Asbestos Management Program

Prepared for:
Keewatin Patricia District School Board
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Attention: Kim Carlson, Facilities Manager

Pinchin File: 74740

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TABLE OF CONTENTS

APPENDICES

GLOSSARY

Amended Water	Water with wetting agent added for purpose of reducing surface tension to allow thorough wetting of ACM.
Asbestos-Containing Material(s) (ACM)	A material that contains 0.5% or more asbestos as measured by U.S. Environmental Protection Agency Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials, June, 1993.
Asbestos	Any of the following fibrous silicates: Actinolite; Amosite; Anthophyllite; Chrysotile; Crocidolite; Tremolite.
Asbestos Work Area	Area where work is being performed which will or may disturb ACM including overspray and fallen material or settled dust that may contain asbestos.
Competent Worker	In relation to specific work, means a worker who, • is qualified because of knowledge, training and experience to perform the work • is familiar with the Act and with the provisions of the regulations that apply to the work, and • has knowledge of all potential or actual danger to health or safety in the work.
Encapsulation	The application of a liquid sealant to ACMs; the sealant may penetrate and harden the material (penetrants) or cover the surface with a protective coating (bridging sealants). Also called encasement. This is generally not advisable.
Enclosure	Enclosure of ACM means the construction of solid enclosure (walls, ceiling, bulkhead etc.) around ACM; or An Enclosure means the site isolation including hoarding walls, polyethylene sheeting and seals that isolates an Asbestos Work Area.
Friable Material	Material that: • when dry, can be crumbled, pulverized or powdered by hand pressure; or • is crumbled, pulverized or powdered.
Glove Bag Removal	A method of removing friable insulation from a piping system using a prefabricated bag which isolates the section of insulation being removed. This is a Type 2 Procedure.

HEPA Filter	High Efficiency Particulate Aerosol filter that is at least 99.97 percent efficient in collecting a 0.3 micrometre aerosol.
HEPA Filtered Negative Pressure Unit:	Portable air handling unit which extracts air directly from the Asbestos Work Area and discharges the air to the exterior of the building after passing through a HEPA filter.
JOHSC	Joint Occupational Health and Safety Committee.
MOE	Ontario Ministry of the Environment.
MOL	Ontario Ministry of Labour.
Phase Contrast Microscopy (PCM)	A method which uses an optical microscope to determine airborne fibres, normally in an occupational setting. Particles are observed for shape and size. Results are presented as a number of fibres per cubic centimetre or millilitre of air (f/mL). The method of analysis in Ontario is based on the US National Institute for Occupational Safety and Health (NIOSH) Manual of Analytical Methods, Method 7400, issue 2, Asbestos and Other Fibres by PCM (August 15, 1994).
Transmission Electron Microscopy (TEM)	A method which uses an electron microscope to determine airborne asbestos fibres. Results are presented in fibres per cubic centimetre of air (f/cc). The method of analysis in Ontario is The U.S. National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods, Method 7402, Issue 2: Asbestos by TEM (Aug 15, 1994).
Type 1, 2 and 3 Procedures	Procedures defined under Ontario Ministry of Labour Regulation 278/05. The specific operations and their classification into these procedures are described under the Classification of Work Section.
US EPA	United States Environmental Protection Agency.

1.0 PURPOSE AND SCOPE

The Asbestos Management Program (AMP) provides information and procedures for Asbestos Management in buildings and schools owned by the Keewatin Patricia District School Board (KPDSB). It applies to all categories of property with the exception of vacant lands. The AMP applies to all KPDSB staff, as well as all service providers and contractors performing work in KPDSB facilities.

The AMP outlines the responsibilities of KPDSB staff in their roles as the Owner of buildings containing asbestos-containing materials (ACMs), as occupants of a building with ACM and outlines requirements for KPDSB personnel involved in acquisition of property which may contain ACM.

The AMP is a management system to control disturbance of ACMs during demolition, renovation, alteration, maintenance, repair or other activities.

The AMP incorporates the following elements:

- Asbestos Assessments and Reassessments. These documents are part of the AMP and can be found in the Facilities Manager's Office (Kim Carlson).
- Regulatory Requirements and KPDSB Procedures.
- Roles and Responsibilities.
- Notifications.
- Training Requirements.
- Emergency Reaction and Procedures.
- Work Practices (Type 1, 2 and Glove Bag work).
- Record Keeping.
- Contractor Requirements.

2.0 REGULATORY REQUIREMENTS AND KPDSB PROCEDURES

2.1 Regulatory Requirements

The KPDSB AMP was implemented in response to the following legislation in effect as of January 2013.

