

**Gesfor – DEMOLITION OF NINE BUILDINGS LOCATED IN
FORILLON NATIONAL PARK (2019-04-16)**

To:

CONSORTIUM JBCA-STGM

2980 Sainte-Anne Boulevard
Quebec City, Quebec G1E 3J3
Tel.: 418 626-8224, Ext. 275

Represented by:

Ms. Anne Vallières
Architect (OAQ) & Urban Designer (ADUQ)

**DEMOLITION OF NINE BUILDINGS LOCATED IN FORILLON NATIONAL PARK
1501 De Forillon Boulevard, Gaspé, Quebec**

SECTION 02 82 00 — GENERAL CONDITIONS

SECTION 02 82 00.01 — LOW RISK ASBESTOS ABATEMENT

SECTION 02 82 00.03 — HIGH RISK ASBESTOS ABATEMENT

SECTION 02 85 00 — REMOVAL OF MERCURY-CONTAINING EQUIPMENT

SECTION 02 88 00 — WORK IN THE PRESENCE OF CRYSTALLINE SILICA

SECTION 02 84 00 — REMOVAL OF POLYCHLORINATED BIPHENYL-CONTAINING EQUIPMENT

SECTION 02 83 10 — LEAD-BASED PAINT REMOVAL — MINIMUM PRECAUTIONS

By:

LE GROUPE GESFOR POIRIER, PINCHIN INC.

76 Saint-Germain Street West
Rimouski, Quebec G5L 4B5
Tel.: 418 724-4212

Represented by:

Ms. Renée Pérodeau
Project Manager
Rimouski Office Manager

Gesfor Project No. R04-25272

Rimouski, April 16, 2019

© Copyright Le Groupe Gesfor Poirier, Pinchin inc.

This document cannot be reproduced without the written permission from Le Groupe Gesfor Poirier, Pinchin inc.
Any use of this document by a third party becomes automatically the responsibility of this third party.

COPYRIGHT

- This section of specifications was written by Le Groupe Gesfor Poirier, Pinchin inc. for the project related to it and is the property of Le Groupe Gesfor Poirier, Pinchin inc.
- This section of specifications cannot be reproduced without the written consent of Le Groupe Gesfor Poirier, Pinchin inc.
- Any use of this section of specifications by a third party automatically becomes the responsibility of this third party.
- The content of this section of specifications is based on the professional judgement of Le Groupe Gesfor Poirier, Pinchin inc., which is based on the legislation in effect, guidelines, best practice and the requirements of the Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST).
- Certain articles of this section of specifications cite or paraphrase legislation or guidelines.

DEMOLITION OF NINE BUILDINGS LOCATED IN FORILLON NATIONAL PARK 1501 De Forillon Boulevard, Gaspé, Quebec

SECTION 02 82 00 — GENERAL CONDITIONS

SECTION 02 82 00.01 — LOW RISK ASBESTOS ABATEMENT

SECTION 02 82 00.03 — HIGH RISK ASBESTOS ABATEMENT

SECTION 02 85 00 — REMOVAL OF MERCURY-CONTAINING EQUIPMENT

SECTION 02 88 00 — WORK IN THE PRESENCE OF CRYSTALLINE SILICA

SECTION 02 84 00 — REMOVAL OF POLYCHLORINATED BIPHENYL-CONTAINING EQUIPMENT

SECTION 02 83 10 — LEAD-BASED PAINT REMOVAL — MINIMUM PRECAUTIONS

SIGNATURES

Reviewed by:

Renée Pérodeau

Project Manager

Rimouski Office Manager

rperodeau@gesfor.com

Approved by:

Foley-Boisvert, Eng., PMP

Assistant Director

Asbestos and Hazardous Materials

ffoley-boivert@gesfor.com

WORK INVOLVING HAZARDOUS MATERIALS
GENERAL CONDITIONS

TABLE OF CONTENTS

PART 1 – GENERAL	1
1.1 Summary of Work.....	1
1.2 Specific Requirements	5
1.3 Worksite Conditions	7
1.4 Outline of Work	12
1.5 Work Schedule.....	13
1.6 Worker Supervision	13
1.7 Quality Assurance	14
1.8 Definitions.....	15
1.9 Legislation.....	17
1.10 Notification	18
1.11 Submittals	19
1.12 Worker Protection.....	20
1.13 Visitor Protection	21
PART 2 – PRODUCTS AND FACILITIES.....	21
2.1 Equipment and Materials	21
PART 3 – EXECUTION.....	24
3.1 Related Sections.....	24

PART 1 – GENERAL

1.1 SUMMARY OF WORK

1.1.1 In general, the work consists in demolishing nine buildings located at 1501 De Forillon Boulevard in Gaspé, Quebec, taking into consideration the removal or selective demolition of materials or substrates containing asbestos, or materials that will become contaminated during demolition. The work also comprises the removal and management of hazardous materials as described in these specifications.

1.1.2 Specifically, the work consists of the following:

Building 1: Visitor Experience

1° Asbestos:

a) Low Risk Asbestos Abatement Work:

- i. Remove drywall panels used for walls and ceilings on which the joint compound contains asbestos;
- ii. Remove asbestos-containing white-beige sealing joints present beneath the brown sealing joints on exterior windows.

b) High Risk Asbestos Abatement Work:

- i. Remove the asbestos-containing vermiculite located in the building's roof space.

2° Mercury:

a) Remove and dispose of the mercury-containing thermostats, compact fluorescent bulbs, and fluorescent tubes.

3° Crystalline silica:

a) Control any emission of dust containing crystalline silica from materials such as concrete, brick, mortar, granite, sandstone, ceramic, plaster or joint compound, and perform a final cleaning.

- 4° Polychlorinated Biphenyls (PCBs):
- a) Remove and dispose of ballasts in the building that are likely to contain PCBs.
- 5° Lead:
- a) Remove and dispose of accumulators (batteries) containing lead;
 - b) Carry out the demolition work taking into consideration that the paint contains lead.

Building 2: ATCO Building

- 6° Asbestos:
- a) Low Risk Asbestos Abatement Work:
 - i. Remove the asbestos-containing fibre cement panels located on the walls inside the building;
 - ii. Remove the materials covered in asbestos-containing tar located beneath the ceiling metal sheeting.
- 7° Mercury:
- a) Remove and dispose of the mercury-containing compact fluorescent bulbs and fluorescent tubes.
- 8° Crystalline silica:
- a) Control any emission of dust containing crystalline silica from materials such as concrete, brick, mortar, granite, sandstone, ceramic, plaster or joint compound, and perform a final cleaning.
- 9° PCBs:
- a) Remove and dispose of ballasts in the building that are likely to contain PCBs.
- 10° Lead:
- a) Remove and dispose of accumulators (batteries) containing lead;
 - b) Carry out the demolition work taking into consideration that the paint contains lead.

Building 3: Conservation

11° Asbestos:

a) Low Risk Asbestos Abatement Work:

- i. Remove asbestos-containing vinyl floor tiles located beneath the ceramic tiles.

b) High Risk Asbestos Abatement Work:

- i. Remove the asbestos-containing vermiculite located in the perimeter walls behind a sheet metal and wood covering in the Workshop-Garage area.

12° Mercury:

- a) Remove and dispose of the mercury-containing thermostats, compact fluorescent bulbs, and fluorescent tubes.

13° Crystalline silica:

- a) Control any emission of dust containing crystalline silica from materials such as concrete, brick, mortar, granite, sandstone, ceramic, plaster or joint compound, and perform a final cleaning.

14° PCBs:

- a) Remove and dispose of ballasts in the building that are likely to contain PCBs.

15° Lead:

- a) Remove and dispose of accumulators (batteries) containing lead;
- b) Carry out the demolition work taking into consideration that the paint contains lead.

Building 4: Technical Services

16° Asbestos:

a) Low Risk Asbestos Abatement Work

- i. Remove the asbestos-containing vinyl floor tiles located on the ground floor of the building;

- ii. Remove the asbestos-containing fibre cement panels located on the walls inside the building.

b) High Risk Asbestos Abatement Work:

- i. Remove the asbestos-containing roughcast covering the concrete blocks on the outside of the building.

17° Mercury:

- a)* Remove and dispose of the mercury-containing thermostats, compact fluorescent bulbs, and fluorescent tubes.

18° Crystalline silica:

- a)* Control any emission of dust containing crystalline silica from materials such as concrete, brick, mortar, granite, sandstone, ceramic, plaster or joint compound, and perform a final cleaning.

19° PCBs:

- a)* Remove and dispose of ballasts in the building that are likely to contain PCBs.

20° Lead:

- a)* Remove and dispose of accumulators (batteries) containing lead;
- b)* Carry out the demolition work considering that the paint contains lead.

Building 5: Chemical Products

21° Crystalline silica:

- a)* Control any emission of dust containing crystalline silica from materials such as concrete, brick, mortar, granite, sandstone, ceramic, plaster or joint compound, and perform a final cleaning.

Building 6: Trails Building

22° No hazardous materials were identified in this building.

Building 7: Visitor Experience Warehouse

23° No hazardous materials were identified in this building.

Building 8: Oil Warehouse

24° Crystalline silica:

- a) Control any emission of dust containing crystalline silica from materials such as concrete, brick, mortar, granite, sandstone, ceramic, plaster or joint compound, and perform a final cleaning.

25° Lead:

- a) Carry out the demolition work considering that the paint contains lead.

Building 9: Tire Warehouse

26° No hazardous materials were identified in this building.

1.2 SPECIFIC REQUIREMENTS

1.2.1

1.2.2 All sections of these specifications are interrelated and should therefore be read conjointly.

1.2.3 The Contractor must act as the Prime Contractor for the duration of the decontamination and demolition work.

1.2.4 Read these sections of specifications conjointly with the other sections of specifications written by the Professionals.

1.2.5 The purpose of these sections of specifications is to remove and dispose of any materials or substrates that are, or will be, contaminated by asbestos, before or during abatement work, and which cannot be cleaned. This also includes the removal and management of all identified hazardous materials.

1.2.6 The articles under Section 1.3 "SITE CONDITIONS" of this section of specifications identify the location and condition of all asbestos-containing materials (ACMs) and hazardous materials to be disturbed by the work in each of the buildings under this contract.

1.2.7 During asbestos and hazardous materials work, the Contractor is responsible for supplying the equipment and workers necessary to complete the work.

- 1.2.8 All workers who have access to any work area must have received the necessary training, as per the Safety Code for the construction industry.
- 1.2.9 The removal and handling of hazardous materials must be performed by experienced workers using industry methods, procedures, and practices.
- 1.2.10 Before undertaking any work considered to be additional, the Contractor must request that the quantities to be removed or demolished be verified and approved by the Owner or their representative. Any additional work undertaken without prior approval from the Owner or their representative will not be paid for.
- 1.2.11 The quantity or composition of the floor, wall, and ceiling coverings indicated for demolition in the drawings may vary. The Contractor is responsible for verifying the composition of coverings as well as the presence, location, and quantity of asbestos-containing materials and hazardous materials before submitting a bid.
- 1.2.12 The Contractor must ensure that the floors and roofs can support the weight of the equipment to be used for asbestos abatement. In addition, the Contractor must ensure that the floor and ceiling structures of the aboveground floors can safely support the weight of the materials removed and stockpiled inside until final elimination from the building.
- 1.2.13 The use of a waste chute to evacuate asbestos waste requires prior approval from a CNESST inspector;
- 1° The Decontamination Professional reserves the right to refuse the use of a waste chute if they deem it to be improperly installed or maintained throughout the duration of work;
- 2° The waste chute must be impervious and under negative pressure at all times to prevent dust dispersion.
- 1.2.14 On the worksite, the Contractor must provide the services of a General Foreman authorized to supervise all aspects of the work, notably the estimation and negotiation of changes to the contract, the updating of bids and requirements, the planning of the work as well as the manpower and equipment needed, the managing of communications, and the coordination with the Decontamination Professional and the Owner or their representative. In addition, provide a Shift Foreman for all aspects of manpower, equipment and production.

- 1.2.15 The Contractor is responsible for providing proper respirators to workers as specified in the *Guide des appareils de protection respiratoire utilisés au Québec*, published by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST), or any other agency approved by the CNESST.
- 1.2.16 During the asbestos and hazardous materials abatement work, the Contractor must comply with the following requirements:
- 1° For each load of waste leaving the worksite, provide the Owner or their representative with transportation and/or disposal documents containing all the required information as described in the Transportation of Dangerous Goods Act.
- 1.2.17 If applicable, the Contractor must coordinate with the Owner for the shutdown, if possible, and the re-establishment of (Heating, Ventilation and Air Conditioning) HVAC, electrical, and sprinkler systems as required for this type of work.

1.3 WORKSITE CONDITIONS

- 1.3.1 An inventory of paints likely to contain lead is provided in Appendix B. Appendix C contains the photographic survey of the hazardous materials identified at the site.
- 1.3.2 Building 1: Visitor Experience
- 1° The drywall joint compound on the walls and ceilings of the ground floor contains 0.1% to 1% chrysotile asbestos;
- 2° The white-beige sealing joints beneath the brown sealing joints around the exterior windows and doors contain 1% to 5% chrysotile asbestos;
- 3° The vermiculite located in the building's roof space contains asbestos. Since it was impossible to inspect the roof space, the quantity of vermiculite was estimated at a standard thickness of 6 in.;
- a) The asbestos abatement work must be performed from the outside of the building.
- 4° Mercury-containing thermostats, compact fluorescent bulbs, and fluorescent tubes are present throughout the building;

- 5° Materials such as concrete, brick, mortar, ceramic, plaster or joint compound are present in the building. They are considered to contain crystalline silica;
- 6° Light ballasts are present in the building. Due to the age of the building, the ballasts are considered to contain PCBs;
- 7° Emergency lights are present in the building. The accumulators (batteries) on these lights are considered to contain lead;
- 8° Paint present on the inside and outside of the building is considered to contain lead. The paint is generally in good condition.

1.3.3 Building 2: ATCO Building

- 1° The fibre cement panels on the perimeter walls and partitions on the ground floor inside the building contain 50% to 75% chrysotile asbestos;
- 2° The black tar present beneath the ceiling metal sheeting contains 5% to 10% chrysotile asbestos;
- 3° Mercury-containing compact fluorescent bulbs and fluorescent tubes are present throughout the building;
- 4° Materials such as concrete, brick, mortar, ceramic, plaster or joint compound are likely to be present in the building. They are considered to contain crystalline silica;
- 5° Light ballasts are present in the building. Due to the age of the building, the ballasts are considered to contain PCBs;
- 6° Emergency lights are present in the building. The accumulators (batteries) on these lights are considered to contain lead;
- 7° Paint present on the inside and outside of the building is considered to contain lead. The paint is generally in good condition.

1.3.4 Building 3: Conservation

- 1° The vinyl floor tiles located beneath the ceramic tiles on the ground floor contain 1% to 5% chrysotile asbestos;

- 2° The vermiculite present in the perimeter walls behind metal and wood covering in the Workshop-Garage area contains 1% to 5% tremolite asbestos;
- 3° Mercury-containing thermostats, compact fluorescent bulbs, and fluorescent tubes are present throughout the building;
- 4° Materials such as concrete, brick, mortar, ceramic, plaster or joint compound are likely to be present in the building. They are considered to contain crystalline silica;
- 5° Light ballasts are present in the building. Due to the age of the building, the ballasts are considered to contain PCBs;
- 6° Emergency lights are present in the building. The accumulators (batteries) on these lights are considered to contain lead;
- 7° Paint present on the inside and outside of the building is considered to contain lead. The paint is generally in good condition.

1.3.5 Building 4: Technical Services

- 1° The 12 in. x 12 in. vinyl floor tiles with brown stripes located on the ground floor contain 0.1% to 1% chrysotile asbestos;
- 2° The fibre cement panels on the walls of the paint storage room on the ground floor contains 50% to 75% chrysotile asbestos and 1% amosite asbestos;
- 3° Le roughcast on the concrete blocks on the exterior of the building contains 1% to 5% chrysotile asbestos;
- 4° Mercury-containing thermostats, compact fluorescent bulbs, and fluorescent tubes are present throughout the building;
- 5° Materials such as concrete, brick, mortar, ceramic, plaster or joint compound are likely to be present in the building. They are considered to contain crystalline silica;
- 6° Light ballasts are present in the building. Due to the age of the building, the ballasts are considered to contain PCBs;
- 7° Emergency lights are present in the building. The accumulators (batteries) on these lights are considered to contain lead;

- 8° Paint present on the inside and outside of the building are considered to contain lead. The paint is generally in good condition.

1.3.6 Building 5: Chemical Products

- 1° Materials such as concrete and mortar are present in the building. They are considered to contain crystalline silica.

1.3.7 Building 6: Trails Building

- 1° Vermiculite in the ceiling of the building does not contain asbestos;
2° No hazardous materials were identified in this building.

1.3.8 Building 7: Visitor Experience Warehouse

- 1° No hazardous materials were identified in this building.

1.3.9 Building 8: Oil Warehouse

- 1° Materials such as concrete and mortar are present in the building. They are considered to contain crystalline silica;
2° Paint present on the inside and outside of the building is considered to contain lead. The paint is generally in good condition.

