

PART 1 - GENERAL

1.1 SCOPE

- .1 This specification identifies the hazardous materials that are present in the infrastructure to be removed, and the measures required for handling and disposal of the materials. Removal and disposal of the hazardous building materials are the sole responsibility of the Contractor. The Contractor is responsible for determining an approved waste site and paying all associated permitting, dumping and disposal fees. Note that non-friable interior asbestos products can be deposited in the Dwelling cistern, to the approval of the Departmental Representative. Also note that all metals can be deposited in the Dwelling foundation (and the Dwelling foundation is to be covered with geotextile and 600mm thickness of rock at project completion). Contractor shall be responsible to cut-up larger pieces of metal to make them fit into the Dwelling foundation. If insufficient room in the Dwelling foundation is available for depositing metals, then metals are to be removed from site for disposal and/or recycling at no additional cost to Canada.
- .2 A Hazardous Buildings Materials Assessment and Inventory for this site was carried out by AMEC Environment and Infrastructure, on behalf of Public Works and Government Services Canada, in November, 2013. The applicable report sections are appended to these specifications.

1.2 GENERAL

- .1 The following hazardous materials are present in or on the infrastructure requiring removal/disposal:

.1 Light tower shed

- Lead paint exceeding landfill disposal guidelines is present in the exterior wood siding. The exterior siding (which includes the paint and substrate) is to be considered hazardous waste and must be disposed of at an approved hazardous waste treatment facility.

.2 Lighthouse

- The exterior lead based paint chips on the ground around the perimeter of the lighthouse are to be removed. Lead leachate samples of the exterior paint indicated that the paint is subject to Regulated disposal (i.e. landfill disposal will not be permitted) and in this regard, the paint chips collected are to be stored in covered containers, transported off-site and disposed of as hazardous waste.

.3 Equipment building

- Friable asbestos is present in the form of drywall joint compound. Potential asbestos materials also exist in the electrical and mechanical components and insulators in the building, such as wiring and gaskets inside electrical panels, electronic and/or mechanical equipment, fire rated structures or building materials, and underground infrastructure and piping. All potential asbestos material, if encountered, is to be treated as asbestos containing.
- Lead paint exceeding landfill

disposal guidelines is present in the exterior wood siding. The exterior siding (which includes the paint and substrate) is to be considered hazardous waste and must be disposed of at an approved hazardous waste treatment facility.

- Lead paint exceeding landfill disposal guidelines is present on the concrete foundation walls. Loose/flaking/peeling paint is to be removed from the concrete foundation walls using manual scraping techniques, and disposed off-site as hazardous lead waste.
- Mould is present in the building and in this regard, workers should don proper PPE to prevent/reduce exposure to mould while working within the building.
- Mercury-containing fluorescent light tubes are present in the equipment building. Mercury-containing fluorescent light tubes are to be removed intact and returned to the manufacturer for recycling, or disposed of at an approved facility.
- One (1) steel, horizontal AST (1,000 L) is present inside the building. The tank is to be decommissioned in accordance with applicable Provincial regulations. The Departmental Representative may permit disposal of the AST in the Dwelling foundation, provided the tank is empty of residual fuel.
- Oil in generator tanks (225 litres) to be removed and disposed off-site. Generators can be deposited in the Dwelling foundation after the oil has been removed.
- Bird and/or animal droppings/feces

is present in several areas throughout the interior of the building. Workers should don proper PPE to prevent/reduce exposure to potential microbiological contaminants.

.4 Dwelling

- Friable asbestos is present in the form of drywall joint compound. Non-friable asbestos is present in the form of asphalt shingles, tile particle board and cement board (i.e. transite) around the stove pipe opening to the chimney. Potential asbestos materials also exist in the electrical and mechanical components and insulators in the building, such as wiring and gaskets inside electrical panels, electronic and/or mechanical equipment, interior components of the chimney and furnace, packing associated with cast iron pipe joints, fire rated structures or building materials, and underground infrastructure and piping. All potential asbestos material, if encountered, is to be treated as asbestos containing.
- Lead paint exceeding landfill disposal guidelines is present in the exterior wood siding. The exterior siding (which includes the paint and substrate) is to be considered hazardous waste and must be disposed of at a hazardous waste treatment facility.
- Lead paint exceeding landfill disposal guidelines is present on the concrete foundation walls. Loose/flaking/peeling paint is to be removed from the concrete foundation

