

PART 1 – GENERAL

1.1 REGULATORY REQUIREMENTS

.1 An investigation into the presence of designated substances for the Swing Stages Replacement Project at Les Terraces de La Chaudière Complex (LTDLC) in Gatineau, Quebec was performed in order to help meet the requirements of the Province of Québec's *An Act Respecting Occupational Health and Safety* Section 51, as applicable, whereby, "Every employer must take the necessary measures to protect and ensure the safety and physical well-being of his or her worker. He/she must, in particular, subsection (5) use methods and techniques intended for the identification, control and elimination of risks to the safety or health of the worker, subsection (8) see that no contaminant emitted or dangerous substance used adversely affects the health or safety of any person at a workplace; and subsection (13) give, to the workers, the health and safety committee, the certified association, the public health director and the Commission, the list of dangerous substances used in the establishment and of the contaminants that may be emitted". In addition, section 300 (a) of the Québec Regulation respecting occupational health and safety also states that before any work or task is carried out in an enclosed area, that the categories of contaminants likely to be present in the area need to be made available in writing. The *Canada Labour Code* also stipulates under Part II, Section 124 that every employer shall ensure that the health and safety at work of every person employed by the employer is protected. By having a Designated Substances Report (DSR) conducted, the Departmental Representative will be able to inform his or her employees, contractors, and tenants of any designated substances that may be present and possibly disturbed throughout the duration of the project. The informed Departmental Representative will then be able to impose appropriate health and safety precautions for all applicable personnel as required.

.2 Applicable regulations are as follows. Where there is an absence of applicable legislation and/or guidelines in the Province of Québec, some Ontario regulations/guidelines have been referenced.

- .1 **Acrylonitrile:** "Designated Substance – Acrylonitrile" *O.Reg 835* (as amended by *O.Reg 490/09*)
- .2 **Arsenic:** "Designated Substance – Arsenic" *O.Reg 836* (as amended by *O.Reg 490/09*)
- .3 **Asbestos**
 - .1 s. 3.23.7, 3.23.8, 3.23.9, 3.23.10, 3.23.11, 3.23.13, 3.23.14, 3.23.15, and 3.23.16 of the Québec *Safety Code for the Construction Industry* shall be abided.

- .2 PWGSC Departmental Policy DP
057 – “Asbestos Management”
- .4 **Benzene:** “Designated Substance –
Benzene” *O.Reg 839* (as amended by
O.Reg 490/09)
- .5 **Coke Oven Emissions:** “Designated
Substance – Coke Oven Emissions” *O.Reg
840* (as amended by *O.Reg 490/09*)
- .6 **Ethylene Oxide:** “Designated Substance –
Ethylene Oxide” *O.Reg 841* (as amended by
O.Reg 490/09)
- .7 **Isocyanates:** “Designated Substance –
Isocyanates” *O.Reg 842* (as amended by
O.Reg 490/09)
- .8 **Lead:**
 - .1 “Designated Substance – Lead”
O.Reg 843 (as amended by *O.Reg
490/09*)
 - .2 Hazardous Products Act’s *Surface
Coating Materials Regulations
SOR/2005-109*
 - .3 *Regulation Respecting Hazardous
Materials (O.C. 1310-97)*, under the
*Environmental Quality Act, R.S.Q.,
c. Q-2 - (21)*
 - .4 *Guideline: Lead on Construction
Projects as revised, Ontario Ministry
of Labour*
- .9 **Mercury:**
 - .1 “Designated Substance – Mercury”
O.Reg 844 (as amended by *O.Reg
490/09*)
 - .2 *Regulation Respecting Hazardous
Materials (O.C. 1310-97)*, under the
*Environmental Quality Act, R.S.Q.,
c. Q-2 - (21)*
- .10 **Silica:**
 - .1 “Designated Substance – Silica”
O.Reg 845 (as amended by *O.Reg
490/09*)
 - .2 *An Act Respecting Occupational
Health and Safety under Schedule A
Permissible Exposure Values for
Gases, Dusts, Fumes, Vapours or
Mists in the Work Environment*
 - .3 *Guideline: Silica on Construction
Projects as revised, Ontario Ministry
of Labour*
- .11 **Vinyl Chloride:** “Designated Substance –
Vinyl Chloride” *O.Reg 846* (as amended by
O.Reg 490/09)
- .3 Québec occupational exposure limits for specific
contaminants are listed in *An Act Respecting
Occupational Health and Safety under Schedule A*

Permissible Exposure Values for Gases, Dusts, Fumes, Vapours or Mists in the Work Environment

- .4 All contractors requesting tenders from subcontractors shall furnish this report to subcontractors.

1.2 VALIDITY DATE

- .1 El Houcine Faouzi and Olivier Brazeau from Environmental Services Directorate of the Real Property Branch, PWGSC, conducted the on-site survey for this report on 2013/05/22.

- .2 The work area is located at Les Terraces de La Chaudière Complex in Gatineau Quebec. The scope of the proposed work consists of replacing four (4) swing stages, davit arms and electrical plugs on 9th floor of 25 Eddy, 8th and 11th floor of 15 Eddy, 7th floor of 1 Promenade de Portage and 9th floor of 10 Wellington.

- .1 The scope of work for this report involved a visual inspection of building materials and contents for the presence of suspected designated substances and hazardous materials in the project area outlined above.

