

**Part 1           General**

**1.1               RELATED SECTIONS**

- .1       Section 01 33 00 – Submittal Procedures.
- .2       Section 01 74 21 – Construction/Demolition Waste Management.

**1.2               DEFINITIONS**

- .1       Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
- .2       Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

**1.3               SUBMITTALS**

- .1       Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2       Prior to commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by Departmental Representative. Environmental Protection Plan is to present comprehensive overview of known or potential environmental issues which must be addressed during construction.
- .3       The actions included in the plan of environmental protection must be presented according to a level of detail commensurate with environmental issue, with required construction tasks and they must conform to the requirements enumerated in the present section.
- .4       Environmental protection plan include:
  - .1       Names of persons responsible for ensuring adherence to Environmental Protection Plan.
  - .2       Spill Control Plan: including procedures, implied people and their formation, instructions, and reports to be used in event of unforeseen spill of regulated substance.
  - .3       Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
  - .4       Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, do not become air borne and travel off project site.
  - .5       Contaminant prevention plan that: identifies potentially hazardous substances to be used on job site; identifies intended actions to prevent introduction of such materials into air, water, or ground; and details provisions for compliance with Federal,

Provincial, and Municipal laws and regulations for storage and handling of these materials.

- .6 A prevention plan to prevent erosion and sediment transport, indicating the measure to be implemented, including construction supervision and reporting to ensure compliance with the laws of action and federal, state and municipal;
- .7 drawings showing the location of temporary excavations or tracks construction landscaped embankment of river crossings, materials, construction, sanitation, deposits of surplus materials or contaminated materials, drawings illustrating the methods to be used to control runoff and to contain materials on site;
- .8 plans for traffic control, including measures to reduce erosion of temporary roadbeds by the movement of construction vehicles, particularly in wet weather, these plans must include measures to reduce the transport of sludge public roads by vehicles or runoff;
- .9 plan of the work area, showing the activities in every part of the work area and indicating areas restricted and prohibited areas to use, the plan must include measures for marking the limits of use areas and methods of protection from the elements located within the work area and allowed to be preserved.

#### **1.4 FIRES**

- .1 Fires and burning of rubbish on site not permitted.

#### **1.5 DISPOSAL OF WASTES**

- .1 Do not bury rubbish and waste materials on site unless approved by Departmental Representative.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

#### **1.6 WORK ADJACENT TO WATERWAYS**

- .1 It is forbidden to use construction equipment in waterways.
- .2 Do not extract borrowed material from the bed of the river and the riverbank.
- .3 Do not discharge cuttings, scrap materials and debris in streams.
- .4 It is forbidden to blow underwater.
- .5 Equipment maintenance and fuelling shall be done at a minimum distance of 30 metres from the bank.
- .6 If any equipment shall to stay within 30 metre of the bank, Contractor shall submit to Departmental Representative a protection plan for these operations.
- .7 Stocking of petroleum products and others hazardous materials shall be done at a minimum distance of 30 metres from the bank. If temporary oil installations are used, the water storage areas should be managed in accordance with applicable regulations. Storage systems will be

on sealed surfaces. An intervention package in case of oil spills must be present on site at all times.

- .8 Construction equipment must be used only from the shore.
- .9 Do not extract borrowed material form the bed of the stream.
- .10 Rivers must be free of debris, scrap materials and debris.
- .11 Design and construct culverts or other temporary crossings of streams to reduce erosion to a minimum.
- .12 Do not drag logs or construction materials from one side to the other streams.

### **1.7 MATERIAL TRANSPORTATION**

- .1 The transport of material to the worksite is allowed on public roads Monday to Saturday inclusively, unless otherwise instructed by the authority having jurisdiction. Material transport is prohibited on Sundays and legal holidays.
- .2 The transport of material through municipality may begin at 7:00 a.m. and end at 7:00 p.m., Monday to Friday and at 8:00 a.m. and end at 5:00 p.m. the Saturday. Transport outside theses hours is prohibited.
- .3 Contractor shall use trucks in good running order. Any truck or any carrier mode with a noise outpout found above the normal level by Departmental Representative, shall terminate material hauling to be repaired or modified.
- .4 Contractor shall use an effective regulation sign and cooperate with municipality, Departmental Representative and other authorities having jurisdiction to minimize impact of transportation on the daily life of residents in the vicinity of trucks route and worksite.
- .5 Use protective covering for granular materials during transportation.
- .6 Regularly clean public roads using a sweeper.

### **1.8 AQUATIC ENVIRONMENT PROTECTION ALONG THE WORKSITE**

- .1 Do not stockpile stones or debris from demolition in aquatic environment and on the bank.
- .2 As work progresses, the Contractor shall clean aquatic environment completely to remove all debris from demolition.
- .3 Contractor shall minimize direct equipment operations in aquatic environment, on the beach, and on the bank. Heavy equipment shall at no time circulate in the aquatic environment located outside the limits of work.
- .4 In the event of in-water work should continue beyond the stipulated period, it will be important not to carry out the work between May 10 and July 9.
- .5 Use equipment that minimize sediment, suspension layout.