1.3.10 Building 9: Tire Warehouse

- a) No hazardous materials were identified in this building.

1.3.11 To consult the list of materials sampled and the percentage and type of asbestos present in the materials characterized within the buildings, refer to the asbestos inventory presented in Appendix A of these specifications titled *Registers of Material Likely to Contain Asbestos*. The characterization report identifies some materials present as free of asbestos, or certain work procedures in the report may differ from the specifications; however, the asbestos abatement work described in these specifications has precedence;

- 1° The quantities listed in the registers are approximate and are provided for information purposes only.

- 1.3.12 The Contractor must assume to be contaminated all porous materials such as cardboard, mineral fibre insulation, mineral wool insulation, acoustic mineral wool located in the fibre cement interior partitions, expandable insulation and fibreglass on pipes, among others, that will be exposed to asbestos fibres during asbestos abatement work. The Contractor is responsible for locating the porous materials on site.
- 1.3.13 Lead-based paint is present on the inside and outside of the buildings. It is the responsibility of the Contractor to take all necessary precautions to protect the health and safety of workers as well as the buildings' occupants with regards to the presence of lead-based paint;
- 1° The Contractor must include all costs related to lead-based paint in their bid price. No additional costs will be accepted for this hazardous material.
- 1.3.14 The ground cover around the buildings is composed of asphalt, grass, and soil.
- 1.3.15 The Contractor must comply with the Safety Code requirements for all types of work, including working at heights on the roofs of the buildings.
- 1.3.16 Not all the buildings have electricity or water. The Contractor is responsible for providing electricity and water. Refer to the documents drafted by the Professionals for more information;
- 1° The Contractor is responsible for providing heating, if required.
- 1.3.17 No electrical systems in the buildings are to be preserved such as communication systems, coaxials, triaxials, public address systems, the public fire system, wiring, ducts, loudspeakers, heat and smoke detectors, alarms, lights, equipment and instruments, including junction boxes and thermostats. The Contractor must decontaminate them and treat them as non-contaminated waste or dispose of them as asbestos waste.
- 1.3.18 Equipment in the work areas must be decontaminated and treated as non-contaminated waste, or be disposed of as asbestos waste. They include the following:
- 1° Lights and lighting fixtures;
- 2° Emergency lights;
- 3° Wall panels;

- 4° Exit indicator panels;
- 5° Switches;
- 6° The air diffuser;
- 7° Glass doors, frames, and partitions;
- 8° Furniture, including the integrated type;
- 9° Plumbing accessories;
- 10° Return air grilles;
- 11° Fire detector (heat and smoke);
- 12° Plates or covers of wall or ceiling outlets;
- 13° Mechanical and electrical appliances;
- 14° Mechanical and electrical equipment and their conduits;
- 15° The ventilation unit;
- 16° Partitions and storage shelves;
- 17° Fans; and
- 18° Any other equipment stored or affixed to the ceilings and walls.

1.3.19 All landings, stairs, emergency equipment as well as exits must be accessible at all times during the work.

1.3.20 The Contractor is responsible for verifying the worksite conditions as well as the presence, location, and quantity of asbestos-containing materials before submitting a bid.

1.4 OUTLINE OF WORK

1.4.1 The Contractor must perform the work in the following sequence: asbestos abatement, hazardous material removal, and building demolition;

- 1° Refer to the drawings and specifications designed by the Professionals for work phasing.

- 1.4.2 Remove all equipment, materials, etc., necessary for the complete execution of the decontamination work.
- 1.4.3 The Contractor is responsible for disposal of all furniture, mechanical and electrical equipment, shelving, and other materials stored in the buildings.
- 1.4.4 Clean all electrical conduit fittings, electrical boxes, and any other equipment present in the work area, and protect them with polyethylene sheeting.
- 1.4.5 Permanently maintain a functional emergency lighting system in place.
- 1.4.6 Treat as asbestos waste all porous materials or materials that were not protected before the start of asbestos abatement work.
- 1.4.7 Identify all asbestos waste containers in compliance with the requirements of the Safety Code for the construction industry.
- 1.4.8 Identify all hazardous waste containers in compliance with applicable legislation.
- 1.4.9 Coordinate with the Owner or their representative to establish a location for the waste bins, if applicable.

1.5 WORK SCHEDULE

- 1.5.1 Execute the decontamination work according to the forecasted schedule in the bid documents.
- 1.5.2 The Contractor must submit any changes to the schedule to the Owner or their representative for approval.

1.6 WORKER SUPERVISION

- 1.6.1 All supervisory personnel must hold a recognized certificate proving attendance at an asbestos abatement training course (one (1) day minimum duration) acceptable to the Decontamination Professional and must have supervised a minimum of five (5) other asbestos abatement projects.

- 1.6.2 The General Foreman must be on the worksite at all times during work that might disturb asbestos or hazardous materials. Failure to comply with this requirement will result in immediate work stoppage at no additional cost to the Owner.
- 1.6.3 Replace supervisory personnel with approved replacements within three (3) working days following written request from the Owner. The Owner reserves the right to request replacement of supervisory personnel without explanation.
- 1.6.4 The Contractor is not permitted to replace supervisory personnel without written approval from the Owner.

1.7 QUALITY ASSURANCE

1.7.1 Contractor Responsibilities

- 1° Must ensure that the work is performed by licensed, experienced and qualified workers using the methods, procedures, and practices employed in the asbestos abatement and decontamination industry in compliance with the requirements of these sections of specifications;
- 2° Must adhere to the work schedule established before work startup;
- 3° Must ensure that all work in these sections of specifications, including electrical, mechanical, plumbing, carpentry and glazing, must be performed by licensed, experienced and qualified tradespeople;
- 4° Must coordinate work between all trades in relation to those for decontamination;
- 5° Is responsible for, among others:
 - a) ensuring compliance of the means, construction methods or techniques, sequences, procedures, practices or precautions and programs related to safety required for the work in accordance with the applicable construction health and safety on worksites regulations or any other legislation on general construction practices;
 - b) their own acts and omissions as well as those of their subcontractors, agents, employees or other persons performing the work that are under their responsibility.
- 6° Must perform the work guaranteeing that no airborne asbestos fibres, asbestos waste, hazardous materials or wastewater ever contaminate the occupied areas that are under their responsibility;

- 7° Must comply with federal, provincial, and local requirements, provided that in any case of conflict among those requirements or with these specifications, the more stringent requirements shall apply;
 - a) Work procedures must be performed in compliance with the legislation in effect at the time the work is being performed.
- 8° Must supply all equipment necessary to effectively perform the decontamination work;
- 9° Must replace any defective, damaged or inadequate equipment.

1.7.2 Decontamination Professional Responsibilities

- 1° Is mandated to monitor the asbestos abatement work so as to ensure compliance with work detailed in these sections of specifications;
 - a) Is not mandated to manage the asbestos abatement work, whether operational or administrative.
- 2° May intervene at any time at the request of the Owner to judge the quality of the work. Has the right to access the worksite and possesses the necessary competencies to address deficiencies, submit recommendations, and order the Contractor to correct their work to attain compliance with the present sections of specifications;
- 3° Cannot, in any case, be held responsible for the Contractor's actions nor assume the Contractor's responsibilities.

1.8 DEFINITIONS

- 1.8.1 Amended Water: Water with non-ionic surfactant added for the purpose of reducing surface tension to allow thorough wetting of ACMs.
- 1.8.2 Asbestos: The fibrous form of mineral silicates belonging to rock-forming minerals of the serpentine group (chrysotile) and the amphibole group (actinolite, amosite, anthophyllite, crocidolite, tremolite) or any mixture containing one or more of those minerals.
- 1.8.3 Asbestos-Containing Material (ACM): Material with an asbestos concentration of at least 0.1%. Material identified under the Worksite Conditions, as well as overspray, debris and settled dust.

- 1.8.4 Authorized Visitor: The Owner or their representative, the Decontamination Professional and individuals representing any regulatory body.
- 1.8.5 Crystalline Silica: A group of minerals composed of silicon and oxygen. Silica occurs in the amorphous state but is most commonly found in its free state known as crystalline silica. The main crystalline varieties of silica are quartz, cristobalite and tridymite. In its natural state, crystalline silica, most notably quartz, occurs in numerous types of rocks (sandstone, granite, sand, etc.).
- 1.8.6 Curtained Door: Closing device allowing the passage between two compartments with a minimum displacement of air. Usually consisting of two (2) overlapping flaps of rip-proof polyethylene.
- 1.8.7 Decontamination Professional: Expert, consultant, engineer, or the representative of this professional, for the monitoring of the asbestos and hazardous materials abatement work.
- 1.8.8 Friable Material: Material that can be crumbled, pulverized or powdered by hand pressure when dry, or that is crumbled, pulverized or powdered.
- 1.8.9 HEPA or P100 Filter: A high-efficiency filter capable of filtering particles of 0.3 µm in size at an efficiency rate of at least 99.97%.
- 1.8.10 Lead-Containing Material: According to the Hazardous Products Regulations, any product containing 0.1% (1,000 mg/kg) or more of lead.
- 1.8.11 Mercury: A bright silvery metal in liquid form under ordinary temperature and pressure. Mercury is mainly used in thermostats, fluorescent lamps (mercury vapour, metal halide, and high-pressure sodium), and accumulators (batteries).
- 1.8.12 Milestone Inspection: Inspection performed at defined steps during the work.
- 1.8.13 Negative Pressure: A reduced pressure in the work area established by extracting air directly from the work area and discharging it outside the work area or to the exterior of building.
- 1.8.14 Occupied Area: Any area of the building outside the work area.
- 1.8.15 Paint Remover: Commercial product used to remove paint from a surface.

- 1.8.16 PCB-Containing Liquid: Liquid with a PCB concentration exceeding 50 ml/kg, or 50 parts per million (ppm).
- 1.8.17 Polyalphaolefin (PAO) Test: A testing method used as a HEPA filter leak test to determine the integrity of the air exhaust units.
- 1.8.18 Polyethylene Sheeting: Impervious or rip-proof plastic material used to provide a continuous membrane so as to protect underlying surfaces from water damage or damage by lock-down agents, and to prevent the escape of asbestos fibres through sheeting into the occupied areas.
- 1.8.19 Professional: Expert, consultant, engineer, architect, or their representatives for the management of the work.
- 1.8.20 Respirable Asbestos Fibre: Asbestos fibre having a diameter of less than 3 µm and ratio of length to diameter of more than 3:1. Only fibres longer than 5 µm are taken into account for measurement purposes.
- 1.8.21 Roof: Includes all of the buildings' roofing systems and penthouses.
- 1.8.22 Tool: Manual equipment or electrical equipment with an adaptor for a HEPA vacuum or equipment with an integrated HEPA vacuum system approved for this type of work.
- 1.8.23 Work Area: Area where work takes place and could disturb ACMs or hazardous materials.

1.9 LEGISLATION

- 1.9.1 Comply with federal, provincial, and local requirements, provided that in any case of conflict among those requirements or with these specifications, the more stringent requirements shall apply. Work procedures must be performed according to the regulations in effect at the time the work is being performed.
- 1.9.2 References:
- 1° Safety Code for the construction industry (CQLR, c. S-2.1, r. 4);
 - 2° CSA-Z94.4-93: *Selection, Use and Care of Respirators*;

- 3° Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST). *Guide des appareils de protection respiratoire utilisés au Québec* (“Respiratory protective devices used in Quebec”);
- 4° Act Respecting Occupational Health and Safety (CQLR, c. S-2.1);
- 5° Transportation of Dangerous Goods Act, 1992 (S.C. 1992, c. 34) and regulations made under this Act;
- 6° Regulation respecting occupational health and safety (CQLR, c S-2.1, r. 13);
- 7° Regulation respecting hazardous materials (CQLR, c. Q-2, r. 32);
- 8° Regulation respecting the landfilling and incineration of residual materials (CQLR, c. Q-2, r. 19);
- 9° Regulation respecting halocarbons (CQRL, c. Q-2, r. 29);
- 10° Regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere (CQLR, c. Q-2, r. 15);
- 11° Regulation respecting the quality of the work environment (CQRL, c. 2-1, r. 11);
- 12° Canadian Environmental Protection Act, 1999 (S.C. 1999, c. 33);
- 13° Workplace Hazardous Materials Information System (WHMIS), Safety Data Sheets (SDS).

1.10 NOTIFICATION

- 1.10.1 The Contractor must notify the CNESST at least 10 days prior to the start of work as per the Safety Code for the construction industry. Provide a copy of the CNESST “Notice of Opening a Construction Site” to the Decontamination Professional.
- 1.10.2 Inform all tradespeople of the presence of asbestos and hazardous materials as defined in Section 1.3 “SITE CONDITIONS” of this section of specifications.

1.11 SUBMITTALS

- 1.11.1 The Contractor must submit the following information in their bid package:
- 1° Proof of training and experience for supervisory personnel (refer to Section 1.6 “” in this section of specifications).
- 1.11.2 At least five (5) days before start of work, the Contractor must submit the following documentation to the Owner for approval:
- 1° A copy of all notifications issued (see Section 1.10 “NOTIFICATION” of this section of specifications);
 - 2° For each worker having access to the work area, a copy of their training certificate for asbestos abatement as per the requirements of the Safety Code for the construction industry;
 - 3° Complete technical data sheets or SDSs of equipment, tools, and products to be used for the work;
 - 4° A document indicating the number of air exhaust units to be used at the worksite to ensure a rate of four air rotations per hour as per the requirements of the Safety Code for the construction industry;
 - 5° The emergency response plan including the location of emergency exits in the work area as well as the emergency exits for the building itself;
 - 6° Approval from the CNESST to use a waste chute;
 - 7° If a platform must be built, drawings approved by the Owner and stamped by a Structural Engineer.
- 1.11.3 During the work, the Contractor must submit the following to the Owner or their representative:
- 1° Any changes made to the scope of work;
 - a) Any work deemed as additional, as per the drawings and specifications designed by the Professionals, must be approved by the Owner or their representative. Quantities must be reviewed with the Owner or their representative.

2° Proof of disposal for asbestos and hazardous waste (quantity, transportation, and waste landfill facility);

3° Inspection reports from the CNESST.

1.11.4 Upon completion of the work, the Contractor must submit to the Owner the certificate confirming that the work was performed in compliance with the requirements of these specifications.

1.12 WORKER PROTECTION

1.12.1 General:

- 1° Provide instruction to workers before allowing entry to the work area or access to hazardous materials. Instruction must include the use of respirators, protective coveralls, entry to and exit from the work area, work procedures, and protective measures;
- 2° Ensure that workers are fully protected at all times when the possibility of disturbance of asbestos or hazardous materials exists;
- 3° Eating, drinking, smoking or chewing gum or tobacco is strictly prohibited, except in clearly marked designated areas outside of the work area.

1.12.2 Respirator:

- 1° Workers must be trained in respirator use before entering any work area;
- 2° Provide appropriate respirators for persons who are required to enter the work area;
- 3° Respirators must meet the standards of the *Guide des appareils de protection respiratoire utilisés au Québec*, published by the IRSST, or any other testing agency acceptable to the CNESST;
- 4° Anyone with a beard, a moustache, glasses, or any other element that may impede the seal between the respirator and the face will be prohibited from entering the work area;
- 5° Check the filters used in compliance with the manufacturer's standards;
 - a) Replace the filters after sixteen (16) hours of use or when they are saturated;

- i. Once used in the work area, filters from half or full-face masks cannot be removed from the area before being either cleaned and sealed, or disposed of as asbestos waste.

1.12.3 Other Personal Protective Equipment:

- 1° Supply the workers with protective coveralls;
- 2° Supply the workers with safety hats, safety shoes, work gloves, safety glasses and any other personal protective equipment required by the Safety Code for the construction industry or by the bid documents;
- 3° Clean reusable personal protective equipment with a HEPA vacuum before leaving the work area.

1.13 VISITOR PROTECTION

- 1.13.1 Provide the following personal protective equipment to authorized visitors at no cost:
 - 1° Protective coveralls;
 - 2° Approved respirators appropriate for the levels of risk;
 - 3° Any other equipment required by the Safety Code for the construction industry or by the bid documents.

PART 2 – PRODUCTS AND FACILITIES

2.1 EQUIPMENT AND MATERIALS

- 2.1.1 The equipment and materials brought to the worksite must be clean and in good condition. It must be free of debris, asbestos dust and fibrous materials. Disposable materials and equipment must be new.

- 2.1.2 Asbestos Warning Sign: Post a warning sign at all entrances to asbestos work areas as per applicable legislation in effect.

ASBESTOS (50 mm)

DANGER (40 mm)

DO NOT BREATHE DUST (15 mm)

PROTECTIVE EQUIPMENT MUST BE WORN (15 mm)

NO ADMITTANCE (15 mm)

INHALING ASBESTOS DUST

MAY BE HARMFUL TO YOUR HEALTH (10 mm)

- 2.1.3 Lead Warning Sign: Post warning signs at all access points to lead work areas. Such signs must read as follows (the size of the lettering is identified in parentheses):

WARNING – RISK OF LEAD EXPOSURE – DANGER (25 mm)

AUTHORIZED PERSONNEL ONLY (19 mm)

PROTECTIVE EQUIPMENT COMPULSORY (19 mm)

INHALING LEAD DUST MAY BE SERIOUSLY HARMFUL TO YOUR HEALTH
(7 mm)

- 2.1.4 Air Exhaust Unit: Portable air handling system that extracts air directly from the work area and discharges it outside the building. It must be equipped with:

- 1° a prefilter and a HEPA filter. Air must pass through the HEPA filter before discharge;
- 2° a differential pressure gauge to monitor filter loading;
- 3° an auto shut-off and warning system for filter failure;
- 4° separate clamps to retain the HEPA filter in place while changing the prefilter.

