

Part 1 General

1.1 REFERENCES

- .1 Canadian Environmental Protection Act (CEPA) - Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, Canada Gazette Part II (SOR/2008-197, June 12, 2008).
- .2 Canadian Council of Ministers of the Environment (CCME).
 - .1 PN1326, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
 - .1 Material Safety Data Sheets (MSDS).
- .4 Canadian Environmental Assessment Act (CEAA, 2012).
- .5 Transport Canada (TC).
 - .1 Transportation of Dangerous Goods Act, 1992 (TDGA), c. 34.

1.2 DEFINITIONS

- .1 Demolition: rapid destruction of UST and ancillary devices following removal of hazardous materials.
- .2 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well being or environment if handled improperly.

1.3 SUBMITTALS

- .1 Submittals in accordance with Section 013300 - Submittal Procedures.
- .2 Shop drawings.
 - .1 Submit for approval drawings, diagrams or details showing sequence of demolition work and supporting structures and underpinning, where required by authorities having jurisdiction.
- .3 Hazardous Materials: provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.
- .4 Certificates: submit copies of certified weigh bills from authorized disposal sites and reuse and recycling facilities for material removed from site.

1.4 QUALITY ASSURANCE

- .1 Regulatory Requirements: ensure Work is performed in compliance with applicable federal and provincial codes, guidelines, standards, criteria, Acts and regulations.
- .2 Health and Safety.
 - .1 Do construction occupational health and safety in accordance with Federal and Provincial regulations.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Perform Work in accordance with Section 013543 - Environmental Procedures.
- .2 Storage and Protection.
 - .1 Protect existing items designated to remain. In event of damage to such items, immediately replace or make repairs to approval of Departmental Representative and at no cost to Departmental Representative
 - .2 Store and protect in accordance with requirements for maximum preservation of material.
- .3 Waste Management and Disposal.
 - .1 Separate waste materials for reuse and recycling in accordance with Section 017419 - Construction/Demolition Waste Management and Disposal.
 - .2 Separate for reuse and recycling and place in designated containers Steel Metal, Plastic waste in accordance with Waste Management Plan.
 - .3 Place materials defined as hazardous or toxic in designated containers.
 - .4 Handle and dispose of hazardous materials in accordance with CEPA, TDGA, Regional and Municipal, regulations.
 - .5 Ensure emptied containers are sealed and stored safely.
 - .6 Source separate for recycling materials that including wood, metal, concrete and asphalt, and gypsum.
 - .7 Dispose materials in accordance with applicable codes and regulations at licensed facilities.

1.6 SITE CONDITIONS

- .1 Site Environmental Requirements.
 - .1 Perform work in accordance with Section 013543 - Environmental Procedures.
 - .2 Ensure that selective demolition work does not adversely affect groundwater and wildlife, or contribute to excess air and noise pollution.
 - .3 Do not dispose of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into storm or sanitary sewers.
 - .1 Ensure proper disposal procedures are maintained throughout the project.
 - .4 Do not pump water containing suspended materials into storm or sanitary sewers or onto adjacent properties.
 - .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with as directed by Departmental Representative.

.2 Existing Conditions.

- .1 Remove contaminated or hazardous materials listed as hazardous or as defined by authorities having jurisdiction or as directed by Departmental Representative from site, prior to start of demolition Work, and dispose of at designated disposal facilities in safe manner in accordance with TDGA and other applicable regulatory requirements.

1.7 SCHEDULING

- .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion.
 - .1 Notify Departmental Representative in writing when unforeseen delay[s] occur.

Part 2 Products

2.1 EQUIPMENT

- .1 Leave machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.

2.2 SALVAGE

- .1 There is nothing to be salvaged from the existing system. All fuel system components are to be removed from the site.

Part 3 Execution

3.1 PREPARATION

- .1 Inspect site with Departmental Representative and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, and items to remain.
- .2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.
 - .1 Underground Storage Tanks: remove and dispose of in accordance with CCMEPN1326, applicable federal and provincial regulations, and directions of Departmental Representative and Section 026500 - Underground Storage Tank Removal.

3.2 REMOVAL OF HAZARDOUS WASTES

- .1 Remove contaminated or dangerous materials defined by authorities having jurisdiction, relating to environmental protection, from site and dispose of in safe manner to minimize danger at site or during disposal.

3.3 CONCRETE APRON AND ISLAND

- .1 The existing concrete island and apron is to be removed from site and disposed of to a licensed disposal facility.

3.4 REMOVAL OPERATIONS

- .1 Remove items as indicated.
- .2 Do not disturb items designated to remain in place.

- .3 Excavate at least 300 mm below pipe invert, when removing pipes under existing or future pavement area.
- .4 Disposal of Material.
 - .1 Dispose of materials on site as instructed by Departmental Representative at authorized facilities.
- .5 Backfill.
 - .1 Backfill in areas as indicated and in accordance with Section 310099 – Earthworks for Minor Works.

3.5 STOCKPILING

- .1 Use the designated laydown area at the east end of the building as shown, if required.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.

