

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 23 11 13 – Facility Fuel Oil Piping
- .2 Section 33 56 16 – Underground Storage Tanks

1.2 REFERENCE STANDARDS

- .1 Canadian Environmental Protection Act (CEPA)
 - .1 SOR/2008-197 – Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulation.
- .2 Canadian Council of Ministers of the Environment (CCME).
 - .1 CCME PN1326- 2003, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products.
- .3 Canadian Standards Association (CSA).
 - .1 CAN/CSA-B139-19, Installation code for oil-burning equipment.
- .4 National Research Council Canada (NRC)
 - .1 National Fire Code of Canada 2015 (NFC).
- .5 Transport Canada (TC).
 - .1 Transportation of Dangerous Goods Act, 1992 (TDGA).
- .6 Underwriters' Laboratories of Canada (ULC).
 - .1 ULC-S602-14, Aboveground Steel Tanks for Fuel Oil and Lubricating Oil.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit shop drawings in accordance with Section 01 33 00- Submittal Procedures.
- .2 Indicate details of construction, installation, appurtenances, or leakage detection system.
- .3 Shop drawings to detail and indicate following as applicable to project requirements. Submit manufacturers product data to supplement shop drawings.
 - .1 ULC Standard of construction
 - .2 Tanks capacity.
 - .3 Size and location of fittings.
 - .4 Environmental compliance package accessories.
 - .5 Accessories: provide details and manufacturers product data.
 - .6 Finishes.
 - .7 Electronic accessories: provide details and manufacturers product data.
 - .8 Anchors: description, material, size and locations.

- .9 Ancillary devices: provide details and manufacturer's product data.
- .10 Leak detection system, type and locations, and alarm system.

1.4 CLOSEOUT SUBMITTALS

- .1 Submit operation and maintenance data for tank appurtenances for incorporation into manual specified in Section 1 78 00 - Closeout Submittals

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .2 Divert unused metal and wiring materials from landfill to metal recycling facility.
- .3 Divert unused concrete materials from landfill to local facility as approved by Departmental Representative.

Part 2 Products

2.1 AUXILIARY SUPPLY TANKS

- .1 2 – 234 litre for diesel/fuel oil.
- .2 vertical tanks: double walled, vacuum monitored steel labelled ULC-S602.
- .3 Openings:
 - .1 38mm opening for tank fill;
 - .2 50mm opening for tank vent;
 - .3 50mm opening for 4-point level switch;
 - .4 50mm opening for mechanical tank level gauge;
 - .5 2 - 100mm opening for supply and/or return; and,
 - .6 Minimum two spare 50mm opening not to be used as part of this project and shall be plugged with 3000# steel plugs both liquid and vapour tight.
- .4 Finishes:
 - .1 Exterior of tank: one coat zinc primer, two coats epoxy mid coat and one coat of UV protectant.
 - .2 Interior of tank: uncoated

2.2 CONCRETE

- .1 In accordance with Section 03 30 00 Cast-in-Place Concrete.

2.3 PIPING, VALVES AND FITTINGS

- .1 In accordance with Section 23 11 13 Facility Fuel Oil Piping.
- .2 Mechanical joints on buried primary piping is not permitted.
- .3 Supply piping located below product level equipped with oil safety valve.

2.4 FOUR POINT LEVEL SWITCH

- .1 ULC listed, 120V, 4 multi-point float level switch, 1/2" O.D. Stainless steel stem, 2" dia. 316 Stainless steel floats, 2" NPT bushing.

Part 3 Execution

3.1 INSTALLATION

- .1 Install tanks in accordance with SOR/2008-197, CCME, CAN/CSA-B139, and manufacturer's recommendations.
- .2 Position tank using lifting lugs and hooks, and where necessary use spreader bars. Do not use chains in contact with tank walls.
- .3 Field test all sensors and alarms at substantial completion site visit. Provide document for sign off by Departmental Representative.

3.2 FIELD QUALITY CONTROL

- .1 Test tanks per manufacturer's specifications.

3.3 TOUCH-UP

- .1 Where coating is damaged, touch-up with original coating material.

3.4 LEVEL GAUGE SYSTEM

- .1 Provide leak and vapour proof caulking at connections.
- .2 Calibrate system.

3.5 LEAK DETECTION SYSTEM

- .1 Install in accordance with manufacturer's recommendations.

END OF SECTION