



**CORPORATE**

**Asbestos Management Program**

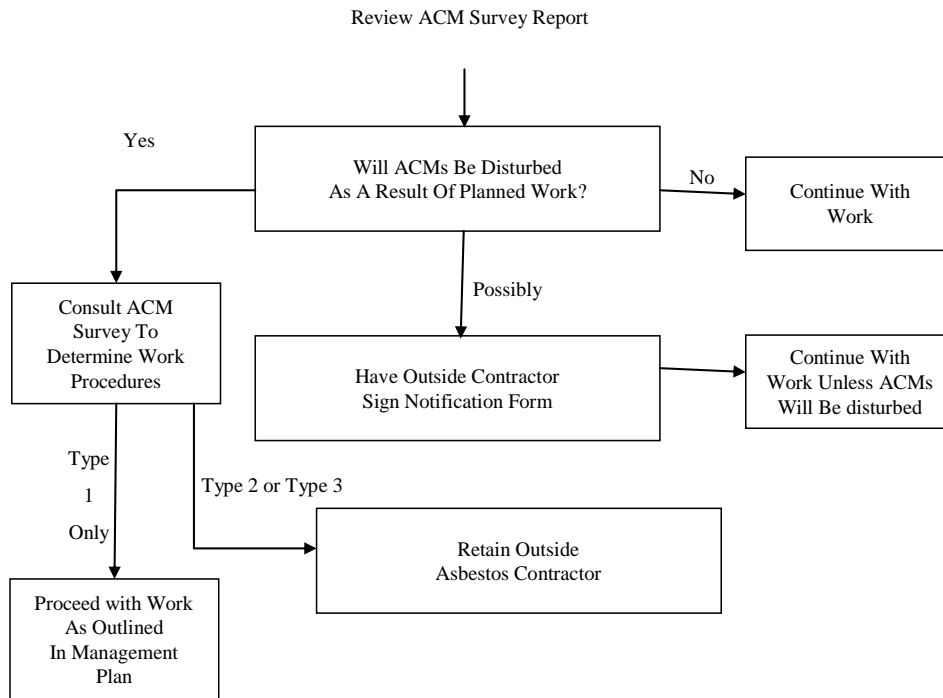
**Homestead Land Holdings**

Prepared for:

Homestead Land Holdings

October 1, 2007

Copyright © 2007 by Pinchin Environmental Ltd.



# ACM – ASBESTOS CONTAINING MATERIAL

## TABLE OF CONTENTS

1.0	Purpose and Scope .....	1
2.0	Regulatory Requirements and Homestead Policies .....	2
3.0	Roles and Responsibilities .....	3
4.0	Asbestos Assessment and Reassessment Policies.....	6
5.0	Notification .....	9
6.0	Training Requirements.....	10
7.0	Emergency Procedures and Contacts.....	11
8.0	Asbestos Work Practices.....	11
9.0	Inspection and Air Monitoring of Asbestos Work.....	14
10.0	Record Keeping and Documentation of Amp .....	16
11.0	Contractor Requirements.....	16
12.0	Janitorial Work.....	17

## APPENDICES

Appendix A	Bulk Sample Collection Procedures
Appendix B	Emergency Reaction in the Event of a Suspected Asbestos Spill
Appendix C	Work Practices – Type 2 Emergency Clean Up
Appendix D	Type 1 Asbestos Work Procedures
Appendix E	Type 2 Asbestos Work Procedures
Appendix F	Glove Bag Work Procedures
Appendix G	Respirator Program
Appendix H	Asbestos Project Work Record
Appendix I	Contractor Notification and Acknowledgement Form

## 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, <ul style="list-style-type: none"> <li>• is qualified because of knowledge, training and experience to perform the work</li> <li>• is familiar with the Act and with the provisions of the regulations that apply to the work, and</li> <li>• has knowledge of all potential or actual danger to health or safety in the work.</li> </ul>
Encapsulation	The application of a liquid sealant to asbestos-containing materials; 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: <ul style="list-style-type: none"> <li>• when dry, can be crumbled, pulverized or powdered by hand pressure or</li> <li>• is crumbled, pulverized or powdered.</li> </ul>
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.
JHSC	Joint 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.

**BM – BUILDING OR APPLICABLE SITE STAFF  
PM – PROPERTY MANAGER  
AM – AREA MANAGER  
COO – CHIEF OPERATING OFFICER  
HSS – HEALTH AND SAFETY SPECIALIST**

## 1.0 PURPOSE AND SCOPE

The Asbestos Management Program (AMP) provides information and procedures for Asbestos Management for properties managed by Homestead Land Holdings Limited in Ontario Canada. It applies to all categories of property with the exception of vacant lands. The AMP applies to all Homestead Land Holdings Limited (Homestead) staff as well as all service providers and contractors performing work in Homestead facilities.

The AMP outlines the responsibilities of Homestead staff in their roles as the Owner and Manager of buildings containing Asbestos-Containing Material (ACM), as tenants of a building with ACM and outlines requirements for Homestead personnel involved in acquisition of property which may contain ACM.

The AMP is a management system to control disturbance of asbestos-containing materials 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 *Building Manager's Office* and the *Homestead Land Holdings Head Office*.
- Regulatory Requirements and Homestead Policies.
- 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 HOMESTEAD POLICIES**

### **2.1 Regulatory Requirements**

The Homestead AMP was implemented in response to the following legislation in effect as of May 2005.

- 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](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](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/acts-regulations/GENERAL/T/tdg/regulations/tdg001/part\\_1.htm](http://www.tc.gc.ca/acts-regulations/GENERAL/T/tdg/regulations/tdg001/part_1.htm)

### **2.2 Homestead Policies Related to Asbestos**

Homestead is committed to ensuring the health and safety of all staff, service providers, and building occupants. All building operations, whether performed by Homestead 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.

Homestead has established certain policies 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, Homestead will not utilize any ACM in new construction or installations.
- When remedial action is undertaken on friable sprayed ACM, Homestead 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.
- Homestead will have asbestos assessments performed in buildings constructed prior to 1986.
- No Homestead staff shall undertake any asbestos operations as defined as Type 2 or 3 in O. Reg. 278/05 other than as required by an emergency situation.
- All Type 2 and 3 asbestos operations shall be undertaken by an approved Asbestos Abatement Contractor.
- Type 1 work may be undertaken by either Homestead staff (if they have employees with appropriate training on site) or an Asbestos Abatement Contractor.

### **3.0 ROLES AND RESPONSIBILITIES**

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

#### **3.1 Personnel involved in Acquisition or Leasing to Homestead:**

Personnel involved in Acquisition or Leasing to Homestead shall:

- Prior to acquiring properties, Homestead will have asbestos assessments performed in buildings constructed prior to 1986 and will adhere to the recommendations of the report.

#### **3.2 Personnel Leasing to Tenants in Buildings Managed by Homestead**

Personnel involved in leasing spaces shall adhere to the Following Procedures:

- Ensure all leases signed by tenants in buildings managed by Homestead include reference to this AMP and that tenants are to follow the requirements of the AMP.
- Consult with the building owner and facilitate the removal of accessible ACM that may be disturbed, from spaces to be leased, prior to tenant occupying space and performing renovations.

### **3.3 Health and Safety Specialist (HSS)**

The HSS shall:

- 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 an applicable survey.
- Ensure the asbestos assessment report is available on site and maintained in the critical information cabinet.
- Arrange for the reassessment of asbestos-containing materials at facilities managed by Homestead 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.
- Upon adoption of this AMP, notify in writing all *existing* tenants in Homestead managed buildings (Management Representatives) of the location of ACM (modify and issue Tenant Notification Letter as appropriate).
- Upon adoption of this AMP, notify in writing all *new* tenants in Homestead managed buildings (Management Representatives) of the location of ACM.
- Arrange for training for Homestead staff (refer to Training Section).
- Maintain the asbestos management program and training requirements/certificates.

### **3.4 Building Manager**

As applies to the property managed by each Building Manager, the Building Manager shall:

- Notify staff and outside contractors or service providers who may work with or may disturb ACM of its presence and location (issue Contractor Notification Letter as appropriate – Appendix I).
- Assist the Property Manager 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).
- Ensure all Project Managers, Architects, Engineers and others arranging for or planning work in the Building are provided with necessary information on ACM and a copy of the Asbestos Survey or record.