- 2.1.5 Asbestos Waste Container: An impermeable container for the disposal of worksite waste. Containers must be labelled according to the Safety Code for the construction industry and be comprised of one of the following:

- 1° Two (2) 0.15-mm (6-mil) sealable polyethylene bags, inserted one inside the other;

OR

- 2° One (1) 0.15-mm (6-mil) sealed polyethylene bag, positioned inside a rigid sealed container of sufficient strength (e.g. a metal drum) to prevent perforation during filling, transportation and disposal.

2.1.6 Detergent: Chemical used to clean surfaces (anhydrous tribasic sodium phosphate solution (t.s.p.), mild soap). Provide the Safety Data Sheet for approval by the Decontamination Professional.

2.1.7 Discharge Ducting: 300 mm (12 in.) diameter flexible tube with metal reinforcement.

2.1.8 Ground Fault Panel: Electrical panel equipped as follows:

- 1° Ground fault circuit interrupters of sufficient capacity to power electrical equipment and lights in the work areas;
- 2° Circuit interrupters must have a minimum ground fault protection of 5 mA;
- 3° The panel must be equipped with necessary accessories including main switch disconnect, ground fault interrupter light, test switch to ensure unit is working, and reset switch;
- 4° The panel must be installed by a licensed electrician;
- 5° All the openings of the panel must be sealed to prevent any penetration by dust and humidity.

2.1.9 HEPA Vacuum: Vacuum equipped with a HEPA filter and all the necessary fittings, tools and attachments.

2.1.10 Impervious Polyethylene Sheeting: The polyethylene must have a minimum thickness of 0.15 mm (6 mil) and a standard width (sheet) to minimize joints. Only use new materials.

2.1.11 Lead Waste Container: Container which conforms to federal, provincial and local regulations. Dispose of lead waste in doubled 0.15-mm (6-mil) sealed bags, or in sealed containers. Identify waste containers using appropriate warning labels.

- 2.1.12 Lock-down Agent: Sealant that remains stuck to the surface for at least eight (8) hours, for the purpose of trapping residual dust. Product must have both flame spread and smoke development ratings lower than 50. Product shall leave no stain when dry. Lock-down agent shall be compatible with replacement materials where required. Fiberlock Fiberset PM or approved equivalent products are acceptable.
- 2.1.13 Protective Coveralls: Single-use full-body clothing made of polyolefin, a material that does not permit penetration of fibres, with a hood to protect hair.
- 2.1.14 Rip-Proof Polyethylene Sheeting: The polyethylene is made with a 0.13 mm (5 mil) fabric closely woven between two (2) layers of poly laminate of a minimum thickness of 0.04 mm (1.5 mil) each, in sheets large enough to minimize the number of joints on the worksite.
- 2.1.15 Sprayer: Garden-type, airless, portable manual sprayer, capable of producing a fine spray. The flow rate must be adjusted for the work.
- 2.1.16 Wetting Agent: Non-ionic, non-sudsing surfactant which, when added to water, causes it to penetrate the surface of ACMs. Fiberlock Penewet or approved equivalent products are acceptable.
- 2.1.17 Work Gloves: Single-use nitrile gloves.

PART 3 – EXECUTION

3.1 RELATED SECTIONS

- 3.1.1 Please refer to the following sections of specifications for the execution of work:
- 1° 02 82 00.01 — Low Risk Asbestos Abatement
 - 2° 02 82 00.03 — High Risk Asbestos Abatement
 - 3° 02 85 00 — Removal of Mercury-Containing Equipment
 - 4° 02 88 00 — Work in the Presence of Crystalline Silica
 - 5° 02 84 00 — Removal of Polychlorinated Biphenyl-Containing Equipment
 - 6° 02 83 12 — Lead-Based Paint Removal—Minimum Precautions

END OF SECTION

LOW RISK
ASBESTOS ABATEMENT WORK

SECTION 02 82 00.01

TABLE OF CONTENTS

PART 1 – GENERAL	1
1.1 Summary of Work	1
1.2 Worker Respiratory Protection.....	1
PART 2 – PRODUCTS AND FACILITIES.....	2
2.1 Work Area	2
PART 3 – EXECUTION.....	2
3.1 Worksite Preparation.....	2
3.2 Asbestos Abatement.....	2
3.3 Handling of Debris	3
3.4 End of Work	4

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- 1.1.1 Refer to Section 02 82 00 “GENERAL CONDITIONS,” Section 1.1 “SUMMARY OF WORK” of these specifications for the scope of work for Low Risk asbestos abatement.
- 1.1.2 In general, the work may consist of:
- 1° handling or removal of manufactured articles containing asbestos, provided that they are and will remain in a non-friable state during the work;
 - 2° sawing, cutting, profiling and piercing of manufactured non-friable asbestos-containing materials using manual tools or electric tools equipped with a source dust collector connected to a HEPA vacuum.

1.2 WORKER RESPIRATORY PROTECTION

- 1.2.1 Provide appropriate respirators for persons who are required to enter any of the work areas.
- 1.2.2 Respirators must meet the standards of the *Guide des appareils de protection respiratoire utilisés au Québec*, published by the IRSST, or any other testing agency acceptable to the CNESST;
- 1° Provide and use half-mask non-powered air-purifying respirators with P100 filters.
- 1.2.3 Verify that the filters used meet the standards of the manufacturer and replace them as needed.
- 1.2.4 The Contractor must identify and mark filters for rotation and periodic replacement. Once worn in any of the work areas, the filters cannot be removed without being cleaned or disposed of as asbestos waste.
- 1.2.5 Ensure that no person required to enter a work area has facial hair (beard or moustache) that impedes the seal between the respirator and face.

PART 2 – PRODUCTS AND FACILITIES

2.1 WORK AREA

- 2.1.1 Delimit all work areas using barricade tape marked “Danger.”
- 2.1.2 If the room or complete location serves as a work enclosure, protect all furniture and accessories that may be exposed in any work area with polyethylene sheeting.

PART 3 – EXECUTION

3.1 WORKSITE PREPARATION

- 3.1.1 Pre-clean all surfaces in the work area with a HEPA vacuum or damp cloth.
- 3.1.2 The Contractor is responsible for moving, before the start of work preparation, all stored equipment, tools and materials that can be moved without disturbing the asbestos.
- 3.1.3 Thoroughly clean and treat as non-contaminated waste, or dispose of as asbestos waste, any equipment described in Section 02 82 00 00 “GENERAL CONDITIONS,” Section 1.3 “WORKSITE CONDITIONS” of these specifications, that is present in the work area and cannot be removed without disturbing the asbestos.
- 3.1.4 Protect all equipment, the floor, the ground, shrubs, furniture or other elements in the work area with impervious polyethylene sheeting.
- 3.1.5 Post a sign at every entrance of every asbestos work area as per the Safety Code for the construction industry (see Article 2.1.1 in Section 02 82 00 “GENERAL CONDITIONS”).

3.2 ASBESTOS ABATEMENT

- 3.2.1 Workers must wear the appropriate respirator at all times during the work.
- 3.2.2 The Contractor must execute the work described in Section 1.1 “SUMMARY OF WORK” of this section of specifications as per the requirements in the bid documents;

1° Perform the work using the proper tools.

3.2.3 Carefully perform the work in the required locations. Wet the materials using a sprayer before beginning the work. Conduct the work so as to avoid the dispersion of dust as much as possible.

3.2.4 If power tools that are not equipped with a source dust collector connected to a HEPA vacuum are used, perform the work according to High Risk procedures.

3.3 HANDLING OF DEBRIS

3.3.1 Over the course of and at the end of the work shift, regularly remove all asbestos-containing or asbestos-contaminated debris.

3.3.2 Wet the debris and remove it using a HEPA vacuum or damp cloth.

3.3.3 Place all debris in asbestos waste containers.

3.3.4 Place all debris that can tear 0.15 mm (6 mil) thick polyethylene bags into rigid containers and seal them before disposal.

3.3.5 Identify all asbestos waste containers in compliance with the Safety Code for the construction industry.

3.3.6 Asbestos waste bins must:

1° be collected and dropped off during preapproved hours and without disturbing the operations of surrounding buildings and vehicular traffic;

2° be placed in areas designated by the Owner;

3° be kept covered and closed at all times when stored in proximity to the buildings. These locations must be kept clean at all times.

3.3.7 After each waste transfer, clean the routes taken and the loading areas.

3.3.8 Transport the asbestos waste to an approved landfill facility that accepts such waste materials. Provide the Owner or their representative with the waste dump receipts.

- 3.3.9 For each load leaving the worksite, provide the Owner or their representative with transportation and/or disposal documents containing all the required information as described in the Transportation of Dangerous Goods Act.

3.4 END OF WORK

- 3.4.1 Clean with a HEPA vacuum all the polyethylene sheeting used to protect the equipment, furniture left in place, and all work areas.
- 3.4.2 If the polyethylene sheeting is to be disposed of, wet it and then fold it so as to trap all the settled dust and then place it in asbestos waste containers.
- 3.4.3 As a precautionary measure, clean the surfaces adjacent to the work areas using a damp cloth or HEPA vacuum.
- 3.4.4 Clean all personal protective equipment, notably respirators, coveralls, hats, shoes, glasses and gloves, with a HEPA vacuum.
- 3.4.5 Clean reusable clothing before wearing it again.
- 3.4.6 Clean the respirator in clean, soapy water. Rinse with clear water and dry completely. Store in a clean place. Dispose of filters as asbestos waste.

END OF SECTION

**HIGH RISK
ASBESTOS ABATEMENT WORK**

SECTION 02 82 00.03

TABLE OF CONTENTS

PART 1 – GENERAL.....	1
1.1 Summary of Work.....	1
1.2 Specific Requirements	1
1.3 Outline of Work	2
1.4 Worker Protection.....	3
1.5 Air Sampling.....	5
1.6 Dust Control Methods.....	6
1.7 Worksite Monitoring.....	7
PART 2 – PRODUCTS AND FACILITIES	8
2.1 Hoarding Walls	8
2.2 Workers’ Decontamination Facility.....	9
2.3 Waste and Equipment Decontamination Facility	11
2.4 Construction of Decontamination Facilities	12
2.5 Tunnels (if required)	14
PART 3 – EXECUTION	14
3.1 Worksite Preparation	14
3.2 Maintenance of Enclosures	17
3.3 Asbestos Abatement.....	18
3.4 Handling of Debris.....	20
3.5 Dismantling the Work Area	21

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- 1.1.1 Refer to Section 02 82 00 “GENERAL CONDITIONS,” Section 1.1 “SUMMARY OF WORK” of these specifications for the scope of work for High Risk asbestos abatement.
- 1.1.2 In general, the work consists of operations generating a volume of debris greater than 0.3 m³ (10 ft³).

1.2 SPECIFIC REQUIREMENTS

- 1.2.1 During indoor and outdoor High Risk asbestos work, provide all workers with the proper equipment and training required to conduct the work, in compliance with the Safety Code for the construction industry.
- 1.2.2 Air sampling will be performed inside and outside the work area by an independent firm specialized in this field.
- 1.2.3 Allow for twelve (12) hours following the final inspection of any work area for the rest period, clearance test and analyses.
- 1.2.4 When the work is conducted from outside, the Contractor must comply with all requirements of this section of specifications, taking into consideration the following adaptations:
 - 1° The routes between the work area and the workers’ decontamination facility must be delimited by barricade tape marked “Danger”;
 - 2° Erect hoarding walls or equivalent along the perimeter of the outdoor work area to a height of 6 ft higher than that of the asbestos to be removed;
 - 3° The structure must be sufficiently solid to withstand falling demolition debris and adverse weather conditions.

1.3 OUTLINE OF WORK

1.3.1 Coordinate the following with the Owner or the Decontamination Professional:

- 1° The execution of all electrical and plumbing work by qualified tradespeople;
- 2° The location of the asbestos waste bins.

1.3.1 For outdoor High Risk work:

- 1° Erect Type A hoarding walls along the perimeter of the work area, as described in Section 2.1 “HOARDING WALLS” of this section of specifications;
 - a) The Contractor may use scaffolding to create hoarding walls by installing a layer of rip-proof polyethylene tightly anchored to the inside of the structure. Reinforce with wind bracing.
- 2° Install the workers’ decontamination facility as described in Section 2.4 “CONSTRUCTION OF DECONTAMINATION FACILITIES” of this section of specifications;
 - a) The Decontamination Professional may authorize the use of a decontamination trailer for the decontamination facility.
- 3° Establish negative pressure inside the Contaminated Change Room of the workers’ decontamination facility. Exhaust the air from the air exhaust units outside the trailer or building;
- 4° Provide a sufficient number of air exhaust units to control dust in the work area.

1.3.2 For indoor High Risk work:

- 1° Erect as required Type B hoarding walls along the perimeter of the work area, as described in Section 2.1 “HOARDING WALLS” of this section of specifications, to isolate the work area from the occupied areas;
- 2° Erect the workers’ decontamination facility as described in Part 2 “PRODUCTS AND FACILITIES” of this section of specifications;

- 3° Establish negative pressure inside each of the work areas. Discharge the air from the air exhaust units outside the building. If it is not possible to exhaust the air outside of the building, construct a plywood box to allow for air to be evacuated outside of the work enclosure. Otherwise, a PAO test will be required;
- 4° Provide a sufficient number of air exhaust units in order to maintain a pressure differential of 1 to 4 Pa between the work area and the occupied areas.

1.4 WORKER PROTECTION

1.4.1 Respiratory protection:

- 1° Provide appropriate respirators for persons who are required to enter any of the work areas;
- 2° Respirators must meet the standards of the *Guide des appareils de protection respiratoire utilisés au Québec*, published by the IRSST, or any other testing agency acceptable to the CNESST. The accepted respirators are:
 - a) For wet removal and cleanup of any kind of ACM, supply and use full-face powered air-purifying respirators with HEPA filters.
- 3° Charge batteries and store respirators and tested filters that will be reused on the clean side of the shower room;
- 4° Check the filters used in compliance with the manufacturer's standards and replace them as needed;
 - a) For full-face respirators, test or replace the cartridge filters after sixteen (16) hours of use or when they are saturated;
 - b) The Contractor must identify and mark filters for rotation and periodic replacement. Once worn in any of the work areas, the filters cannot be removed without being cleaned or disposed of as asbestos waste.
- 5° Ensure that no person required to enter a work area has facial hair (beard or moustache) that impedes the seal between the respirator and face.

1.4.2 Asbestos abatement work area entry procedures:

- 1° Remove street clothes in the clean change room before entering the work area;
- 2° Store all street clothes, clean footwear, towels, etc., in the clean change room;
- 3° Put on the protective coveralls;
- 4° Put on the respirator with a new or verified filter and check its adjustment by testing negative and positive pressure;
- 5° Pull the hood of the coveralls over the respirator straps;
- 6° Extend the elastics at the ankles of the coverall legs over the safety shoes. Use duct tape as needed;
- 7° Put on the gloves, ensuring that the coverall sleeves cover their cuffs. Use duct tape as needed;
- 8° Put on the safety hat in the clean change room or the clean side of the shower room before entering the contaminated change room.

1.4.3 Asbestos abatement work area exit procedures:

- 1° Before leaving the contaminated work area, remove the gross contamination from the protective coveralls using a HEPA vacuum or damp cloth;
- 2° Proceed to the contaminated change room and remove all contaminated clothing and equipment except the respirator;
- 3° Clean all personal protective equipment or place it in bags and store it in the contaminated change room;
- 4° While still wearing the respirator, proceed to the showers;
- 5° Rinse all the parts of the body, head and hair that have been exposed and clean the outside of the respirator with soap and water. Remove the respirator and wash the body, head and hair. Rinse the inside of the respirator face piece;
- 6° On the clean side of the shower room, remove the filters for testing or dispose of them in the asbestos waste container provided for this purpose;
- 7° Proceed to the clean change room, dry off and dress in street clothes.

1.5 AIR SAMPLING

- 1.5.1 Perform the air monitoring according to the *Sampling Guide for Air Contaminants in the Workplace* published by the IRSST and analyze samples following IRSST fibre counting method 243-1.
- 1.5.2 Air sample collection and analysis will be performed by a subcontractor chosen by the Owner in accordance with current standards.
- 1.5.3 The cost of sampling inside and outside the work area as well as the cost of analyses are the responsibility of the Owner.
- 1.5.4 The additional costs of inspection and air sampling due to any deficiencies of the Contractor are charged to the Contractor.
- 1.5.5 Perform the air sampling inside the work area during the disturbance of asbestos-containing materials.
- 1.5.6 If, in the work area, where wearing full-face powered air-purifying respirators with HEPA filters is mandatory, respirable fibre levels exceed the acceptable limit, the Contractor must immediately shut down work and an airborne fibre suppression procedure must be put in place. The permissible airborne fibre concentration is determined by the time-weighted average exposure value (TWAEV), which is 1 fibre/cm³ for chrysotile and the other types of asbestos, except for amosite and crocidolite, and the protection factor of the respiratory protection used. In all cases, the maximum reference value is 50 fibres/cm³ in order to adequately protect workers.
- 1.5.7 If the Contractor fails to lower the concentration of respirable fibres under the limit provided in the preceding paragraph, the Contractor must provide a supplied-air respirator to all workers and all visitors, at no additional cost to the Owner.
- 1.5.8 Respirable fibre concentrations equal or greater than 0.05 fibres/cm³ in the change rooms or the occupied areas indicate asbestos contamination. However, the Decontamination Professional reserves the right to ask the Contractor to change their work methods if this concentration is greater than 0.01 fibre/cm³.

