



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

Background

Recent changes to Maine Statutes have made underground piping associated with aboveground motor fuel storage tanks subject to the same annual inspection requirements as underground piping connected to underground tanks. The first inspection deadline for gasoline piping is July 1, 2007. Gasoline piping inspections must be completed by a Maine certified installer or inspector and submitted to the DEP by this date in 2007 and every year thereafter. The first inspection deadline for diesel piping is July 1, **2009**.

Note that, at the present time, piping that was installed before June 24, 1991 was not required to meet the leak detection requirements of the regulations at that time. By January 1, 2011, all motor fuel underground piping installed before June 24, 1991 that is not secondarily contained with continuous leak detection must be upgraded or replaced so that it is secondarily contained with continuous leak detection monitoring. Piping installed on or after June 24, 1991 must meet the leak detection (continuous interstitial monitoring) and Stage I vapor recovery requirements, as well as the existing corrosion protection requirements of the regulations. In addition, any piping that was installed with electronic leak detection must be maintained regardless of the installation date.

All work associated with the inspection and testing of equipment and verification of recordkeeping procedures must be performed under the direct, onsite supervision of a Maine certified underground storage tank installer or a Maine certified underground storage tank inspector.

General Instructions

for Completing the Underground Piping Annual Inspection Report

- A. The Underground Piping Annual Inspection Report and associated Inspection Summary must be used to document the following two types of activities:
1. Initial inspection and testing of leak detection, leak prevention and corrosion protection equipment and review of records associated with this equipment. See page 3 of this document for specific instructions for completing the initial inspection.
 2. Updating an initial inspection report to document equipment replacement or proper recordkeeping activities. See page 14 of this document for specific instructions for updating an initial inspection under the heading "What to Do if a Component Fails the Inspection."



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

- B. The tank owner is responsible for ensuring that a copy of a passing Underground Piping Annual Inspection Report and the associated Inspection Summary is submitted to the Maine DEP by July 1, 2007 and annually thereafter for aboveground gasoline tanks. Completed Inspection Reports should be mailed to:

Annual AST Underground Piping Inspections
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333.

The facility owner must keep a copy of the completed inspection report. The Maine DEP strongly recommends that the tank inspector also keep a copy for their records. As a courtesy, the tank inspector may send a copy of the report directly to the Department.

- C. Identify each piping run by the tank or chamber that it is connected to. Use the same identification number on the inspection form that is used on the facility registration form. Tank #7 Chamber #1 on the registration form should be indicated on the inspection form as tank 7-1. Use an additional Inspection Report page if there are more than four tanks or chambers at a facility. If you are unsure of the tank or chamber number, contact the Department. Use the same tank or chamber number throughout the Inspection Report to identify a specific tank or chamber and the associated piping run.
- D. For each piping run, you should complete each section of the Underground Piping Annual Inspection Report that is applicable. Use an "X" or a checkmark in the column associated with each piping run to indicate whether the answer is "Pass" or "Fail" for each applicable question. If there are more than 4 active tanks or chambers at a location, use additional pages.
- E. You may make repairs if you find problems during the inspection but you must be certified by the equipment manufacturer to make any repairs on the piping, containment sumps, pumps, dispensers, or leak detection equipment if such certification is available.
- F. For each item on the checklist, your "Pass" or "Fail" evaluation should be based on the status of the item as you left the site, not the status when you arrived. For example:
- If an alarm light on a monitoring console is burned out when you first check it, but you replace the bulb during your inspection, the item should be marked as "Pass", and you should make a note in the Comment section that you replaced the bulb.
 - If there is water in a containment sump when you arrive, but you remove the water during your inspection, the item should be marked as "Pass," and you



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

should make a note in the Comment section that you removed water from the sump.