- Ensure that procedures are in place in the Building to respond to emergencies involving asbestos by using Homestead Personnel or an Asbestos Abatement Contractor.
- Maintain documentation required by this program, including but not limited to: Asbestos Assessment Reports and Reassessments, Tenant Notification Letters, Contractor Notification Forms, and Asbestos Project Work Records.
- Upon unexpected discovery of suspect ACM, or upon an uncontrolled asbestos spill or disturbance, follow the emergency procedures of Appendix B. Ensure all Homestead personnel that may report an emergency are aware of contact names and numbers.
- Inform JHSC committee of any sampling or testing.

### **3.5 Property Manager**

Property Managers (may also include Building Maintenance Managers) who plan, arrange for or oversee work in the Building shall:

- Notify staff and outside contractors or service providers who may work with or may disturb ACM of its presence(s) and location. (Issue Contractor Notification letter as appropriate – Appendix I)
- Ensure all asbestos work in the Building is performed by Consultants if applicable, and Asbestos Abatement Contractors who specialize in asbestos work and who have appropriate experience, equipment and insurance.
- Arrange for the inspection and air monitoring of asbestos work in the Building as required by O. Reg. 278/05 and this AMP, if applicable.
- Notify the Building Manager of work requiring Type 2 or 3 precautions sufficiently in advance of work.
- 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 the Ministry of Labour Notice of Project Form is posted on site.
- At the completion of the work provide information to the COO to allow updating of the asbestos assessment report to reflect altered location and condition of ACM. Complete Asbestos Project Work Record in Appendix H for each project during which asbestos is removed or disturbed and submit to Building Manager.

### **3.6 Building Occupants, Building Maintenance and Tenant Representatives**

All persons in the Building who may arrange for maintenance or alteration of the Building are to be made aware of the presence of ACM and shall:

- Ensure all personnel who may work near the location of ACM are aware of its presence and follow the procedures outlined in this AMP.
- Avoid unnecessary contact with or disturbance of ACM.
- Report any disturbance, damage or deterioration of ACM to the Building Manager and or Property Manager.

## **4.0 ASBESTOS ASSESSMENT AND REASSESSMENT POLICIES**

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

As per O.Reg 278/05, it is the building owner's responsibility to have assessments for asbestos performed and maintained.

Summary Asbestos Assessment Reports are available in the Building Manager's Office. If assessments have not been completed for a building (and hence are not in compliance with Regulation 278/05), use the information in this section as a minimum for an asbestos assessment.

All Homestead managed properties constructed prior to 1986 shall have, on site and in the Corporate Office, an asbestos assessment report that includes friable and non-friable ACM. The assessment shall indicate the location, condition, friability, accessibility and type of asbestos present in the Building as outlined below. This inclusion of non-friable ACM in the record is not required by regulation until Nov 1, 2007 but will be added as new assessments and re-assessments are performed.

As the assessment 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 an assessment include:

- vermiculite in solid block walls, above solid ceilings and in manufactured wall panels
- elevator and lift brakes
- components or wiring within motors or lights
- high voltage wiring
- mechanical packing, ropes and gaskets

- exterior cladding, soffit and fascia boards on building
- fire-doors
- mechanical gaskets in pipes and equipment
- window caulking
- demountable fire resistant walls
- roofing, roofing felt and building paper
- mastics, adhesives and tar
- refractory materials within incinerators or boilers

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

Type of Material	Size of Homogeneous Material	Minimum Number of Bulk Samples
Thermal insulation patch	Less than 2 linear metres or 0.5 square metres	1
Other materials	Any size	3

NOTE: 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.

#### **4.2 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 A. Following these procedures, samples can be collected by Homestead staff under the direction of the Building Manager or Project Manager, or by an Asbestos Consultant.

#### **4.3 Bulk Analysis**

Bulk samples will be analyzed 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.

#### **4.4 Reassessment of ACM and Update of Survey Record**

The HSS will arrange for a regular reassessment of all accessible areas that contain ACM identified during the assessment. 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 Building 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.

#### **4.5 Distribution of Assessment Record and Reassessment**

The Building Manager and Property Manager are responsible to maintain a copy of records, assessment reports and Reassessment reports on site. A duplicate set will be kept at the Corporate office. In addition, the COO and AM will ensure the following are provided with access (not additional copies) to these reports:

- JHSC where applicable.
- Project Managers or Managers planning or performing work in a Homestead managed building.

#### **5.0 NOTIFICATION**

##### **5.1 Notification to Tenants**

Upon completion of the asbestos assessment, the HSS will inform all Tenant Representatives of the presence of asbestos within their leased space and provide them with access to portions of the record regarding their premises and common areas. This notice will be provided to all new and existing tenants where applicable.

##### **5.2 Notification of Contractors**

All contractors and Homestead 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 Building Manager or Property Manager.

All contractors and Homestead employees who perform work at Homestead facilities, where *asbestos-containing sprayed fireproofing* is present above ceilings, including telephone, computer cabling suppliers, electrical and mechanical contractors, etc., are to be notified that Type 2 Procedures are required for any entry to, or work within the ceiling space (visual inspection excepted, Type 1 Work). This notification shall be performed by the Building Manager or Property Manager.

##### **5.3 Notification of Maintenance Personnel**

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

## **5.4 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 Property 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 JHSC if the friable material is asbestos containing, as required by Regulation 278/05.

The Property Manager is to notify the JHSC of any testing or sampling that is proceeding.

## **6.0 TRAINING REQUIREMENTS**

Homestead employees will not undertake asbestos work other than for Type 1 work or in emergency situations in Type 2 or 3 projects. 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 work practices and safety procedures.
- Building and Project Managers shall receive training in asbestos management and removal and the AMP of sufficient content to allow them to implement the policies outlined in the AMP and to enable Homestead to remain in compliance with O. Reg. 278/05.

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

## **7.0 EMERGENCY PROCEDURES AND CONTACTS**

### **7.1 Fallen Debris or Damaged Material**

Homestead 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.

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

In the event that Emergency Work must be undertaken, follow the procedures outlined in Appendix C – Work Practices for Emergency Work. All emergency situations shall be reported to the Property Manager as soon as possible. Consult your emergency contact list should your Property Manager not be available.

### **7.2 Disturbance of Previously Unidentified Friable Material**

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

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

## **8.0 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 Homestead Facilities. No scheduled (non-emergency) Type 2 or Type 3 asbestos work will be undertaken by Homestead employees.

### **8.1 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.

## 8.2 Type 1 work

Installing or removing ceiling tiles which are an asbestos-containing material, 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 asbestos-containing material, 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 asbestos-containing material if,

- The material is wetted to control the spread of dust or fibres, and
- 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 asbestos-containing material have been used.

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

## 8.3 Type 2 Work

**Homestead Land Holdings Limited personnel are not to conduct or participate in any Type 2 or 3 work.** Type 2 or 3 work is to be contracted to approved contractors only.

Removing all or part of a false ceiling to obtain access to a work area, if asbestos-containing materials are likely to be lying on the surface of the false ceiling.

The removal or disturbance of one square metre or less of friable asbestos-containing material 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 asbestos-containing material.

Applying tape or a sealant or other covering to pipe or boiler insulation that is asbestos-containing material.

Installing or removing ceiling tiles that are asbestos-containing material, 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 asbestos-containing material if,

- The material is not wetted to control the spread of dust or fibres, and
- 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 asbestos-containing material have been used.

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

Cleaning or removing filters used in air handling equipment in a building that has sprayed fireproofing that is asbestos-containing material.

An operation that,

- Is not classified as a Type 2 operation (above)
- May expose a worker to asbestos, and
- is not classified as a Type 1 or Type 3 operation.

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

#### **8.4 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 F.

#### **8.5 Type 3 Work**

The removal or disturbance of more than one square metre of friable asbestos-containing material 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 asbestos-containing material.

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

Repairing, altering or demolishing all or part of a kiln, metallurgical furnace or similar structure that is made in part of refractory materials that are asbestos-containing materials.

Breaking, cutting, drilling, abrading, grinding, sanding or vibrating non-friable asbestos-containing material, 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.

## **9.0 INSPECTION AND AIR MONITORING OF ASBESTOS WORK**

### **9.1 Visual Inspection**

The procedures provided in Appendices D, E, and F are suitable for the performance of most work on non-friable and friable ACM. The Building or Property Manager or an assigned representative will be responsible for ensuring these procedures are followed.

### **9.2 Air Monitoring During Asbestos Work**

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

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.

The acceptable level for Type 3 air clearance monitoring is <0.01 f/mL and is set at this level to comply with O.Reg. 278/05.

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.

### **9.3 Type 1 and 2 – Inspection and Air Monitoring**

- *Inspection*

The Building or Property Manager or an assigned Competent Worker, will inspect Type 1 and 2 work upon completion of work to ensure all ACM has been removed and the area adequately cleaned of dust and debris.