- 1.5.9 The occupied areas are considered contaminated until the visual inspection is conducted, and work is carried out to the satisfaction of the Decontamination Professional. Air sampling is required, and subsequent analysis must indicate a fibre level of less than 0.05 fibres/cm³.
- 1.5.10 During the work, sample the concentration of respirable fibres in the work area by taking a sample at every work shift using the PCM method, as per the Safety Code for the construction industry.
- 1.5.11 Upon completion of the work, collect air samples (clearance test). A volume of 3,800 L at a flow rate of 16 L/min will be taken. The concentration in respirable fibres in the ambient air must be less than 0.01 fibre/cm³. In the opposite case, the work area must be cleaned again and the clearance test, redone.
- 1.5.12 The result of each air sample will be available on the same day, within a four-hour period, and delivered to the Owner and the Contractor.
- 1.5.13 The analyst must have been enrolled in and successfully completed the IRSST quality control program for the counting of fibres.

1.6 DUST CONTROL METHODS

- 1.6.1 For outdoor High Risk work:
- 1° Work with the Decontamination Professional to reduce the quantity of dust in the work area;
 - 2° Maintain the minimum pressure differential in the workers' decontamination facility;
 - 3° Operate air exhaust units continuously to control dust and protect workers in the work area;
 - 4° Stop the work and take the necessary corrective actions if dust is excessive or if it is dispersed outside the work area. Immediately notify the Decontamination Professional.
- 1.6.2 For indoor High Risk work:
- 1° Provide a sufficient number of air exhaust units to maintain at all times a rate of four (4) air rotations per hour in the work area and a pressure differential of 1 to 4 Pa, as per the Safety Code for the construction industry;

- 2° Provide and install pressure differential gauges at locations approved by the Decontamination Professional. At the Decontamination Professional's request, replace any defective or damaged equipment;
- 3° Distribute the air exhaust units evenly;
- 4° Place the air exhaust units as far away as possible from the decontamination facilities;
- 5° If necessary, install weighted hatches with rip-proof polyethylene sheeting in the perimeter walls to provide a make-up air source;
- 6° Operate air exhaust units continuously from the completion of work preparation until the end of dismantling;
- 7° Replace the prefilters frequently to maintain the air exhaust units' flow rate;
- 8° Replace the HEPA filters as needed to maintain the required pressure differential and the integrity of the air exhaust units;
- 9° Direct air from the air exhaust units outside the work enclosure;
- 10° Stop the work and take the necessary corrective actions if the pressure differential drops below the 1 Pa threshold prescribed by the Safety Code for the construction industry. Immediately notify the Decontamination Professional.

1.7 WORKSITE MONITORING

- 1.7.1 The Decontamination Professional will be present periodically on the worksite, both inside and outside the work area, from the commencement of work until the completion of dismantling operations.
- 1.7.2 Inspections of all work areas will be performed to confirm compliance with the requirements of this section of specifications and regulatory bodies. If a work area is found to be non-compliant, the additional work required by the Decontamination Professional to meet the standards will be carried out at no additional cost to the Owner.
- 1.7.3 The Decontamination Professional is empowered by the Owner to inspect adherence to procedures and ensure final cleanliness and completion of the work. If additional labour or equipment is necessary to meet these standards, it will be at no additional cost to the Owner.

- 1.7.4 The Decontamination Professional is authorized by the Owner to stop work when a leakage of asbestos is found or is likely to occur. These conditions include, but are not limited to, the failure of air exhaust units, inadequate wetting, the failure of enclosures and water leaks. If an additional number of workers or equipment is necessary to rectify these conditions, it will be at no additional cost to the Owner.
- 1.7.5 Inspection and air monitoring carried out as a result of the Contractor's failure to perform satisfactorily regarding quality, safety or schedule will be charged to the Contractor.
- 1.7.6 The following milestone inspections will take place at the cost of the Owner:
- 1° Milestone Inspection A – Before the Asbestos Abatement: Inspection of work area prior to the start of the asbestos abatement;
 - 2° Milestone Inspection B – Visual Acceptance: Inspection of work area after the asbestos abatement, but prior to the application of slow-drying lock-down agent.
- 1.7.7 In addition to the milestone inspections, inspections of the work area will be performed to confirm the Contractor's compliance with the requirements of this section of specifications and legislation. Any deviations from these requirements that have not been approved in writing may result in work stoppage, at no additional cost to the Owner.
- 1.7.8 If a work area is found unacceptable by the standards prescribed in this section of specifications or those required by legislation, the additional work performed by the Decontamination Professional in order to meet those standards shall be at no additional cost to the Owner.

PART 2 – PRODUCTS AND FACILITIES

2.1 HOARDING WALLS

- 2.1.1 Separating a work area from an occupied area or another work area, hoarding walls must be constructed as follows:
- 1° Type A – Walls of 38 mm x 89 mm (2 in. x 4 in.) wood studs every 600 mm (24 in.) with continuous sill and top plates, covered with one (1) layer of impervious polyethylene and one (1) layer of rip-proof polyethylene on the work area side;

- 2° Type B – Walls built on scaffolding to which one (1) layer of rip-proof polyethylene is anchored on the work area side; At the bottom of the wall, install plywood panels to prevent the polyethylene sheeting from being pierced and to ensure public safety. The walls must exceed the highest point of the building by 6 ft. The polyethylene must be white;
- a) The hoarding walls must be constructed to withstand outdoor conditions and must comply with current standards and legislation.
- 3° Type C – Upper sealing hoarding walls of 38 mm x 89 mm (2 in. x 4 in.) wood studs every 800 mm (32 in.) with continuous sill and top plates, covered with one (1) layer of impervious polyethylene and one (1) layer of rip-proof polyethylene on the work area side; Anchor the frame of these walls beneath the ceiling slab and extend downward to the upper part of the false ceiling or of the previously built perimeter hoarding walls. Construct this wall so that it remains intact when the wall below is removed.

2.2 WORKERS' DECONTAMINATION FACILITY

- 2.2.1 Install the workers' decontamination facility at a location approved by the Owner or the Decontamination Professional.
- 2.2.2 The workers' decontamination facility is comprised of three (3) linked rooms: equipment and access room that leads to the work area, a shower room and a clean change room. The rooms, the occupied areas, and the work area must be separated by curtained doors;
- 1° Contaminated change room: The room between the work area and the shower room is used to store protective equipment that will be reused in the work area. The main requirements of this room are as follows:
- a) Install an asbestos waste container for contaminated waste, mainly for clothing or equipment not to be re-used;
- b) Provide storage facilities for any personal protective equipment to be reused;
- c) Equip the room with individual lockers for workers to dry and store their work clothes. The storage area of each locker must be at least 0.14 m³ (5 ft³), and there must be a clearance of at least 600 mm (2 ft) in front of each row of lockers;

- d)* Minimum size of 9.5 m² (100 ft²);
- e)* Minimum level of illumination of 250 lux;
- f)* Minimum temperature of 20 °C.

2° Shower Room: The room between the clean change room and the contaminated change room. The main requirements of this room are as follows:

- a)* A separate shower room must be installed for each sex;
- b)* A ratio of at least one (1) shower for every six (6) workers of each sex;
- c)* A constant supply of hot and cold water, controllable at each shower; The hot water supply must be sufficient to guarantee all workers a complete shower, allowing them to acceptably decontaminate; the temperature must be able to reach a minimum of 40 °C (maximum 50 °C);
- d)* A water supply with individual hot and cold shut-off valves located on the clean side of shower room. Connect the showers to these valves;
- e)* Use rigid piping with watertight connections for the water supply and drains;
- f)* Cover a drip pan sealed on all sides of the shower stall with a duckboard. Empty the drip pan every day with a pump sufficient for the volume of waste shower water generated. Direct the waste shower water to the sanitary sewer drains;
- g)* Provide a ground fault protected power switch for the pump on both sides of the shower, or provide an automatic timer for the shut-off;
- h)* Supply soap, clean towels and an asbestos waste container for the disposal of used respirator filters;
- i)* Install, on the clean side of the shower room, shelves for respirator storage, outlets, and a ground fault protected power supply for the recharging of batteries as required;
- j)* Minimum level of illumination of 250 lux;
- k)* Minimum room temperature of 20 °C.

- 3° Clean Change Room: The room between the shower room and the occupied areas. The main requirements of this room are as follows:
- a) Equip the room with individual lockers for workers to dry and store their work clothes. The storage area of each locker must be at least 0.14 m³ (5 ft³), and there must be a clearance of at least 600 mm (2 ft) in front of each row of lockers;
 - b) Supply potable water;
 - c) Install a vented wood door in wood frame. The door must have a locking passage set. Provide three (3) keys to the Decontamination Professional;
 - d) If necessary, install the water heater for the showers in this room;
 - e) Minimum level of illumination of 250 lux;
 - f) Minimum room temperature of 20 °C; and
 - g) Minimum size of 9.5 m² (100 ft²) or 1 m² (10 ft²) per worker (whichever is greater).

2.3 WASTE AND EQUIPMENT DECONTAMINATION FACILITY

2.3.1 The waste and equipment decontamination facility is comprised of three (3) linked rooms: a cleaning room, a storage room, and a transfer room. The purpose of this system is to provide a means to decontaminate asbestos waste containers, materials, vacuums, sprayers, scaffolding, and various other tools and materials required in the work area. The rooms, the occupied areas, and the work area must be separated by curtained doors;

- 1° Cleaning Room: The room located between the work area and the storage room. It must be of sufficient size to allow proper washing of equipment and waste containers. All wash water must be treated as asbestos waste;
- 2° Storage Room: The room between the cleaning room and the transfer room. It must be of sufficient size to allow for the double bagging of asbestos waste and to accommodate at least two (2) rigid waste containers or the largest items of equipment used;
- 3° Transfer Room: The room between the storage room and the occupied area, acting as an air lock for the transfer of waste. At the doorway to the occupied area, provide and install a vented wood door in wood frame. The door must have a locking passage set. Provide three (3) keys to the Decontamination Professional.

2.4 CONSTRUCTION OF DECONTAMINATION FACILITIES

- 2.4.1 For outdoor High Risk work, a mobile decontamination trailer is acceptable such as Star Suites 823 DECON model or equivalent.
- 2.4.2 Protect the floors as follows:
- 1° Prior to erecting the wall frame, lay one (1) layer of rip-proof polyethylene sheeting over the floor area that will be covered by the decontamination facility;
 - 2° Once the wall structure is constructed, wrap 600 mm (24 in.) of rip-proof polyethylene sheeting over the inside of the enclosure walls;
 - 3° Cover the floors of the storage room, the transfer room, the clean change room, and the contaminated change room with rip-proof polyethylene overlapped and sealed to the polyethylene sheeting on the walls;
 - 4° In the shower room, install a 1,000 mm (40 in.) wide x 2,700 mm (108 in.) long x 150 mm (6 in.) deep sealed drip pan below the shower stall and extending 900 mm (36 in.) into the shower room on each side of the shower stall. This drip pan must be able to hold all the waste shower water generated. Install a duckboard walking surface over the drip pan on both sides of the shower stall.
- 2.4.3 Construct the perimeter walls as follows:
- 1° Wood frame made of 38 mm x 89 mm (2 in. x 4 in.) wood studs every 400 mm (16 in.) with continuous top and sill plates on the upper side;
 - 2° Cover the lower 1,200 mm (48 in.) of the interior of this frame with 13 mm (1/2 in.) plywood paneling;
 - 3° Cover the interior of the wall with one (1) layer of polyethylene sheeting;
 - 4° For the perimeter walls exposed to the occupied areas, install one (1) layer of polyethylene sheeting directly over the framing, and cover with painted 13 mm (1/2 in.) plywood paneling.

- 2.4.4 Construct the interior walls to separate the rooms of the decontamination facilities as follows:
- 1° Wood frame made of 38 mm x 89 mm (2 in. x 4 in.) studs every 600 mm (24 in.) with continuous top and sill plates on the upper side;
 - 2° Cover the lower 1,200 mm (48 in.) of the interior of this frame with 13 mm (1/2 in.) plywood paneling;
 - 3° Cover the plywood and frame with one (1) layer of polyethylene sheeting.
- 2.4.5 Construct the ceilings as follows:
- 1° The size of the joists is to be determined by the span. For spans up to 3.3 m (10 ft), use joists of at least 38 mm x 150 mm (2 in. x 6 in.) every 400 mm (16 in.) with a continuous header of 38 mm x 150 mm (2 in. x 6 in.);
 - 2° Cover the joists with one (1) layer of 19 mm (3/4 in.) plywood paneling and caulk and tape the joints. Cover the plywood with two (2) layers of rip-proof polyethylene sheeting, one of which extends continuously over the rip-proof polyethylene sheeting on the perimeter walls;
 - 3° Put one (1) layer of polyethylene sheeting over the joists to cover the sides;
 - 4° The minimum interior clearance height must be 2.0 m (6.6 ft) from the floor to the underside of the joists.
- 2.4.6 Construct the curtained doors as follows:
- 1° For each door between the rooms or between the facilities and the work area, install two (2) overlapping flaps over the full width and height of the opening;
 - 2° Each flap must be constructed of two (2) layers of polyethylene sheeting with all edges tape-reinforced. Use wood strapping to securely fasten the flaps to the alternate heads and jambs;
 - 3° Attach a weight to the bottom edge of each door flap to ensure that it closes spontaneously;
 - 4° Provide direction arrows on the flaps to indicate the openings.

2.5 TUNNELS (IF REQUIRED)

- 2.5.1 In the areas that require sealed tunnels (e.g. the work area and the decontamination trailer), conduct the preparations for the work area as follows:
- 1° Erect a support structure using Type B hoarding walls or the equivalent. Nail 19 mm (3/4 in) thick plywood (or of sufficient thickness to support the workers and equipment) to the wall structure;
 - 2° Use duct tape to seal the joints between the plywood panels;
 - 3° Cover the surface of the tunnel roof with one (1) layer of 0.25 mm (10 mil) polyethylene sheeting as well as one (1) layer of rip-proof polyethylene to form an impermeable barrier;
 - 4° Erect the tunnel supports around installations, walls and existing equipment so as not to interfere with the use or maintenance of the space or equipment;
 - 5° Adjust the height inside the tunnel to conserve a net height of 2 m (6.6 ft) and a minimum width of 1.35 m (4.6 ft);
 - 6° Provide a temporary emergency lighting system inside the tunnel to maintain the existing intensity of lighting;
 - 7° Protect the inside of the tunnel using plywood panels to keep the facility from being damaged by user circulation.