- G. Each item on the Underground Piping Annual Inspection Report is numbered. The numbers in the Inspection Report correspond to the numbered paragraphs in the following sections of this Reference Handbook. If you need more information about a particular item on the Underground Piping Annual Inspection Report that is not covered in this reference handbook, call 1-800-452-1942 or 207-287-2651 and ask to speak to someone in the TANKS unit.

Specific Instructions
for Completing the Underground Piping Annual Inspection Report

The Underground Piping Annual Inspection Report provides details of each piping component that is present at a facility and a list of what must be verified for each component. This section of the inspection handbook provides background information and additional information that may be useful in completing the Underground Piping Annual Inspection Report.

Underground Product Piping

1. **Date of Installation of Product Piping?**

Determine the date of the piping installation from the facility registration certificate. If a registration certificate is not available, contact the Department.

The date of installation of the piping is important because it determines the requirements that the piping must meet. Piping installed before June 24, 1991 does not yet need to meet the leak detection requirements of the regulations. If the piping was installed before June 24, 1991 and does not have secondary containment and continuous electronic leak detection, you may skip items 4 through 20 of the Underground Piping Annual Inspection Report if they do not apply. All other applicable sections of the Inspection Report (anti-siphon valves, crash valves, pressure-regulating valves, dispensers, Stage I vapor recovery, corrosion protection) must still be completed.

2. **Product Piping Material?**

Visually inspect and identify the piping material. Enter the type and brand of the piping in the box provided on the Inspection Report. For example, "Ameron fiberglass" or "Environ flex." If the piping material listed on the facility registration certificate is different than the piping material you have identified, make a note in the Comment section of the Inspection Report.



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

3. **Product Piping Non-Corrosive?**

If you determine the piping to be fiberglass, cathodically protected steel or flexible plastic, mark this item as "PASS." If the piping is not one of these three types of material, then mark the piping non-corrosive item as "FAIL."

All underground product piping connected to aboveground storage tanks in use today must be constructed of cathodically protected steel, fiberglass, or other non-corrosive material approved by the Department. If fill, vent, or vapor recovery piping is in contact with the soil, it must be protected against corrosion.

Interstitial Monitoring (Piping)

All underground product piping installed on or after June 24, 1991 must use secondary containment with continuous interstitial monitoring for leak detection. The secondary containment should consist of double-walled piping with a transition sump where the piping transitions from aboveground to underground. Piping installed on or after March 14, 2004 must also have a sump with electronic monitoring under each dispenser.

Piping installed prior June 24, 1991 is not required to have leak detection at this time. If the piping is not required to have leak detection, mark the "N/A" box next to the heading for this section on the Inspection Summary Page.

4. **Make and Model:**

Enter the make and model number of the monitoring system. For example, "Veeder-Root TLS350."

5. **Sump Present?**

For piping installed before March 14, 2004, there must be a sump at the lower end of the piping. For piping installed on or after March 14, 2004, there must be a sump at each end of the piping. Enter a "Yes" or a "No" to indicate whether a sump is present beneath each dispenser and at the transition where the piping goes from above ground to below ground. You should also be aware of any additional requirements the specific manufacturer may have on this equipment.

6. **Monitoring Console Fully Operational?**

The monitoring console must be fully operational. This means that any horn, lights, or printer that may be present must be working for this item to be marked "P" for "Pass." If any of these features are present but are not working and cannot be repaired before you leave the site, this item must be marked "F" for "Fail." Explain any problems in the Comments section.