- *Air Monitoring*

Air monitoring is not required during or after Type 1 or Type 2 work.

### **9.4 Type 3 – Inspection and Air Monitoring**

- *Inspection*

An outside Asbestos Consultant will inspect Type 3 work if applicable.

- *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. The air sample will be relied upon to allow clean access to the site for the Teardown Inspection. 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,

- The owner and the employer shall post a copy of the results in a conspicuous place or places,
  - i. At the workplace, and

- ii. If the building contains other workplaces, in a common area of the building; and
- A copy shall be provided to the Joint Occupational Health and Safety Committee or the health and safety representative, if any, for the workplace and for the building.

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

## **10.0 RECORD KEEPING AND DOCUMENTATION OF AMP**

The following records are to be kept by the Building Manager and Corporate office for all sites with ACM:

- Asbestos Assessment Reports.
- Reassessment Reports.
- Tenant 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 by the EHSA each time there is a substantial change to the Asbestos Regulation (O.Reg. 278/05).

## **11.0 CONTRACTOR REQUIREMENTS**

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

- Must maintain a Comprehensive General Liability Policy, provided on an “occurrence” basis, for a minimum of \$2,000,000 in coverage for emergency work, \$5,000,000 for project work.

- Must maintain an Asbestos Liability or Pollution Liability Policy, provided on an “occurrence” basis, for a minimum of \$2,000,000 in coverage for emergency work, \$5,000,000 for project work.
- 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.
- All supervisors and workers performing Type 3 work are to have attended 3 day courses regarding asbestos, as of November 1, 2007.
- All workers are to be fit tested for respirators and trained in respirator care.
- If Homestead is signatory to any of the Labourers Union, Insulators Union or Painters and Allied Trades Unions, union labour must be provided by the contractor.
- For large projects, the Property Manager may wish to ask for references for 5 previous projects of similar scope and cost.

## **12.0 JANITORIAL WORK**

Where exposed asbestos-containing sprayed fireproofing is present, Janitorial Staff are not to clean the area by dry sweeping. Instead, janitorial staff is to use a HEPA vacuum to clean floors. This is not an asbestos procedure, but a precautionary procedure to fully protect Janitorial Staff from unexpected disturbance in the event that debris is present and unseen. Mopping is acceptable.

The Homestead Property Manager is to supply the HEPA vacuum. An approved contractor is to be contracted to empty the contents of the HEPA vacuum using Type 2 Procedures at regular intervals (yearly).

**APPENDIX A**  
**BULK SAMPLE COLLECTION PROCEDURES**

## **BULK SAMPLE COLLECTION PROCEDURES**

### **OBJECTIVES**

To obtain a sample for analysis to determine if asbestos is present within a material.

To determine the type of asbestos and the quantity of asbestos of each type.

Sampling of vermiculite is specifically excluded from these procedures.

### **EQUIPMENT AND SUPPLIES**

- Pen and Sharpie marker.
- Retractable knife (with extra blades).
- Hook knife.
- Flashlight and batteries.
- Screwdriver(s) with multiple bits.
- Small hammer.
- Sample bags.
- Insulation tape or duct tape.
- Spray bottle.
- Wipes for cleaning tools so as to not contaminate subsequent samples.
- NIOSH approved half-face respirator with P100 filters.

### **SAMPLE COLLECTION**

Only those persons needed for sampling should be present in the immediate area.

Where necessary, provide a drop sheet below sample location if debris or dust may be generated by sampling operation (e.g. below a ceiling tile if sprayed fireproofing is above).

Use cleaned/new tools, or clean the tool to be used with a sanitizing wipe prior to sample collection. Wipe or wash again prior to each subsequent sample.

Spray the material with a light mist of water if necessary to prevent fibre release during sampling. Do not disturb the material any more than necessary. Note that using water may delay the receipt of sample results as samples cannot be analyzed if wet.

Each homogeneous material should be sampled separately. A homogeneous sampling area is defined by the USEPA 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. The surveyor is to use information obtained by visual examination, available information on the phases of the construction and information on renovations obtained from the client to determine the extent of each homogeneous area and the number of samples required.

Number of samples required is in Table 1 of O. Reg. 278/05 and is as follows:

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 material	Any size	3

Collect the sample by penetrating the entire depth of the material to the underlying substrate since it may have more than one layer. Examples of materials with more than one layer include plaster, sweatwrap with tar paper, and parging cement over other insulations, etc. The following points are exceptions to this rule.

- When collecting drywall joint compound samples, do not sample the paper on the drywall or the drywall itself. To ensure that the drywall joint compound itself is sampled, collect the sample at previously damaged outside corners or above ceiling where unpainted.

- When sampling texture coat that is applied in a thin layer to drywall, try to ensure that you only collect a sample of the texture coat and not any drywall compound beneath that may skew the sample result. Try to sample at an area that is 1' x 1' away from a corner (and likely away from drywall joint compound), or sample overspray above ceiling. Do not sample too deep, trying only to remove the texture coat itself.
- When collecting samples try to minimize damage to finishes. Sample flooring at door jambs or in corners, sample plaster above ceilings or where damaged, break ceiling tiles off at corners so that the damage cannot be seen when placed back in grid, etc. A piece a big as your thumbnail is all that is required.
- When sampling VAT, try to obtain a sample of the mastic whenever possible. If the survey is for pre-construction, the mastic must be analyzed. Add this note to the transmittal.
- On pipes insulated with fibreglass and sweatwrap, check the lap joints, butt joints, staples, and hangers for asbestos parging cement.

If pieces of material break off and fall during sampling, remove the debris by wet wiping and place wipe in sample bag for disposal.

Scrape directly into, or place sample into a Ziploc bag and seal closure strip. Write the following information on the sample bag:

- Sample Number. Ensure that samples of the same homogenous material are numbered the same number but with a different letter to signify it is a different sample of the same homogeneous material (e.g. 001A, 001B, and 001C for three samples of the same type of ceiling tile).
- Date (year/month/day).
- Collected by.
- Company name.
- Material.
- Location. Include building name, room name, location number, type of system etc.

Temporarily seal any openings created to collect the sample, for example, with metal foil tape or duct tape wrapped completely around pipe insulation where the jacket was cut.

**PERSONAL SAFETY**

The use of a respirator is recommended for all sampling of materials. However, sampling can be performed without a need for one but depends on care used and the friability of the material being sampled.

Wash your hands after sampling, and you must wash your hands prior to eating, drinking or smoking.

**SAMPLE SUBMISSION**

Samples must be analyzed at only NVLAP or AIHA certified laboratories.

Submit samples using separate transmittals if separate reports are to be written (for separate sites/buildings).

**SAMPLE HANDLING AND SHIPPING**

Include the Bulk Sample Transmittal.

Bulk samples do not require special handling (temperature, pressure etc.).

**ANALYSIS**

The analytical method follows the Ontario Ministry of Labour Code for the Determination of Asbestos from Bulk Samples, August 1985 and U.S. EPA Method 600/R-93/116 dated July 1993.

Analysis is to be completed using a stop positive approach. Only one result of greater than 0.5% asbestos content is required to determine that a material is asbestos-containing, but all samples must be analyzed to conclusively determine that a material is non-asbestos (O. Reg. 278/05). The laboratory will stop analyzing samples from a homogeneous material once greater than 0.5% asbestos is detected in any of the samples of that material. All samples are analyzed if no asbestos was detected.