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- walls using manual scraping techniques, and disposed off-site as hazardous lead waste.
- Mould is present in the building and in this regard, workers should don proper PPE to prevent/reduce exposure to mould while working within the dwelling.
 - Ozone depleting substances (ODSs) are present in the two (2) freezers in the dwelling basement. All ODSs should be removed by an approved contractor. The Departmental Representative will permit disposal of the freezers in the Dwelling foundation, provided the Freon has first been removed.
 - One (1) steel, horizontal, furnace oil AST (909 L) is present inside the basement of the dwelling. The tank is to be decommissioned in accordance with applicable Provincial regulations. The Departmental Representative will permit disposal of the AST in the Dwelling foundation, provided the tank is empty of residual fuel.
 - Ash inside the brick chimney (if encountered) in the dwelling basement can be disposed of in the small cistern. Ash generated by burning activities on site, can be deposited in the small cistern in the dwelling (see drawings).
 - Bird and/or animal droppings/feces is present in several areas throughout the interior of the dwelling. Workers should don proper PPE to prevent/reduce exposure to potential microbiological contaminants.

.5 Tramway storage shed

- Non-friable asbestos is present in the form of asphalt shingles. Friable asbestos is present in the form of window caulking. Potential asbestos materials also exist in the wiring and gaskets inside mechanical equipment and fire rated structures or building materials, and underground infrastructure and piping. All potential asbestos material, if encountered, is to be treated as asbestos containing.
- Lead paint exceeding landfill disposal guidelines is present in the exterior wood siding. The exterior siding (which includes the paint and substrate) is to be considered hazardous waste and must be disposed of at a hazardous waste treatment facility.
- Lead paint exceeding landfill disposal guidelines is present on the concrete foundation walls. Loose/flaking/peeling paint is to be removed from the concrete foundation walls using manual scraping techniques, and disposed off-site as hazardous lead waste.
- Mould may be present in the building and in this regard, workers should don proper PPE to prevent/reduce exposure to mould while working within the building.
- One (1) fluorescent light fixture is present in the shed. The ballast associated with this light fixture is to be assumed as containing PCBs and is to be removed and disposed of as hazardous waste, in accordance with Provincial guidelines.

1.3 PROTECTIVE
EQUIPMENT/PROCEDURES

- .1 Protective equipment and clothing to be worn by workers and visitors in work area include as a minimum:

.1 Respirator - NIOSH approved and equipped with replaceable P100 HEPA filter cartridges, acceptable to NL Labour Relations and NL OSHA. Respirator must be suitable for the type and level of lead dust and mould spore exposure in the work area. Provide sufficient filters so workers can install new filters following disposal of used filters and before re-entering contaminated areas. Workers must not have facial hair that affects the seal between the respirator and face.

.2 Gloves and eye protection.

.3 Disposable protective clothing that does not readily retain or permit skin contamination, consisting of full body covering including head covering with snug fitting cuffs at wrists, ankles, and neck.

.4 Remove gross contamination from clothing before leaving work area. Place contaminated work suits in receptacles for disposal with other lead/mould contaminated materials. Upon completion of lead/mould abatement, dispose of footwear as contaminated waste or clean thoroughly inside and out using soap and water before removing from work area.

.5 Eating, drinking, chewing and smoking must not be permitted in the work area. Workers must wash hands and face when leaving the work area.

.6 Workers must be trained in hazards of lead/mercury and mould exposure, personal hygiene, work procedures and the proper use of respirators. Provide proof to Departmental Representative prior to work.

1.4 SUBMITTALS

- .1 Before commencing work obtain from the appropriate agency and submit to Departmental Representative all necessary

permits for transportation and disposal of hazardous waste (including asbestos waste). Ensure that waste disposal operator is fully aware of hazardous nature of material being dumped, and proper methods of disposal. Submit proof satisfactory to Departmental Representative that suitable arrangements have been made to receive and properly dispose of hazardous waste.

- .2 Submit proof satisfactory to Departmental Representative that all employees have had instruction on all hazardous material exposure, respirator use, dress, entry and exit from work areas, and all aspects of work procedures and protective measures.
- .3 Submit proof satisfactory to the Departmental Representative that all employees have respirator fitting and testing. Workers must be fit tested (irritant smoke test) with the respirator that is personally issued.
- .4 Submit Workplace Health, Safety and Compensation Commission status and transcription of insurance.
- .5 Use procedures and equipment required to limit occupational and environmental exposure to lead when lead- containing paint is removed.

- 1.5 LEAD PAINT DISPOSAL .1 Disposal of lead waste must comply with Federal and Provincial regulations. Dispose of leachable lead waste in UN certified containers. Label containers with appropriate warning labels. Disposal of containers is to be at a certified treatment/disposal facility such as STABLEX.

1.6 INSURANCE

- .1 Provide proof of Contractor's General and Environmental Liability Insurance, specific to cover the hazardous materials known to exist on this site.

1.7 MEASUREMENT FOR PAYMENT

- .1 This portion of the work will not be measured for payment but will be included in the Lump Sum Amount of the contract.