- Ontario Regulation 278/05, Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations as amended, made under the Occupational Health and Safety Act, 1980, under the jurisdiction of the Ontario Ministry of Labour.
- http://www.e-laws.gov.on.ca/DBLaws/Regs/English/050278_e.htm
- R.R.O. 1990, Reg. 347, as amended made under the Environmental Protection Act, under the jurisdiction of the Ontario Ministry of the Environment. http://www.e-laws.gov.on.ca/DBLaws/Regs/English/900347_e.htm

- Transportation of Dangerous Goods Act, 1992 (TDGA, 1992), S.C, 1992, c. 34 including Transportation of Dangerous Goods Regulations SOR/85/77 and subsequent amendments.
  http://www.tc.gc.ca/actsregulations/GENERAL/T/tdg/regulations/tdg001/part_1.htm

2.2 KPDSB Procedures Related to Asbestos

KPDSB is committed to ensuring the health and safety of all staff, service providers, and building occupants. All building operations, whether performed by KPDSB staff or service providers, shall be performed in adherence to the requirements outlined in this document and Ontario Regulation 278/05, *Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operation* made under the *Occupational Health and Safety Act* and all other applicable regulations.

KPDSB has established certain procedures which exceed the minimum requirements of O. Reg. 278/05 as follows:

- Due to future management issues and additional costs incurred over the life of the material, KPDSB will not utilize any ACM in new construction or installations.
- When remedial action is undertaken on friable sprayed ACM, KPDSB will generally opt for removal of the ACM. Encapsulation or encasement will not be undertaken unless removal is not practicable in specific locations.
- When remedial action is undertaken on friable mechanical insulation both removal and repair (re-jacketing or encapsulation of mechanical insulation) will be considered depending on the extent of work required.
- Prior to leasing properties, KPDSB will have asbestos assessments performed in buildings constructed prior to 1986.
- Prior to leasing properties, KPDSB requires that the Landlord remove all friable ACM and the following non-friable (ceiling tiles, vinyl tile, etc.) at the Landlord's sole expense prior to leasing property.
- At existing leased properties when ACM is discovered during any improvement, addition, renovation, demolition, maintenance, repair of any kind, or at any other time, the Landlord shall promptly remove the ACM from the Premises or the Building if possible within existing lease agreement.
- No KPDSB staff shall undertake any asbestos operations as defined as Type 3 in O. Reg. 278/05 other than as required by an emergency situation.
- All Type 3 asbestos operations shall be undertaken by an Asbestos Abatement Contractor.
- Type 1 and 2 work may be undertaken by either KPDSB staff (if they have employees with appropriate training on site) or an Asbestos Abatement Contractor.

3.0 BACKGROUND INFORMATION AND HEALTH EFFECTS

Refer to Appendix A for Background Information on Asbestos in Building Materials and Health Hazards.

4.0 SUMMARY OF ASBESTOS AT KPDSB FACILITIES

Surveys prepared for these facilities by Pinchin Environmental Ltd. include:

- Hazardous Building Materials Assessment, Findings Report – Beaver Brae Annex dated July 17, 2012.
- Hazardous Building Materials Assessment, Findings Report – Beaver Brae High School dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Lakewood School dated July 30, 2012.
- Hazardous Building Materials Assessment, Findings Report – Dryden High School dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Keewatin Public School dated July 18, 2012.
- Hazardous Building Materials Assessment, Findings Report – King George VI School dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Evergreen School dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Education Centre dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Pinewood School dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Valleyview School dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Sioux Lookout Access Centre dated August 8, 2012.
- Hazardous Building Materials Assessment, Findings Report – Ear Falls School dated July 18, 2012.
- Hazardous Building Materials Assessment, Findings Report – Ignace School dated July 31, 2012.
- Hazardous Building Materials Assessment, Findings Report – Lillian Berg School dated July 18, 2012.
- Hazardous Building Materials Assessment, Findings Report – Savant Lake dated July 18, 2012.
- Hazardous Building Materials Assessment, Findings Report – Crolancia School dated July 31, 2012.

Hazardous Building Materials Assessment, Findings Report – Sioux Narrows School dated July 31, 2012.

Surveys prepared for these facilities are up to date and current with the sampling criteria outlined in Regulation 278/05.

The following is a brief summary of the materials present in these facilities:

- Vinyl floor tiles (and mastic);
- Vinyl Sheet Flooring;
- Acoustic Ceiling Tiles;
- Parging Cement (Insulation found on pipe elbows and fittings);
- Aircell Pipe Insulation;
- Adhesive glue (for glued on ceiling tile);
- Texture coat;
- Drywall Joint Compound; and
- Vibration dampener textile (found on air handling equipment).

