



Sample Below Ground LP Facility Inspection Report

Submitted by: Nathan Dore
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Global Info		
Question	Answer	Flag
Inspector	Nathan Dore	
Inspection Type	Gas Safety	
Facility Information		
Question	Answer	Flag
Facility ID	2	
Inspection Date	9/1/2016 1:13 PM	
Facility Name:	Maine Public Utilities Commission	
Address:	101 Second Street	
Number of Customers:	2	
Public Place:	Yes	
Number of Containers:	2	
Container Size:	1000	
Container Serial Number/Year:	1 - 2016, 2 - 2016	
Above or Below Ground Containers:	Below	
Facility Operator:	Unknown Operator	

Operator's Representative:	Sean Watson	
Follow up required:	No	
Container Requirements		
Question	Answer	Flag
5.2.1.4 - Containers showing serious denting, bulging, gouging, or excessive corrosion must be removed from service.	Satisfactory	
5.2.1.5 - Repairs or alterations of containers must comply with the regulations, rules, or code under which the container was fabricated (ask Operator if modifications have been made since prior inspection).	Satisfactory	
5.2.8.3 - The markings specified for ASME containers shall be on a stainless steel metal nameplate attached to the container, located to remain visible after the container is installed.	Satisfactory	
5.2.4.2 - The minimum design pressure for ASME containers is in accordance with Table 5.2.4.2.	Satisfactory	
5.2.5.3 - Containers designed to be filled volumetrically shall be equipped for filling into the vapor space.	Satisfactory	
5.2.5.4 - Containers that are greater than 125 gal water capacity through 2000 gallon water capacity are provided with a 3/4" or larger connection for liquid evacuation.	Satisfactory	
6.3 - Containers are installed the proper distance from important buildings or property that can be built on (in accordance with table 6.3.1). *120-250 gallons = 10' from buildings, property line *250-500 gallons = 10' from buildings, property line, 3' between containers	Satisfactory	

*501-2000 = 25' from buildings, property line (multiple containers), 10' from buildings, property line (single container), 3' between containers

6.3.4.1 - For underground/above ground tanks, the separation between tanks is at least three feet or more. Satisfactory

6.7.2.11/12 - On underground tanks of 2000 gallons or less, the relief valves shall discharge into the manhole or housing when the manhole or housing is ventilated. On underground tanks over 2000 gallons, the relief valve stacks at least 7 feet above the ground. Satisfactory

6.3.9 - The distance measured horizontally from the point of discharge of a container pressure relief valve to any building opening below the level of such discharge shall be in accordance with the following:
Cylinder - 3'
ASME Container - 5' Satisfactory

6.3.10 - The distance measured in any direction from the point of discharge of a container pressure relief valve, vent of a fixed maximum liquid level gauge on a container, and the container filling connection to exterior sources of ignition, openings into direct-vent (sealed combustion system) appliances, and mechanical ventilation air intakes shall be in accordance with the following:
Cylinder (Exchange) - 5'
Cylinder (Filled on Site) or ASME container - 10' Satisfactory

6.6.6.1 - If subject to loading from vehicles, there is at least eighteen inches of cover and protected from vehicle traffic. Satisfactory

6.20.1.1 - Tanks must be located at least ten feet from any source of electrical equipment. Satisfactory

6.6.6.1(a) - On an underground tank there is at least six inches of cover. Satisfactory

<p>6.7.2.4 - Rain caps or other means shall be provided to minimize the possibility of the entrance of water or other extraneous matter into the relief device or any discharge piping. Provisions shall be made for drainage where the accumulation of water is anticipated.</p>	<p>Satisfactory</p>
<p>6.7.2.6 - The design of the pressure relief valve drain opening shall provide the following: (1) protection of the container against flame impingement resulting from ignited product escaping from the drain opening (2) direction of the pressure relief valve drain opening so that adjacent container(s), piping, or equipment are not subject to flame impingement</p>	<p>Satisfactory</p>
<p>5.2.5.5 - Containers larger than 2000-gallon water capacity is equipped with an opening for a pressure gauge.</p>	<p>Satisfactory</p>
<p>5.2.8.1(a) - If one or more compressed gases are stored or used in the same areas as LP-Gas, the containers shall be marked "Flammable" and either "LP-Gas, "LPG," "Propane," or "Butane."</p>	<p>Satisfactory</p>
<p>5.7.2.1 - Containers shall be equipped with one or more pressure relief devices designed to relieve vapor.</p>	<p>Satisfactory</p>
<p>5.7.2.4 - Pressure relief valves shall be designed for sufficient relieving capacity with the requirements of Table 5.7.2.4(a) (look for capacity stamp). / 5.7.2.8 - Pressure relief valves shall be marked accordingly - pressure setting, rated capacity, MFG name and catalog number.</p>	<p>Satisfactory</p>
<p>5.7.2.9 - Shut off valves shall be eliminated between the container and pressure relief device (for the container relief only).</p>	<p>Satisfactory</p>
<p>5.7.2.10 - Pressure relief valves shall be designed to minimize tampering.</p>	<p>Satisfactory</p>