PART 3 – EXECUTION

3.1 WORKSITE PREPARATION

- 3.1.1 Contaminated Site Preparation:
- 1° Move all furniture, shelving, mechanical and electrical equipment, or any stored materials;
 - 2° Construct the enclosures as specified in Section 2.4 “CONSTRUCTION OF DECONTAMINATION FACILITIES” in this section of specifications;

- 3° Construct the hoarding walls between the work areas and occupied areas at the necessary locations, as indicated in Section 2.1 “HOARDING WALLS” in this section of specifications;
- 4° Decontaminate and treat as non-contaminated, or dispose of as asbestos waste, any equipment described in Section 02 82 00 00 “GENERAL CONDITIONS,” Section 1.3 “WORKSITE CONDITIONS” that is present in the work area and cannot be removed without disturbing the asbestos;
- 5° Seal all openings facing the work area with polyethylene sheeting and duct tape, notably the windows, doors, and floor drains;
- 6° For outdoor work, cover the ground with two (2) layers of polyethylene and plywood to prevent water leaks and ease cleanup;
- 7° Seal all the floor surfaces with two (2) layers of polyethylene and plywood to prevent water leaks;
 - a) Protect with polyethylene sheeting the walls, ceilings, electric panels, windows, etc., that do not have to be removed during the asbestos abatement work.
- 8° Keep emergency exits from all work areas accessible or establish alternate exits as required by fire department officials or local authorities. Set up, as needed, extra exits from the occupied areas. Post emergency exit signs that clearly indicate the directions to follow for emergency evacuation. Seal the emergency exit door so as not to impede the use of the door during emergency evacuation;
- 9° Install battery-powered emergency lights to:
 - a) light exit routes through the work area;
 - b) light all worker emergency exits from the work area;
 - c) provide lighting throughout the work area, activated upon loss of power to the ground fault panel.
- 10° Provide a fire extinguisher at each emergency exit and in the decontamination facilities. Protect the extinguishers with polyethylene sheeting so as to not prevent emergency use;

- 11° Install one (1) fire extinguisher near each exit of each floor with a floor surface of 500 m² (5,000 ft²) or less and an additional portable extinguisher for any other 500 m² (5,000 ft²) of floor surface or any fraction of this surface;
- 12° Install safe and effective temporary lighting with a minimum strength of 550 lux or lighting acceptable to the Decontamination Professional in all of the work areas;
- 13° Establish negative pressure in the indoor work areas as follows:
- a) Provide a sufficient number of air exhaust units to maintain at all times a rate of four (4) air rotations per hour at the asbestos worksite and a pressure differential of 1 to 4 Pa;
 - b) Distribute the air exhaust units evenly throughout the worksite;
 - c) Place the air exhaust units as far away as possible from the decontamination facilities;
 - d) If necessary, install weighted hatches in the perimeter walls to provide a make-up air source;
 - e) Operate air exhaust units continuously from the completion of preparations until the end of dismantling;
 - f) Replace the prefilters frequently to maintain the device's flow rate;
 - g) Replace the HEPA filter as needed to maintain the required pressure differential and the integrity of the device;
 - h) Provide additional air exhaust units if the pressure differential is insufficient or at the request of the Decontamination Professional;
 - i) Prior to the start of work, all air exhaust units must be tested by an independent firm to verify their effectiveness, regardless of whether they discharge air inside or outside the buildings.
- 14° Implement dust control measures in the outdoor High Risk work areas:
- i. Provide a sufficient number of air exhaust units to maintain at all times a rate of four (4) air rotations per hour;
 - ii. Distribute the air exhaust units evenly throughout the worksite;
 - iii. Place the air exhaust units in the vicinity of areas likely to create dust;

- iv. Operate air exhaust units continuously from the completion of preparations until the end of dismantling;
 - v. Replace the prefilters frequently to maintain the device's flow rate;
 - vi. Replace the HEPA filter as needed to maintain the integrity of the device;
 - vii. Provide additional air exhaust units if dust control is insufficient or at the request of the Decontamination Professional;
 - viii. Prior to the start of work, all air exhaust units must be tested by an independent firm to verify their effectiveness.
- 15° Provide an electrical panel equipped with a ground fault circuit interrupter for each 500 m² (5,000 ft²) of asbestos abatement work. All electrical apparatus must be supplied from a ground-fault system. Ensure that electrical lines and equipment are installed by licensed electricians;
- 16° Notify the Decontamination Professional at least 24 hours before Milestone Inspection A (Before Asbestos Abatement) and obtain written approval for this step before continuing.

3.2 MAINTENANCE OF ENCLOSURES

- 3.2.1 Maintain the enclosures in a clean and tidy condition.
- 3.2.2 Ensure that the polyethylene sheeting on the walls and floors is properly sealed. Repair the damaged polyethylene sheeting and remedy deficiencies as soon as they are discovered.
- 3.2.3 Visually inspect the enclosures at the beginning and end of each work shift. This inspection must be performed by the General Foreman or the Shift Foreman.
- 3.2.4 Inspect the air exhaust units including the discharge ducting at the beginning and end of each shift. Replace the filters when the air circulation rate falls to 70% of the maximum rate. Immediately replace defective devices.
- 3.2.5 Clean all work areas, the six (6) decontamination rooms, as well as each access to the worksite.
- 3.2.6 Clean all the surfaces in the work areas using wet wiping or a HEPA vacuum.

3.3 ASBESTOS ABATEMENT

- 3.3.1 Workers must always wear appropriate respiratory protection and protective coveralls during the work.
- 3.3.2 Proceed to remove or demolish asbestos-containing or asbestos-contaminated materials as detailed in Section 02 82 00 "GENERAL CONDITIONS," Section 1.1 "WORK SUMMARY" of these specifications.
- 3.3.3 Proceed with care to the work in the required locations. First, wet the materials using a sprayer. Conduct the work so as to avoid the dispersion of dust as much as possible.
- 3.3.4 Keep all materials wet, then dispose of them in asbestos waste containers.
- 3.3.5 As the work progresses, transport the asbestos waste to the bins, then send it to an appropriate waste landfill facility;
- 1° During the work, keep the work area under a continuous mist;
 - 2° Collect the water from the floors in a continuous manner. Do not let water accumulate.
- 3.3.6 Carefully place the asbestos-containing and asbestos-contaminated waste in asbestos waste containers. Do not throw or drop them.
- 3.3.7 Remove, as needed, any obstruction, such as ventilation ducting or equipment, in order to access the asbestos-containing materials to be removed. Clean the equipment before reinstalling it at the end of work.
- 3.3.8 Once the asbestos abatement is complete:
- 1° Wet all non-porous surfaces, then clean them using hard bristle brushes, a vacuum, wet sponges, etc., in order to remove all visible residue and fibrous materials;
 - 2° Clean the surface of the polyethylene sheeting as well as any other surface in the work areas, notably those of equipment, floors and walls, air ducts and any other similar articles that were not covered in polyethylene, until an acceptable level of cleanliness is achieved;

- 3° Clean the equipment used in the work area to remove any contamination or put it in an asbestos waste container before transporting it outside the work area through the waste and equipment decontamination facility;
- 4° Treat the water as asbestos waste;
- 5° The level of cleanliness must be acceptable to the Decontamination Professional;
- 6° Notify the Decontamination Professional at least 24 hours before Milestone Inspection B (Visual Acceptance). Obtain written approval of this milestone before proceeding.

3.3.9 Handling of waste and materials:

- 1° Treat, package, transport and dispose of the asbestos-containing materials removed during the work as asbestos waste. Place all the waste considered contaminated in asbestos waste containers;
 - a) Place all waste contained in waste bags that is likely to puncture them in rigid containers such as drums (plastic, metal or cardboard).
- 2° Remove from the work areas the asbestos waste containers (bags or drums), equipment, and any other materials by passing through the decontamination facility as follows:
 - a) Prior to entering the cleaning room of the waste and equipment decontamination facility, the first worker removes any visible gross asbestos contamination from their personal protective equipment;
 - b) The first worker then carries the item into the cleaning room and wet sponges the item prior to passing it through the curtained doorway to a second worker in the storage room. The second worker is also fully protected with respirator and coveralls and may only leave the decontamination facility via the work area;
 - c) The second worker places the item into a second bag (double bagging) or drum and then seals it. Without entering the transfer room, the second worker passes the item through the curtained doorway into the transfer room;
 - d) A third worker enters the transfer room. The third worker must never enter the storage room. The third worker picks up the waste container and transports it to the asbestos waste bin.

3.3.10 Cleaning of work area:

- 1° Once all asbestos debris and other contaminated waste is gathered and evacuated from the work area, proceed to clean all the surfaces that were exposed to asbestos fibres using a HEPA vacuum and a damp cloth or sponge;
- 2° Clean all the tools used during the work in this section of specifications and remove them in asbestos waste containers.

3.3.11 Transportation of all materials and waste:

- 1° Equip workers with full personal protective equipment and all the tools required to properly clean up asbestos debris that could spill from the asbestos waste containers if a rip occurs.

3.3.12 Application of slow-drying lock-down agent:

- 1° Once written approval has been provided by the Decontamination Professional, apply one (1) thick coat of lock-down agent (two passes) on all the surfaces from which asbestos has been removed. Apply a coat to any other surfaces of the work area, including polyethylene sheeting and all surfaces scheduled for demolition;
- 2° Plan for a waiting period of twelve (12) hours in order to allow airborne dust to settle in the work area. Air exhaust units must remain in operation during this period;
- 3° Collect clearance air samples and forward the results to the Owner. Obtain written approval of clearance testing compliance from the Decontamination Professional before proceeding.

3.4 HANDLING OF DEBRIS**3.4.1 Asbestos waste bins must:**

- 1° be collected and dropped off during preapproved hours and without disturbing the operations of surrounding buildings and vehicular traffic;
- 2° be placed in areas designated by the Owner;
- 3° be kept covered and closed at all times when stored in proximity to the buildings. Keep these areas clean at all times.

3.4.2 After each waste transfer, clean the routes taken as well as the loading areas.

- 3.4.3 Transport the asbestos waste to an approved landfill facility that accepts such waste materials. Provide the Owner or their representative with the waste dump receipts.
- 3.4.4 For each load leaving the worksite, provide the Owner or their representative with transportation and/or disposal documents containing all the required information as stipulated in the Transportation of Dangerous Goods Act.

3.5 DISMANTLING THE WORK AREA

- 3.5.1 Wearing a full-face powered air-purifying respirator with HEPA filter and protective coveralls, remove all contaminated polyethylene sheeting, duct tape, caulking, and enclosures in the work area.
- 3.5.2 Carefully remove the asbestos-contaminated polyethylene sheeting from the walls by rolling it towards the centre of the work area.
- 3.5.3 Remove the first layer of polyethylene sheeting from the surfaces that are protected by two (2) layers and cut the bottom layer to expose the electric baseboards, windows, furniture, shelves and any other horizontal surface that may be contaminated by falling asbestos-containing materials. Immediately remove the visible fibres or the residue found during the removal of the polyethylene sheeting using a HEPA vacuum.
- 3.5.4 Place the polyethylene sheeting, duct tape, cleaning material, protective coveralls and any other contaminated waste into asbestos waste containers and dispose of them as asbestos waste.
- 3.5.5 Operate the air exhaust units during the removal of the polyethylene sheeting.
- 3.5.6 Remove the polyethylene sheeting that protects the hoarding walls separating the occupied areas from the work areas, then dismantle the walls.
- 3.5.7 Remove all temporary lighting, ground fault panels, and air exhaust units.
- 3.5.8 Remove the decontamination facilities. Damp mop, sweep and HEPA-vacuum the occupied areas located underneath the facilities.

END OF SECTION

REMOVAL OF
MERCURY-CONTAINING EQUIPMENT

SECTION 02 85 00

TABLE OF CONTENTS

PART 1 – GENERAL	1
1.1 Summary of Work	1
1.2 Specific Requirements.....	1
1.3 Worker Protection	1
PART 2 – PRODUCTS	1
2.1 Equipment and Materials	1
PART 3 – EXECUTION	2
3.1 Removal of Mercury-Containing Equipment.....	2
3.2 Decontamination Work (In Case of a Spill).....	2
3.3 End of Work	4

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- 1.1.1 Remove and dispose of mercury-containing thermostats, compact fluorescent bulbs, and fluorescent tubes.

1.2 SPECIFIC REQUIREMENTS

- 1.2.1 Decontamination work must be carried out by workers who have received information on the hazardous material to be handled and on methods of protection.

1.3 WORKER PROTECTION

- 1.3.1 During the various stages of decontamination work, all workers and authorized visitors must wear a respirator, protective coveralls and work gloves:
- 1° Gloves and protective coveralls must be disposed of after each use;
 - 2° Respirator cartridges must be replaced as per manufacturer's standards. The cartridge is usually equipped with an end-of-service-life indicator for this purpose.

PART 2 – PRODUCTS

2.1 EQUIPMENT AND MATERIALS

- 2.1.1 Aqueous Copper Solution: Copper Chloride (CuCl_2) that, in an aqueous solution, has the physical property to easily amalgamate with mercury. Use in tertiary decontamination at a ratio of 80 g of CuCl_2 dissolved in 4 L of water. Copper Chloride can be purchased from chemical product suppliers such as Fisher Scientifique or Anachemia.
- 2.1.2 Container for Thermostats: An impervious Nalgene^{MC} screw cap container of sufficient size to contain the mercury bulbs.

- 2.1.3 Mercury Spill Kit: A kit containing the material necessary to perform primary decontamination. Mercury spill kits can be purchased at Cartier Chemicals.
- 2.1.4 Mercury Vacuum: A vacuum equipped with an activated carbon filter capable of filtering mercury vapours (e.g. Nilfisk VT mercury vacuum).
- 2.1.5 Respirator: A half-mask non-powered air-purifying respirator with a chemical cartridge that protects against mercury vapours.
- 2.1.6 VYTAC MIS: A chemical neutralizer from Cartier Chemicals used in secondary decontamination.

PART 3 – EXECUTION

3.1 REMOVAL OF MERCURY-CONTAINING EQUIPMENT

- 3.1.1 Put on the required respiratory protection and protective coveralls.
- 3.1.2 Carefully remove without breaking compact fluorescent bulbs, fluorescent tubes, and thermostats from their fixtures and place them in the appropriate containers.
- 3.1.3 Compact fluorescent bulbs, fluorescent tubes, and thermostats must be transported for treatment to a facility equipped to recycle mercury.

3.2 DECONTAMINATION WORK (IN CASE OF A SPILL)

- 3.2.1 Primary Decontamination:
- 1° Notify the Owner or their representative;
 - 2° Put on personal protective equipment;
 - 3° Shut off heating and ventilation systems in the area of the spill. Open windows if possible to reduce heat in the area;
 - 4° Using a flashlight, determine the area to decontaminate. S;
 - 5° Primary decontamination must be performed in sequence, starting at the least-contaminated section to the most highly contaminated section;

- 6° Vacuum mercury droplets with the mercury vacuum;

OR
- 7° Consolidate all the visible droplets of mercury into a single pool using the small broom or spatula from the mercury spill kit. Collect the large droplets of mercury using the dustpan from the spill kit, or the mercury vacuum;
- 8° Fill a container for thermostats with 100 ml of water and deposit the mercury and dust in this container;
- 9° Dispose of the container as hazardous waste or transport it to a facility equipped to recycle mercury.

3.2.2 Secondary Decontamination:

- 1° Secondary decontamination is performed using VYTAC MIS. Use the product according to manufacturer's instructions. Use a broom and dustpan to perform secondary decontamination on every horizontal surface of each room. Use a new dry cloth for each room;
- 2° Sprinkle the floor surface with VYTAC MIS as per manufacturer's instructions and spread the product using a brush and a dry cloth;
- 3° Collect the VYTAC MIS with a brush and dustpan and deposit it in a container for thermostats. Seal the container with duct tape and treat it as hazardous waste;
- 4° Deposit all waste, including tools used, in the proper containers;
- 5° The Decontamination Professional will assess the surface to verify if tertiary decontamination is required.

3.2.3 Tertiary Decontamination:

- 1° Clean every surface with the aqueous copper solution in the following order: ceilings, walls, and floors. Use a mop to wash the walls;
- 2° Perform a final cleaning of surfaces with soap and water in the following order: ceilings, walls, and floors. Do not clean with the mop used to apply the aqueous copper solution;

3° Repeat this step until the permissible exposure value is reached, as defined in the Regulation respecting the quality of the work environment.

3.2.4 The Decontamination Professional will perform a final assessment of the mercury contamination before anyone can return to the premises.

3.3 END OF WORK

3.3.1 Clean the personal protective equipment, notably respirators, protective coveralls, safety hats, safety shoes, safety glasses and gloves using a damp cloth.

3.3.2 Clean reusable clothing before wearing it again. Clean the respirator in clean, soapy water. Rinse with clear water and dry completely. Store in a clean place. Dispose of filters as hazardous waste.

END OF SECTION

WORK IN THE PRESENCE OF
CRYSTALLINE SILICA

SECTION 02 88 00

TABLE OF CONTENTS

PART 1 – GENERAL	1
1.1 Summary of Work	1
PART 2 – PRODUCTS	1
2.1 Equipment and Materials	1
PART 3 – EXECUTION	2
3.1 Worksite Preparation	2
3.2 Work Generating Crystalline Silica Dust	2
3.3 Cleaning and Handling of Debris	3

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- 1.1.1 The purpose of this work is to control any emission of dust containing crystalline silica from materials such as concrete, brick, mortar, granite, sandstone, ceramic, or joint compound, during the following work:
- 1° Demolition with a jackhammer or others;
 - 2° Breaking, crushing, piercing, cutting, sanding, or grinding;
 - 3° Clearing or sweeping;
 - 4° Cleaning surfaces using other methods as well as cleaning tools.

PART 2 – PRODUCTS

2.1 EQUIPMENT AND MATERIALS

- 2.1.1 HEPA Vacuum: Vacuum equipped with a HEPA filter and all the necessary fittings, tools and attachments.
- 2.1.2 Impervious Polyethylene Sheeting: The polyethylene must have a minimum thickness of 0.15 mm (6 mil) and a standard width (sheet) to minimize joints. Only use new materials.
- 2.1.3 Respirator: A half-mask non-powered air-purifying respirator with P100 filters.

- 2.1.4 Rip-Proof Polyethylene Sheeting: The polyethylene is made with a 0.13 mm (5 mil) fabric closely woven between two (2) layers of poly laminate of a minimum thickness of 0.04 mm (1.5 mil) each, in sheets large enough to minimize the number of joints on the worksite.

PART 3 – EXECUTION

3.1 WORKSITE PREPARATION

- 3.1.1 Delimit the work area using barricade warning tape.
- 3.1.2 Seal all HVAC openings (ventilation air grilles, diffusers, return air ducts, etc.) in the work area with impervious and rip-proof polyethylene sheeting and duct tape.
- 3.1.3 Protect all mechanical and electrical equipment in the work area with impervious polyethylene sheeting.
- 3.1.4 Post warning signs at all entrances to the work area, restricting access to authorized personnel only.

