

**Partie 1        General**

**1.1            REFERENCES**

**.1        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 humans; 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.

**1.2            ACTION AND INFORMATIONAL SUBMITTALS**

- .1        Submit required documents and samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2        Before commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by Departmental Representative.
- .3        Environmental protection plan must include comprehensive overview of known or potential environmental issues to be addressed during construction.
- .4        Address topics at level of detail commensurate with environmental issue and required construction tasks.
- .5        Include in environmental protection plan:
  - .1        Name of person responsible for ensuring adherence to environmental protection plan.
  - .2        Name and qualifications of person responsible for manifesting hazardous waste to be removed from site.
  - .3        Name and qualifications of person responsible for training site personnel.
  - .4        Description of environmental protection personnel training program.
  - .5        Erosion and sediment transport control plan which identifies type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with federal, provincial, and municipal laws and regulations.
  - .6        Work area plan showing proposed activity in each work area and indicating the areas of limited use or non-use. The work area plan shall include measures for marking limits of use areas including methods for protection of features to be preserved within authorized work areas.
  - .7        A spill control plan, complete with procedures, instructions, and reports to be produced should an unforeseen spill of regulated substance occur.

- .8 Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather.
  - .1 Plans include measures to minimize amount of mud transported onto paved public roads by vehicles or runoff.
- .9 Non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
- .10 An air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, do not become air borne and travel beyond project site.
- .11 Contaminant prevention plan identifying potentially hazardous substances to be used on job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with federal, provincial, and municipal laws and regulations for storage and handling of these materials.
- .12 Waste water management plan identifying methods and procedures for management or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.

### **1.3 FIRES**

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

### **1.4 DRAINAGE**

- .1 A storm water pollution prevention plan may be substituted for erosion and sediment transport control plan.
- .2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

### **1.5 WORK ADJACENT TO WATERWAYS**

- .1 Carry out vehicle maintenance, oil change and refuelling in the temporary storage area. The designated maintenance zone shall be at a minimal distance of 30 m from the shore.
- .2 Do not store fuel or any other contaminant less than 30 m from the shore.
- .3 The waterway must be free of debris, waste material or debris.

### **1.6 MATERIAL TRANSPORTATION**

- .1 Haulage of materials on public roads to the work site is authorised Monday to Friday unless otherwise indicated by authority having jurisdiction. Haulage prohibited on Saturdays, Sundays and statutory holidays.
- .2 Material transportation through the municipality may proceed between 7 h to 18 h for the day shift. Material transportation during the night shift will not be authorised. Material transportation will not be authorised during weekends.

- .3 Ensure that trucks are in good operating condition. Any truck or other mode of transportation generating abnormal noise levels, according to Engineer, shall cease the transportation of materials or be repaired or be modified and made acceptable.
- .4 Use adequate signage and cooperate with municipalities, the Engineer and other concerned authorities to minimise transportation impact on the residents' normal lives in the vicinity of the work site.

## **1.7 CONCRETE CONSTRUCTION**

- .1 Proceed to concreting so as to prevent that concrete and concrete particles reach the aquatic environment.
- .2 Do not discharge directly or indirectly into the aquatic environment water that has been in contact with fresh or partially cured concrete or cement.
- .3 The cleaning of concrete mixers must be done in the Contractor's temporary storage area. No discharge of concrete into the natural environment will be tolerated. At work completion, concrete cleaning residues shall be removed from site.

## **1.8 POLLUTION CONTROL**

- .1 Maintain temporary erosion and pollution control features installed under this Contract.
- .2 Control emissions from equipment and plant in accordance with local authorities' requirements.
- .3 Prevent sanding dusts and other foreign matter from contaminating air and the waterway beyond the application zone.
- .4 Wet down dry materials and cover waste materials to prevent wind blown dust and debris. Suppress dust on temporary roads.

## **1.9 NOTIFICATION**

- .1 Departmental Representative will notify Contractor in writing of observed non-compliance 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 as approved by Departmental Representative.
  - .1 The Contractor shall not implement proposed corrective methods until Departmental Representative has issued approval in writing.
- .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.