Please refer to the Hazardous Building Materials Assessment, Findings Report(s) referenced above for a complete description.

5.0 ROLES AND RESPONSIBILITIES

The following KPDSB personnel have responsibilities for establishing and maintaining the AMP.

5.1 Personnel involved in Acquisition or Leasing to KPDSB:

Personnel involved in Acquisition or Leasing to KPDSB shall:

1 Prior to leasing or acquiring properties, KPDSB will have asbestos assessments performed in buildings constructed prior to 1986.

2 Prior to leasing properties, KPDSB requires that the Landlord remove all friable ACM at the Landlords sole expense prior to leasing property.

3 Prior to occupying acquired properties, KPDSB will remove ACM in any spaces renovated by KPDSB, or will negotiate to have vendor removed ACM prior to purchase. Preference is asbestos abatement work is done under KPDSB supervision to ensure thoroughness.

5.2 Personnel Leasing to KPDSB Tenants:

Personnel involved in Leasing to KPDSB Tenants shall:

1 Ensure all leases signed by tenants of KPDSB include reference to this AMP and that tenants are to follow the requirements of the AMP.

2 KPDSB will remove accessible ACM that may be disturbed, from spaces to be leased, prior to tenant occupying space and performing renovations.

5.3 Superintendent of Business

1 Ensure the Asbestos Management Program receives the full support of the organization; all levels of management must support the initiative.

2 Ensure that the Asbestos Program Officer (APO) is provided with the necessary resources to fulfil their responsibilities.

5.4 Facilities Manager

The Facilities Manager, as the Asbestos Programs Officer (APO) shall:

1 Responsible for the co-ordination of all asbestos-related work undertaken on the premises.

2 Ensure that an asbestos assessment has been performed for all facilities constructed or occupied prior to 1986. Where such a survey has not been performed in pre-1986 facilities, arrange for a room-by-room survey of the facility. Notify the JOHSC representatives and Principal in the building to ensure that all aspects of committee involvement are complied with.

3 Ensure the asbestos assessment report is available on site.

4 Ensure that an intrusive pre-construction assessment for friable and non-friable ACM is performed prior to any renovation, alteration or demolition. Ensure this information is provided to Constructor in plans, drawings or specifications. Such assessments shall include destructive investigation where necessary.

5 Ensure all departmental supervisors, maintenance and custodial staff are informed of the current location of all known asbestos containing materials and are updated as conditions change or as these materials are removed.

6 Arrange for the reassessment of ACMs at regular intervals and ensure the asbestos assessment report is updated at least annually, or when new information is obtained as ACM is removed or it’s condition changes.

7 Arrange for the remediation of deteriorated ACM reported in the asbestos assessment report or in reassessment reports using the appropriate procedures (Type 1, Type 2 or Type 3 procedures).

8 Ensure all Project Managers, Architects, Engineers and others arranging for or planning work in the Facility are provided with necessary information on ACM and a copy of the

Asbestos Survey or record. Ensure that an intrusive pre-construction assessment for friable and non-friable ACM is performed prior to any renovation, alteration or demolition. Ensure this information is provided to Constructor in plans, drawings or specifications. Such assessments shall include destructive investigation where necessary.

9 Ensure that JOHSC and Principal are informed in advance of projects which will require Type 2 or Type 3 Procedures.

10 Arrange for training for KPDSB staff (refer to Training Section).

11 Provide or arrange for awareness and procedural training on asbestos for all maintenance or custodial workers and supervisory staff whose job as requires them to respond to concerns over the presence of asbestos or planned asbestos work when required.

12 Ensure that procedures are in place in the Facility to respond to emergencies involving asbestos by using KPDSB Personnel or an Asbestos Abatement Contractor.

13 Maintain all documentation required by this program, including but not limited to: Asbestos Management Program, Asbestos Assessment Reports and Reassessments, Notification Letters, Contractor Notification Forms, Asbestos Project Work Records, Training Certificates and Respirator Protection.

14 At the completion of the work, to allow updating of the asbestos assessment report to reflect altered location and condition of ACM, complete the Asbestos Project Work Record in Appendix J for each project during which asbestos is removed that is managed by the Facilities Manager.

15 Inform JOHSC committee of any sampling or testing as they have a right to be present during testing if desired.

16 Engage, through the normal tendering process, an out-side contracting firm who specializes in asbestos abatement work for all Type 3 (Large Scale or High Risk) asbestos removal projects. Ensure adequate information is contained in the Tender Package to satisfy regulatory requirements.