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

7. **Sensor Properly Placed?**
For transition and dispenser sump sensors, the sensor must be installed according to the manufacturer's requirements and as close to the bottom of the sump as possible. Sensors that include a float must be mounted so they are vertical.
8. **Sensor Functioning Properly?**
All sensors must be tested for proper operation. Float sensors are typically tested by immersing them in water. Follow the manufacturer's instructions for testing discriminating sensors. If a sensor does not operate properly or cannot be tested, mark this item as "F" for "Fail." If you replace a failed sensor, be sure to test the replacement sensor. If the new sensor passes, you should mark this item as "P" for "Pass" and make a note in the Comment section that you replaced the sensor.
9. **Sump Liquid Tight?**
Visually inspect each sump to determine if the sump is liquid tight. A tightness test is not required, but if the sump has a visible hole or crack, penetration boots are cracked, torn, or not properly in place, or the sump cover is damaged or does not seal properly, mark this item as "F" for "Fail."
10. **Oil Present in Sump?**
Check all sumps for the presence of oil. Any amount of oil (even a small puddle in a portion of the sump) in any sump is evidence of a possible leak that must be reported to the DEP by calling 1 (800) 482-0777 or 287-2651. If oil is still present in the sump when you leave the site, mark the item as "F" for "Fail." If you remove the oil and repair the leak before leaving the site, a passing result can be recorded. Make a note in the Comment section describing the amount of oil removed and the nature of the repair.
11. **Water Present in Sump?**
Check all sumps for the presence of water. Water in any sump is evidence of a possible leak that must be reported to the DEP. If water is still present in the sump when you leave the site, mark this item as "F" for "Fail." If you remove the water and repair the leak before leaving the site, a passing result can be recorded. Make a note in the Comment section describing the amount of water removed and the nature of the repair.
12. **PASS or FAIL?**
If all of the applicable items (5 through 11) are "P" for "PASS" for a specific transition or dispenser sump, then that sump can be given an overall "PASS." If any one of the applicable items (5 through 11) are "F" for "FAIL" for a specific transition or dispenser sump, then that sump must be given an overall "FAIL."



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

Automatic Line Leak Detectors (LLD)

Complete this section only if the piping is connected to a submersible pump. Automatic line leak detectors (LLD's) are used to monitor pressurized piping systems for catastrophic leaks. Each product piping system connected to a submersible pump must have an automatic line leak detector that cuts off power to the pump or causes slow flow at the nozzle if a leak is detected in the piping system. The operation of each LLD must be tested by simulating a 3 gallon per hour leak in the piping system and verifying that the pump is shut down or goes into slow flow. Follow the manufacturer's instructions for how to test specific LLDs.

13. **Make and Model?**
Enter the manufacturer and model number of the LLD in the space at the top of the section. For example, "Red Jacket FXIV" or "Vaporless LD2000," or "Veeder-Root PLLD."
14. **Mechanical (M), Electronic (E), or NONE**
Indicate whether the LLD is mechanical (M) or electronic (E). If there is a submersible pump but there is no LLD, enter "None."
15. **LLD Present?**
Mark each piping run that has a submersible pump and a LLD with a "P" for "Pass." If there is a submersible pump but no LLD, mark that piping run with an "F" for "Fail."
16. **LLD Listed for Use with Type of Piping Present?**
Check to make sure the LLD installed is listed for use with the type of piping present (rigid or flexible). This information can be found on the National Work Group on Leak Detection Evaluations web site: www.nwglde.org. If the LLD is being used with appropriate piping, mark this item "PASS." If the LLD is not being used with appropriate piping, mark this item "FAIL."

For Mechanical LLD's Only

17. **Slow Flow when 3 gph Leak is Simulated?**
Follow the LLD manufacturer's instructions for simulating a 3 gallon per hour leak (with the piping at 10 psi pressure) in the piping system. Be sure to calibrate your leak simulation device before each test to obtain accurate results.

LLDs that fail to detect and respond properly to a simulated 3 gph leak and cannot be replaced or repaired before you leave the site must be marked "F" for "Fail." Be sure to test any replacement LLDs that you install. Make a note in the Comment section if you replace a LLD.



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

For Electronic LLD's Only

18. Check Setup Parameters?

Check the system settings to make sure the piping type (rigid or flexible), pipe length, pipe diameter and leak test (3 gph) are correctly programmed. If the setup parameters are correct, mark this item "P" for "Pass." If you make any changes to the setup parameters, mark this item "P" and make a note in the Comment section. If the setup parameters are not correct and you do not correct them before you leave the site, mark this item "F" for "Fail."

