

**Part 1            General**

**1.1                RELATED SECTIONS**

- .1        Section 01 11 01 - Work Related General Information.
- .2        Section 01 35 43 – Environmental Procedures.
- .3        Section 01 74 21 – Construction/Demolition Waste Management
- .4        Section 02 41 16 – Structure Demolition.

**Part 2            Products**

**2.1                NOT USED**

- .1        Not Used.

**Part 3            Execution**

**3.1                REMOVAL OF SOLID WASTE AND DRY MATERIALS**

- .1        Do not bury or burn solid waste and dry materials on site.
- .2        The contractor shall engage, at his own expenses, an environmental consulting expert, to elaborate and to implement a management program for cleaning waste, demolition and excavation. The program is subject to the acceptance of the provincial environmental authorities (MDDEP).
- .3        Do not dispose of solid waste and dry materials in waterways, unless authorized in writing by the Departmental Representative.
- .4        Dry materials from demolition that are not to be reused shall be disposed off the site.
- .5        Dry materials from demolition, according to the Regulation Respecting Solid Waste RSQ 1981, c. Q-2, r. 14 of the Environment Quality Act are defined in the Regulation (section 1 (n)) as: “non-fermentable, shredded residues free of hazardous waste, cut wood, debris and rubble; fragments of concrete, masonry and asphalt”.
- .6        Dry materials from demolition that are not reusable shall be disposed of at sites authorized by the Ministry of Sustainable Development, Environment and Parks of Quebec (MSDEP). On request, the MSDEP can provide information on the sites in operation.
- .7        The Contractor shall submit to the Departmental Representative a copy of the authorizations and permits from the owners or managers of dry material disposal sites before the latter authorizes the Contractor to remove dry materials from the work site.
- .8        The Contractor shall demonstrate that he knows the environmental quality of the depot site chosen. If the Contractor want to depose materials on a none evaluate (or not certified

regulated) site he has to proceed, at his own cost, of the soil characterisation and obtain the authorisation of Departmental Representative before using it.

If the Contractor wants to dispose dry materials in a site other than L.E.T. authorized by MDDEP, he has to obtain the authorisation from MDDEP unless he wants to use dry materials (soils examples, crushed concrete residues) for filling; he has to produce site authorisations from the municipality and in some case from MDDEP. The Contractor shall produce authorisations to respect the provincials/municipals regulations.

Note: The soils characterisation consist to sampling and analyse soils samples to determine the value of mineral (lead, brass, copper, zinc, cadmium, chrome, arsenic, nickel and mercury), of hydrocarbon of petroleum and of polycyclic aromatic hydrocarbons (PAH's). (Ref.: Guide for Site Characterization of MDDEP and the Policy of protection of soils and rehabilitation of contaminate land (MDDEP).

- .9 The soil and sediment quality near the intended site of the work was evaluated in 2011 by the firm LVM and Exova laboratory and **EnviroServices firm in 2013**. The results of chemical analyzes of samples soil showed **that there is exceeding "Commercial/Industrial" objective of Canadian council of Ministers of the Environnement (CCME) recommendations' and/or AB range from MSDEP for metals and polycyclic aromatic hydrocarbons (PAH). The zone is localized in northwest sheet pile wall sector near the old fuel tank. In the same area, there is in 1.0 m. to 1.5 m. depth C<sub>10</sub>-C<sub>50</sub> hydrocarbon and BC range contamination. The estimated volume for BC range is 66.5 m<sup>3</sup>. The rest of the material over the A criteria but under the B criteria is estimated to 146 m<sup>3</sup>. For the excavated sediment near consolidation structure works, just one sample exceed the PAH criteria. The sample is located between the fisher man wharf and the Whalen bridge abutment. The contaminated sediment volume in MSDEP BC range in PAH is estimated to 15.2 m<sup>3</sup>. This layer is on the surface between 0 and 0.2 m. During the excavation works the contractor must put a containment curtain to prevent contaminated sediment dispersion in the river and the pond water. In the works, there is near of 150 m<sup>3</sup> of metals and PAH contaminated soil (sediment) in AB range to dispose and near 85 m<sup>3</sup> in BC range to dispose to.**
- .10 The environmental expert appointed by the Contractor shall consider this information in preparing his management plan for disposal of materials.
- .11 A laboratory authorized by the Contractor and approved by the Departmental Representative take samples in the soil piles deposited and will notify the Departmental.
- .12 Soils will be managed under their contamination degree, according to the Grid management of contaminated soil excavated Interim MDDEP:
  - .1 Contaminated soil, smaller than "A";
  - .2 Contaminated soil, class "A-B";
  - .3 Contaminated soil, class "B-C"**
- .13 According to the results of parameters analyzed, all soils will be loaded and transported out of the depot site by the Contractor to authorized sites by MDDEP.
- .14 Contractor shall provide to Departmental Representative sites certificates demonstrating that these sites are authorized by the MDDEP. The excavation of "AB" and "BC" classified soils shall not start until the Departmental Representative have in his possession all documents showing MDDEP's authorizations.