**INTERPRETATION OF BULK SAMPLE RESULTS**

Any material containing more than 0.5% asbestos is considered an asbestos-containing material in Ontario. Although this AMP applies to Ontario properties only, the following are the thresholds for all provinces:

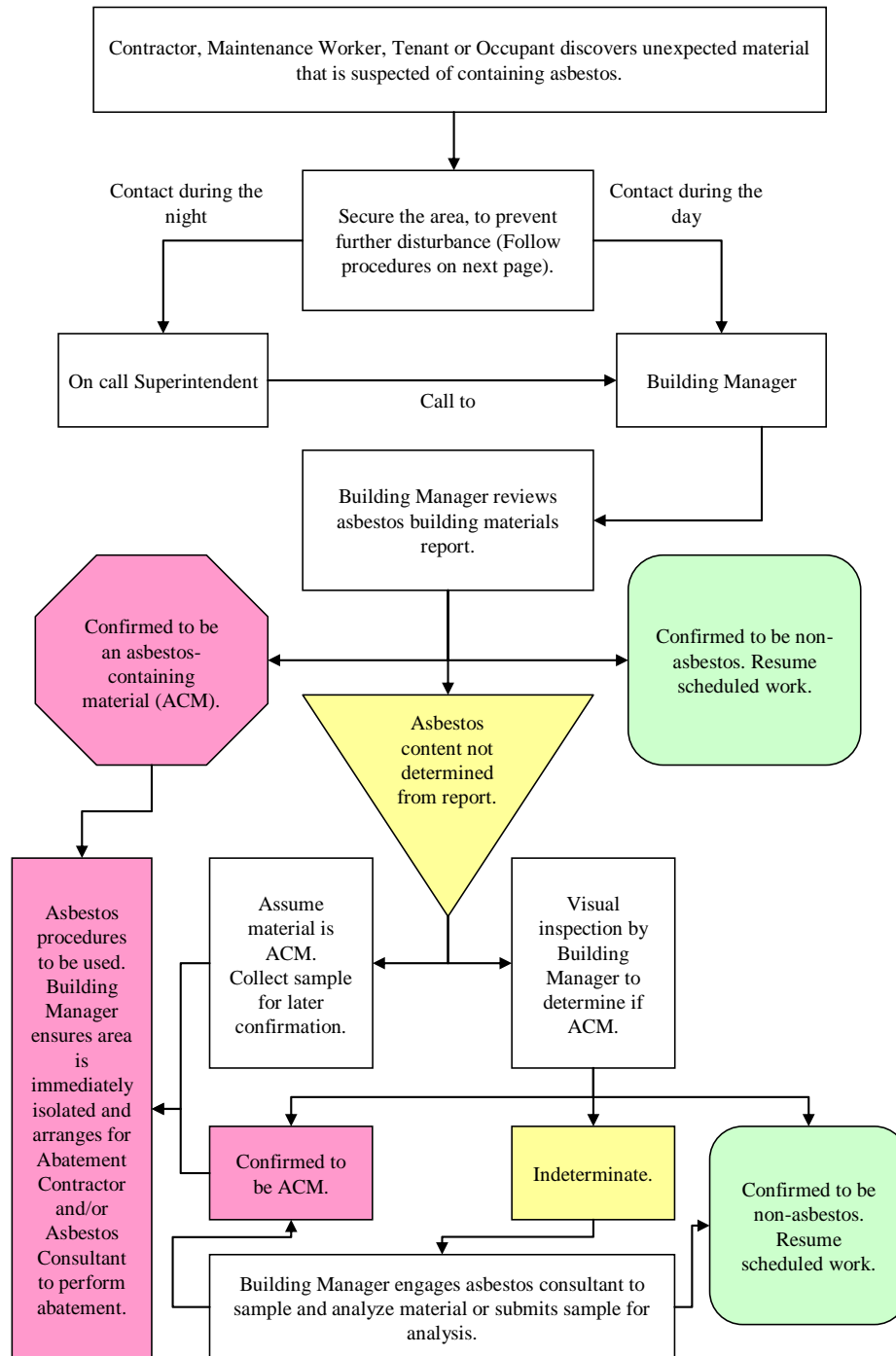
Ontario	0.5%
Quebec	0.1%
Manitoba	0.1% Friable, 1% Non-friable
Saskatchewan	Not Defined
Newfoundland, PEI, Nova Scotia, New Brunswick, Alberta, British Columbia	1%



**APPENDIX B**

**EMERGENCY REACTION IN THE EVENT OF SUSPECTED ASBESTOS SPILL**

**EMERGENCY RESPONSES AND NOTIFICATION IN THE EVENT OF ASBESTOS-SUSPECT MATERIAL DISCOVERED DURING MAINTENANCE OR CONTRACTED WORK OR REPORTED BY OCCUPANT/TENANT**



**EMERGENCY REACTION IN THE EVENT OF SUSPECTED ASBESTOS SPILL**

If asbestos-containing materials or suspect materials have been disturbed improperly, follow these directions:

Do not clean up, cover, move or contact asbestos-containing or suspect material. Cease work in the area and do not resume work that risks disturbing the suspect material. Workers are to leave the area and the Homestead Building Manager and Homestead Property Manager are to be notified immediately.

Isolate the area by locking doors if this can be done without blocking emergency or fire routes.

If it is not possible to safely isolate the area, the Building Manager will notify appropriate persons not to enter the area. If possible, post security to prevent unnecessary access.

The Building Manager will arrange to shut down ventilation systems to the affected area including supply, return and exhaust.

The Building Manager will determine if asbestos is contained in the debris. If material cannot be confirmed asbestos-free by records or appearance, follow procedures below.

The Property Manager will contact an Asbestos Consultant to sample or identify testing of suspect material or to identify the material. The following are cellular phone contact numbers for Pinchin Environmental Ltd. Hazardous Materials Group Staff for various regions:

- Jeff Lainsbury, Operation Manager, Mississauga Office (416) 816-2259
- Jay Inman, Senior Project Manager, Mississauga Office (416) 704-0706
- Rob Wagner, Office Manager, Hamilton Office (905) 520-4388
- John Tufts, Operations Manager, Ottawa Office (613) 355-3725
- David Kendall, Project Manager, Ottawa Office (613) 866-8005
- Mike Harrett, Office Manager, Kingston (613) 484-3370
- Graham Manning, Office Manager, Sarnia/Comber (519) 365-5210
- Pinchin Emergency Pager Number (416) 375-5523

If the material is confirmed or assumed to contain asbestos, the Building Manager and Property Manager are to contract an Asbestos Abatement Contractor to clean-up any contaminated area using Type 2 Emergency Procedures in Appendix of this document.

Enable ventilation systems after air monitoring or clean up of ACM.

**APPENDIX C**

**WORK PRACTICES – EMERGENCY WORK**

## **WORK PRACTICES – TYPE 2 EMERGENCY CLEAN UP**

Emergency asbestos procedures shall be implemented, when required, in order to protect those undertaking the work, as well as to protect all others from, or limit exposure to, airborne asbestos. Procedures indicated shall be followed as closely as possible, in the event of an emergency situation.

Procedures for asbestos work, required as an immediate response to floods through asbestos fireproofing, accidental disturbance of ACM, ceiling collapses at asbestos-containing ceiling tiles, or other emergencies that affect asbestos materials, are as follows:

- Clear area of all occupants. In critical situations clear area of only non-essential personnel only, and provide essential personnel with proper respiratory protection.
- Shut down ventilation systems serving area including supply, return and exhaust.
- Isolate the area by locking doors, if this can be done without blocking emergency or fire routes.
- If it is not possible to safely isolate the area, the Building Manager will notify personnel not to enter the area. If possible, post security to prevent unnecessary access.
- Close access doors to area or construct enclosure around area if time permits. Do not obstruct emergency exits under any circumstances.
- Only trained workers or Abatement Contractors will perform the emergency clean up.
- Entrance to the area will now be limited to those wearing applicable respiratory protection and disposable Tyvek coveralls. Half face NIOSH approved respirators with P100 (HEPA) filters are adequate.
- No eating, smoking or chewing in the Asbestos Work Area.
- Remove all debris within the area of the accidental disturbance of ACM using HEPA vacuums.
- Place polyethylene drop sheets under area of repair.
- Repair ACM pipe insulation, replace ceiling tiles or stabilize ACM as required with minimum disturbance to ACM.

- Remove dust using HEPA vacuums or wet wiping from all surfaces within area of disturbance.
- Dispose of items that cannot be cleaned as asbestos waste.
- Dispose of all cleaning supplies and drop sheets as asbestos waste.
- Remove coveralls and dispose of as asbestos waste.
- Proceed to washroom and wash face and hands.

**APPENDIX D**

**TYPE 1 ASBESTOS WORK PROCEDURES**

## **TYPE 1 ASBESTOS WORK PROCEDURES**

These procedures are to be followed by workers and contractors performing the following work at Homestead managed buildings.

- Installing or removing ceiling tiles which are an asbestos-containing material, 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 asbestos-containing material, 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 asbestos-containing material if,
  - The material is wetted to control the spread of dust or fibres, and
  - 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 asbestos-containing material have been used.

These Type 1 Asbestos Procedures assume the non-friable material can be removed with relatively little loose dry dust released. Generation of debris is permissible as long as the debris can be well wetted before being removed. If the work will release more than a trivial amount of dry loose dust, do not proceed further with work. The Building Manager or an assigned representative will determine which of Type 1, 2 or 3 procedures are appropriate.

### **1 EQUIPMENT**

All equipment must be on site before proceeding.

