

Wharf Construction**Port Bickerton East****Guysborough County, Nova Scotia****Project No. R.082082.001****ABOVE GROUND
STORAGE TANK REMOVAL****Part 1 General****1.1 RELATED REQUIREMENTS**

- .1 Section 01 10 10 – General Instructions
- .2 Section 01 35 43 – Environmental Protection
- .3 Section 01 77 00 – Closeout Procedures

1.2 REFERENCES

- .1 Canadian Federal Legislation
 - .1 Canadian Environmental Protection Act (CEPA), 1999, - Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, SOR/2008-197
 - .2 Canadian Council of the Ministers of Environment – Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products, 2003 (CCME)
 - .3 National Fire Code of Canada 2015.
- .2 Nova Scotia
 - .1 NS Regulation 44/2002 “Petroleum Management Regulations – Environment Act”.
 - .2 Nova Scotia Standards for Construction and Installation for Petroleum Storage Tank Systems.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures and Section 01 77 00 – Closeout Procedures.
- .2 Forward affidavit of destruction of aboveground storage tank to Departmental Representative/Consultant.
- .3 Complete DFO CEPA – Regulated Storage Tank System Identification Form for tank to be removed from service (see Appendix B for form)

1.4 QUALITY ASSURANCE

- .1 Contractor must be licensed by Province for removal of aboveground storage tanks.
 - .1 License/certificate, title and number must be submitted to Departmental Representative upon request.
 - .2 Regulatory Requirements: ensure Work is performed in compliance with CEPA SOR 2008-197.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Waste Management and Disposal:
 - .1 Separate waste materials for reuse.

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- .2 Direct waste materials not destined for reuse to provincially approved waste processing sites for alternative disposal. Certificate of approval required for each facility chosen.
- .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 licensed waste facility.

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, Provincial and Territorial 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 Remove sludge from tank bottom.
 - .1 Remove and dispose of product and sludge in in tanks in accordance with local, Provincial and Territorial regulations using waste disposal carrier licensed by Provincial/Territorial Environmental Agency having jurisdiction.
 - .2 Provide Departmental Representative with disposal manifest for removed material.
 - .3 Gas free the tanks as per Section 3.5 prior to any removal activities.

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- .4 Monitor and maintain appropriate vapour levels in the tanks until delivery of the tanks to the decommissioning site.

3.3 TANK REMOVAL

- .1 Remove tanks and place in a secure location prior to removal from site.

3.4 VAPOUR REMOVAL

- .1 Purging:
 - .1 Purge vapours to less than 10% of lower explosive limit (LEL).
 - .2 Verify with combustible gas metre reading taken from the bottom of the tank interior.
 - .3 Provide Departmental Representative with test results.
- .2 Dry Ice Method:
 - .1 Add 1.85 gm of solid carbon dioxide (dry ice) for each 100 litre capacity.
 - .2 Crush and distribute ice evenly over greatest area to secure rapid evaporation. Avoid skin contact.
 - .3 Verify dry ice has vapourized.
- .3 Air Method:
 - .1 Ventilate tank with air using small gas exhauster operated with compressed air or other suitable means.
 - .2 Air to enter opening at one end and to exit opening at other end to quickly remove vapour.
 - .3 Test interior of tank to determine when tank is free of vapour.
- .4 Provide Departmental Representative with copy of test results (SOR 2008-197, Section 44).

3.5 CAPPING

- .1 Plug holes after each tank has been freed of vapours and before tanks are moved from site.
- .2 Leave 3 mm 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 Dispose of tank in accordance with local, Provincial, Federal or Territorial regulations.
- .3 Truck removal:
 - .1 Secure tank on truck for transport to disposal site.
 - .2 Ensure 3 mm vent hole located at uppermost point on tank.
 - .3 Label tank stating "Not for reuse" and "To be disposed".
 - .4 Transport tank to provincially licensed disposal site following proper TDG requirements.

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3.7 WORKMANSHIP AND DISPOSAL

- .1 Tanks destined for disposal:
 - .1 Provide affidavit of destruction of aboveground storage tank from the tank destruction facility to Departmental Representative as per Section 01 77 00.
 - .2 Destruction facility must be a Nova Scotia Environment approved petroleum storage tank destruction facility.
 - .3 Destruction facility must dismantle, cut sufficient openings or otherwise render the tank unusable.

END OF SECTION