19. System Alarms and Shuts Down STP when a 3 gph Leak is Simulated?

Follow the LLD manufacturer's instructions for simulating a 3 gallon per hour leak (with the piping at 10 psi pressure) in the piping system. Be sure to calibrate your leak simulation device before each test to obtain accurate results.

The electronic LLD should sound an alarm and cut off power to the submersible pump when the leak is detected. LLD's that fail to detect and respond properly to a 3 gph leak and cannot be replaced or repaired before you leave the site must be marked "F" for "Fail." Be sure to test any replacement LLDs that you install. Make a note in the Comment section if you replace a LLD.

20. PASS or FAIL?

If all of the applicable items (15 through 19) are "Pass" or "N/A" for a specific piping run, then that piping run can be given an overall "Pass." If any one of the applicable items (15 through 19) are "F" for a specific piping run, then that piping run must be given an overall "Fail."

Anti-Siphon Valves

In most cases, the product dispenser and some portion of the product piping of a motor fuel aboveground tank are at a lower elevation than the liquid in the tank. In such cases, a hole or defect in the piping can leak product even when the pump is turned off because the piping creates a siphon. To prevent piping from leaking when the pump is off, an anti-siphon valve must be installed. If the bottom of the dispenser and all of the product piping are higher than the top of the tank, skip this section.

A normally closed solenoid valve wired so it opens only when the pump is on is frequently used as an anti-siphon valve. Solenoid valves may be used on both suction and pressure pumping systems. Suction pumps may also use a mechanical anti-siphon valve that uses a spring to keep a valve closed unless the suction pump is operating.



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

21. **Mechanical (M), Electric (E) Anti-siphon, N/A, or NONE?**
Indicate whether the anti-siphon is mechanical (M) or electric (E). If there is a piping run that is never at a lower elevation than the highest possible liquid level in the tank (for example, the tank is in a below-grade vault), then an anti-siphon valve is not required and you should enter not applicable (N/A) and skip to item #25 below. If some portion of the piping run is at a lower elevation than the highest possible liquid level in the tank, but there is no anti-siphon valve, enter "None."
22. **Anti-Siphon Valve Present?**
An anti-siphon valve should be present in each product piping run where any part of the piping is lower than the highest possible liquid level in the tank. If there is an anti-siphon valve, mark this item "PASS." If there should be an anti-siphon valve, but there is none installed (item #21 is marked "None"), mark this item "FAIL."
23. **Anti-Siphon Valve Properly Located?**
The anti-siphon valve should be installed at the highest point of the piping run. When a LLD is present, the anti-siphon valve should be upstream (on the tank side) of the LLD. If an anti-siphon valve is properly located, mark this item as "Pass." If the anti-siphon valve is not properly located, mark this item as "Fail."
24. **Electric Anti-Siphon Valve Operational?**
Test the anti-siphon valve for proper operation in accordance with the manufacturer's instructions. If the manufacturer does not provide a testing procedure then one of the two following methods may be used to test an electric anti-siphon valve:
- Disconnect the power wire to the solenoid valve and attempt to dispense fuel from the nozzle. There should be no product flow at the nozzle. Only qualified electricians should conduct this test. Be sure to follow appropriate lockout/tagout procedures when disconnecting and reconnecting the power wire. Properly insulate the ends of the disconnected wires. Insert the nozzle in an appropriate fuel container when attempting to dispense fuel. This is only a general description of the test procedure and not a step-by-step guide. Take all appropriate safety precautions when conducting this test.
 - When testing line leak detectors, a "bleedback" or piping "resiliency" step is performed to determine whether there is too much air in the piping. This step also checks the operation of the anti-siphon valve because if the valve is not working, product will not stop flowing when the bleedback test is conducted. Therefore, a passing bleedback test is also a passing operational test for the anti-siphon valve. This is only a general description of the test procedure and not a step-by-step guide. Take all appropriate safety precautions when conducting this test.



