

Part 1 General

1.1 SECTION INCLUDES

This Section specifies the requirements for the loading, handling and disposal of contaminated soils, including Petroleum Hydrocarbon (PHC) contaminated soils.

1.2 RELATED SECTIONS

- .1 Section 31 23 10 - Excavating, Trenching and Backfilling.
- .2 Section 02 65 00 – Underground Storage Tank Removal.

1.3 DEFINITIONS

- .1 Petroleum Hydrocarbons: Hydrocarbon products described by laboratory analyses as lubricating oil and grease, fuel oil, diesel and/or gasoline.
- .2 Hydrocarbon Contaminated Soil: Soil containing concentrations of Petroleum Hydrocarbons (PHCs) in excess of CCME Commercial/Industrial Guidelines.
- .3 Free Product: The presence of a layer of undiluted or non-aqueous petroleum hydrocarbon in the subsurface.

1.4 QUALIFICATIONS

- .1 The Contractor shall be thoroughly familiar with and knowledgeable about existing site conditions, scope of work and requirements of the Specification.
- .2 Only Contractor's personnel capable of demonstrating a history of satisfactory experience in the area of hazardous waste management and who can satisfy Federal and Territorial requirements will be permitted to carry out the work of this Section. The Contractor's Superintendent responsible for the work of this Section shall have a minimum of five years of experience in the area of hazardous waste management.
- .3 Follow at all times, guidelines such as those established in Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities: NIOSH Publication No. 85-115, or Hazardous Waste Worker Training Manual: Canadian LIUNA - Contractors Training Council, 1992.
- .4 All activities involving the handling of contaminated soils, shall be directly supervised by the Contractor's personnel who have successfully completed a 40 hour training course for Hazardous Waste Activities in compliance with OSHA 29 CFR 1910.120 or other approved equivalent training courses such as the Canadian Hazardous Waste Workers Program.
- .5 Contractor's personnel trained as described in Clause 1.4.4 of this Section shall instruct and direct all workers with respect to the waste management procedures and labour and safety practices to be followed in carrying out the work.

- .6 Provide workers, the Contract Administrator and the Contract Administrator's staff with protection appropriate to the potential type and level of exposure. Establish specific safety protocols prior to commencing clean up activities.
- .7 Provide suitable safety clothing and equipment as required during the course of the work.
- .8 Trained and certified personnel are required to complete all Transportation of Dangerous Goods Act (TDGA) documentation and recording requirements.

1.5 SITE CONDITIONS

- .1 The Contractor shall ensure that services, not designated for demolition, are not damaged as a result of excavation work. The Contractor shall repair any services, utilities, or objects damaged by his actions at no cost to the City.
- .2 Suspend operations whenever climatic conditions are unsatisfactory for excavating or regrading to conform with this Specification.
- .3 After occurrence of heavy rains, do not operate equipment in designated areas until the material has dried sufficiently to prevent excessive rutting.
- .4 The Contractor is advised that the ground in low-lying areas may often be saturated. Dewater saturated ground and ponded areas as required.

1.6 PROTECTION

- .1 Prevent damage to benchmarks, existing buildings, surface and underground service and utility lines not designated for demolition. Immediately repair or replace any damage to the above, at no cost to the City.

1.7 PERSONNEL PROTECTION

- .1 Some areas designated for cleanup under this contract may involve soils and hazardous materials which contain PCBs, inorganic elements, hydrocarbons, and other contaminants which are considered hazardous to human health.
- .2 Supply sufficient quantities of designated protection equipment to fit all site personnel including the Contract Administrator and authorized visitors. Educate workers as to risks, and train in safe work practices.
- .3 No separate pay item shall apply to the work practice requirements, including personnel protection, of this Section. Costs shall be included in the applicable payment items to which this Section applies.

Part 2 Execution

2.1 REMOVAL AND DISPOSAL OF CONTAMINATED SOIL

- .1 Remove all surface debris prior to excavation. Remove all debris from excavated soil, sort, and dispose of appropriately.

- .2 Suppress dust generated during excavation operations with a water spray. Prevent surface water from entering the excavated area.
- .3 Dewater ponded contaminated soil areas, as required.
- .4 Any stockpiled contaminated soil must be placed on a polyethylene liner and covered so as to prevent contaminant runoff due to rainfall.
- .5 Clean the excavating equipment including the bucket, tracks, etc., of soil lumps and particles prior to demobilizing from the site. Take special precautions to mitigate the tracking of contaminated soil over the site area.

2.2 EQUIPMENT DECONTAMINATION

- .1 Decontaminate equipment which comes into direct contact with the contaminated soils by steam cleaning or other means acceptable to the Contract Administrator in a secure area capable of containing the waste generated by the washing operation.
- .2 Collect and dispose of any contaminated soil that leaks, spills or otherwise leaves the piece of equipment during transport from the area of work to the decontamination area.

END OF SECTION