3.2 WORK GENERATING CRYSTALLINE SILICA DUST

- 3.2.1 Put on the required respiratory protection and protective coveralls.
- 3.2.2 Conduct the work while minimizing dust emissions through the use of tools with integrated water delivery systems, or by capturing and holding dust using electric tools equipped with a source dust collection system connected to a HEPA vacuum to prevent dispersion.

3.3 CLEANING AND HANDLING OF DEBRIS

- 3.3.1 At the end of work, use a damp cloth and HEPA vacuum to wet and clean all surfaces in the work area such as equipment, polyethylene sheeting, floors, walls, ventilation ducts, and any other elements that were not protected by polyethylene sheeting.
- 3.3.2 Clean coveralls and respirators with a HEPA vacuum.
- 3.3.3 Wash the respirator in clean, soapy water, rinse with clean water, and dry completely. Store in a clean place.

END OF SECTION

REMOVAL OF POLYCHLORINATED BIPHENYL-
CONTAINING EQUIPMENT

SECTION 02 84 00

TABLE OF CONTENTS

PART 1 – GENERAL	1
1.1 Summary of Work	1
1.2 Specific Requirements.....	1
1.3 Outline of Work	1
PART 2 – PRODUCTS	2
2.1 Equipment and Materials	2
2.2 Protective Equipment	2
PART 3 – EXECUTION.....	2
3.1 Packaging	2
3.2 Transportation	3
3.3 Worker Protection	3
3.4 Explosion and Fire Response Procedures	4

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- 1.1.1 Remove and dispose of ballasts from the buildings that are likely to contain PCBs.

1.2 SPECIFIC REQUIREMENTS

- 1.2.1 The General Conditions and General Requirements apply to the work described in this section of specifications.
- 1.2.2 Follow the procedures described hereafter for handling, packaging, and transporting PCB-containing ballasts.
- 1.2.3 The Contractor must supply the necessary workforce to complete all removal work in the work areas as well as the work required to package the PCB-containing ballasts.
- 1.2.4 The purpose of this document is to provide the Contractor with procedures for the removal, temporary storage, and disposal of PCB-containing ballasts.
- 1.2.5 The Contractor is responsible for providing the scaffolding and stepladders necessary to access the lighting fixtures.

1.3 OUTLINE OF WORK

- 1.3.1 Supply all materials and equipment necessary for packaging as described in this section of specifications.
- 1.3.2 Remove PCB-containing ballasts prior to asbestos abatement work.
- 1.3.3 Transport drums to a transfer or destruction facility. Provide Owner with transport documents.
- 1.3.4 Perform the work in compliance with the requirements specified in Part 3 “EXECUTION” of this section of specifications.

PART 2 – PRODUCTS

2.1 EQUIPMENT AND MATERIALS

- 2.1.1 Cleaning Solvent: Varsol.
- 2.1.2 Drum: New, unused, 45-gallon container for PCBs made of cold rolled, No. 16-gauge steel of double-bung design with a removable steel lid. The drum must have a PCB-resistant gasket and a 12-gauge bolt ring with 16 mm (5/8 in.) bolts and a forged lug nut. Drums must be freshly painted inside and outside with rustproof white enamel.
- 2.1.3 Drum liner: 6 mil clear polyethylene bag, 900 mm x 1,500 mm (36 in. x 60 in.), with opening at 900 mm (36 in.) end.
- 2.1.4 Label: Identifies PCB-containing products. Can be obtained from Environment and Climate Change Canada, Enforcement Branch. Contact information:
105 McGill Street, 4th Floor
Montreal, Quebec H2Y 2E7
Tel.: 514-283-4670
- 2.1.5 Vermiculite: Precompacted Grade 3 industrial use, asbestos-free.

2.2 PROTECTIVE EQUIPMENT

- 2.2.1 Apron: Neoprene apron that covers the entire body.
- 2.2.2 Gloves: Elbow length, made of PCB-resistant material (neoprene or butyl rubber).

PART 3 – EXECUTION

3.1 PACKAGING

- 3.1.1 Before beginning work, submit work procedures in writing to the Decontamination Professional for approval. Work cannot start until written approval of the procedures is received from the Decontamination Professional.
- 3.1.2 Place a polyethylene bag inside the drum. Deposit a minimum thickness of 200 mm (8 in.) of vermiculite at the bottom of the drum. Align ballasts by depositing them on one end. Between each row of ballasts, add a layer of vermiculite to a minimum thickness of 200 mm (8 in.). When full, seal the bag with duct tape. At the end of the work shift, always seal the bags containing ballasts within the drums.

- 3.1.3 Do not mishandle the ballasts, notably those that leak. Do not throw them in the drums. All leaks must be absorbed with vermiculite or a cloth soaked with solvent (Varsol).
- 3.1.4 If skin comes in contact with oil, immediately wash with soap and water for at least 15 minutes, then seek medical assistance.
- 3.1.5 All contaminated materials, notably gloves, cloth, etc., must be deposited in bags inside drums and treated as PCB waste.
- 3.1.6 Seal drums with a bolt ring. Affix the required label.
- 3.1.7 Transport the drums to the transfer or destruction facility. Coordinate this operation with the Decontamination Professional.

3.2 TRANSPORTATION

- 3.2.1 Transportation of PCB waste to the Owner's designated landfill facility must comply with the Regulation respecting hazardous materials.
- 3.2.2 Provide official, duly completed and signed transportation documents to the Owner or Decontamination Professional. This type of document can be obtained from the Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC) and must contain the following information:
 - 1° Quantity of drums;
 - 2° Type and approximate quantity of ballasts;
 - 3° Place of origin inside the building;
 - 4° Approximate weight of contents;
 - 5° Start and end dates of removal work (for the load involved);
 - 6° Date of drum transportation.

3.3 WORKER PROTECTION

- 3.3.1 Comply with the following requirements:
 - 1° When handling ballasts, always wear the required gloves and apron. Inspect protective equipment before use for any cracks, holes or tears that may expose the worker. All contaminated equipment must be disposed of

in bags inside the drums. Standard disposable protective coveralls such as TyvekTM used for asbestos abatement work DO NOT PROVIDE sufficient protection against PCB liquids;

- 2° Thoroughly wash hands after work shifts and before breaks;
- 3° PCB liquids do not pose any respiratory danger when handled at room temperature. However, if ballasts catch fire or are heated, evacuate the premises immediately. Respiratory protection used for asbestos abatement work IS NOT EFFECTIVE against PCB vapours;
- 4° If PCBs are swallowed or ingested in any way, immediately seek medical assistance.

3.4 EXPLOSION AND FIRE RESPONSE PROCEDURES

3.4.1 PCB liquids are relatively nonflammable. However, if exposed to an open flame or high temperatures, higher vapour concentrations will result. In addition, at high temperatures, PCBs can decompose and chemically transform into vapour, gas, and highly toxic by-products.

3.4.2 In case of fire or explosion involving PCBs:

- 1° Immediately stop work and evacuate the worksite;
- 2° When leaving, shut down all water supply systems used for the worksite;
- 3° Notify the authorities (Environment and Climate Change Canada and MELCC);
- 4° Only workers trained in self-contained breathing apparatus are permitted to enter the worksite.

3.4.3 No one is permitted to enter the worksite until it has been declared safe by the Decontamination Professional, MELCC Representatives, and the Owner.

END OF SECTION

LEAD-BASED PAINT REMOVAL – MINIMUM PRECAUTIONS

SECTION 02 83 10

TABLE OF CONTENTS

PART 1 – GENERAL	1
1.1 Summary of Work	1
1.2 Specific Requirements	1
1.3 Outline of Work.....	2
1.4 Worker Protection.....	2
1.5 Visitor Protection.....	3
PART 2 – PRODUCTS AND FACILITIES	4
2.1 Work Area	4
PART 3 – EXECUTION	4
3.1 Worksite Preparation	4
3.2 Demolition Work in the Presence of Lead-Based Paint	5
3.3 Dismantling the Work Area.....	6

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- 1.1.1 Remove and dispose of accumulators (batteries) from the alarm and emergency lighting systems:
 - 1° Transport for treatment to a facility equipped to recycle lead.
- 1.1.2 Wherever possible, perform demolition work involving lead-based paint using hand tools or equivalent:
 - 1° Provide workers with half-mask non-powered air-purifying respirators with P100 filters for the duration of work.
- 1.1.3 In all cases, perform demolition work so as to minimize the dispersion of dust from lead-based paint, and implement dust-control measures:
 - 1° As needed, re-evaluate personal protection measures required to guarantee worker safety.

1.2 SPECIFIC REQUIREMENTS

- 1.2.1 Masonry, rocks and concrete covered with lead-based paint cannot be repurposed or recycled. Steel and other metals covered with lead-based paint must be landfilled or recycled at a facility that accepts lead-contaminated materials.
- 1.2.2 All workers with access to the work area must have the necessary training.

1.3 OUTLINE OF WORK

- 1.3.1 Determine sectors where work on, or in the presence of, lead-containing paint is required.
- 1.3.2 Remove all equipment, materials, etc., necessary for the completion of the work on, and in the presence of, lead-based paint.
- 1.3.3 In the sectors where work on and in the presence of lead-based paint is planned, use the strictest standards of protection and safety.
- 1.3.4 Install barricade warning tape surrounding the lead work area, as described in Section 2.2 “WORK AREA” of this section of specifications, in order to separate the work area from the occupied areas.
- 1.3.5 Post a warning sign at each entrance to the lead work area, in compliance with Article 2.1.2 of Section 02 82 00 “GENERAL CONDITIONS.”
- 1.3.6 Carry out work on and in the presence of lead-based paint according to Part 3 “EXECUTION” of this section of specifications.
- 1.3.7 Coordinate, with the Owner or their representative, all waste transfers at least 24 hours in advance, being careful not to disturb building activities.
- 1.3.8 The Contractor must permanently maintain a functional emergency lighting system in place.

1.4 WORKER PROTECTION

- 1.4.1 General:
 - 1° Provide instruction to workers before allowing entry to the work area. Instruction must include training in respirator use, protective coveralls, entry to and exit from the work area, work procedures, and protective measures;
 - 2° It is strictly forbidden for workers to eat, drink, smoke or chew gum or tobacco on the worksite except in established, clearly indicated locations outside the work area;

- 3° Ensure that workers are always fully protected when the possibility of disturbance of lead-based paint exists;
- 4° Post the procedure for worker protection in a highly-visible location.

1.4.2 Personal Protective Equipment:

- 1° Provide appropriate respiratory equipment, i.e. half-mask non-powered air-purifying respirators with P100 filters, to persons who are required to enter the work area;
 - a) Verify that the filters used meet the standards of the manufacturer, and replace them as needed;
 - b) Identify and mark filters for rotation and regular replacement;
 - c) Change the filters at each shift;
 - d) Anyone with a beard or moustache that may impede the seal between the respirator and the face will be prohibited from entering the work area.
- 2° Supply workers with protective coveralls. Once used, treat as lead waste;
- 3° Supply the workers with safety hats, safety shoes and any other equipment required by the Safety Code for the construction industry;
- 4° In addition to the equipment required by the Safety Code for the construction industry, workers must wear safety glasses and single-use nitrile gloves to carry out the work; Once used, treat as lead waste;
- 5° Follow exactly the instructions of the manufacturer regarding the use of any paint remover;
- 6° Clean the personal protective equipment using a HEPA vacuum or damp cloth before leaving the work area.

1.5 VISITOR PROTECTION

- 1.5.1 Provide authorized visitors entering any work area with protective coveralls. Once used, treat as lead waste; Also, supply approved respirators and all other required protective equipment.

- 1.5.2 Instruct authorized visitors on the use of protective coveralls and respirators, as well as the procedures for entry to and exit from the work area.

PART 2 – PRODUCTS AND FACILITIES

2.1 WORK AREA

- 2.1.1 Separate the work area from the occupied areas or from another work area with barricade warning tape.

PART 3 – EXECUTION

3.1 WORKSITE PREPARATION

- 3.1.1 The Contractor is responsible for moving, before the start of preparations, all stored equipment, tools and materials that can be moved without disturbing the lead-based paint.
- 3.1.2 Keep emergency exits from the work area accessible or establish alternate exits as required by fire department officials or local authorities. Set up, as needed, extra exits from the occupied areas. Post emergency exit signs that clearly indicate the directions to follow for emergency evacuation. Seal the emergency exit door so as not to impede the use of the door during emergency evacuation.
- 3.1.3 Do not start work prior to:
- 1° having undertaken necessary precautions for the evacuation and disposal of waste;
 - 2° having received on the worksite the tools, equipment, and materials required for execution of the work;
 - 3° having made the necessary arrangements to ensure the safety of the building;
 - 4° having sent the required notices and having conducted all necessary preparatory work.

- 3.1.4 Post a warning sign at each entrance to the work area, in compliance with Article 2.1.2 of Section 02 82 00 “General Conditions.”

3.2 DEMOLITION WORK IN THE PRESENCE OF LEAD-BASED PAINT

- 3.2.1 Workers must wear appropriate respiratory protection and protective coveralls at all times during the work.
- 3.2.2 Proceed with care to the work in the required locations. Perform the work while avoiding lead dispersion as best as possible.
- 3.2.3 Keep surfaces wet for the duration of work.
- 3.2.4 Move waste to the bin as work progresses;
- 1° Continuously clear all waste or residue. Do not let anything accumulate.
- 3.2.5 Cleaning of Work Area:
- 1° Once all debris and other contaminated waste has been cleared from the work area, clean all surfaces (walls, floors, ceilings, furniture) and equipment present in the work area as follows:
- a) Clean all surfaces and equipment using a HEPA vacuum;
 - b) Clean surfaces and equipment with a damp cloth and let dry;
 - c) Clean surfaces and equipment a second time with another clean damp cloth;
 - d) Clean all surfaces and equipment using a HEPA vacuum on which the nozzle has been cleaned.
- 2° Clean all tools used for the work in this section of specifications.

3.3 DISMANTLING THE WORK AREA

- 3.3.1 Once cleaning is completed, proceed with the final cleaning and demobilization of the work area.
- 3.3.2 Proceed with a final check to ensure the complete removal of dust and debris from surfaces where lead-based paint was removed.

END OF SECTION

END OF SPECIFICATIONS

APPENDIX A
REGISTERS OF MATERIALS LIKELY TO
CONTAIN ASBESTOS

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d'entretien et de fonctionnement sans échelle C. Personnel d'entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d'être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA	6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--	--

Niveau:	Vide sanitaire	Nom de la localisation:	Ensemble du niveau																				
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau	
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.										
Plancher	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-						
Mur	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-						
Plafond	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-						
Structure	-	Non isolé	-	-				xx							-		-						
Tuyauterie	-	Non isolé	-	-				xx							-		-						
Conduit de ventilation	-	Non isolé	-	-				xx							-		-						
Équipement mécanique	Non trouvé	-	-	-				xx							-		-						

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																						
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau			
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)						Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.												
Plancher	-	Colle	-	Caoutchouc	D	C		E-0004	A	x						Sans amiante		-							
Plancher	-	Mortier de maçonnerie	-	Carreau de céramique	D	C		E-0003	A	x						Sans amiante		-							
Mur	-	Ciment à joint	-	-	A	E	Voir annexe	E-0001	A	2700	(7)				PC	Chrysotile 0,1-1%		1							
Mur	-	Placoplâtre	-	-	A	E		E-0002	B	x						Sans amiante		-							
Plafond	-	Ciment à joint	-	-	C	E	Voir annexe	V-0001	A	950	(7)				PC	Chrysotile 0,1-1%		1							
Plafond	-	Placoplâtre	-	-	C	E		V-0002	B	x						Sans amiante		-							

Niveau:	Combles	Nom de la localisation:	Ensemble du niveau																				
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau	
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.										
Plancher	-	Vermiculite	-	-	D	C	Voir annexe	V-9000	B	950	(7)				PC	Reconnu comme amiante		-					

Niveau:	Extérieur	Nom de la localisation:	Ensemble du bâtiment																							
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau				
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)							Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais			Unit.											
Autre	Fenêtre	Mastic	-	-	A	E	Voir annexe	E-0005	A	120	(7)						PL	Chrysotile 1-5%		-	1					
Autre	Toit	Matériau non identifié	-	-	C	E		E-0006	A	x							Sans amiante		-							

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d’entretien et de fonctionnement sans échelle C. Personnel d’entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d’être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA	6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--	--

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																				
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau	
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.										
Plancher	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-						
Mur	-	Fibrociment	-	-	A	E	Voir annexe	E-0003	A	900	(7)				PC	Chrysotile 50-75%		1					
Plafond	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-						
Structure	-	Non isolé	-	-				xx							-		-						
Tuyauterie	-	Non isolé	-	-				xx							-		-						
Conduit de ventilation	Non trouvé	-	-	-				xx							-		-						
Équipement mécanique	Réservoir d'eau chaude domestique	Matériau non identifié	-	-				V-0000							Reconnu sans amiante		-						