#### **1.1 HEPA Vacuum**

Use of a vacuum is optional. Wet cleaning methods may be used in place of a HEPA vacuum. If a vacuum is used, it must be equipped with a high efficiency particulate aerosol (HEPA) filter. The vacuum must only be opened to be cleaned or to dislodge blocked objects in an enclosure following Type 2 procedures. The vacuum exterior should be carefully wet cleaned after each use or after each emptying.

#### **1.2 Respirators**

Use of a respirator is optional. However, a respirator is recommended for all Type 1 work. The employer will supply at the workers' request a half face

respirator with P100 (HEPA) filters, with training on use and qualitative fit testing. Respirator must be used according to written use procedures provided to worker as per training procedures. Filters must be changed after 16 hours of wear or sooner if breathing resistance increases as filters become damp. No person using a respirator shall have facial hair that affects the seal between respirator and face.

### **1.3 Protective Clothing**

Disposable protective clothing is optional. The employer will supply at the workers request. Non-disposable clothing with visible asbestos contamination shall be cleaned with a HEPA vacuum and laundered as asbestos contaminated. Disposable clothing and respirator filters are to be disposed of as asbestos waste.

### **1.4 Other Equipment**

The following equipment will also be required to perform the work.

- 6 mil polyethylene to serve as a drop sheet.
- Pump sprayer with misting nozzle or alternative method to wet material.
- Labelled yellow asbestos waste bags (6 mil) - for all asbestos waste, disposable equipment, plastic, etc.
- Small tools and cleaning supplies - e.g. scouring pads, sponges, brushes, buckets, etc.

## **OTHER PROTECTIVE MEASURES**

Do not eat, drink or smoke in the work area.

Upon leaving the work area, proceed to the washroom and wash all exposed skin on hands and face.

## **SCHEDULING OF WORK**

Schedule work when occupants are absent. If persons are present, do not start work.

If work is required on an emergency basis and the area is occupied, the Building Manager or the Property Manager is to advise occupants to vacate area until work is complete and clearance is given to return.

## PREPARATION

Before disturbing non-friable asbestos materials, cover floor (vinyl tile excepted) and surfaces below work with polyethylene sheeting as appropriate to catch debris.

Wherever dust on a surface is likely to be disturbed, pre-clean and remove using a HEPA vacuum or damp cloth.

## 5 EXECUTION

### 5.1 Removal of Vinyl Asbestos Floor Tile

Do not use electric powered scrapers.

Wet material with amended water.

Start removal by wedging a heavy-duty scraper in seam of two adjoining tiles and gradually force edge of one tile up and away from floor. Do not break off pieces of tile, but continue to force balance of tile up.

Continue removal of tiles using hand tools, removing tiles intact wherever possible. When adhesive is spread heavily or is quite hard, it may prove easier to force scraper through tightly adhered areas by striking scraper handle with a hammer using blows of moderate force while maintaining scraper at 25° to 30° angle to floor. When even this technique cannot loosen tile, removal can be simplified by heating tile thoroughly with a hot air gun until heat penetrates through tile and softens the adhesive.

When tiles are removed, place into asbestos waste receptor. Do not break into smaller pieces.

After removal, scrape up adhesive remaining on floor with a hand scraper until only a thin smooth film remains. Where deposits are heavy or difficult to scrape, a hot air gun may be used. Deposit scrapings in the asbestos waste disposal bag. Do not dry scrape surface of adhering pieces of tile. Do not use powered electric scrapers.

On completion of removal, vacuum clean floor with HEPA vacuum or wet mop.

Dispose of the mop head as contaminated waste. Alternatively, store this and other materials that cannot be cleaned in asbestos waste bags until next use (open only inside work area.)

### 5.2 Installing, Cutting, or Drilling Non-Friable Asbestos Materials

Work using power tools or power equipment must not be performed as Type 1 work.

Where possible wet all materials to be disturbed. If wetting is not possible use Type 2 procedures.

Immediately place waste in asbestos waste container. Clean area frequently during work with HEPA vacuum or by wet methods.

At completion of work, clean drop sheets and dispose of as asbestos waste.

### **5.3 Removal of Other Non-Friable Asbestos Materials**

The Type 1 procedures apply only to materials that can be removed intact, or in sections, without producing a pulverized or powdered waste. This method is most applicable to transite and small quantities of lay-in ceiling tiles.

Wet all material to be disturbed with amended water.

Undo fasteners necessary to remove material. Whenever possible remove asbestos cement panels intact. Break only if unavoidable. If broken, wet freshly exposed edges.

Where sections are adhered to the substrate, wet material and use hand scraping to remove adhering material.

Place removed material into asbestos waste receptor. Clean surrounding surfaces and asbestos work area frequently with HEPA vacuum or with wet methods (i.e. damp cloth disposed of as asbestos waste after cleaning).

Drop sheets shall be cleaned and disposed of as asbestos waste.

### **5.4 Waste Transport and Disposal**

Place waste into asbestos labelled disposal bag, seal with tape, clean the exterior of the bag with a clean cloth, and place into a second clean bag, also to be sealed with tape.

Provide storage area for holding minor amounts of asbestos waste in sealed containers. Garbage containers shall be labelled and assigned exclusively for asbestos waste.

When waste is removed from site, collect the completed waste waybills from the disposal firm. For work performed by a contractor, the contractor will complete and provide to the Building Manager copies of a waste manifest. Waste generated by staff will be stored at a secure location until a sufficient amount accumulates for a waste pick-up.

**APPENDIX E**  
**TYPE 2 ASBESTOS WORK PROCEDURES**

## **TYPE 2 WORK PROCEDURES**

These procedures are to be followed by all maintenance personnel and contractors performing the following work at Homestead buildings. Under no circumstances are Type 2 work procedures to be performed by Homestead employees.

- Entry into any ceiling space, wall chase or other area in which friable asbestos-containing debris is present.
- Removal of any part of a false ceiling if asbestos-containing debris is likely to be lying on the surface of the false ceiling.
- Removal of glued-on compressed mineral fibre tiles containing asbestos or removal of more than 7.5 square metres of lay-in tiles of this type at one time.
- Clean up of asbestos-containing debris from mechanical insulations or sprayed fireproofing.
- Enclosure of friable material containing asbestos.
- Repair (such as application of tape or sealant or other covering) of any extent of asbestos mechanical insulation.
- Removal of non-friable materials with hand-tools where the material has not been wetted.
- Removal of more than 1 square metre of drywall to which asbestos-containing compound has been applied.
- Removing asbestos-containing pipe insulation from a pipe, duct or similar structure using a glove bag. (See Appendix G)
- Cleaning or removing filters used in air handling equipment in a building that has asbestos-containing sprayed fireproofing.
- Removal of any extent of asbestos-containing vinyl sheet flooring. Note: If power tools such as grinders are required to remove all paper backing from the substrate, Type 3 procedures must be utilized.
- Removal of minor amounts of friable asbestos-containing materials including texture coat, sprayed fireproofing and mechanical insulation. (Minor removal is defined by most provincial regulations – in Ontario this is limited to wet removal of 7.5 square metres or an equivalent amount of pipe insulation).

## **1 EQUIPMENT**

Equipment required for the work must be on site before proceeding.

### **5.5 HEPA Vacuum**

An asbestos-approved vacuum (HEPA filtered) equipped with brushes, fittings, etc. A vacuum can be opened to empty only by a fully protected worker within a Type 2 enclosure.

### **5.6 Respirators**

Workers within the work area must wear an approved respirator. Respirators and filters will be provided by the employer, and individually assigned to workers. Respirator shall be a half-facepiece respirator with high efficiency (P100) filters, for all classifications of Type 2 work, except as follows: Full face piece air purifying respiratory or powered air purifying respirator with high efficiency (P100 or HEPA filters) shall be used for ceiling access with ACM debris on ceiling or for use of power tools equipped with HEPA filtered dust collector to cut, grind or abrade non-friable ACM. Respirators must be kept in position on the face during the entire time the worker is in the Type 2 Work Area. This is the period from the first removal of the ceiling tile, opening of hatches or the first disturbance of the asbestos material until the final cleaning of the area and the bagging of waste is completed. Change filters after 24 hours of wear or sooner if breathing resistance increases as filters become damp. No person wearing a respirator shall wear facial hair which affects seal between respirator and face.

### **5.7 Protective Clothing**

All workers shall wear disposable Tyvek coveralls (or equivalent) with attached elasticized hood. Coveralls should be worn with the hood in place at all times. Coveralls may be vacuumed or wet wiped clean for re-use, for a maximum of 8 hours cumulative wear. Suit and head cover shall remain in place until worker leaves the Type 2 enclosure or work area. Boot covers are required if wet wiping or HEPA vacuuming cannot effectively clean footwear.

