

PART 1 - GENERAL

1.1 SCOPE

- .1 This specification section specifies requirements for:
 - .1 Excavation/dredging, removal and disposal of petroleum hydrocarbon (TPH), metals and polycyclic aromatic hydrocarbons (PAHs) impacted sediment in the area noted on the attached drawing. All impacted sediments are to be disposed off site to a Provincially approved facility with a certificate of approval to accept TPH, metals and PAH impacted sediment. Sediment sampling results are included in the PED.
 - .2 Requirements for the establishment of a HDPE liner, to temporarily store the impacted sediment prior to transportation for off-site treatment (only if the Contractor chooses to stockpile/sort the material on the uplands portion of the site).
- .2 The Contractor is to note that the existing borehole data, as shown on the contract drawings, suggests very little (if any) sediment overlying boulders and fractured rock. The intent is to carefully scrape the surface of the harbour bottom (in the presence of the Departmental Representative), in the location shown on the drawings to a maximum depth of 0.5m where possible, and remove the sediment off site for disposal.

1.2 GENERAL PROCESS

- .1 The general process for addressing the area of impacted sediment is as follows:
 - .1 Temporarily store the material on a barge or scow pending off-site disposal, such that saturated water can drain back into the excavation/dredge area.
 - .2 If the Contractor chooses to stockpile excavated/dredged sediment on site, install a temporary liner system (complete with a perimeter berm), at a location approved by the Departmental Representative. The minimum

requirements for the liner would be a 30 mil enviroliner and tarp cover. Controlling/disposing any impacted water accumulated on the liner system, by way of vacuum trucks, is the responsibility of the Contractor.

.3 All impacted sediment is to be transported to a Provincially approved waste site. Note that the facility accepting the impacted sediments must have a certificate of approval that indicates the ability to accept soils that contain TPHs, metals and PAH compounds composed of more than four benzenoid rings.

.4 All dredged/excavated material outside that noted on the attached drawing is to be re-used on site or disposed off-site as per the original contract drawings (the expectation being that all material other than that identified on the attached drawings would be rock composed of boulders, cobbles and fractured bedrock).

1.3 MEASUREMENT FOR PAYMENT

- .1 Impacted sediment: The excavation/dredging, removal, and disposal of impacted sediment, including all plant, labour, materials and equipment will be measured in cubic metre (m³). Include all costs in the unit price, including excavation/dredging, supply and installation of temporary liner and berm (if the Contractor chooses to stockpile material on site), transportation and disposal. Only fine sediment is considered impacted sediment, paid for under this section, so the Contractor will be expected to sort out any rock/cobbles/boulders as the dredging/excavation progresses.
- .2 All dredging, excavation prior to rock mattress placement and crib seat excavation in the areas outside that shown on the attached drawing is to be included in the lump sum arrangement as per the original tender documents. PSPC will only pay for the tender

quantities. Any additional cost for over excavating/dredging of material, disposal of the material and waste facility tipping fees will be the responsibility of the Contractor.

1.4 WATER TIGHT TRUCKS

- .1 All trucks used in the transportation of impacted sediment to have tail gates with seals in good working order so as to prevent leakage of sludge or liquid material from truck. Contractor must ensure that truck box is water tight and no leakage occurs prior to or during transportation of material. Any vehicles failing to meet these requirements will be rejected. In the event of a spill during transportation, the Contractor shall be responsible for the immediate clean-up and must notify the Departmental Representative and appropriate authorities immediately. Truck tires must be washed down prior to leaving the site. Be equipped with own water for this purpose (existing fire hydrants may be used if acceptable to the City of St. John's and PSPC/DFO). All trucks shall be cleaned at the waste disposal facility if not returning for re-loading.

1.5 TREATMENT FACILITY

- .1 After award/acceptance of Bid, the successful Contractor will provide the following:
- .1 A copy of the treatment facilities certificate of approval from the Government of Newfoundland and Labrador to receive, store and treat petroleum hydrocarbon, metals and PAH impacted sediments for the volumes as required by the contract. If the facility has been in operation for more than one year, a copy of a letter of compliance issued by the Government of Newfoundland and Labrador for the treatment facility will also be required.
- .2 Upon notification of award of the contract, the Contractor shall provide the following within 14 calendar days of receiving

notification.

- .1 Copy of the treatment facilities environmental liability impairment insurance.
- .2 Copies of Certificate of Approval for accepting TPH, metals and PAH impacted sediment.
- .3 Confirmation from the Provincial Regulators that the transporting company is a certified hazardous waste hauler.

1.6 HEALTH AND SAFETY CONSIDERATIONS

- .1 In addition to the known TPH, metals and PAH impacted sediments at this site, the Contractor is cautioned that faecal coliforms are expected to be present in the water column.
- .2 If bones (animal or human) or ordinances are discovered, advise the Departmental Representative, who will provide direction. Expect potential downtime in dredging/excavation activities to allow the Departmental Representative to address the discovery of any unexpected materials.
- .3 Provide the Departmental Representative with a site specific health and safety plan, as per Section 01 35 29. Also provide an environmental protection plan that demonstrates a commitment to avoidance of adverse environmental impacts through implementation of best practices in pollution prevention and the promotion of sound environmental practice for the project. The plan must outline the contractors plan for management of the excavated/dredged material on site as well as transportation to a certified treatment facility.
- .4 The Contractor will be responsible for working closely with PSPC/DFO in arranging vessel movement. Certain areas may have to be excavated/dredged first to accommodate vessels. The work area may be confined due

to large vessels, vessel traffic and weather conditions.

- .5 Contractor may be required to install a containment/silt/absorbent boom around the work area of the entire site as excavating/dredging progresses, particularly if sheens are noted on the water surface. There will be no additional payment for this boom.
- .6 When requested by the Departmental Representative, complete a dive video or ROV video of the excavation/dredge area looking for hazard materials prior to initiating dredging/excavation activities. There will be no additional payment for the dive/ROV video.