- .2 From the visual inspection suspect materials were sampled and analyzed, where appropriate, for the above substances. On the basis of this inspection, a total of three (3) bulk samples of suspected asbestos-containing materials (ACMs) have been collected.

The samples were then submitted for analysis to the EXOVA Accutest Laboratory (an accredited CAEAL lab) located at 146 Colonnade Road, Nepean, Ontario, K2E 7Y1.

The asbestos samples were analyzed using IRSST 244 Method.

- .3 The visual inspection was limited to readily accessible areas in the project area.

- .4 A reasonable effort was made to capture all potential designated substances, and hazardous materials deemed pertinent. Note, however, that no scope of work, no matter how exhaustive, can identify all potential contaminants. Should any designated substance (or potential hazardous materials) not apparent from the survey be encountered in the course of demolition or renovation work, work shall be

- stopped, preventative measures taken, and the Departmental Representative notified immediately. Do not proceed until written instructions have been received.
- .5 Prior to beginning work, it must be confirmed with the Departmental Representative that no additional designated substances have been brought to the project area.
 - .6 In addition, the survey refers to halocarbons, however, it does not refer to other substances that may be present in the day-to-day usage for specialized equipment or areas in buildings (i.e., lead shields, fume hoods, etc.).
 - .7 There is a possibility that materials, which could not be reasonably identified within the scope of this assessment or which were not apparent during previous site visits may exist. Should any designated substance be encountered in the course of demolition, work must be stopped, preventative measures taken, and the Departmental Representative must be notified immediately. **Do not proceed until written instructions have been received.**

PART 2 - DESIGNATED SUBSTANCES

2.1 SURVEY RESULTS

- .1 **ACRYLONITRILE:** Not Identified
- .2 **ARSENIC:** Not Identified
- .3 **ASBESTOS:** Not Identified

Representative caulking samples, collected on 2013/5/22 from materials located within the project area have been analyzed for asbestos. The table 1 summarizes the analytical results of building material samples collected by ESD on May 22, 2013 from the project area and submitted for IRSST method analysis at Exova Laboratories Inc. (an accredited Canadian Association for Laboratory Accreditation lab).

Table 1: Asbestos Sample Results

Sample ID	Material	Location	Asbestos Type	Asbestos content (%)
TLDC-AS-1A	Grey caulking	From electrical conduit, 25 Eddy, 9th floor roof	n/a	n/d
TLDC-AS-2A	Grey caulking	From electrical conduit, 1 Promenade du Portage, 7th floor roof	n/a	n/d
TLDC-AS-3A	Black caulking	From electrical conduit, 1 Promenade du Portage, 7th floor roof	n/a	n/d

n/a: Not applicable, n/d: None detected

Based on visual observations and the analytical results outlined in Table 1, no Asbestos Containing-Material was identified within the project area.

- .4 **BENZENE:** Not Identified
- .5 **COKE OVEN EMISSIONS:** Not Identified
- .6 **ETHYLENE OXIDE:** Not Identified
- .7 **ISOCYANATES:** Not Identified
- .8 **LEAD:** Not Identified
- .9 **MERCURY:** Not Identified
- .10 **SILICA: Identified**
Free crystalline silica is present in concrete and bricks throughout the project area.
- .11 **VINYL CHLORIDE MONOMER:** Not Identified
- .12 **POLYCHLORINATED BIPHENYLS (PCBs):** Not Identified
- .13 **HALOCARBONS:** Not Identified

2.2 RECOMMENDATIONS

1. SILICA

The Québec *Regulation Respecting Occupational Health and Safety* defines crystalline silica in the form of respirable dust as a suspected carcinogen.

.1 Silica dust can be generated through such processes as blasting, grinding, crushing, and sandblasting silica-containing material. Since silica is presumed present in concrete and bricks within the project area, appropriate respiratory protection and ventilation must be donned during the demolition and modifications of these structures, as

per 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*. Personal protective equipment shall be selected, adjusted, used and cared for in accordance with the *CSA Standard Z94.4-93* entitled “*Selection, Use and Care of Respirators*”.

.2 The exposure of workers to silica should be reduced to a minimum as defined under Schedule 1 of the *Québec Regulation Respecting Occupational Health and Safety*.

2. CONTRACTORS DUTIES

The contractor must review the designated substance report and take the necessary precautions to protect the health and safety of the workers and the environment. As per the Province of Québec’s *An Act Respecting Occupational Health and Safety* Section 51 whereby, “Every employer must take the necessary measures to protect and ensure the safety and physical well-being of his worker. He must, in particular, (5) use methods and techniques intended for the identification, control and elimination of risks to the safety or health of the worker, (8) see that no contaminant emitted or dangerous substance used adversely affects the health or safety of any person at a workplace; and (13) give, to the workers, the health and safety committee, the certified association, the public health director and the Commission, the list of dangerous substances used in the establishment and of the contaminants that may be emitted.” In addition, section 300 (a) of the *Québec Regulation respecting occupational health and safety*, also states that before any work or task is carried out in an enclosed area, that the categories of contaminants likely to be present in the area need to be made available in writing. The party hiring the contractor (i.e., The Departmental Representative) shall ensure that the contractor and subcontractor (if any) for the project has received a copy of the designated substance report prior to entering a binding contract for the supply of work on the project. If you have any questions about the designated substance report, please contact the Departmental Representative.

END OF SECTION