### **5.8 Other Equipment**

Polyethylene (6 mil polyethylene) - to erect a total enclosure or to serve as drop sheet;

Wood framing or clips to support polyethylene sheeting, as appropriate to work area

Duct tape to fasten plastic enclosure to ceiling, walls, or to tape drop sheet to floor; 3/4" double-sided tape recommended for attaching polyethylene to T-bar ceiling

Labelled asbestos waste bag (6 mil) - for all asbestos waste, disposable suit, plastic for disposal, etc.;

Pump sprayer containing water with wetting agent to wet asbestos as necessary; dilute wetting agent 2 oz per gallon of water.

Asbestos warning signs

Cleaning supplies - e.g. scouring pads, sponges, brushes, buckets, etc.

Insulation repair supplies (lagging compound, cloth, PVC covers)

Encapsulating sealer, for brush or airless spray application

## **OTHER PROTECTIVE MEASURES**

Do not eat, drink or smoke in the work area.

On completing clean up of work area, use vacuum or wet cloth to clean hands, face, respirator and boots. Remove protective equipment and proceed to nearest washroom to wash exposed skin on hands and face.

## **SCHEDULING OF WORK**

Schedule work when occupants are absent. If persons are present, do not start work.

If work is required on an emergency basis and the area is occupied, the Building Manager or an assigned representative is to advise occupants to vacate area until work is complete and clearance is given to return.

## **PREPARATION**

Shut down ventilation systems to and from the work area. Seal over all ventilation openings, diffusers, grilles, etc. with plastic and tape.

Where practical, clear areas of movable furnishings or equipment. This should include anything which occupants may wish to use during work period. Any furnishings or equipment not removed shall be adequately covered and sealed using 6-mil polyethylene and tape.

Post signs or barrier tape to indicate asbestos hazard and requirement for protective clothing for anyone entering the space.

Note that a full enclosure is only required for ceiling entry and for removal of friable materials. All other operations may have dust protection appropriate for the work.

For small rooms, cover walls with plastic such that the complete room becomes the work area. For larger rooms, erect enclosure of 6-mil polyethylene of suitable dimensions to enclose the work area. If a suspended ceiling is present, the enclosure shall extend to the ceiling line. The enclosure shall be as airtight as conditions permit including the provision of a double overlapping flap at the entrance. The floor of the work area shall be a layer of minimum 6-mil polyethylene sealed to the plastic walls of the enclosure.

Use a HEPA vacuum or appropriately sized air unit equipped with HEPA filter to induce negative pressure inside work area. Vacuum should be outside the enclosure with hose inserted inside enclosure to extract air from enclosure.

Don protective clothing and respirator prior to disturbing any asbestos-containing materials in Type 2 enclosure.

## EXECUTION

To remove sprayed fireproofing perform the following:

- Erect site isolation and don protective clothing as per Preparation Section 4.0.
- Saturate the ACM with amended water. Scrape wetted ACM directly into waste containers.
- Do not allow ACM to fall to the floor of the enclosure.
- Clean all surfaces from which ACM has been removed with scouring pads, vacuuming or wet-sponging to remove all visible material after completion of removal of ACM.
- Maximum removal is 1 square metre of material.

To provide access into ceiling spaces where sprayed fireproofing or asbestos-containing debris is present perform the following:

- Erect site isolation and don protective clothing as per Preparation Section 4.0.
- Carefully remove one tile or small portion of ceiling and clean top of removed section with HEPA vacuum.

- Vacuum top of remaining ceiling while still in place.
- Do not break tile or allow tiles to drop to floor.
- Perform all work above ceiling inside Type 2 enclosure.

To remove pipe insulation perform the following:

- Erect site isolation and don protective clothing as per Preparation Section 4.0.
- Wet any area of damage, then carefully cut jacket. Keep insulation surface wetted by mist of water with wetting agent.
- Remove insulation in large sections and place immediately in disposal bag.
- After all large pieces have been removed, saturate debris and clean all exposed surfaces with abrasive pads, sponges, cloths, etc.
- Maximum removal is 1 square metre of material.

To repair pipe insulation, perform the following:

- Don protective equipment as per Preparation Section 4.0.
- Use drop sheet under area of work to aid clean up of any dislodged material. Plastic enclosure is not required.
- Mist any exposed insulation to wet surface and apply lagging paint and canvas or PVC jacketing as required.

To remove ceiling tiles and drywall perform the following:

- Erect site isolation and don protective clothing as per Preparation Section 4.0.
- Wet tiles or drywall and remove intact as much as possible and place immediately in disposal bag.
- After all large pieces have been removed, saturate debris and clean all exposed surfaces and support structure with abrasive pads, sponges, cloths, etc.

To remove vinyl asbestos sheet flooring perform the following:

- Remove binding strips or other restrictive mouldings.

- Make series of cuts 100 to 200 mm (4" to 8") apart through top layers and about halfway through felt backing, parallel to wall.
- Pry up corner of a strip at end of room furthest from access to work area. Pull sheet back upon itself slowly and evenly along with any adhering paper backing which remains attached to top layers.
- Roll up strip (finished side out) into tight roll, tape or tie securely, and place into Asbestos Waste Container.
- Remove maximum of three strips before wet scraping residual exposed paper underpad.
- Remove remaining adhered underpad by wet scraping as follows:
  - Soak area with amended water applied by sprayer; scrape off all remaining material; place scrapings in asbestos waste container. Allow floor to dry and clean with HEPA vacuum.
  - Removed asbestos-containing materials should be placed directly into 6 mil polyethylene bags as they are removed. Avoid dropping material to floor wherever possible. After bulk removal is complete, brush clean completely, and wet wash the exposed surface.

Frequently, and at regular intervals during the work, clean up dust and waste in the work area by wet mopping, placing in disposal bags, or by HEPA vacuuming.

After completion of removal, seal exposed ends of mechanical insulation with heavy layer of encapsulating sealer.

Apply post removal sealer and coat surfaces from which asbestos material was removed.

At completion of work, decontaminate equipment, tools and materials used in the work area by wet cleaning or HEPA vacuum.

Dispose of drop sheets and enclosures by wetting the polyethylene, then folding into disposal bags. Do not reuse drop sheets or enclosures.

Before leaving work area, decontaminate shoes and protective clothing by using HEPA vacuum or damp wiping. When protective clothing is to be disposed of, it shall be decontaminated as above and placed in labelled disposal bags. Workers shall vacuum all exposed skin, suit and respirator, and proceed to nearest washroom to wash hands and face.

**WASTE TRANSPORT AND DISPOSAL**

Place waste into asbestos labelled yellow disposal bag, seal with tape, clean the bag, and place into a second clean bag. Seal outer bag with tape.

Provide storage area for holding minor amounts of asbestos waste in sealed containers. Containers shall be labelled and assigned exclusively for asbestos waste.

When waste is removed from site, collect copies of the waste waybills from the disposal firm. For work performed by a contractor, the contractor will complete and provide to the Building Manager copies of a waste manifest. Waste generated by personnel will be stored in a secure location until a sufficient amount accumulates for a waste pick-up.

**APPENDIX F**  
**GLOVE BAG WORK PROCEDURES**

## **GLOVE BAG WORK PROCEDURES**

These procedures are to be followed by contract persons performing the removal of asbestos-containing pipe insulation using glove bag procedures work at Homestead buildings. Under no circumstances are Glove Bag work procedures to be performed by Homestead employees.

NOTE: If more than a minor amount of insulation (more than 1 square metre) is to be removed a notification to the Ministry of Labour will be required.

### **1 EQUIPMENT**

All equipment must be on site before proceeding with the work.

#### **5.9 Single Use Glove Bag**

A pre-fabricated plastic bag with air-tight sleeves and gloves permanently sealed to the bag to allow access to pipe insulation. Bag shall be equipped with valves or openings for vacuum hose and nozzle of water sprayer, a tool pound with a drain, a seamless bottom and a means of sealing off the lower portion of the bag.

#### **5.10 Moveable Glove Bag**

A Glove Bag as defined in 1.1 but equipped with a high strength double throw zipper and removable straps. Required if the bag is to be moved during the removal operation.

#### **5.11 HEPA Vacuum**

An asbestos-approved vacuum (HEPA filtered) equipped with brushes, fittings, etc. A vacuum can be opened to empty only by fully protected worker within a Type 2 enclosure.