3.6 REMOVAL FROM SITE

- .1 Remove stockpiled material as directed by Departmental Representative when it interferes with operations of project.
- .2 Remove stockpiles of like materials by alternate disposal option once collection of materials is complete.
- .3 Transport material designated for alternate disposal using approved haulers and in accordance with applicable regulations.
 - .1 Written authorization from Departmental Representative is required to deviate from haulers and facilities receiving organizations.
- .4 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.
 - .1 Approved Disposal Facilities.

3.7 RESTORATION

- .1 Restore areas and existing works outside areas of demolition with gravel.
 - .1 Areas to be restored include work area, damage to roads and access to site.
- .2 Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

3.8 CLEANING

- .1 Remove debris, trim surfaces and leave work site clean, upon completion of Work
- .2 Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

END OF SECTION

Part 1 General

1.1 REFERENCES

- .1 Canadian Council of Ministers of the Environment (CCME).
 - .1 CCME PN1055-1993, Environmental Code of Practice for Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products.
 - .2 CCME PN1299-1999, Canadian Environmental Quality Guidelines.
 - .1 Chapter 7-As Updated, Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health.
 - .2 Canada Wide Standards for Petroleum Hydrocarbons, 2008.
- .2 Canadian Federal Legislation
 - .1 Canadian Environmental Protection Act (CEPA) - Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, Canada Gazette Part II (SOR/2008-197, June 12, 2008).
 - .2 CEPA, 1999, c. 33.
 - .1 Section 53 Technical CEPA Guidelines for Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products 1995.
 - .3 Canadian Environmental Assessment Act (CEAA), 2012..
 - .4 Canada Labour Code (R.S. 1985, c. L-2).
 - .1 Part II (September 200) - Occupational Health and Safety.
 - .5 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34.
- .3 Underwriters' Laboratories of Canada (ULC).
 - .1 ULC-S603-2000, Underground Steel Tanks.
 - .2 ULC-S615-1998, Underground Reinforced Plastic Tanks.

1.2 SUBMITTALS

- .1 Submit written tank description in accordance with Section 013300 - Submittal Procedures.
- .2 Provide written description of tank, its former contents, location and reason for removal.
- .3 Forward affidavit of destruction of underground storage tanks to authority having jurisdiction.

1.3 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 017421 - Construction/Demolition Waste Management and Disposal.
- .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 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 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 EXCAVATION TRENCHING AND BACKFILL

- .1 Do work in accordance with Section 310099 - Earthwork for minor works.
- .2 The existing tanks have already been permanently put out of service in accordance with the applicable federal regulation: the Canadian Environmental Protection Act (CEPA 1999, SOR/2008-197).
- .3 Provide protective material around excavation.
- .4 Provide constant supervision during excavation and backfilling.
- .5 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.
- .6 Separate visually contaminated soil from clean soil as directed by Departmental Representative.
- .7 Stockpiled soil is to be stored properly, away from the ground (on a liner or within drums/containers, as approved by Departmental Representative).

3.3 TANK REMOVAL

- .1 Remove tank in accordance with CCME Code of Practice PN1055 and CEPA 1999, SOR/2008-197 and place in secure location.
- .2 Block tank to prevent movement.
- .3 Remove and replace contaminated soil and accumulated flammable or combustible liquid with clean fill common to local area in accordance with Section 310099 – Earthwork for minor works.

3.4 CAPPING

- .1 Plug/cap threaded fittings after tank has been freed of vapours and before tank is moved from site.
 - .1 Leave vent open.
- .2 Plug corrosion leak holes using screwed (boiler) plugs.
- .3 Leave 1 – 25 mm vent hole in one plug to prevent tank from being subjected to excessive pressure differential caused by extreme temperature change.

3.5 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 Cut suitable openings in tank sides to render tank unusable.
 - .3 Ensure 3 - 25 mm vent hole located at uppermost point on tank.

3.6 SITE REMEDIATION

- .1 To CCME-PN 1299 and CEPA 1999, SOR/2008-197.
- .2 Departmental Representative will be responsible for the cost of the verification sampling.
- .3 Allow for assisting Departmental Representative to collect confirmatory soil samples from the sidewall and floor of the UST excavation, and from other areas, as required.

- .4 All soil removed will only be returned to the excavation if clean and will be disposed of otherwise at a certified facility. Only clean material, including stripped top soil, will be put in the excavation.
- .5 Contractor to be responsible for removal and disposal of any contaminated groundwater that infiltrates excavation.
 - .1 If groundwater enters excavation, allow for assisting Departmental Representative to collect confirmatory groundwater sample prior to pumping out of excavation.
- .6 Allow one week for laboratory analysis of soil and groundwater samples and add proper protection (i.e., fencing) around the open excavation.
- .7 Reinststate the site with gravel, stripped top soil and any confirmed clean excavated materials. Minimal amount of excess gravel to be placed on top of backfilled area following compaction. Refer to Section 310099 - Earthwork for minor works for details on backfill and compaction requirements.

3.7 WORKMANSHIP AND DISPOSAL

- .1 Tanks destined for disposal.
 - .1 Dismantle, cut sufficient openings or otherwise render unusable.

END OF SECTION