Niveau:	Mezzanine	Nom de la localisation:	Ensemble du niveau																					
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau		
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve	
										Bon	Passable	Mauvais	Unit.											
Plancher	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-							
Mur	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-							
Plafond	-	Papier goudronné	-	Métal	D	C		E-0001	A	3500					PC	Sans amiante		1						
Plafond	-	Goudron	-	Métal	D	C	Voir annexe	E-0002	A	3500	(7)				PC	Chrysotile 5-10%		1						
Structure	Non accessible	Non applicable	-	-				xx							-		-							
Tuyauterie	Non trouvé	-	-	-				xx							-		-							
Conduit de ventilation	-	Non isolé	-	-				xx							-		-							
Équipement mécanique	Non trouvé	-	-	-				xx							-		-							

Niveau:	Extérieur	Nom de la localisation:	Ensemble du niveau																					
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau		
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve	
										Bon	Passable	Mauvais	Unit.											
Autre	Fenêtre	Mastic	-	-	C	E		E-0004	A					Sans amiante		-								

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d'entretien et de fonctionnement sans échelle C. Personnel d'entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d'être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA	6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--	--

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																						
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau												Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau	
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)						Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.												
Plancher	-	Colle	-	Carreau de vinyle	D	C		E-0004	A	x						Sans amiante		Des carreaux de vinyle 0003, 0011 et 0012							
Plancher	-	Colle	-	Carreau de vinyle	D	C		E-0007	A	x						Sans amiante		Du carreau de vinyle 0006							
Plancher	-	Colle	-	Caoutchouc	D	C		E-0015	A	x						Sans amiante		Sous revêtement de plancher en caoutchouc							
Plancher	-	Colle	-	Caoutchouc	D	C		E-0016	A	x						Sans amiante		Sous plinthes brunes claires en caoutchouc							
Plancher	-	Colle	-	Caoutchouc	D	C		E-0017	A	x						Sans amiante		Sous plinthes noires en caoutchouc							
Plancher	-	Carreau de vinyle	-	-	A	E		E-0003	A	x						Sans amiante		12 po sur 12 po brun moucheté							
Plancher	-	Carreau de vinyle	-	Carreau de céramique	D	C	Voir annexe	E-0006	A	100	(7)				%	Chrysotile 1-5%		Beige, sous la ceramique	1						
Plancher	-	Carreau de vinyle	-	-	A	E		E-0011	A	x						Sans amiante		12 po sur 12 po brun clair moucheté							
Plancher	-	Carreau de vinyle	-	-	A	E		E-0012	A	x						Sans amiante		12 po sur 12 po gris moucheté							
Plancher	-	Mortier de maçonnerie	-	Carreau de céramique	D	C		E-0005	A	x						Sans amiante		-							
Mur	-	Fibrociment	-	-	A	E		E-0014	A	x						Sans amiante		Plinthes en fibro-ciment							
Mur	-	Ciment à joint	-	-	A	E		E-0009	A	x						Sans amiante		-							
Mur	-	Placoplâtre	-	-	A	E		E-0010	B	x						Sans amiante		-							
Mur	-	Vermiculite	-	-	D	C	Voir annexe	E-0018	B	100	(7)				%	Tremolite 0,1-1%		Dans murs extérieurs	2 à 3						
Plafond	Carreau insonorisant	Carreau de plafond assemblé mécaniquement	-	-	C	E		E-0008	A	x						Sans amiante		1 pi sur 1 pi blanc à stries							
Structure	Non accessible	Non applicable	-	-				xx								-		-							
Tuyauterie	-	Non isolé	-	-				xx								-		-							
Conduit de ventilation	-	Non isolé	-	-				xx								-		-							
Équipement mécanique	Réservoir d'eau chaude domestique	Matériau non identifié	-	-				V-0000								Reconnu sans amiante		-							

Niveau:	Étage	Nom de la localisation:	Ensemble du niveau																						
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau			
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)						Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.												
Plancher	-	Non applicable	-	-				V-0000								Reconnu sans amiante		-							
Mur	-	Ciment à joint	-	-	A	E		E-0001	A	x						Sans amiante		-							
Mur	-	Placoplâtre	-	-	A	E		E-0002	B	x						Sans amiante		-							
Plafond	Carreau insonorisant	Fibre de verre	-	-				V-0000								Reconnu sans amiante		-							
Structure	-	Non isolé	-	-				xx								-		-							
Tuyauterie	-	Non isolé	-	-				xx								-		-							
Conduit de ventilation	-	Fibre de verre	-	-				V-0000								Reconnu sans amiante		-							
Conduit de ventilation	-	Non isolé	-	-				xx								-		-							
Équipement mécanique	Unité de chauffage, ventilation et conditionnement de l'air	Non isolé	-	-				xx								-		-							

Niveau:	Extérieur	Nom de la localisation:	Ensemble du bâtiment																						
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau			
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)						Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon		Passable		Mauvais											
Autre	Fenêtre	Mastic	-	-	A	E		E-0013	A	x						Sans amiante		-							

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d’entretien et de fonctionnement sans échelle C. Personnel d’entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d’être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA 6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																						
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau											Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau		
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)						Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.												
Plancher	-	Colle	-	Carreau de vinyle	D	C		E-0002	A	x						Sans amiante		Du carreau de vinyle 0001							
Plancher	-	Colle	-	Carreau de vinyle	D	C		E-0007	A	x						Sans amiante		Du carreau de vinyle 0006							
Plancher	-	Colle	-	Caoutchouc	D	C		E-0018	A	x						Sans amiante		Sous revêtement de plancher en caoutchouc							
Plancher	-	Carreau de vinyle	-	-	A	E	Voir annexe	E-0001	A	300	(7)					PC	Chrysotile 0,1-1%	12 po sur 12 po beige à lignes brunes	1						
Plancher	-	Carreau de vinyle	-	-	A	E		E-0006	A	x						Sans amiante		12 po sur 12 po gris moucheté blanc							
Plancher	-	Mortier de maçonnerie	-	Carreau de céramique	D	C		E-0013	A	x						Sans amiante		-							
Mur	-	Fibrociment	-	-	A	E	Voir annexe	E-0010	A	100	(7)					PC	Chrysotile 50-75% Amosite 1-5%	-	1						
Mur	-	Ciment à joint	-	-	A	E		E-0003	A	x						Sans amiante		-							
Mur	-	Colle	-	-	D	C		E-0014	A	x						Sans amiante		Sous les plinthes noires en caoutchouc Sous les plinthes noires en caoutchouc							
Mur	-	Colle	-	-	D	C		E-0015	A	x						Sans amiante		Sous les plinthes grises en caoutchouc Sous les plinthes grises en caoutchouc							
Mur	-	Mastic	-	-	A	E		E-0012	A	x						Sans amiante		-							
Mur	-	Placoplâtre	-	-	A	E		E-0004	B	x						Sans amiante		-							
Plafond	-	Ciment à joint	-	-	C	E		V-0003	A	x						Sans amiante		-							
Plafond	-	Panneau fibreux	-	-	C	E		E-0011	B	x						Sans amiante		-							
Plafond	-	Placoplâtre	-	-	C	E		V-0004	B	x						Sans amiante		-							
Plafond	Carreau insonorisant	Carreau de plafond suspendu	-	-	C	E		E-0005	A	x						Sans amiante		2 pi sur 4 pi blanc texturé à points							
Plafond	Carreau insonorisant	Carreau de plafond suspendu	-	-	C	E		E-0008	A	x						Sans amiante		2 pi sur 4 pi blanc à points et à larges stries							
Plafond	Carreau insonorisant	Carreau de plafond suspendu	-	-	C	E		E-0009	A	x						Sans amiante		2 pi sur 4 pi blanc à points et à larges stries							

Niveau:	Mezzanine	Nom de la localisation:	Ensemble du niveau																							
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau				
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)							Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais		Unit.												
Plancher	-	Non applicable	-	-				V-0000								Reconnu sans amiante		-								
Mur	-	Non applicable	-	-				V-0000								Reconnu sans amiante		-								
Plafond	-	Non applicable	-	-				V-0000								Reconnu sans amiante		-								
Structure	-	Non isolé	-	-				xx								-		-								
Tuyauterie	Non trouvé	-	-	-				xx								-		-								
Conduit de ventilation	Non trouvé	-	-	-				xx								-		-								
Équipement mécanique	Non trouvé	-	-	-				xx								-		-								

Niveau:	Extérieur	Nom de la localisation:	Ensemble du bâtiment																					
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau		
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve	
										Bon	Passable	Mauvais	Unit.											
Autre	-	Enduit texturé	-	-	A	E	Voir annexe	E-0019	B	1000	(5)					PC	Chrysotile 1-5%	Appliqué sur blocs de béton	2 à 3	mars 2021				
Autre	Fenêtre	Mastic	-	-	A	E		E-0016	A	x						Sans amiante	-							
Autre	Toit	Matériau non identifié	-	-	C	E		E-0017	A	x						Sans amiante		Bardeaux d'asphalte						

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d'entretien et de fonctionnement sans échelle C. Personnel d'entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d'être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA	6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--	--

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																							
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau											Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau			
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)							Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais		Unit.												
Plancher	-	Non applicable	-	-				V-0000									Reconnu sans amiante		-							
Mur	-	Non applicable	-	-				V-0000									Reconnu sans amiante		-							
Plafond	-	Placoplâtre	-	-	A	E		E-0001	B	x							Sans amiante		-							
Structure	Non accessible	Non applicable	-	-				xx									-		-							
Tuyauterie	Non trouvé	-	-	-				xx									-		-							
Conduit de ventilation	Non trouvé	-	-	-				xx									-		-							
Équipement mécanique	Non trouvé	-	-	-				xx									-		-							

Niveau:	Extérieur	Nom de la localisation:	Ensemble du bâtiment																					
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau								Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau				
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)					Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon		Passable		Mauvais										
Autre	Toit	Bardeaux d'asphalte	-	-	C	E		E-0002	A	x						Sans amiante		-						

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d'entretien et de fonctionnement sans échelle C. Personnel d'entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d'être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA	6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--	--

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																							
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau				
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)							Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais		Unit.												
Plancher	-	Non applicable	-	-				V-0000								Reconnu sans amiante		-								
Mur	-	Non applicable	-	-				V-0000								Reconnu sans amiante		-								
Plafond	-	Vermiculite	-	Métal	D	C		E-0001	B	x						Sans amiante		-								
Structure	Non accessible	Non applicable	-	-				xx								-		-								
Tuyauterie	Non trouvé	-	-	-				xx								-		-								
Conduit de ventilation	Non trouvé	-	-	-				xx								-		-								
Équipement mécanique	Non trouvé	-	-	-				xx								-		-								

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d'entretien et de fonctionnement sans échelle C. Personnel d'entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d'être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA	6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--	--

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																					
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau		
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve	
										Bon	Passable	Mauvais	Unit.											
Plancher	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-							
Mur	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-							
Plafond	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-							
Structure	Non accessible	Non applicable	-	-				xx							-		-							
Tuyauterie	Non trouvé	-	-	-				xx							-		-							
Conduit de ventilation	Non trouvé	-	-	-				xx							-		-							
Équipement mécanique	Non trouvé	-	-	-				xx							-		-							

ACCESSIBILITÉ <i>(Acces.)</i>	VISIBILITÉ <i>(Visib.)</i>	ECHANTILLON <i>(No d'éch.)</i>	FRIABILITÉ <i>(Fria.)</i>	UNITÉS <i>(Unit.)</i>	TYPE DE CHANTIER <i>(Type chant.)</i>	ACTION À MENER <i>(Action)</i>
A. Tous les occupants du bâtiment	C = Cachée	E : Échantillon prélevé	A. Non friable	% : Pourcentage	1. Faible	1. Ramassage de débris de MCA
B. Personnel d'entretien et de fonctionnement sans échelle	E = Exposée	V : Référence visuelle	B. Friable	CHQ : Chaque	2. Modéré	2. Précautions à suivre pour les endroits où des débris de MCA risquent d'être dérangés
C. Personnel d'entretien et de fonctionnement av. échelle		V-0000 : Reconnu sans amiante		PC : Pieds carrés	3(-). Élevé Allégé	3. Enlèvement de MCA
D. Non accessible en temps normal ou sans démolition		V-9000 : Reconnu comme amiante		PL : Pieds linéaires	3. Élevé	4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état
		V-9500 : Amiante présumé				5. Enlèvement préventif de MCA
		xx : Aucun échantillon				6. Réparation de MCA
						7. PGA et surveillance

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																					
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau		
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)				Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve	
										Bon	Passable	Mauvais	Unit.											
Plancher	-	-	-	-				V-0000							Reconnu sans amiante		-							
Mur	-	-	-	-				V-0000							Reconnu sans amiante		-							
Plafond	Non trouvé	-	-	-				xx							-		-							
Structure	-	Non isolé	-	-				xx							-		-							
Tuyauterie	Non trouvé	-	-	-				xx							-		-							
Conduit de ventilation	Non trouvé	-	-	-				xx							-		-							
Équipement mécanique	Non trouvé	-	-	-				xx							-		-							

ACCESSIBILITÉ <i>(Acces.)</i> A. Tous les occupants du bâtiment B. Personnel d'entretien et de fonctionnement sans échelle C. Personnel d'entretien et de fonctionnement av. échelle D. Non accessible en temps normal ou sans démolition	VISIBILITÉ <i>(Visib.)</i> C = Cachée E = Exposée	ECHANTILLON <i>(No d'éch.)</i> E : Échantillon prélevé V : Référence visuelle V-0000 : Reconnu sans amiante V-9000 : Reconnu comme amiante V-9500 : Amiante présumé xx : Aucun échantillon	FRIABILITÉ <i>(Fria.)</i> A. Non friable B. Friable	UNITÉS <i>(Unit.)</i> % : Pourcentage CHQ : Chaque PC : Pieds carrés PL : Pieds linéaires	TYPE DE CHANTIER <i>(Type chant.)</i> 1. Faible 2. Modéré 3(-). Élevé Allégé 3. Élevé	ACTION À MENER <i>(Action)</i> 1. Ramassage de débris de MCA 2. Précautions à suivre pour les endroits où des débris de MCA risquent d'être dérangés 3. Enlèvement de MCA 4. Précautions à suivre pour des travaux pouvant déranger des MCA en mauvais état 5. Enlèvement préventif de MCA	6. Réparation de MCA 7. PGA et surveillance
--	--	--	--	--	--	--	--

Niveau:	Rez-de-chaussée	Nom de la localisation:	Ensemble du niveau																						
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau			
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)						Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon	Passable	Mauvais	Unit.												
Plancher	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-								
Mur	-	Placoplâtre	-	-	A	E		E-0001	B	x					Sans amiante		-								
Plafond	-	Non applicable	-	-				V-0000							Reconnu sans amiante		-								
Structure	Non accessible	Non applicable	-	-				xx							-		-								
Tuyauterie	Non trouvé	-	-	-				xx							-		-								
Conduit de ventilation	Non trouvé	-	-	-				xx							-		-								
Équipement mécanique	Non trouvé	-	-	-				xx							-		-								

Niveau:	Extérieur	Nom de la localisation:	Ensemble du bâtiment																					
Données sur l'identification de la zone présentant des similitudes d'ouvrages (ZPSO)							Précisions sur le matériau										Suivi		Interventions sur le matériau			Après l'enlèvement complet du matériau		
Système	Composant	Matériau	Élément	Recouvrement	Acces.	Visib.	Photo	N° d'éch.	Fria.	État (Action)					Type d'amiante	Document de preuve	Commentaires	Type chant.	Date prochaine inspection	Date de vérification	Nature des travaux réalisés	Date des travaux	Enlèvement terminé	Document de preuve
										Bon		Passable		Mauvais										
Autre	Toit	Bardeaux d'asphalte	-	-	C	E		E-0002	A	x						Sans amiante		-						

APPENDIX B
REGISTER OF PAINT LIKELY TO CONTAIN LEAD



RÉSUMÉ DES RÉSULTATS D'ANALYSE DE LA PEINTURE SUSCEPTIBLES DE CONTENIR DU PLOMB

DATE DU RELEVÉ : 4 mars 2019

BÂTIMENT : Divers bâtiments du parc national Forillon

NUMÉRO DE PROJET GESFOR : R04-25272

TECHNICIEN DE RELEVÉ : Olivier Roger

ADRESSE 122, boulevard de Gaspé, Gaspé (Québec)

INFORMATION ADDITIONNELLE : Sans objet

Bâtiment	Peinture	N° d'éch.	État	Résultat détection du plomb		Résultat lixiviation		Commentaires
				Valeur (mg/kg)	Présence (supérieure à 1 000 mg/kg)	Valeur (mg/L) (supérieure à 5	Interprétation	
Services techniques	Blanc sur béton	Client: n° 1 et Gesfor : P-02	Mauvais	33	Non	—	—	Aucune intervention
	Jaune extérieur sur bois	Client: n° 4 et Gesfor : P-01	Passable	2420	Oui	0,58	Non	Aucune intervention
	Blanc extérieur sur bois	Client : n° 6	Passable	2490	Oui	—	—	Aucune intervention
	Gris sur plancher de béton	Gesfor : P-03	Passable	270	Non	0,02	Non	Aucune intervention
Bâtiment Expérience du visiteur	Blanc sur plafond	Client : n° 2	Bon	15	Non	—	—	Aucune intervention
	Vert extérieur sur bois	Client : n° 3	Bon	33050	Oui	—	—	Aucune intervention
Entrepôt des huiles	Rouge extérieur sur bois	Client : n° 7 et Gesfor : P-01	Mauvais	362	Non	0,27	Non	Aucune intervention
Bâtiment conservation	Gris, plancher bois de la mezzanine	Gesfor : P-01	Mauvais	700	Non	—	—	Aucune intervention