- .15 Contractor shall provide to Departmental Representative a copy of results analysis, weigh tickets where necessary, permits and licenses obtained by relevant authorities.
- .16 **The contaminated sediments indicated in cubic meters in specifications and EnviroServices' drawings have been conversed to metric tons in the unit board price for payment.**
- .17 **The contractor must characterise the bottom and walls of excavations to determine the soil in place quality. He must provide at least 4 composite samples for bottom and 4 other composite samples for walls. The samples will be analysed for parameters as follows: base metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn), PAH and C<sub>10</sub>-C<sub>50</sub> hydrocarbons. The results must be transmitted to Departmental Representative as soon as possible to determine supplementary excavation works if required. If supplementary excavation works are required, the contractor must excavate and make other samples in bottom and walls.**

**For contaminated sediments, the contractor must anticipate 1 sediment sample after the contaminated sediment excavation. The PAH analysis must be done and result will be transmitted to Departmental Representative.**

### **3.2 INCORPORATING DEMOLITION MATERIAL INTO SITE WORK**

- .1 Quarry run stone behind the pile wall shall be incorporated in work like showing on drawings.

### **3.3 REUSABLE MATERIALS**

- .1 Materials from demolition that are reusable are wood in good condition, rock, excavation materials, steel, etc.
- .2 Only the Contractor shall determine which materials are reusable, it is his responsibility.
- .3 Sort at source reusable materials from the structure demolition and store them on the site are not subject to federal or provincial regulations effective.
- .4 Dry materials from demolition that are reusable may be removed from the site as long as the Contractor:
  - .1 submits a written promise that the site user and owner, if the user is not the owner, where the materials deemed reusable by the Contractor will be stored shall indemnify and save Her Majesty harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceeding by whomever made, brought or prosecuted and in any manner based upon, arising out of, related to, occasioned by or attributable to the storage of these materials at the site by the Contractor, his employees, agents or sub-contractors, or the subsequent use of these materials;
  - .2 submits a document duly signed by the site user and owner, if the user is not the owner, authorizing the Contractor to store demolition material deemed reusable by the Contractor at the site;
  - .3 submits a document duly signed by the site user and owner, if the user is not the owner, indemnifying and saving Canada harmless from any claims resulting from storage at the site and subsequent use of demolition materials deemed reusable by the Contractor.

This document shall:

- .1 be completed in duplicate if the site user is not the owner (i.e. one copy for the site user and one copy for the site owner);
- .2 indicate the cadastre number of the lots of the storage site for material deemed reusable and the name of the owner of these lots;
- .3 contain the following paragraph:  
“\_\_\_\_\_ (enter the name of the company using the site or the site owner) shall indemnify and save Canada harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings by whomever made, brought or prosecuted and in any matter base upon, arising out of, related to, occasioned by or attributable to the storage by \_\_\_\_\_ (enter the Contractor's name), his employees, agents or sub-contractors, on the lot(s) bearing the number(s) \_\_\_\_\_ in the cadastre of \_\_\_\_\_, of demolition materials from \_\_\_\_\_, (enter the structure to be demolished) deemed reusable by the \_\_\_\_\_ (enter the Contractor's name), or to the subsequent use of these materials”;
- .4 provides a document duly issued by the RCM or the municipality where the site is located authorizing the site user and owner, if the user is not the owner, to use the site to store reusable material from the demolition site; and
- .5 obtain written approval from the Departmental Representative in advance.

**END OF SECTION**