## **1.10 GENERAL MITIGATION MEASURES**

- .1 In carrying out his work the Contractor shall give consideration to the following general mitigation measures to reduce environmental incidents and their consequences in case of failure:

- .1 Stone materials must be deposited carefully into the water to minimize resuspension of sediments.
- .2 **The machinery in contact with water to use biodegradable vegetable oil specially designed for this type of equipment.**
- .3 Do not release demolition materials in the aquatic environment. In case of accident, promptly recover all of the released debris.
- .4 Contractor to have on hand at the site a fuel spill response kit in case of accidental release.
- .5 Employees must be trained to respond in case of accidental release.
- .6 In case of accidental release into water, the spill must be contained and the contaminated water recovered by a specialized firm and transported to a processing center approved by MDDELCC (ministère du Développement durable, Environnement et Lutte contre les changements climatiques).
- .7 From the outset of work, the Contractor shall develop a temporary storage area. The maintenance and refueling will be done in that area. This site will be located at a minimum distance of 30 m from the shore or a waterway.
- .8 Turn off the engine of machinery when not in use.
- .9 The machinery must be in good operating condition. An inspection of the machinery must be performed prior to mobilization to the site.
- .10 Use tarpaulins on trucks when transporting material.
- .11 Any spillage of hazardous materials on the work site must be reported to Environment Canada's Emergencies Reporting System (1-866-283-2333), to MDDELCC (1-866-694-5454) and the Canadian Coast Guard (1-800-363-4735).

#### 1.11 MATERIALS SUITED FOR RECOVERY

- .1 The Contractor is exclusively responsible for the choice of materials suited for recovery. Certified laboratory analyzes should be provided to Departmental Representative.
- .2 Dry materials from the demolition that can be recovered may be removed from the site under the condition that the Contractor:
  - .1 Signs a written statement that the operator of the site where the materials, that are recoverable in the Contractor's opinion, will be placed and by the owner of the site if different from the operator, will indemnify and hold harmless Canada from and against all claims, demands, losses, costs, damages, actions, suits or proceedings from anyone arising out, related from, or incidental to the disposal of these materials at this site by the Contractor, his employees, agents or sub-contractors, or to the subsequent use of these materials.
  - .2 Provides a document duly signed by the site operator and the owner of this site if the operator is not the owner, authorizing the Contractor to dispose of the demolition materials which are recoverable in the Contractor's opinion.
  - .3 Provides a document duly signed by the site operator and the owner of the if the operator is not the owner, indemnifying and holding harmless Canada from any claim that may result from the disposal of demolition materials believed to be recoverable by the Contractor, and from the subsequent use of these materials.

This document:

- .1 shall be made in duplicate if the site operator is not the owner (one copy by the site operator and one copy by the site owner);
- .2 materials, and the name of the owner of the parcels; and
- .3 include the following paragraph:  
"..... (name of the Company operating the site, or as the case may be, the name of the owner of the site) agrees, at all times, to indemnify and save harmless, Canada from all and against all claims and demands, loss, costs, damages, actions, suits or other proceedings for the disposal by ..... (Name of Contractor), his employees, agents or sub-contractors, on the parcel(s) bearing number(s) ..... in the land register of ....., of excavation materials from ..... (Name of the structure to be demolished) which may, in the opinion of ..... (Name of the Contractor) be recovered, or the subsequent use of these materials "; and
- .4 Provides an official document issued by the MRC or the municipality where the site is located authorizing the operator of the site, and the site owner if the operator is not the owner, to use this site to dispose of demolition materials that could be recovered; and
- .5 Obtains prior written approval from the Departmental Representative.

**Partie 2      Product**

**2.1            NOT USED**

- .1 Sans objet.

**Partie 3      Execution**

**3.1            CLEANING**

- .1 Progress cleaning: clean in accordance with Section 01 74 11 - Cleaning.

**END OF SECTION**