

Part 1 General

1.1 REGULATORY REQUIREMENTS

- .1 An investigation into the presence of designated substances at Les Terrasses de la Chaudière was performed in order to meet the requirements of the Province of Québec's 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, 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 DSR conducted, the Project Manager 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 Project Manager will then be able to impose appropriate health and safety precautions for all applicable personnel as required. The Guide to Green Government sets out the policy requirements for the federal government to meet or exceed federal environmental statutes and regulations, and the emulation of best practices from the public and private sector. Within the Guide to Green Government, pollution prevention efforts are required in federal projects. Pollution prevention is defined as the use of processes, practices, materials, products or energy that avoid or minimize the creation of pollutants and waste, and reduce overall risk to human health and environment. These policies must be adhered to throughout the duration of the Masonry Repair Project at Les Terrasses de la Chaudière, Gatineau, Québec.
- .2 In the absence of applicable legislation in the Province of Québec, the following Regulations pertaining to designated substances have been referenced from the Ontario Occupational Health and Safety Act and Regulations. The designated substances identified in the Occupational Health and Safety Act and its corresponding regulations are:
 - .1 Acrylonitrile: O. Reg. 835 as amended by O. Reg. 507/92
 - .2 Arsenic: O. Reg. 836 as amended by O. Reg. 508/92
 - .3 Asbestos
 - .1 s. 3.23.7, 3.23.8, 3.23.9, 3.23.10, 3.23.11, 3.23.13 of the Québec Safety Code for the Construction Industry shall be abided by.
 - .4 Benzene: O. Reg. 839 as amended by O. Reg. 387/00
 - .5 Coke Oven Emissions: O. Reg. 840/90 as amended by O. Reg. 512/92
 - .6 Ethylene Oxide: O. Reg. 841 as amended by O. Reg. 515/92
 - .7 Isocyanates: O. Reg. 842 as amended by O. Reg. 518/92
 - .8 Lead: In the province of Québec, the Regulation Respecting Hazardous Materials (O.C. 1310-97), under the Environmental Quality Act, R.S.Q., c. Q-2 - (21) applies.
 - .9 Mercury: O. Reg. 844 as amended by O. Reg. 390/00. In the province of Québec, the Regulation Respecting Hazardous Materials (O.C. 1310-97), under the Environmental Quality Act, R.S.Q., c. Q-2 - (21) applies.

- .10 Silica: In the province of Québec, the Regulation Respecting Occupational Health and Safety under Schedule I Permissible Exposure Values for Gases, Dusts, Fumes, Vapours or Mists in the Work Environment applies.
- .11 Vinyl Chloride: O. Reg. 846 as amended by O. Reg. 392/00
- .3 All contractors requesting tenders from subcontractors shall furnish this report to subcontractors.

1.2 VALIDITY DATE

- .1 The site survey for this report was conducted on 2005/07/19, by Steve Forest, Designated Substances Officer of the Office of Greening Government Operations, PWGSC.
- .2 The work area is located at Les Terrasses de la Chaudière, Gatineau, Québec. The scope of the work proposed is understood to consist of removal and resetting exterior bricks as required.
 - .1 The scope of work for this report involved a visual inspection of building materials and contents for the presence of suspected designated substances in the project areas 2005/07/22.
 - .2 From the visual inspection, suspect materials were sampled and analyzed, where appropriate, for the above substances. On the basis of these inspections, a total of one (1) sample of suspected asbestos containing material was collected on 2005/07/22 and submitted to the Accutest Laboratory (an accredited CAEAL lab) located at 146 Colonnade Road, Nepean, Ontario, K2E 7Y1 for analysis.
 - .3 The surveys were limited to those areas which could be accessed by non-destructive means. The visual inspection and sampling was limited to readily accessible areas. Destructive testing was not included in the investigation, however, is recommended prior to any major demolition. Due to the nature of building construction, some inherent limitations exist as to the possible thoroughness of the designated substance survey. The survey did not include the demolition of floors, floor finishes; plaster ceilings or walls or other areas to examine concealed conditions. No confined space has been accessed for the purposes of this investigation.
 - .4 It is possible that the designated substances mentioned above are present in non-accessed areas and concealed spaces (i.e., wall and ceiling cavities), and confined spaces. No other areas outside the defined work boundaries have been assessed.
 - .5 Prior to beginning work confirm with the Project Manager that no additional designated substances have been brought to the project area.
 - .6 In addition, the survey refers to PCBs and 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 may exist which could not be reasonably identified within the scope of this assessment, or which were not apparent during previous site visits. Should any designated substance be encountered in the course of demolition, stop work, take preventative measures, and notify the Departmental Representative 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
 - .1 Asbestos is a naturally occurring material which was once used in several building materials in the construction industry. More common uses are thermal insulation for pipes and boilers, structural steelwork fireproofing, floor tiles and in wall and ceiling plasters. There are two classes of asbestos containing materials: these are friable and non-friable. Friable asbestos containing materials are loose in composition or can be easily crumbled using hand pressure. Non-friable asbestos containing materials are more durable and are held together by a binder such as cement, vinyl or asphalt.
 - .2 The results of the one (1) sample of suspected asbestos containing material is found below in Table 1.

Table 1 - Asbestos Sample Results

Sample Number	Material	Location	Asbestos Type	Asbestos content (%)
10W-AS-01	Brick mortar	10 Wellington Street; exterior brickwork, outside of north entrance	n/d	n/d

n/d = none detected

- .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
 - .1 Free crystalline silica is present in concrete and other cementitious materials such as bricks and masonry 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

.1 The Québec Regulation Respecting Occupational Health and Safety under Schedule I Permissible Exposure Values for Gases, Dusts, Fumes, Vapours or Mists in the Work Environment, defines crystalline silica in the form of respirable dust as a suspected carcinogen. Section 42 of the regulation stipulates that exposure of workers to crystalline silica shall be reduced to a minimum, even when potential exposure remains within the 0.1 ppm ceiling defined under Schedule I of the regulation.

.1 Silica occurs as crystalline material in cement. Crystalline silica is regulated under the Québec Regulation Respecting Occupational Health and Safety under Schedule I Permissible Exposure Values for Gases, Dusts, Fumes, Vapours or Mists in the Work Environment.

.2 Silica dust can be generated through such processes as blasting, grinding, crushing, and sandblasting silica containing material. Silica was found in concrete, masonry, drywall, and plaster within the project area, and therefore, appropriate work practices including adequate ventilation and respiratory protection must be utilized during the demolition and modification 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 CONTRACTORS DUTIES

.1 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 PWGSC 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. As per Québec's An Act Respecting Occupational Health and Safety Section 51, while onsite, the contractor supervisor shall take every reasonable precaution in the protection of a worker. If you have any questions about the designated substance report, please contact the Departmental Representative.

END OF SECTION