17 Engage, as require, the services of an outside asbestos consulting firm (i.e., Designated Inspection Agency) to assist the APO in providing regular site inspection and air monitoring services during all scheduled asbestos disturbances.

18 Ensure all Type 3 asbestos work in the facility is performed by Consultants and Asbestos Abatement Contractors who specialize in asbestos work and who have appropriate experience, equipment and insurance.

19 Arrange for the inspection and air monitoring of asbestos work in the facility as required by O. Reg. 278/05 and this AMP, when contracted by Facilities Manager.

5.5 Area Supervisor

Area Supervisor who plan, arrange for or oversee work in the facility shall:

1 Assist the APO in co-ordination of asbestos-related work.

2 Provide the APO with the necessary technical support and resources to effectively manage and administrate his/her duties assigned under the AMP.

3 Notify staff and outside contractors or service providers who may work with or may disturb the material in the record of its presence and location (issue Contractor Notification Letter as appropriate – Appendix L).

4 Ensure the APO is kept informed (in advance) of all maintenance, renovation, or construction activities is sufficient time to assess their potential for asbestos disturbance.

5 Responsible for the overall administration and maintenance of the AMP. Based on the results of the pre-construction assessment report, provide or arrange for the provision of appropriate specifications (Type 1, 2 or 3 operations) to Constructor to remove ACM from the work area.

6 Upon unexpected discovery of suspect ACM, or upon an uncontrolled asbestos spill or disturbance, follow the emergency procedures of Appendix C. Ensure all KPDSB personnel that may report an emergency are aware of contact names and numbers.

7 Evaluate the potential for asbestos disturbance in advance of any major maintenance, renovation or construction activities planned for the property. Ensure the appropriate risk classification is assigned to any asbestos removal (Low, Moderate or High) required and that such work is completed safely.

8 Ensure all necessary notification of the Ministry of Labour for Type 1, 2 and 3 Projects have been performed by the contractor prior to start of work and that all necessary forms are posted on site.

9 Evaluate on an annual basis or more frequently as the need may arise, and in consultation with management, the need to hold refresher training for any recently employed workers or to individual workers engaged in active asbestos work on a more regular basis.

10 Respond to any report of asbestos debris, damage or disturbance. Evaluate the condition and provide or initiate the necessary clean-up, removal or repair as appropriate.

11 Ensure all personnel who may work near the location of ACM are aware of its presence and follow the procedures outlined in this AMP.

1 At the completion of the work update the asbestos assessment report to reflect altered location and condition of ACM. Complete Asbestos Project Work Record in Appendix J

for each project during which asbestos is removed or disturbed and submit to Facilities Manager.

5.6 Facility Occupants and JOHSC

1 Ensure all ACMs present throughout the building are maintained

2 Avoid unnecessary contact with or disturbance of ACM.

3 Report any disturbance, damage or deterioration of ACM to the Area Supervisor Facilities Manager.

6.0 ASBESTOS ASSESSMENT AND REASSESSMENT PROCEDURES

6.1 Asbestos Assessments for Management Purposes (Sections 7 and 8 of O. Reg. 278/05)

A description of ACM within these facilities is included in Section 4 and in the Asbestos Building Materials Reports dated July 2012 that are available in the Facilities Manager's Office. If assessments have not been performed for a building (and hence is not in compliance with Regulation 278/05), use the information in this section as a minimum for an asbestos assessment.

All KPDSB Facilities constructed prior to 1986 shall have, on site, an asbestos assessment report that includes friable and non-friable ACM. The survey shall be conducted on a room by room basis and shall indicate the location, condition, friability, accessibility and type of asbestos present in the Facility as outlined below. As the survey will be typically performed for maintenance purposes it will not usually include destructive sampling that may destroy the material or damage the building. Typical materials that will not be part of the assessment include:

- Adhesives;
- Caulking;
- Components or wiring within motor control centers, breakers, motors or lights;
- Concrete levelling compound (for floors);
- Fire resistant metal clad finishes;
- Elevator and lift brakes;
- Exterior cladding;
- Soffit and fascia boards at elevated heights;
- Fire-door cores;
- Insulation on or in high voltage wiring;
- Mechanical packing, ropes and gaskets;
- Moulded plastic components (laboratory bench tops);

- Paper products where inaccessible (e.g. under wood flooring or under metal or slate roofing);
- Refractory materials and insulations in boilers, incinerators and stacks (possibly friable); and
- Roofing, roofing felt and tar.

