments may look a little different depending on which consultant prepared the report, but they all contain the same basic information, in a format similar to the following:

- Introduction
- Survey/Methodology
- Findings / Results
- Recommendations
- Figures / Drawings (School Map)
- Hazmat Tracker Database also known as Room by Room Sheets
- Laboratory Results

Asbestos Assessment – Introduction

The introduction section contains the following information:

Scope of Work

Background Information on Asbestos

Purpose of the Report

There is no information in this section about the individual school or any information about the types of asbestos present.

Asbestos Assessment – Methodology / Assessment Criteria

This section of the report describes:

What was done

How it was done

Criteria used to assess the condition

Action Codes / Ratings – Priority 1, 2 or 3 / Accessibility

Limitation of survey

There is no information in this section about the individual school or any information about the types of asbestos present.

Asbestos Assessment – Findings and Results

This is the first section of the report that provides information on what is present at an individual school. It will be broken down by the types of building finishes present in a format which is similar to the following:

- Sprayed Fireproofing
- Textured Finishes
- Mechanical Insulation
- Ceiling Tiles
- Drywall & Plaster
- Flooring
- Cement Product
- Miscellaneous

Some reports, depending on the on consultant, may also contain a summary table of all locations of identified asbestos materials in this section of the report.

Asbestos Assessment – Recommendations

- This section of the report will contain any recommendations from the consultants including both specific and general recommendations.
- The specific recommendations will include any identified materials that are damaged and require further actions such as repair or removal. These materials are usually broken down by priority for repair/removal based on degree of damage and accessibility.
- General recommendations are more generic and refer to dealing with certain items during renovations and construction.

Asbestos Assessment - Figures and Drawings

- This is one of the most useful sections of the report as it provides a floor plan of the school and visually provides an indication of where asbestos containing materials have been identified in the building.
- This section also provides the room numbering scheme that is used throughout the report. It is important to follow this numbering scheme when looking up specific room information for the school as each room is given a specific location number, by the hazmat software system, and the location number may **not** be the same as the classroom number.

Asbestos Assessment – Hazmat Database / Room by Room Sheets

- The Hazmat Database is a software system that the LKDSB utilizes to record all asbestos containing sites. It is often referred to as the room by room sheets as it breaks each building down by room.
- These Hazmat / Room by Room sheets, located towards the back of the report, list all potential asbestos containing building materials present in each room and indicate whether they contain asbestos. It will also include the type of asbestos, the amount and rate any asbestos containing materials by accessibility and condition.



Asbestos Assessment – Laboratory Reports, Photographs, Summary

The remaining sections of the report includes copies of all laboratory analytical results for samples of building products collected by the consultant and any photographs taken by the consultant.

Asbestos Assessment – Summary

To determine what is asbestos containing in your school you should refer to the following sections of the survey:

- Finding / Results
- Figures / Drawings (School Map)
- Hazmat Tracker – Room by Room Sheets.

Asbestos Recommendations / Priority One Report & Repairs and Abatements

- In addition to the individual School Asbestos Assessment Reports each consultant provides by October 31 a report which summarizes all their specific recommendations for each of their group of schools into one report. This is often referred to as the Priority One report.
- The Health & Safety Department utilizes this report to work with Building Services to schedule any repairs and removals. All work is scheduled after hours (i.e. weekends, holidays, school shut downs, etc.)
- If a repair or removal is scheduled for your school as a result of this report, the School Principal and Health & Safety Representatives are notified.
- Only qualified asbestos abatement contractors with extensive experience with asbestos are utilized by the Board. Almost all asbestos abatement work is overseen by the asbestos consultant assigned to the location.
- Any clearance reports that are completed by the Consultant are sent to the School Principal, site Health & Safety Representatives, and the Joint Health & Safety Committee. Health & Safety Representatives should ensure that a copy of all clearance reports are posted on the Staff Health & Safety bulletin board for at least 14 days.

Asbestos Management Program – Work Procedures

In addition to inspections and school assessments the Asbestos Management Program also sets the criteria for specific work procedures, for contractors and authorized LKDSB employees, including but not limited to the following:

- Ceiling Tile Entry Procedures
- Drilling ACM Suspect Plaster
- Type 1, 2, and 3 Removals
- Contractor Acknowledgements

Asbestos Management Program – Construction, Renovation and Contractors

- Prior to sending a work order to a contractor, Building Services reviews the work areas for any asbestos issues as per Admin Procedure A-BU-526-09 – Work Requests and Work Orders. If an asbestos issue is identified, it is addressed prior to sending the work order.
- When major projects are planned for a school, the asbestos consultants work with Health & Safety, Building Services and the Architect to ensure any asbestos issues are identified and dealt with. Copies of asbestos assessments are provided to the General Contractor to share with his workers and subcontractors on all large projects.
- Contractors who perform work for the Board are also required to complete the Board's contracted services safety program which includes a section on asbestos. All contractors should have a contractor ID badge and should check into the office if arriving during the school day or with their LKDSB contact if arriving after hours.

LKDSB Asbestos Management Program

Basic Steps

In general the following steps occur each year:

- Step 1 – Consultants complete inspections
- Step 2 – Annual Asbestos Assessments Reports are received by Oct 31 & sent to schools in November
- Step 3 – Reports are reviewed with all Staff
- Step 4 – Health & Safety in conjunction with Building Services review Consultant recommendations and schedules abatements and repairs.

Asbestos Management Program – Summary

In summary the asbestos management program:

- Sets the criteria for monitoring asbestos products in our schools
- Ensures current asbestos assessments are available and accessible to staff and contractors
- Schedules any repairs and abatements and ensures all asbestos building products are safe.
- Includes specific work procedures for staff and contractors
- Ensures the LKDSB is in compliance with Ontario Regulation 278/05 Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations.

Conclusion

- All staff members need to review the Asbestos Assessment for their building prior to touching the fabric of the building. **All staff members need to be knowledgeable as to where the asbestos products are located in their work area.** No alterations are to be made to the fabric of any LKDSB building without consent from Building Services.
- When in doubt as to whether a material contains asbestos, contact your Principal/Supervisor and/or the Health & Safety Department