

**Part 1 General**

**1.1 RELATED REQUIREMENTS**

- .1 Section 31 23 33.01 – Excavation, Trenching and Backfilling.

**1.2 REFERENCE STANDARDS**

- .1 Canadian Environmental Protection Act (CEPA)
  - .1 SOR/2008-197, Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations
  - .2 CCME PN 1326-2003, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems for Petroleum Products and Allied Petroleum Products.
- .2 Canadian Federal Legislation
  - .1 Canada Labour Code (R.S. 1985, c. L-2).
    - .1 Part II (September 2000) - Occupational Health and Safety.
  - .2 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.
- .3 Canadian Standards Association (CSA)
  - .1 CSA B139 Series-19, 2019 Installation Code for Oil Burning Equipment
- .4 National Research Council Canada (NRC)
  - .1 National Fire Code of Canada 2015 (NFC)

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide Departmental Representative with proposed method of vapour removal for approval.
- .3 Provide Departmental Representative with copy of vapour removal test results as per CEPA SOR/2008.197, section 44.
- .4 Complete PWGSC Storage Tank System Withdrawal and Removal form (Appendix A) and submit to Departmental Representative.
- .5 Forward affidavit of destruction of underground ground storage tank to authority having jurisdiction and Departmental Representative
- .6 Forward disposal manifest of any removed product from a facility approved by the Province of Newfoundland and Labrador.

**1.4 QUALITY ASSURANCE**

- .1 As required in the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations SOR/2008-197, work by the Contractor will be overseen by the Departmental Representative. The cost associated with this overseeing is not in Contractor scope.

**1.5 DELIVERY, STORAGE AND HANDLING**

- .1 Waste Management and Disposal:
  - .1 Separate waste materials for recycling.
- .2 Divert metal materials from landfill to metal recycling facility approved by Departmental Representative.
- .3 Segregate and deliver non-salvageable or non-recyclable materials, including waste liquids and sludges to Provincially/Territorially licensed waste facility.
- .4 Repair or replace all materials or equipment damaged in transit or storage to the satisfaction of Departmental Representative and at no cost to Canada.

**Part 2 Products**

**2.1 NOT USED**

- .1 Not Used.

**Part 3 Execution**

**3.1 PREPARATION SAFETY AND SECURITY**

- .1 Conform to or exceed Federal and Provincial codes, local municipal by-laws, by-laws, and codes and regulations of utility authorities having jurisdiction.
- .2 Do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3 Protection:
  - .1 Meet safety requirements of Occupational Safety and Health, Canada Labour Code Part II and Regulations for Construction Projects.
  - .2 Disconnect or remove source of ignition from vicinity of tank.
  - .3 Provide temporary protection for safe movement of personnel and vehicle traffic.
  - .4 Cut, braze or weld metal only in monitored areas established to be free of ignitable vapour concentrations.
  - .5 Ground and bond metal equipment, including tanks and transfer pipes, before operating equipment or transferring flammable materials.
  - .6 Use non-sparking tools and intrinsically safe electrical equipment.
  - .7 Smoking is not permitted.

**3.2 DRAINING**

- .1 Drain and flush piping into tank.
- .2 Pump out liquid from tank
  - .1 Use explosion proof, air driven or hand pump.
- .3 Remove product and sludge from tank bottom.

- .1 Dispose of bottom 300mm of product and sludge in accordance with local, Provincial regulations using waste disposal carrier licensed by Provincial Environmental Agency having jurisdiction.
- .2 In the event there is more than 300mm remaining in the storage tank advise Departmental Representative.
- .3 Provide disposal manifest for removed fuel in accordance with 01 77 00 - Closeout Procedures.

### **3.3 TANK EXCAVATION AND REMOVAL**

- .1 Provide protective material around excavation.
- .2 Provide constant supervision during excavation and backfilling.
- .3 Excavation:
  - .1 Excavate until top of tank and connections and openings are exposed.
  - .2 Disconnect piping:
    - .1 Remove fill tube.
    - .2 Disconnect fill gauge, product and vent lines.
    - .3 Cap or plug open ends of lines that are not to be used further.
    - .4 Remove piping from ground.
  - .3 Temporarily plug tank openings.
  - .4 Continue excavation until tank is completely exposed.
  - .5 Temporarily stockpile on site soil in vicinity of tank, until waste classification can be established prior to final disposal.
- .4 Prevent movement, settlement or damage of adjacent structures, services, pathways/trails, landscaping. Provide bracing, shoring as required.
- .5 Ensure tank is stabilized/blocked throughout process.
- .6 Departmental Representative will provide site professional services during tank and piping removal activities, including collection of soil and groundwater samples for analysis. If hydrocarbon impacts are encountered, the Departmental Representative will provide guidance to contractor. The Contractor shall assist with sample collection, as required.

### **3.4 VAPOUR REMOVAL**

- .1 Purging:
  - .1 Contractor to submit to proposed method of vapour removal to Department Representative for review and approval.
  - .2 Purge vapours to less than 10% of lower explosive limit (LEL).
  - .3 Verify with combustible gas metre.
  - .4 Record testing results on PWGSC Storage Tank System Withdrawal and Removal form.

### **3.5            CAPPING**

- .1      Plug holes after tank has been freed of vapours and before tank is moved from site.
- .2      Leave 3mm vent hole in one plug to prevent tank from being subjected to excessive pressure differential caused by extreme temperature change.

### **3.6            SECURING AND REMOVAL FROM SITE**

- .1      Check vapour levels prior to transport:
  - .1          Remove vapour if required.
  - .2          Record testing results on PWGSC Storage Tank System Withdrawal and Removal form.
- .2      Dispose of tank in accordance with local, Provincial and Federal regulations.
- .3      Truck removal:
  - .1          Secure tank on truck for transport to disposal site.
  - .2          Ensure 3mm vent hole located at uppermost point on tank.
  - .3          Label tank “Material Last Contained”, and ship as per Transportation of Dangerous Goods Act requirements.

### **3.7            WORKMANSHIP AND DISPOSAL**

- .1      Tanks destined for disposal:
  - .1          Dismantle, cut sufficient openings or otherwise render unusable.
  - .2          Forward affidavit of destruction to Departmental Representative as per Section 01 78 00 – Closeout Submittals.

**END OF SECTION**