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

If the electric anti-siphon valve passes one of these tests, mark this item as "P" for "Pass." If the electric anti-siphon valve fails one of these tests, mark this item as "F" for "Fail."

There is no practical way that the DEP is aware of to test a mechanical anti-siphon valve. If you have a way to test mechanical anti-siphon valves, please contact the DEP. If a mechanical anti-siphon valve is present, leave this item blank.

25. **PASS or FAIL?**

If all of the applicable items (22 through 24) are "P" or "N/A" for a specific piping run, then that piping run can be given an overall "Pass." If any one of the applicable items (22 through 24) are "Fail" for a specific piping run, then that piping run must be given an overall "Fail."

Crash Valves

A crash valve must be installed at the base of dispensers served by submersible pumps. Each crash valve must be installed at the proper height, securely anchored, and tested to be sure it is operational.

26. **Dispenser Number**

Enter the dispenser number at the top of each column. Use an additional page if there are more than 8 dispensers.

27. **Crash Valve(s) Present?**

Crash valves should be installed at the base of the dispenser. If there is a crash valve in each product piping run, mark this item "P" for "Pass." If a crash valve is missing in any product piping run, mark this item "F" for "Fail."

28. **Crash Valve(s) at Correct Height?**

Check to make sure each crash valve in the dispenser is installed at the proper height. The shear groove must be no more than ½ inch above or below the top surface of the dispenser island in order to pass. If the shear groove is more than ½ inch above or below the top surface of the dispenser island, mark this item "F" for "Fail."

29. **Crash Valve(s) Securely Anchored?**

In order to function as designed, the portion of the crash valve below the shear groove must be securely anchored to the dispenser box frame or the concrete dispenser island using hardware specifically designed for this purpose. Hose clamps or any other type of "make-do" hardware are not acceptable for anchoring crash valves. If the crash valves



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

are properly anchored using appropriate hardware, mark this item as "P" for "Pass." If any of the crash valves are not properly anchored, mark this item as "F" for "Fail."

30. Crash Valve(s) Operational?

Trip the crash valve and verify that the valve mechanism snaps shut. To be sure the valve has closed completely, attempt to dispense fuel into an appropriate container. If fuel still flows from the nozzle for more than a few seconds after the crash valve is closed, the valve fails. The submersible pump must be off in order to re-open the valve once it has closed. If the crash valve operates freely and closes completely, mark this item as "P" for "Pass." If the valve does not operate freely or does not close completely, mark this item as "F" for "Fail."

31 PASS or FAIL?

If all of the applicable items (27 through 30) are "P" for a specific dispenser, then the crash valves for that specific dispenser can be given an overall "Pass." If any one of the applicable items (27 through 30) are "F" for a specific dispenser, then the crash valves for that specific dispenser must be given an overall "Fail."

Dispensers

The many gaskets, seals, joints, fittings, and components inside dispensers and pumps are a frequent source of leaks. A simple inspection of the inside of dispenser and pump cabinets can often find these leaks while they are still small and before they become significant.

32. Dispenser or Pump Number?

Enter the dispenser or pump number at the top of each column. Use an additional page if there are more than 8 dispensers or pump cabinets.

33. Leaks Present?

Remove both dispenser or pump cabinet doors from each side and carefully inspect the meters, filters, unions, and all other liquid-carrying components for any signs of leakage. Look for staining, wetness, or drips that might indicate a problem. If you are unsure whether wetness is due to water or product, smear a little product finding paste on the moisture to identify the liquid. If a weep or leak is discovered and repaired, mark the item as "P" for "Pass," but make a note in the Comment section to describe what was leaking and what you did to fix it. If a leak is discovered and not repaired while you are on site, mark the item as "F" for "Fail."