- .6 If the turbidity of the water inside the harbour became important, the contractor will reduce the rate of extortion, riprap or other work causing the turbidity.
- .7 The contractor shall clearly define the work area within which equipment and machinery shall remain at all times.
- .8 To the extent possible, focus on building work in water at low tide.
- .9 All granular materials used in this project must be clean and free from contamination.
- .10 Advocating the use of equipment using a biodegradable vegetable oil type HF.

## **1.9 CONCRETING WORK**

- .1 Carry out concreting to avoid the concrete and it contains particles reach the aquatic environment.
- .2 Do not discharge directly or indirectly into the aquatic waters that have been in contact with fresh or partially cured concrete or cement.

## **1.10 POLLUTION CONTROL**

- .1 Maintain temporary erosion and pollution control features installed under this specification.
- .2 Control emissions from equipment and plant to local authorities' emission requirements.
- .3 Granular materials likely to be put suspended in the air will have to be covered so that they cannot be transported by the wind during their stockpiling. Ensure that there is no leakage of fuel, oil or grease.
- .4 Avoid cleaning machinery near the water.
- .5 Do not let the engine idle unnecessarily machinery and trucks.
- .6 Build temporary shelters to prevent sanding materials and other extraneous material (paint) contaminate air and waterways beyond the area of application.
- .7 Granular material may be suspended in the air or water during rain will be covered so that they can't be transported by wind or water during pile storage.
- .8 Cover the waste to avoid the wind raises dust or debris causes. Remove dust on temporary roads.
- .9 In the case of an accidental spill of oil, gasoline or other environmental incident, report the incident immediately to the Departmental Representative and the following authorities:
  - .1 Environment Canada, Environmental Emergencies Centre. Tel. : 866-283-2333.
  - .2 Ministry of Sustainable Development, Environment, Wildlife and Parks (MDDEP). Tel. 1-866-694-5454
  - .3 Canadian Coast Guard, Marine Pollution. Tel.: 800-363-4735.
  - .4 Supervisor site.

- .10 The contractor shall make every effort to dry up the source of the spill within the limits recommended by security. Damming and / or carpet absorber oil should be deployed in order to contain the spill. Carpets or dams should be stored in a container identified the shore side and must be towed up to absorb and contain the spill. Carpets and dams will be loaded into sealed containers for treatment and / or appropriate disposal.
- .11 Contaminated by a spill soil should be placed in a pile on waterproof canvas and must be covered with waterproof canvas. An audit of the environmental quality of these materials must be carried out before they are sent to off-site, and in accordance with the regulations and guidelines MSDEP. They will then be sent to an authorized site.
- .12 Contaminated by spillage should be confined to be taken directly to or characterized by a specialized company and, in compliance with the regulations and guidelines MSDEP.
- .13 All relevant site staff should be fully trained in emergency spill, methods and use of equipment and relevant materials response procedures.

#### **1.11 NOTIFICATION**

- .1 Departmental Representative will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform Departmental Representative of proposed corrective action and take such action for approval by Departmental Representative.
- .3 Departmental Representative will issue stop order of work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

#### **1.12 ATTENUATION MEASURES**

- .1 Contractor shall considerate the following attenuation measures while performing work to reduce environmental impacts.
  - .1 The water will be pumped into the cofferdam will be released into the harbour basin provided they do not increase the suspended solids significantly (below the standard for suspended solids of the Canadian Council of Ministers environment (CCME) of 25 mg / kg compared to the natural environment).
  - .2 **At excavation works near bridge abutment, sediment curtain must be installed to reduce increase in suspended solid over the CCME standard in pond and upstream river.**
  - .3 When weather conditions deteriorate (strong wind, storm, relatively large wave) the site supervisor may order the cessation of dredging along the piers to avoid significantly increase the suspended solids in the water.

**1.13 RESTRICTION PERIOD**

- .1 Work performed in low water level can not begin before September 30, 2013 with the exception of landfill outside the north and south piers work.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 CLEANING**

- .1 Make a cleanup in accordance with section 01 74 11 – cleaning.
- .2 Waste Management separate waste materials for use / reuse and recycling in accordance with Section 01 74 21 – Management and disposal of construction / demolition.

**3.2 STRUCTURES CONSOLIDATION**

- .1 Imported to the site and set up structures to consolidate materials must be cleaned upon arrival at the site.
- .2 The work area should be well delimited in the harbor to avoid possible boating accidents.
- .3 A notice to navigation will be issued to inform the period of works and the area.

**END OF SECTION**