The survey must include the information gathered on a room-by-room basis together with recommendations for asbestos management, control or removal for each material detected in each location. The location of materials suspected to contain asbestos but shown by analysis to be non-asbestos shall be reported. The original laboratory report of all analyses shall be provided as part of the report. Samples are to be collected at a rate that is in compliance with the requirements of O.Reg. 278/05, which states a minimum number of samples are to be collected and analyzed from each area of homogeneous material for the material to be considered non-asbestos. This frequency is indicated in the table below. A homogeneous sampling area is defined by the US EPA as containing material that is uniform in texture and appearance, was installed at one time and is unlikely to consist of more than one type or formulation of material.

Type of Material	Size of Homogeneous Material	Minimum Number of Bulk Samples
Surfacing material, including without limitation material that is applied to surfaces by spraying, by troweling or otherwise, such as acoustical plaster on ceilings, fireproofing materials on structural members and plaster	Less than 90 square metres	3
	90 or more square metres, but less than 450 square metres	5
	450 or more square metres	7
Thermal insulation, except as described below	Any size	3
Thermal insulation patch	Less than 2 linear metres or 0.5 square metres	1
Other materials	Any size	3

NOTE: That most or all surveys performed prior to November of 2005 are non-compliant with the table above and will require additional sample collection and analysis.

6.2 Bulk Sample Collection Procedures

Bulk samples collected during the initial survey and all samples collected for future testing shall be collected following the procedures provided in Appendix B. Following these procedures, samples can be collected by KPDSB staff, or by an Asbestos Consultant, under the direction of the Facilities Manager.

6.3 Bulk Analysis

Bulk samples will be analysed for asbestos in accordance with O. Reg. 278/05 section 3(1)1. All analyses shall be performed by laboratories accredited in the US National Voluntary Laboratory Accreditation Program (NVLAP) or the American Industrial Hygiene Association (AIHA) asbestos in bulk sample programs.

6.4 Reassessment of ACM and Update of Survey Record

The Facilities Manager will arrange for a regular reassessment of all accessible areas identified by the survey to contain ACM. The reassessment will be performed at least annually if ACM is present. If a specific area is subject to any change of use, frequent maintenance which may disturb the material, or if any report of damaged or deteriorated ACM is brought to the attention of the Facilities Manager, the reassessment of materials in the specific area shall be performed on a more frequent basis. Reassessment shall always be performed of specific materials when damage or deterioration is reported.

The reassessment of ACM will be documented using the HMIS online database.

Facilities Manager

6.5 Distribution of Assessment Record and Reassessment

The Facilities Manager is responsible to maintain a copy of records, assessment reports and Reassessment reports on site. In addition, the Facilities Manager will ensure the following are provided with access (not additional copies) to these reports:

- JOHSC representative.
- Principal and building staff (in premises with ACM).

6.6 Pre-Construction Asbestos Survey (Section 10 of O. Reg. 278/05)

Prior to the commencement of any renovation, construction or demolition project (including buildings built up to 1995, the building or specific areas of the building which are to be affected by the work, shall be assessed for friable and non-friable ACM. The survey must be performed by a specialized asbestos consultant and include destructive or intrusive testing of enclosed areas which will be affected by the work.

Upon completion of the pre-construction survey, if asbestos is present in the area, specifications for removal shall be prepared (Type 1, 2 or 3 as appropriate) and provided to the Constructor in the work specifications.

7.0 NOTIFICATION

7.1 Notification to JOHSC and Principal

Upon completion of the asbestos assessment, the Facilities Manager will inform all JOHSC of the presence of asbestos within the building and provide them with access to portions of the record regarding their premises and common areas. The letter of notification to JOHSC and Principal regarding asbestos (Appendix K) shall be used for this purpose. This notice will be provided to all existing and new JOHSC and Principals as required.

7.2 Notification of Contractors

All contractors and KPDSB employees who perform work at facilities where ACM is present should be notified of the presence of the ACM if their work may bring them into contact or close proximity to the ACM and they may disturb it. This notification may include janitorial, security, telephone, computer cabling suppliers, mechanical maintenance contractors, etc. This notification shall be performed by the Facilities Manager or Area Supervisors.

7.3 Notification of Maintenance Personnel

Upon completion of the asbestos assessment, the Area Supervisor will inform Maintenance Personnel (including Physical Plant Personnel) of the presence of asbestos within the building and ensure they have access to the asbestos assessment report.