34. PASS or FAIL?

If item 33 is "P" for a specific dispenser, then that piping run can be given an overall "Pass." If item 33 is "F" for a specific piping run, then that dispenser must be given an overall "Fail."



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

Cathodic Protection

Department regulations require cathodically protected piping to be checked every year to make sure it is adequately protected from corrosion.

These checks must be performed by a Maine certified underground tank installer or a Maine certified underground tank inspector who is also certified by the Maine DEP as a cathodic protection tester.

There are two systems of cathodic protection – galvanic and impressed current. The inspection requirements are different for the two systems. Galvanic systems are the most common type, representing over 99% of the presently operating cathodic protection systems in the state.

35. Voltage readings

Follow the instructions given in Appendix A of Chap. 691, *Rules for Underground Oil Storage Facilities* and perform a structure-to-soil potential reading for each piping run that is cathodically protected. Record your readings in volts.

The readings must be taken over the center line of each piping run. Remember that the reference electrode must be in direct contact with clean soil. Moist soil provides better readings. Do not take readings when the ground is frozen.

36. PASS or FAIL?

The voltage reading must -0.850 volts (-850 millivolts) or more in order for the piping run to pass the test. If the voltage reading is -0.850 volts or more, mark this item as "Pass." If a piping run has a lower voltage than this, mark this item as "Fail."

37. PASS or FAIL?

Verify that the rectifier has power and is turned on.

If the system is NOT an impressed current system please mark the form where indicated as N/A.

38. PASS or FAIL?

Verify that the facility is performing monthly inspections of the rectifier that involve reading and recording voltage and/or amperage readings. A written log of these inspections must be maintained. Rectifier voltage and/or amperage outputs are compared to the recommended operating levels that were determined during system installation.

To test an **Impressed Current System**, follow the test methods and criteria as described in the National Association of Corrosion Engineers TM 0101-2001,



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Tank Systems, or TM 0497-2002, Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems.

Stage I Vapor Recovery

Stage I vapor recovery systems are required for all gasoline tanks at a facility if the total monthly gasoline throughput for the entire facility has ever exceeded 10,000 gallons. Only a few facilities, such as small convenience stores, seasonal businesses and small trucking companies, are not required to have Stage I vapor recovery.

39. **Gasoline Throughput for the Last 12 Months?**

The facility operator is required to keep records of monthly gasoline throughput. The last 12 months of records are required to be kept on site. Write in the total gasoline throughput for all grades of gasoline dispensed at this facility for the last 12 months. If the records are not available, the facility owner or operator will need to locate these records and submit them to the DEP. Refer to the Appendix of this Reference Handbook for an example of a form that can be used to record gasoline throughput.

40. **Stage I Vapor Recovery Required?**

Review the total volume of gasoline dispensed (total of all grades) for the each of the previous 12 months. If the monthly total was greater than 10,000 gallons for any month, then mark this item as "Yes." If the volume dispensed was less than 10,000 gallons for each month, then mark this item as "No." If Stage I vapor recovery is not required at this location, you may skip items 41 through 46.

41. **Stage I Vapor Recovery Present?**

If Stage I vapor recovery piping and fittings are in place, mark this item as "Pass." If Stage I vapor recovery piping and fittings are not installed, mark this item as "Fail." The facility will need to install Stage I vapor recovery in order to pass the inspection.

42. **Vapor Recovery Cap in Good Condition and Seals Tightly?**

The cap on the vapor recovery adaptor should be in good condition and seal tightly. The cap should not be able to be rotated when it is in place on the vapor recovery adaptor. If the cap is in good condition and seals tightly, mark this item as "Pass." If the cap is not in good condition or does not seal tightly, mark this item as "Fail."