#### **5.12 Respirators**

Workers using Glove Bag must wear approved respiratory protection. Respirators and filters must be provided by the employer, and individually assigned to workers. Respiratory protection shall be a half-face piece respirator with high efficiency (P100) filters. Respirators must be kept in position from the time the worker attaches bag to pipe until final cleaning of the pipe and bagging of waste is completed. Filters shall be changed after 24 hours of wear or sooner if breathing resistance increases. No person using respirator shall wear facial hair which affects the seal between respirator and face.

### 5.13 Protective Clothing

Workers shall wear disposable Tyvek coveralls (or equivalent) with attached elasticized hood. Coveralls and hood shall remain in place until worker completes cleaning of pipe. Overalls may be cleaned for re-use, for a maximum of 8 hours cumulative wear or disposed of as asbestos waste.

### 5.14 Other Equipment

Labelled asbestos waste bags (6 mil) - for all asbestos waste in glove bag, disposable suit, cleaning materials, etc.

Asbestos warning signs.

Wire saw - saw with flexible serrated wire blade and handles to allow use inside glove bag.

Knife with fully retractable blade or carpet (hook) knife for use inside glove bag.

Securing Straps - Reusable nylon straps at least 1" wide with metal buckle for sealing ends of Moveable Glove Bag around pipe and/or insulation.

Water Sprayer -Garden reservoir type, low velocity, capable of producing mist or fine spray with water containing wetting agent. Wetting agent shall be diluted 2 oz. per gallon of water.

Plastic sheet (2 mil polyethylene) to cover exposed or damaged sections of pipe prior to attaching glove bag.

Plastic drop sheet (6 mil polyethylene) to protect furnishings, flooring or equipment in the event of a spill.

Sealer or encapsulant suitable for service temperature of pipe applied by brush, cloth or hand sprayer.

Miscellaneous tools and cleaning supplies, wire cutters, snips, scouring pads, sponges, brushes, buckets, tape etc.

## 2 OTHER PROTECTIVE MEASURES

Do not eat, drink or smoke in the work area.

On completing clean up of work area, use HEPA vacuum or wet cloth to clean hands, face, respirator and boots. Remove protective equipment and proceed to nearest washroom to wash all exposed skin on hands and face.

### 3 SCHEDULING OF WORK

Schedule work when occupants are absent. If persons are present, do not start work.

If work is required on an emergency basis and the area is occupied, the Building Manager or an assigned representative is to advise occupants to vacate area until work is complete and clearance is given to return.

### 4 PREPARATION

Where practical, clear area below pipe of moveable furnishing or equipment. Provide scaffold as required to reach pipe.

Install plastic drop sheet over furnishings, flooring or equipment for protection in the event of a spill. Drop sheet shall be sufficient size to capture any material dislodged from the pipe.

Post an asbestos warning sign at all entrances to room in which the procedure is being used. If necessary use rope or tape barriers to separate work area.

Disable ventilation system in area of Glove Bag operation. Seal voids and openings in the proximity of the Glove Bag operation, including ventilation ducts.

Don protective clothing and respirator prior to disturbing any asbestos-containing material by any work.

Pre-clean with HEPA vacuum or wet methods any loose material on surface of pipe or any material on the floor. If asbestos-containing material is on floor, Type 2 procedures may be required for clean up. (See Type 2 Procedures.)

Check condition of pipe insulation where removal will be performed. If the insulation has minor damage, mist surface and patch with tape. If damage is more extensive, wrap pipe with 2 mil plastic and "candy stripe" with duct tape first. If pipe insulation is severely damaged and cannot be simply repaired, glove bag is not appropriate. (Use Type 2 or Type 3 Procedures.)

### 5 EXECUTION

Follow manufacturer's instructions for Glove Bag being used.

Place tools necessary to remove insulation in tool pouch. Fasten bag onto pipe and seal all openings to pipe with cloth securing straps or tape.

Place hands into gloves and use necessary tools to remove insulation. Arrange insulation in bag to obtain full capacity of bag. Do not use glove bag method on

insulation jacketing made of aluminium of thickness greater than 0.51 mm (24 gauge) or steel.

Insert nozzle of spray pump into bag through valve and wash down pipe and interior of bag thoroughly. Use one hand to aid washing process. Wet surface of insulation in lower section of bag and exposed end of asbestos insulation remaining on pipe by spraying with water prior to moving bag.

If Glove Bag is to be moved along pipe, adjust strap tension, move bag and re-seal to pipe using double-pull zipper to pass hangers. Repeat stripping operation.

If Glove Bag is removed from pipe for use on new section of pipe, extract the air from the Glove Bag with a HEPA vacuum and seal interior zip lock. Re-install in new location before opening zip lock.

If Glove Bag is ripped, cut or opened in any way, cease work and repair with tape before continuing work. If damage is not readily repaired, discontinue use of Glove Bag, thoroughly wet contents, extract the air from the Glove Bag with a HEPA Vacuum and place Glove Bag in an asbestos waste container.

To remove bag once filled, wash top section and tools thoroughly. Place tools in 1 hand (glove), pull hand out inverted, twist to create separate pouch, double tape to seal. Cut between tape and place pouch with tools in next glove bag; or into water bucket, open pouch underwater, clean tools and allow to dry.

Extract air from the Glove Bag with a HEPA vacuum and pull asbestos waste container over Glove Bag before removing the pipe. Remove securing straps or tape. Remove Bag from pipe directly into asbestos waste container.

After removal of bag ensure pipe is clean of residue and clean surfaces of pipe or wipe with wet cloth.

Before completion of shift, apply sealer to all surfaces of freshly-exposed pipe. Apply heavy coat of sealer or end cap to exposed ends of asbestos insulation to remain.

Once Glove Bag is filled dispose of as contaminated waste. Do not reuse bag.

Clean work area with HEPA vacuum or by damp wiping.

## **6 WASTE TRANSPORT AND DISPOSAL**

Provide storage area for holding minor amounts of asbestos waste in sealed containers. Containers shall be labelled and assigned exclusively for asbestos waste.

When waste is removed from site, collect the completed waste waybills from the disposal firm. For work performed by a contractor, the contractor will complete

and transfer copies of the waste manifest on behalf of the owner. Waste generated by Maintenance staff will be stored at a secure location until sufficient accumulates for a waste pick-up.

## **7 NOTICE OF PROJECT**

If a contractor or Maintenance staff will use glove bags for major amounts of removal (more than one square meter of pipe insulation measured on the outside diameter of the insulation), they must submit a written **Notice of Project** to the Ministry of Labour as required by Regulation 278/05.

**APPENDIX G**  
**RESPIRATOR PROTECTION PROGRAM**

## 1 RELATED DOCUMENTS

Ontario Occupational Health and Safety Act.

Ontario Asbestos Regulation 278/05 and 279/05.

Ontario Industrial Establishments Regulation (O.Reg.851).

“Selection, Use and Care of Respirators”; CSA Standard Z94.4-02.

National Institute for Occupational Health and Safety (NIOSH), “NIOSH Guide to Industrial Respiratory Protection: Respirator Decision Logic”.

## 2 GENERAL ROLES AND RESPONSIBILITIES

### 2.1 Building Manager

Ensure that this program is implemented and maintained.

Designate a qualified person (i.e. one who has the knowledge, experience and training to fulfill the responsibilities outlined in this program) as the Respiratory Protection Program Administrator (RPPA).

### 2.2 Respiratory Protection Program Administrator

The EHSA shall be designated as the Respiratory Protection Program Administrator (RPPA), and shall provide overall management of this program and be the designated contact to address employee questions.

Provide overall management of this program, and be the designated contact to address employee questions regarding this program.

Obtain a copy of the latest version of the CSA Standard “*Selection, Use and Care of Respirators*”.

Attend 3M Respirator Fit Testing and Training Course, and provide training and fit testing, or hire a Consultant to perform fit testing and respirator training in conjunction with asbestos training.

Obtain and maintain a 3M Bitrex Fit Respirator Fit Testing Kit if performing fit testing in house.

Order and/or issue respirators and filters.

### 2.3 Employees

Use, clean, inspect, maintain and store respirators in accordance with manufacturers guidelines and respirator training instructions.

Report any respirator problems or hazards to Building Manager.

### **3 PROGRAM ELEMENTS**

#### **3.1 Respirator Selection**

Respirators shall not be issued indiscriminately. Respirator selection shall be done in accordance with Regulation 278/05.