7.4 Notification of Asbestos Abatement

Contractors are to:

- Notify orally and in writing, an inspector at the office of the Ontario Ministry of Labour nearest the project site (Notice of Project), as per Regulation 278/05, prior to commencing Type 3 abatement, Glove Bag abatement or any abatement project that exceeds $50,000.00 in cost.
- Notify Sanitary Landfill site as per Ontario MOE Regulation 347 as amended.
- Inform all sub trades of the presence of ACM identified in the contract documents.
- Notify the Facilities Manager if suspect ACM not identified in the contract documents are discovered during the course of the work. The contractor is to notify the MOL and the JOHSC if the friable material is asbestos containing, as required by Regulation 278/05.

The Area Supervisor is to notify the JOHSC of any testing or sampling that is proceeding.

The Facilities Manager is to notify the Area SupervisorFacilities Manager, which in turn, is to notify the JOHSC and the Principal of any abatement work *within their space or that will impact their operations*. This is a procedural requirement, not a regulated requirement.

8.0 TRAINING REQUIREMENTS

KPDSB employees will not undertake asbestos work other than for Type 1 and Type 2 work. Therefore training shall be limited to the following:

- Maintenance personnel and supervisors shall receive training in asbestos including identification of ACM, uses and hazards of asbestos, regulations applying to asbestos work and Type 1 and Type 2 work practices and safety procedures.
- Facilities Managers and Area Supervisors shall receive training in asbestos management and removal and the AMP of sufficient content to allow them to implement the procedures outlined in the AMP and to enable KPDSB to remain in compliance with O. Reg. 278/05.
- JOHSC shall receive (upon request only) Asbestos Awareness Training of approximately one hour duration. Such training may be provided in advance of a project incorporating Type 2 or 3 operations or if concern over asbestos is expressed by employees.

KPDSB requires all service providers, contractors, etc. to provide appropriate training to all workers who perform Type 1, 2 or 3 work in KPDSB Facilities.

9.0 EMERGENCY PROCEDURES AND CONTACTS

9.1 Fallen Debris or Damaged Material

KPDSB staff may encounter fallen material that is suspected to contain asbestos. This may occur in locations where asbestos has been documented or in areas not included in the Assessment due to limited accessibility, etc.

Facility Management shall follow the protocol “Emergency Reaction in the Event of a Suspected Asbestos Spill” (Appendix C).

In the event that Emergency Work must be undertaken, follow the procedures outlined in Appendix D – Work Practices for Emergency Work. All emergency situations shall be reported to the Facilities Manager as soon as possible.

Emergency Contacts:

Help Desk:

Pinchin Environmental Ltd. Emergency Pager	(416) 375-5523
Pinchin Environmental Project Manager, Dale Wiebe, P.Eng.	(807) 468-4110
KPBSD Facilities Manager: Kim Carlson	(807) 468-5571 Ex 260

KPDSB East Area Supervisor: Rick Hill	(807) 223-5311 Ex 274
KPDSB West Area Supervisor: Chris Edie	(807) 468-5571 Ex 231
Abatement Contractor: Strone Restoration	(807) 467-3048
Abatement Contractor: Power Vac Services	(807) 343-2606
Abatement Contractor: Jarnel Contracting	(807) 547-3116
Abatement Contractor: Asbestrol Services	(807) 625-5417

9.2 Disturbance of Previously Unidentified Friable Material

Previously unidentified friable materials may also be uncovered during demolition of finishes, walls etc. during construction. The Facilities Manager shall follow the protocol "Emergency Reaction in the Event of a Suspected Asbestos Spill" (Appendix C).

If the material contains asbestos, the Facilities Manager is to notify the local Ministry of Labour Office of the discovery. This is a regulated requirement.

10.0 ASBESTOS WORK PRACTICES

The following sections briefly describe the standard operating procedures adopted for asbestos-related work. These meet or exceed the requirements of O. Reg. 278/05 and other regulatory requirements in effect on November 1, 2005.

These procedures are provided as a minimum standard for all asbestos work in KPDSB Facilities. No scheduled (non-emergency) Type 3 asbestos work will be undertaken by KPDSB employees.

10.1 Classification of Scheduled Work

The Ministry of Labour Regulation classifies asbestos work into Types 1, 2, and 3 procedures, depending on the type of disturbance, the material being disturbed, and the extent of work. The Ministry of Labour also allows the use of Glove Bags for removal of asbestos-containing pipe insulation as a Type 2 operation.

The following is the classification of work for materials known to exist in KPDSB Facilities.

10.1.1 Type 1 Work

Installing or removing ceiling tiles which are an ACM, if the tiles cover an area less than 7.5 square metres and are installed or removed without being broken, cut, drilled abraded, ground, sanded or vibrated.