APPENDIX C
PHOTOGRAPHIC SURVEY OF HAZARDOUS
MATERIALS

Bâtiment 1 : Expérience du visiteur



Photo 1 – Photo de l'extérieur du bâtiment

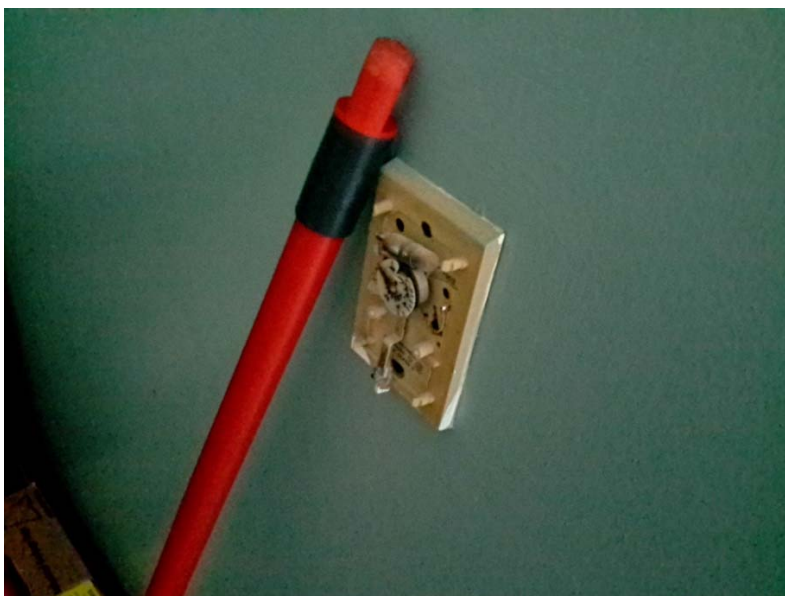


Photo 2- Des thermostats contenant une ampoule de mercure sont présents dans le bâtiment



Photo 3 – Présence de fluorescents contenant du mercure. Compte tenu de l'âge du bâtiment les ballastes sont considérés comme contenir des BPC



Photo 4 – Présence de lumières de sortie de secours dont les batteries contiennent du plomb



Photo 5 - Présence de vermiculite contenant de l'amiante dans l'entreplafond du bâtiment



Photo 6 – Le ciment à joint de mur de placoplâtre contient de l'amiante

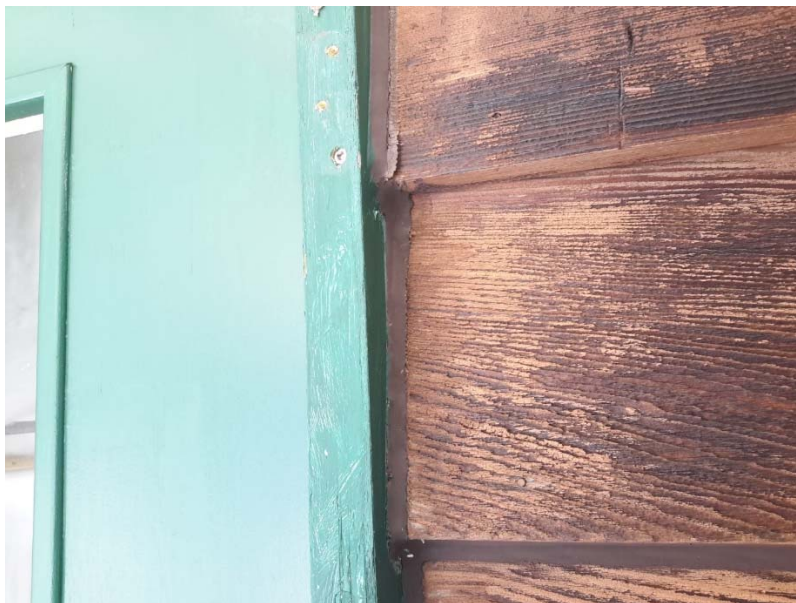


Photo 7 –La peinture verte présente sur les portes et les cadrages de bois extérieurs contient du plomb.
La peinture était en bonne état.



Photo 8 – Enduit blanc-beige, peint en vert, situé sous le mastic brun, extérieur du bâtiment. La peinture verte présente sur les portes et les cadrages de bois extérieurs contient du plomb. La peinture était en bonne état.

Bâtiment 2 : ATCO



Photo 1 – Photo de l'extérieur du bâtiment



Photo 2- Photo de l'intérieur du bâtiment

Bâtiment 6 : Bâtiment de sentier



Photo 1 – Photo de l'extérieur du bâtiment.



Photo 3 – Présence de fluorescents contenant du mercure. Compte tenu de l'âge du bâtiment les ballastes sont considérés comme contenir des BPC



Photo 4 – Présence de lumières de sortie de secours dont les batteries contiennent du plomb



Photo 5 – Présence de panneaux de fibrociment contenant de l'amiante sur les murs

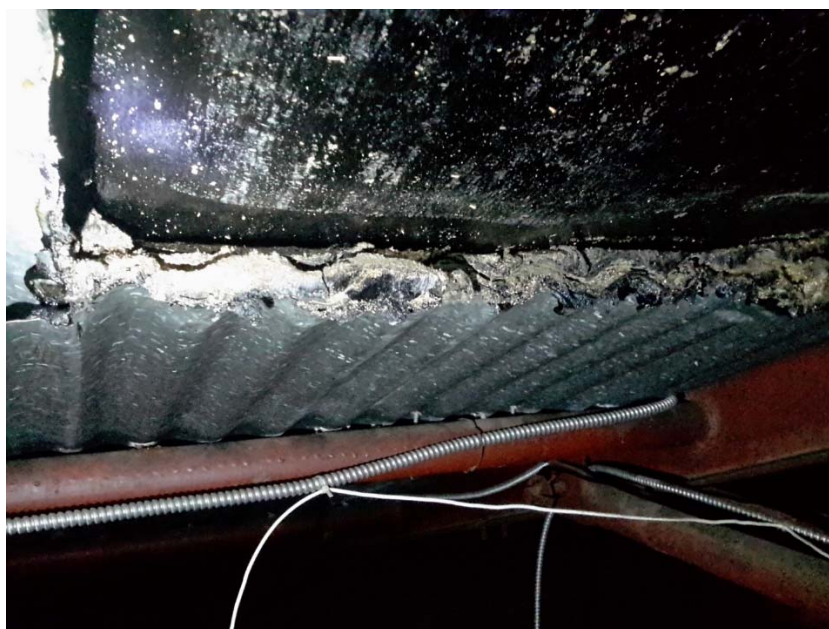


Photo 6 – Le goudron noir présent sous la tôle du plafond contient de l'amiante



Photo 7 – Présence de béton coulé contenant de la silice.

Bâtiment 3 : Conservation



Photo 1 – Photo de l'extérieur du bâtiment.



Photo 2 – Présence de lumières de sortie de secours dont les batteries contiennent du plomb.



Photo 3 – Présence de thermostat contenant du mercure.



Photo 4 – Présence de fluorescent contenant du mercure.



Photo 5 – Ballaste contenant du BPC.

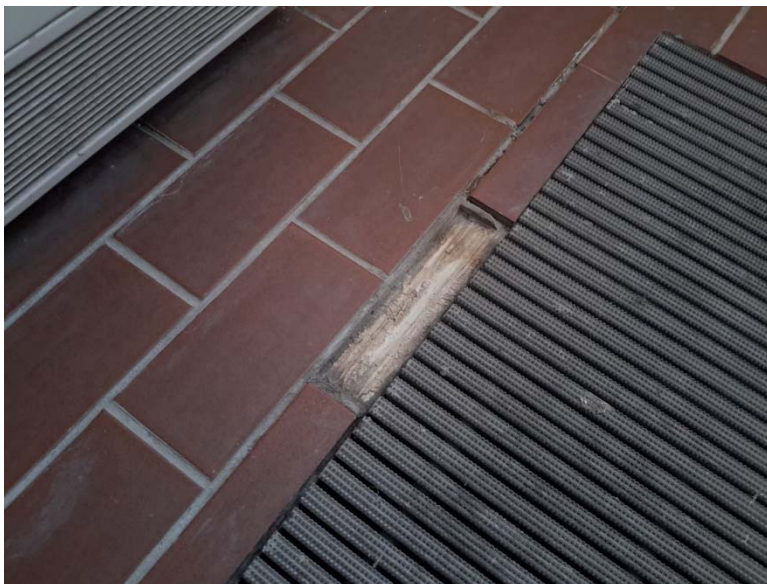


Photo 6 – Présence de silice dans la céramique et autres matériaux.

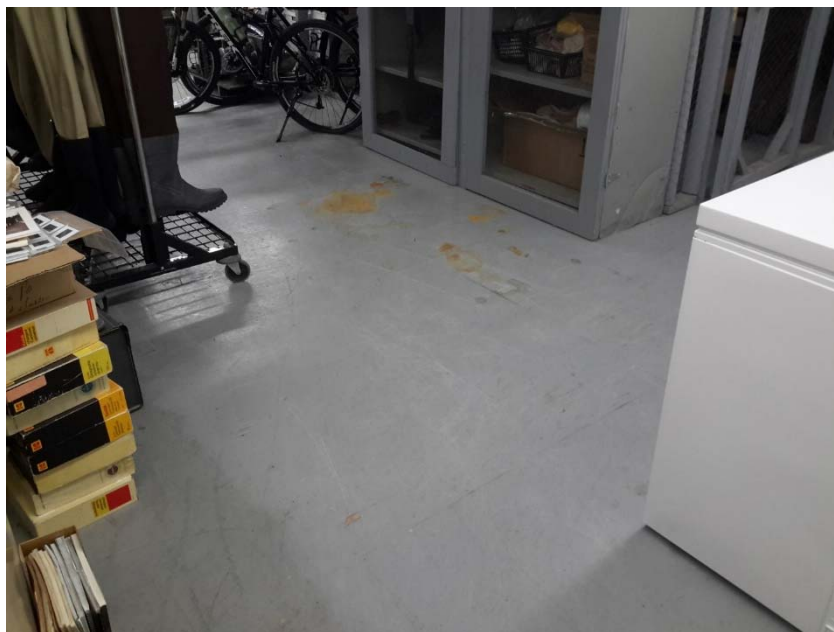


Photo 7 – Présence de silice dans le béton.

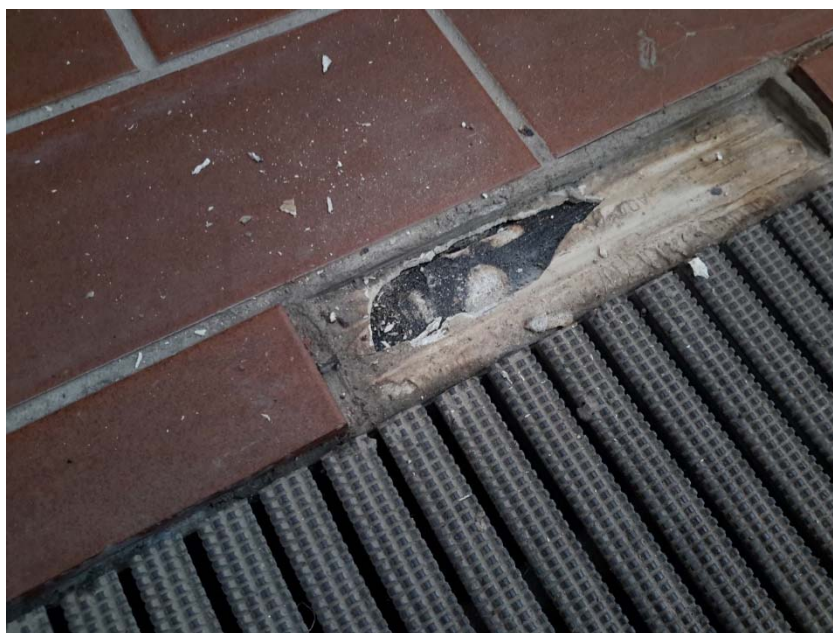


Photo 8 – Présence d'amiante chrysotile dans le carreau de vinyle situé sous la céramique au rez-de-chaussée.

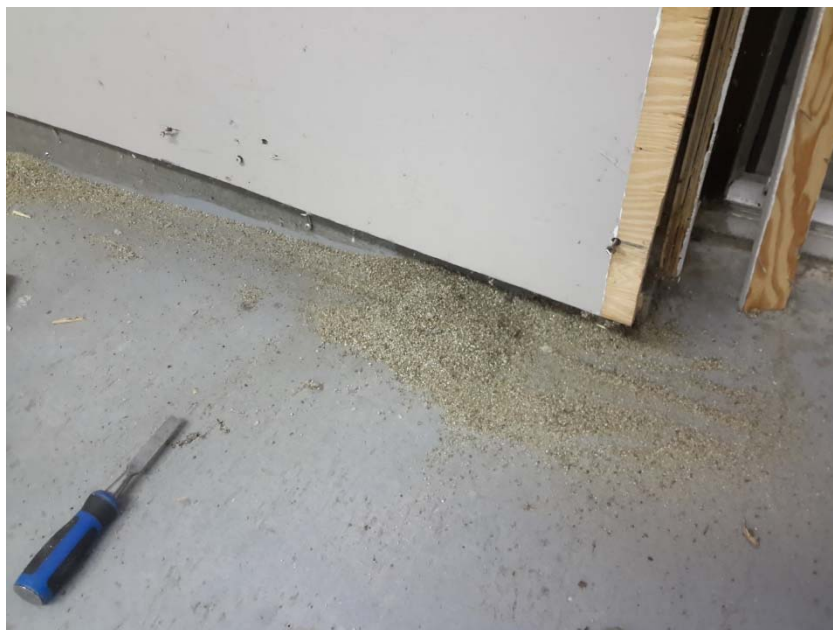


Photo 9 – Présence d’amiante trémolite dans la vermiculite située dans les murs extérieurs au rez-de-chaussée.

Bâtiment 4 : Services techniques



Photo 1 – Photo de l'extérieur du bâtiment.



Photo 2 – Fluorescent susceptible de contenir du mercure.



Photo 3 – Selon l'année de construction du bâtiment, les ballastes sont susceptibles de contenir des BPC.



Photo 4 – Présence de lumières d'urgence dont les batteries sont susceptibles de contenir du plomb.



Photo 5 – Peinture jaune sur porte de bois contenant du plomb mais ne lixivie pas.



Photo 6 – Présence de céramique contenant de la silice.



Photo 7 – Présence de bloc de béton contenant de la silice.



Photo 8 – Présence de plancher en béton coulé contenant de la silice.

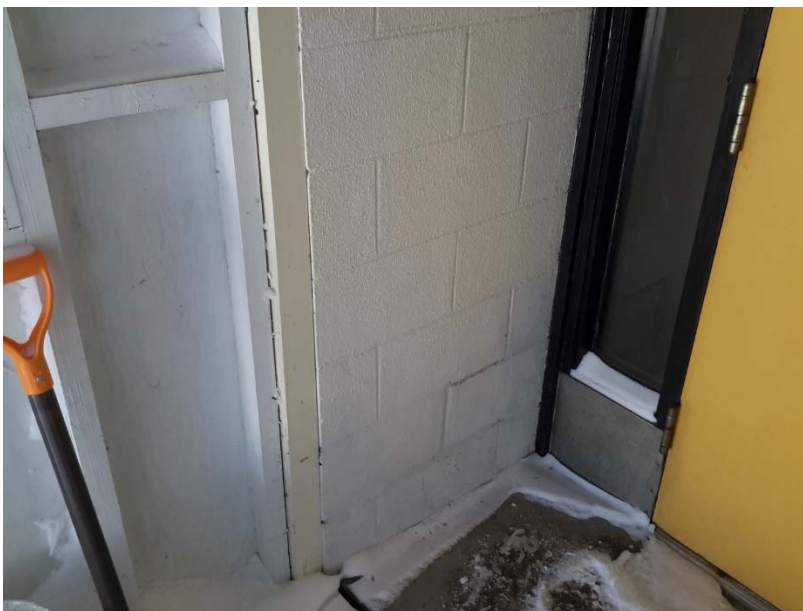


Photo 9 – Présence d'amiante chrysotile dans l'enduit texturé appliqué sur les blocs de béton des murs extérieurs.

Bâtiment 5 : Produits chimiques



Photo 1 – Photo de l'extérieur du bâtiment, présence de silice cristalline dans les blocs de béton et le mortier.

Bâtiment 7 : Entrepôt expérience du visiteur

Aucun MSCA et aucune matière dangereuse dans le bâtiment

Bâtiment 8 : Entrepôt des huiles



Photo 1 – Photo de l'extérieur du bâtiment.



Photo 2- Peinture rouge sur porte en bois contient moins de 1000 mg/kg de plomb.



Photo 3 – Présence de bloc de béton contenant de la silice.

Bâtiment 9 : Entrepôt à pneus



Photo 1 – Photo de l'extérieur du bâtiment.