



GUIDELINE TITLE: Dismantling and Removal of Petroleum Product and Allied Product Storage Tank Systems

BRANCH/DIVISION: Environmental Compliance and Enforcement/Environmental Stewardship

**Effective Date: October 3, 2014
Date Revised: July 9 2024**

INTENT

To manage and direct petroleum and allied product storage tank dismantling and removal processes undertaken by Licensed Petroleum Technicians (LPTs), including but not limited to sampling requirements of soil and groundwater. This document compliments the requirements stated in the Storage and Handling of Petroleum Products and Allied Products Regulation M.R.188/2001 and any other associated guidelines or codes.

GUIDELINE

I. Application and General Requirements

1. Licensed Petroleum Technicians are to apply to the Petroleum Storage Program for a *Permit to Alter a Petroleum or Allied Product Storage Tank System by Removal*. (Permit to Alter by Removal)
 - a. No work is to be undertaken until the Licensed Petroleum Technician has received a Permit to Alter by Removal
 - b. The Permit to Alter by Removal is valid for one year
 - c. The Licensed Petroleum Technician, once they have received a Permit to Alter by Removal, must provide an Environment Officer with at least fifteen (15) working days written notification prior to commencement of work.
2. Storage tank systems are to be removed in accordance with applicable legislation and industry standards, which include, but are not limited to, compliance with workplace safety and health legislation, building codes, municipal permits and any other provincial or federal requirements.

II. Preparing the Tank

3. Storage tank must be purged and/or made inert in accordance with applicable legislation and industry standards. Tank removal/destruction may not begin until:
 - a. A combustible gas meter reading is less than 10% LEL at any depth within the tank, or
 - b. An oxygen meter reading of the atmosphere inside the tank is less than 5%.
4. At the time of removal, the storage tank must be examined for any evidence of perforations caused by corrosion or structural failure. Perforations must be photographed and locations documented.

Environment and Climate Change

Guideline Title: Dismantling and Removal of Petroleum Product and Allied Product Storage Tank Systems

III. Tank Removal and Disposal

5. Tank serial numbers are to be recorded and noted in the *Petroleum Storage Tank System Underground and/or Aboveground Removal Report* (Tank Removal Report).
6. Storage tanks must be made to provide ventilation and to render unfit for further use.
 - a. Steel storage tanks and appurtenances may be sent to a scrap dealer to be processed and recycled.
 - b. Non-steel storage tanks and appurtenances may be crushed on-site and disposed of at a waste disposal ground.
 - c. Aboveground storage tanks which are intended to be reused to store petroleum or allied products must be declared in the Tank Removal Report. Testing of the tank may be required prior to installation.
 - d. Tanks which are intended to be reused for the storage of any product other than petroleum or allied products must be declared in the Tank Removal Report.

IV. Waste Disposal

7. Liquid petroleum product and sludge are dangerous goods and must be handled in accordance with The Dangerous Goods Handling and Transportation Act.
8. Water from the excavation must be tested to determine suitable disposal options, which shall be determined with the guidance of the Contaminated Sites Program.
9. A Remediation Plan shall be submitted to the department prior to any soil and/or water being transported off-site for disposal.
 - a. Impacted soil must be tested to determine suitable disposal options should disposal of the soil be required.
 - b. Soil management, including temporary on-site storage of soil, soil removal and disposal, must receive prior approval from the Contaminated Sites Program.

V. Soil and Groundwater Testing

10. Soil and/or water samples must be taken at the time of tank removal by the Licensed Petroleum Technician or by an environmental professional contracted by the Licensed Petroleum Technician.
11. The soil samples collected at tank removal are analyzed for the purposes of the Tank Removal Report, and do not constitute a Phase II Environmental Site Assessment.
 - a. Current or future Phase II Environmental Site Assessment or site remediation activities do not negate the requirement to collect soil samples at the time of tank removal, in accordance with this guideline.
12. Field sample headspace vapours are to be screened in accordance with industry standards and the results provided to the department.
13. All samples collected for field screening and laboratory analysis are to be collected in accordance with industry standards and analyzed for, at minimum, BTEX and petroleum hydrocarbon fractions F1 to F4.
14. All potable groundwater wells located on the site must be sampled.
 - a. Additional sampling of off-site vulnerable groundwater wells may be required by an Environment Officer.

Environment and Climate Change

Guideline Title: Dismantling and Removal of Petroleum Product and Allied Product Storage Tank Systems

15. All samples identified for lab analysis must be submitted to a lab accredited by the Canadian Association for Laboratory Accreditation (CALA) or the Standard Council of Canada (SCC).

VI. Sample Collection – Underground Storage Tank Systems

16. Soil samples are to be collected from any areas of prior spillage or leakage.
 - a. The samples with the highest field reading and/or areas of visible staining must be submitted for laboratory analysis.
17. Samples of native soil are to be collected from the excavated tank nest using a representative grid pattern.
 - a. A minimum of two (2) representative samples must be collected from underneath each tank.
 - i. The sample with the highest field reading and/or those with visible staining must be submitted for laboratory analysis.
 - b. A minimum of three (3) vertical samples must be collected on each excavation wall; near the top of the wall, mid wall and near the bottom of the wall, approximately every two (2) metres horizontally along each wall at each specified level
 - i. The sample with the highest field reading and/or those with visible staining on each wall must be submitted for laboratory analysis.
18. A minimum of one (1) representative sample must be collected from beneath or adjacent to any pump island.
 - a. The sample with the highest field reading and/or those with visible staining must be submitted for laboratory analysis.
19. The pipe run(s) must be sampled every two (2) metres along the run.
 - a. The sample with the highest field reading and/or those with visible staining must be submitted for laboratory analysis.
20. Additional samples should be taken where layers of porous soil (sand/gravel/silt) are noted in the exposed excavation.
21. Excavated material proposed to be reused as backfill in the excavation must be sampled as prescribed in the information bulletin "[Excess soil for reuse as backfill material](#)"
 - a. The samples with the highest field readings and/or those with visible staining must be submitted for laboratory analysis; results must not exceed the appropriate guidelines before excavated material is returned to the excavation.

VII. Sample Collection – Aboveground Storage Tank Systems

22. Soil samples are to be collected in a grid pattern at two (2) metre intervals horizontally, at a minimum depth of fifteen (15) centimetres, extending just beyond the footprint of any:
 - a. Fuel transfer area(s)
 - b. Areas of prior spillage or leakage
 - c. Storage tank footprint(s)
23. The samples with the highest field readings and those with visible staining must be submitted from each tank area, fuel transfer area and piping/pump area (if applicable).

Environment and Climate Change

Guideline Title: Dismantling and Removal of Petroleum Product and Allied Product Storage Tank Systems

24. Where underground piping is part of the tank system, underground sampling requirements must be applied.

VIII. Project Completion

25. A Work Completion Certificate shall be submitted within ten (10) working days of project completion to the Petroleum Storage Program at petstor@gov.mb.ca.

26. A Tank Removal Report and/or any detailed environmental sampling report(s) shall be submitted within ninety (90) calendar days of completion of a tank removal to the Contaminated Sites Program at contaminatedsites@gov.mb.ca.