Installing or removing non-friable ACM, other than ceiling tiles, if the material is installed or removed without being broken, cut drilled, abraded, ground, sanded or vibrated.

Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable ACM if:

a. The material is wetted to control the spread of dust or fibres; and

b. The work is done only by means of non-powered hand-held tools.

Removing less than one square metre of drywall in which joint-filling compounds that are ACM have been used.

The procedures for Type 1 work are provided in Appendix E.

10.1.2 Type 2 Work

Removing all or part of a false ceiling to obtain access to a work area if ACMs are likely to be lying on the surface of the false ceiling.

The removal or disturbance of one square metre or less of friable ACM during the repair, alteration, maintenance or demolition of all or part of machinery or equipment or a building, aircraft, locomotive, railway car, vehicle or ship.

Enclosing friable ACM.

Applying tape or a sealant or other covering to pipe or boiler insulation that is ACM.

Installing or removing ceiling tiles that are ACM, if the tiles cover an area of 7.5 square metres or more and are installed or removed without being broken, cut, drilled, abraded, ground, sanded or vibrated.

Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable ACM if:

a. The material is not wetted to control the spread of dust or fibres; and

b. The work is done only by means of non-powered hand-held tools.

Removing one square metre or more of drywall in which joint filling compounds that are ACM have been used.

Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable ACM if the work is done by means of power tools that are attached to dust-collecting devices equipped with HEPA filters.

An operation that:

a. Is not classified as a Type 2 operation (above);

b. May expose a worker to asbestos; and

c. is not classified as a Type 1 or Type 3 operation.

The procedures for Type 2 work are provided in Appendix F.

10.1.3 Glove Bag Work

The use of glove bags to remove insulation from a pipe duct or similar structure is classed as Type 2 work but it requires notification of the MOL if more than 1 square metre of ACM is removed.

The procedures for Glove Bag work are provided in Appendix G.

10.1.4 Type 3 Work

The removal or disturbance of more than one square metre of friable ACM during the repair, alteration, maintenance or demolition of all or part of a building, aircraft, ship, locomotive, railway car or vehicle or any machinery or equipment

The spray application of a sealant to friable ACM.

Cleaning or removing air handling equipment, including rigid ducting but not including filters, in a building that has sprayed fireproofing that is ACM.

Repairing, altering or demolishing all or part of a kiln, metallurgical furnace or similar structure that is made in part of refectory materials that are ACMs.

Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable ACM, if the work is done by means of power tools that are not attached to dust collecting devices equipped with HEPA filters

Repairing, altering or demolishing all or part of any building in which asbestos is or was used in the manufacture of products, unless the asbestos was cleaned up and removed before March 16, 1986.

11.0 INSPECTION AND AIR MONITORING OF ASBESTOS WORK

11.1 Visual Inspection

The procedures provided in Appendices E, F, and G are suitable for the performance of most work on non-friable and friable ACM. The Facilities Manager or Area Supervisor or an assigned representative will be responsible for ensuring these procedures are followed. The primary method of ensuring compliance for Type 1, Type 2, Type 3 and Glove Bag use is visual inspection of the site and work practices by a Competent Worker or Asbestos Consultant. The procedures outlined in the Appendices are to be enforced by those supervising the work.

11.2 Air Monitoring During Asbestos Work

O. Reg. 278/05 requires clearance monitoring only for Type 3 projects in buildings that will be occupied subsequent to the asbestos work. In Type 2 and Type 3 projects air monitoring is useful to provide proof of compliance with the specified work practices and, if performed, will be performed as outlined below on KPDSB projects.

Air monitoring and analysis during active asbestos removal will be performed using the NIOSH 7400 method using Phase Contrast Microscopy (PCM). PCM air samples may or may not be analyzed by the consultant performing the sample collection. PCM air samples must be submitted for analysis to a laboratory participating in a recognized quality control program such as the AIHA AAR. Program or the Quality Control Program of the IRSST (Institute de Recherché en Santé et en Sécurité du Travail du Quebec).

The acceptable limit for samples collected outside the asbestos work area will be 0.05 fibres/mL (f/mL). This level has been established as 50% of the current Occupational Exposure Limit (OEL) established by the MOL for industrial exposure to asbestos. In addition, the NIOSH REL (Recommended Exposure Limit), the US OSHA PEL (Permissible Exposure Limit) and the ACGIH TLV (Threshold Limit Values) for asbestos are 0.1 fibres/cc (or mL), including aspect ratio and length requirements. Other Canadian Provinces have similar OELs of 0.1.