43. **Poppet Moves Easily and Seals Tightly?**



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

Check the poppet in the vapor recovery adaptor by depressing the spring loaded poppet. The poppet should return smoothly to its normal position making a tight seal with the vapor recovery adaptor fitting. If the poppet moves smoothly and seals tightly, mark this item as "Pass." If the poppet sticks open or does not seal tightly, mark this item as "Fail."

44. Fill Pipe Cap in Good Condition and Closes Tightly?

The cap on the fill pipe adaptor should be in good condition and close tightly. The cap should not be able to be rotated when it is in place on the fill pipe adaptor. If the cap is in good condition and closes tightly, mark this item as "Pass." If the cap is not in good condition or does not close tightly, mark this item as "Fail."

45. Drop Tube in Place?

Check to make sure there is a drop tube inside the fill pipe of each gasoline tank. If a drop tube is present, mark this item as "Pass." If a drop tube is not present, mark this item as "Fail."

46. Drop Tube Extends to Within 6 Inches of the Tank Bottom?

The bottom end of a drop tube is typically cut at an angle. The high end of the cut should be no more than 6 inches from the bottom of the tank. Use a tape measure or a brass screw driven part way into the side of the bottom end of a gauge stick to measure the greatest distance between the drop tube and the tank bottom. Alternatively, you can remove the drop tube and compare the length of the drop tube to the measured distance from the top of the fill pipe to the bottom of the tank.

If the maximum distance between the drop tube and the tank bottom is 6 inches or less, mark this item as "Pass." If this distance is more than 6 inches, mark this item as "Fail."

47. PASS or FAIL?

If all of the applicable items (41 through 46) are "Pass" then the piping run passes the Stage I vapor recovery inspection. If any of these items are "Fail," then the piping run fails the Stage I vapor recovery inspection.



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

Instructions for Completing the Inspection Summary

- A. The Inspection Summary form is used to present, on one page, the results of the underground piping inspection. You must complete the appropriate sections of the Underground Piping Annual Inspection Report before you can complete the Inspection Summary page.
- B. At the top of the Inspection Summary, print the facility name, the facility location (city or town), the name of the owner, the name of the operator, the Maine DEP registration number for the facility, and the telephone number of the owner.
- C. In the upper left corner of the table indicate whether this is the Initial Inspection or an Inspection Update. Inspection Updates are required for facilities that do not pass the Initial Inspection. See "What to Do if a Component Fails the Inspection?" below. Only the portions of the Inspection Report that are actually completed need to be submitted for an Inspection Update. The next inspection will be due 12 months after the date of the INITIAL inspection.
- D. Indicate the tank or chamber capacity and the type of product stored in each tank or chamber.
- E. For each row of the table, check the appropriate box (P = pass, F = fail, or N/A = Not Applicable) to indicate the status of each tank or chamber. Each row of the Inspection Summary table corresponds to a table in the Underground Piping Annual Inspection Report.
- F. For each tank or chamber, check the appropriate box (PASS or FAIL) at the bottom of the column. If the tank or chamber has failed any of the inspection items listed in the rows above, then check "Fail."
- G. Print your name and the date of the inspection, and sign the Inspection Summary on the line indicated after completing the inspection.

What to Do if a Component Fails the Inspection

Department regulations require repair or replacement of any component found defective during the annual inspection within 30 calendar days of finding the problem. Recordkeeping deficiencies must also be corrected within 30 calendar days. The only exception to the 30 day time limit for correcting deficiencies is cathodic protection systems, which must be corrected within 180 calendar days of finding the problem.



Maine Department of Environmental Protection

Inspector Reference Handbook
For Underground Piping Connected to Motor Fuel
Aboveground Tanks

To notify the Department when deficiencies have been corrected, complete a second Inspection Summary form. Check "Inspection Update" at the top left corner of the table on the Inspection Summary to indicate that this is not a complete inspection report. Fill in the facility identification information and the tank identification information on the Inspection Summary for the tank(s) where additional work was done.