Respiratory protection shall be used to protect employees from exposure to asbestos. Although respirator use is optional during Type 1 work, it is Homestead policy that respiratory protection is *mandatory* for all employees performing Type 1 Work,

All respirators shall be NIOSH-approved.

Where practicable, respirators will be assigned to individual employees for their exclusive use. (CSA Standard).

Prior to fit-testing and respirator use, the employee shall ensure that they are free from any psychological or physiological condition that may preclude him or her from being assigned the use of the selected respirator. This can be done by visiting a general practitioner.

#### **3.2 Fit-Testing**

Team Leaders shall ensure that employees required to wear tight-fitting respirators will be fit-tested prior to initial use and every two years thereafter, to ensure that the respirator seals properly. Employees will not be fit-tested if a good seal cannot be obtained. Possible situations that may prevent a good seal include facial hair and physical deformities.

Qualitative fit-testing shall be performed by qualified fit-testers (i.e. those having successfully completed practical training in accordance with CSA Standard) using the BITREX fit-testing method outlined in CSA Standard Z94.4-02. Records of fit-testing shall be maintained by the RPPA.

#### **3.3 Training**

The RPPA shall provide respirator training, or shall arrange training. Employees using respirators on a voluntary or mandatory basis shall be included in the training program.

Individuals to be trained, and the content of the training, shall meet the requirements set out in CSA Standard Z94.4-02.

Training certificates and copies of the training materials shall be maintained by the RPPA. Records shall include a list of the employees trained, a description of

training, and the training date. Training records shall be maintained for at least the duration of employment of the person trained (CSA Standard Z94.4-02).

### **3.4 Respirator Use, Cleaning, Inspection, Maintenance and Storage**

Prior to assigning an employee to a task that requires the use of a respirator, the Team Leader shall ensure that the employee has completed all the health screening, fit-testing and training required by this program.

Facial hair or stubble that interferes with the seal of the respirator to the face reduces the protection offered by the respirator, and voids the NIOSH certification and the manufacturer's warranty. Employees with beards or stubble at the respirator's sealing edge are not permitted to wear respirators requiring a facial seal (whether they are negative pressure or positive pressure respirators). Any employee who is not clean-shaven at the time a respirator is required shall not be allowed to wear a tight-fitting respirator, even though the person has previously obtained a satisfactory fit when clean-shaven (CSA Standard).

Respirators shall be used, cleaned, inspected, maintained and stored by the employees using them, following the instructions provided in the respirator manufacturer's guidelines, and as discussed and demonstrated in the respirator training program.

Respirator wearers shall inspect face pieces and respirator components prior to use on each day of use.

Only the use of non-powered half face respirators are included in this program.

### **3.5 Annual Review**

The program shall be evaluated by the RPPA, in consultation with the Joint Occupational Health and Safety Committee, on an annual basis.

If deficiencies in the program are identified through the Checklist, the RPPA shall be responsible for ensuring that remedial measures are developed, communicated and implemented. A record of the evaluation and any corrective actions will be kept on file by the RPPA.

### **3.6 Respirator Protection Factors and Concentration of Airborne Fibre**

The Occupational Exposure Level (OEL) for airborne fibres that a worker is typically allowed to inhale over an 8 hour period is 0.1 fibres/mL (MOL Reg. 279/05, NIOSH REL, the US OSHA PEL and the ACGIH TLV). Typically, respirator protection factors accepted by the MOL (other provinces and the CSA are different) are as follows:

Non-powered half face	10 RPF
-----------------------	--------

PAPR	50 RPF
Pressure Demand	1,000 to 10,000 RPF

Based on these, the maximum allowable airborne concentration while wearing a respirator would be (Protection factor x OEL of 0.1 f/mL):

Non-powered half face	1 fibre/cc.
PAPR	5 fibres/cc.
Pressure Demand	100 fibres/cc (based on 1000 RPF).

**APPENDIX H**  
**ASBESTOS PROJECT WORK RECORD**

### ASBESTOS PROJECT WORK RECORD

Building: \_\_\_\_\_  
(Building Address or Name)

Date: \_\_\_\_\_  
(Today's Date)

Project Number: \_\_\_\_\_  
(HOMESTEAD Project Number or Purchase Order Number)

Project Type:       Emergency                       Type 1                       Type 2  
                          Planned Project                       Glove Bag                       Type 3

Area of Work: \_\_\_\_\_  
(Room Name, Number, Floor etc.)

Description: \_\_\_\_\_  
(Brief description of abatement, material, system, etc)

Tenant: \_\_\_\_\_  
(Tenant name if any, department or group)

Project Start Date: \_\_\_\_\_  
(Mobilization date)

Project End Date: \_\_\_\_\_  
(After dismantling/clean-up)

Contractor: \_\_\_\_\_  
(Contracting firm or employee)

Telephone: \_\_\_\_\_  
(Contractor or employee telephone)

Consultant: \_\_\_\_\_  
(Name of consulting firm/contact if any)

Telephone: \_\_\_\_\_  
(Consultant telephone)

Pre-Construction Survey for ACM performed and report provided to Contractor?  
 Yes       No (Explain) \_\_\_\_\_

Air Sampling during abatement?

Yes       No

Clearance Air Monitoring performed (Regulated requirement after Type 3 abatement)?

Yes       No

Air Monitoring results to Joint Occupational Health and Safety Committee?

Yes       No

Asbestos Survey Updated to Reflect Changes in ACM Inventory?

Yes       No. No changes to ACM inventory resulted.

No. Forward copies to Consultant prior to next re-assessment.

Asbestos waste removed from site and disposed of?

Yes. Dump tickets attached.       No. ACM waste not generated.

No. ACM waste remains on site for later disposal.

Append the following information relating to asbestos abatement to this work record, if applicable, and file Asbestos Work Record and attachments with Asbestos Management Plan. Check where attached.

Submittals including Insurance       Yes       No

Dump tickets, waybills, etc for waste.       Yes       No

Specifications, Change Orders, Drawings.       Yes       No

Consultant Inspection Reports.       Yes       No

Air Monitoring Results.       Yes       No

Analytical Certificates.       Yes       No

Correspondence as required.       Yes       No

**APPENDIX I**

**CONTRACTOR NOTIFICATION AND ACKNOWLEDGEMENT FORM**

## CONTRACTOR NOTIFICATION AND ACKNOWLEDGEMENT FORM

Homestead has identified the presence of various friable and non-friable asbestos-containing materials in the Building. An asbestos inventory report showing the locations and amounts of these materials is available for viewing from the Building Manager.

Ontario Regulation 278/05 (Designated Substance - Asbestos on Construction Projects and in Buildings and Repair Operations) applies to workers that may disturb asbestos materials. The *removal* of asbestos building materials are only to be undertaken by Asbestos Abatement Contractors that maintain the appropriate insurance coverage and meet the requirements set out in the Asbestos Management Plan AMP.

The following activities may *disturb* asbestos materials. The Building Manager must be notified prior to performing the following:

- Removal or repair of asbestos mechanical insulation or sprayed asbestos.
- Ceiling entry which may disturb sprayed fireproofing.
- Any other operation which may generate airborne asbestos from friable asbestos such as removal of asbestos-containing texture coat.
- Any removal, cutting or other disturbance of non-friable asbestos material.
- Do not disturb any material excluded from the survey and not previously sampled.

### Declaration by Contractor

The Contractor and their sub-contractors shall follow the work procedures as specified by Homestead's Asbestos Management Program (AMP) and shall not disturb ACM without using proper procedures in accordance with Regulation 278/05 and this AMP..

We agree that our staff will not disturb asbestos-containing materials without prior notification to the Building Manager. This firm and our staff will follow all procedures specified by the Homestead Asbestos Management Program and/or O. Reg. 278/05. All asbestos waste will be packaged and disposed of in accordance with Ministry of the Environment requirements.

### Notification of Asbestos Abatement

All contractors and Homestead employees who perform work at facilities where ACM is present will 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 Building Manager or Project Manager.

All contractors and Homestead employees who perform work at Homestead facilities, where *asbestos-containing sprayed fireproofing* is present above ceilings, including telephone, computer cabling suppliers, electrical and mechanical contractors, etc., are to be notified that Type 2 Procedures are required for any entry to, or work within the ceiling space (visual inspection excepted, Type 1 Work). This notification shall be performed by the Building Manager or Project Manager.

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 Project Manager if friable materials not identified in the contract documents are discovered during the course of the work. The contractor is to notify the MOL and the Joint Health and Safety Committee if the friable material is asbestos containing, as required by Regulation 278/05.

Building (Address): \_\_\_\_\_

Project: \_\_\_\_\_

Contractor: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_