Accurate determination of a lower concentration may be affected by the presence of low levels of non-asbestos fibrous dust in office or building environments.

11.3 Type 1 – Inspection and Air Monitoring

11.3.1 Inspection

All Type 1 work completed by KPDSB does not require inspection.

An outside Asbestos Consultant will inspect Type 1 work completed by an outside contractor. Upon completion of an inspection and air monitoring by the Consultant, the Type 1 work area will be dismantled. The Facilities Manager or Area Supervisor or an assigned Competent Worker may inspect for final cleanliness after the enclosure has been dismantled.

11.3.2 Air Monitoring

All Type 1 work completed by KPDSB does not require air monitoring.

PCM air monitoring will be conducted following Type 1 work completed by an outside contractor.

PCM air monitoring will be used for air clearance within Type 1 Asbestos Work Areas. A clearance level of less than 0.05 f/ml must be achieved prior to dismantling the work area.

11.4 Type 2 and Glove Bag – Inspection and Air Monitoring

11.4.1 Inspection

All Type 2 and glove bag work completed by KPDSB does not require inspection.

An outside Asbestos Consultant will inspect Type 2 and Glove Bag work completed by an outside contractor. Upon completion of inspection and air monitoring by the Consultant, the Type 2 enclosure will be dismantled. The Facilities Manager or Area Supervisor or an assigned Competent Worker may inspect for final cleanliness after the enclosure has been dismantled.

11.4.2 Air Monitoring

All Type 2 and glove bag work completed by KPDSB does not require air monitoring.

PCM air monitoring will be conducted following Type 2 and Glove Bag work completed by an outside contractor.

PCM air monitoring will be used for air clearance within Type 2 Asbestos Work Areas. A clearance level of less than 0.05 f/ml must be achieved prior to dismantling the enclosure.

11.5 Type 3 – Inspection and Air Monitoring

11.5.1 Inspection

An outside Asbestos Consultant will inspect Type 3 work. It is KPDSB policy to ensure full time on-site inspection is performed if the area is occupied. In unoccupied areas only daily inspections are required.

11.5.2 Air Monitoring

PCM air monitoring will be conducted on a daily basis during Type 3 work. Air monitoring will be conducted at the perimeter of the Asbestos Work Area (in occupied areas adjacent to the Type 3 Work Area) to ensure no leakage from the enclosure. Air monitoring will be performed within the enclosure to ensure that respirator protection factors are not exceeded.

Clearance air monitoring must be performed within Type 3 Asbestos Work Areas. Clearance levels of 0.01 f/ml must be achieved prior to dismantling the enclosure, as required by O. Reg. 278/05. Only if clearance using PCM is not possible, will the TEM method be utilized.

Once the clearance air testing is satisfactory and within 24 hours after the clearance air testing results are received,

a. A copy of inspection and air monitoring reports generated during abatement work shall be provided to the Facilities Manager.

The owner of the building shall keep a copy of the clearance air testing results for at least one year after receiving them.

12.0 RECORD KEEPING AND DOCUMENTATION OF AMP

The following records are to be kept by the Facilities Manager for all sites with ACM:

- Asbestos Assessment Reports.
- Reassessment Reports.
- Notification Letters.
- Contractor Notification and Acknowledgement Forms.
- Asbestos Project Work Records.
- Inspection reports during abatement from Hazardous Materials Consultants.
- Bulk sample analytical results from any sampling.
- Abatement or emergency response project records.
- Air monitoring reports. Note clearance air monitoring reports must be retained for a minimum of one year.

This AMP is to be re-evaluated each time there is a substantial change to the Asbestos Regulation (O.Reg. 278/05).

13.0 CONTRACTOR REQUIREMENTS

Contractors hired by KPDSB are to meet the following minimum requirements:

- Must maintain a Comprehensive General Liability Policy, provided on an "occurrence" basis, for a minimum of $5,000,000 in coverage.
- Must maintain an Asbestos Liability or Pollution Liability Policy, provided on an "occurrence" basis, for a minimum of $5,000,000 in coverage.
- Must maintain an Automobile or Fleet Policy, and Non-owned Automobile Policy for a minimum of $2,000,000 in coverage.
- Maintain a valid Workplace Safety and Insurance Board Clearance Certificate.
- Workers performing work need to attend a 2 day training course and the supervisors performing work are to have attended a 3 day training course, as of November 1, 2007.
- All workers and supervisors need to be registered asbestos workers through the MTCU.
- All workers are to be fit tested for respirators and trained in respirator care.
- For large projects, the Facilities Manager may wish to ask for references for 5 previous projects of similar scope and cost.