Complete the section(s) in the Underground Piping Annual Inspection Report that apply to the work that has been done. Indicate "Pass" only for the items which you corrected. Do not indicate a "Pass" at the bottom of the column unless you have inspected all the items in the column. Describe the work you did in the Comment section. Attach the appropriate page or pages from the Underground Piping Annual Inspection Report to the Inspection Summary.

For example, if Tank 3-1 received a failing result for Question 8 and you had to replace a transition sump probe, indicate "Pass" for Questions 7 (Sensor properly placed) and 8 (Sensor functioning properly). Do not enter Pass at the bottom of the Interstitial Monitoring table unless you have checked all the items in the column for that piping run.

For deficiencies requiring work by a licensed underground tank installer or inspector, the Inspection Summary form must be signed and dated by the installer who did the work. Examples of work that must be done by an installer or inspector include leak detection system repair or replacement (sump sensor or line leak detector), sump repair or replacement, and crash valve repair or replacement.

For deficiencies due to missing or incomplete paperwork, the facility owner may correct the deficiency by submitting copies of the required paperwork to the DEP directly. If the initial inspection found that records were not being kept or were being kept improperly then the records submitted to correct the deficiency must be dated after the date of the inspection.

A facility owner can also certify that certain non-technical deficiencies were corrected. For example, a facility owner can replace the paper roll in a tank gauge monitoring console and document the repair by printing out a report and submitting the report along with the Inspection Summary form to the DEP.

THE END

Appendix

CONTENTS

1. Monthly Gasoline Throughput Log

2. Information Resources

MONTHLY GASOLINE THROUGHPUT LOG

Facility: _____ **Registration Number:** _____

Location: _____

Gallons Pumped From Each Tank

20_____	Tank #	Tank #	Tank #	Tank #	Tank #	Tank #	Monthly Total
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
Annual Total							

Department of Environmental Protection Regulation 118 “Gasoline Service Station Vapor Control”, administered by the Bureau of Air Quality Control, requires all gasoline dispensing facilities to keep records of the amount of gasoline that is dispensed each month. These records must be available for inspection and copies provided to Department staff upon request.

To calculate the monthly volume of gasoline dispensed at the Station, fill in the **Gallons Pumped** for each gasoline tank for the appropriate month. Add the monthly gallons pumped for all gasoline tanks at the station and write this sum in the **Monthly Total** box. At the end of the year, add the monthly totals and place this sum in the **Annual Total** box.

Do not include the volume of diesel fuel, K-1 or any fuel dispensed other than gasoline on this sheet.

Some vapor control is required at stations with an annual throughput greater than 100,000 gallons. See the regulation for details or contact DEP/Air Bureau office in Augusta, Bangor, Portland, or Presque Isle.

Information Sources

Underground Oil Storage Facilities

(As of June 2007)

Contacts

Ameron		
Containment Solutions	Bob Upton	800-628-2657 x213
Drummond		800-361-5050 x305
FE Petro		608-838-8786
Highland	Todd Shearer	717-664-0600
Mohawk Metal	John Millet	800-765-3110
Permatank	Steve Abrams	847-438-8265 x232
Plasteel	Rick Sharpe	760-729-1093
Scully		1-800-272-8559
Steel Tank Institute (STI)	Lorri Grainawi	847-438-8265
Total Containment	Allan Copenhaver	877-668-6825
TANX	Bill Johnson	603-543-1272
Xerxes Corp.	John Burwell	612-887-1836

Websites

Ameron	www.ameronfpd.com
FE Petro	www.fepetro.com/index.html
National Workgroup on Leak Detection Evaluations	www.nwglde.org
Steel Tank Institute (STI)	www.steeltank.com
Scully	http://www.scully.com/ct_index.html
Veeder-Root	http://vrnoteswebl.veeder.com/vrdocrep.nsf/docbycat.html
Xerxes	www.xerxescorp.com/noframes/pindex.htm