5.7.7.1 - Containers up to 4000 gallon water capacity shall comply with Table 5.7.7.1, Column 5.	Satisfactory	
5.7.7.3 - If container is over 4000 gallon water capacity, or facility includes a container greater than 2000 gallon water capacity AND is a bulk or industrial plant, the container shall comply with Section 5.7.7.3 requirements.	Satisfactory	
Piping Requirements		
Question	Answer	Flag
6.8.3.3 - (1) Piping used for pressures greater than tank pressure shall be designed for 350 psi or greater, (2) Piping being used for pressures greater than 125 psi must be designed for 250 psi or greater, and (3) Piping used for pressures up to 125 psi designed for 125 psi or greater.	Satisfactory	
5.8.3, 5.8.4, 5.8.5 - Pipe, tubing, and fittings are of a suitable material for the purpose they are being used for.	Satisfactory	
6.8.4.1 - Polyethylene pipe is installed outdoors and underground.	Satisfactory	
6.8.1.1(4) - There is no more than 20 psi being piped into any buildings.	Satisfactory	
6.8.1.1(3) - The vapor pressure in polyethylene piping system is 30 psi or less.	Satisfactory	
6.8.3.5 - Fittings used in excess of 125 psi must be Schedule 80. Fittings used for Schedule 40 must be welded if over 125 psi. If the pipe is brazed, the melting point of the brazing material is at least 1000 deg. F.	Satisfactory	
6.8.3.8 - Tank pressure manifold piping is designed so that the LP condensate goes back to the tank.	Satisfactory	

6.8.3.9(b) - There is no non-metallic pipe, tubing, or hose used in a piping system that is permanently interconnecting containers.	Satisfactory	
6.8.3.10 - The above-ground piping is supported properly and the piping is protected against physical damage from vehicles.	Satisfactory	
6.8.3.11 - The portion of above-ground piping in contact with a support or a corrosion-causing substance shall be protected against corrosion.	Satisfactory	
6.8.4.3 - In a polyethylene system there is an anode-less riser that connects the underground piping to the above ground piping.	Satisfactory	
6.8.3.12/6.8.4.2 - The buried piping is at a minimum depth of 12" (18" if damage to the pipe or tubing is likely from external forces).	Satisfactory	
Meters, Regulators, and Relief Devices Requirements		
Question	Answer	Flag
6.7.3 - For a fixed piping system that serves 1/2 psi appliance systems, the system shall have a two-stage system, a two-stage integral regulator, or a 2 psi regulator. Gas distribution systems utilizing multiple second-stage regulators shall be permitted to use a high-pressure regulator installed at the container provided a first stage regulator is installed downstream of the high-pressure regulator and ahead of the second-stage regulators. If a high-pressure regulator is used, a first stage regulator shall be permitted between it and the second stage regulator, or if a high-pressure regulator is used and rated for a capacity of over 500,000 Btu/hr, there must be over pressure protection for both the high-pressure regulator and the second stage regulators.	Satisfactory	
6.7.4.3 - The first-stage or high-pressure regulator shall be installed outside.	Satisfactory	

6.7.4.4 - The regulator set-up is designed against freezing rain, sleet, snow, ice, mud, or debris (integrally or otherwise).	Satisfactory	
6.7.4.5 - The regulator's relief vent is installed at least three feet horizontally from any building opening that is below the discharge of the vent.	Satisfactory	
6.7.4.6 - The point of discharge is at least five feet away from any source of ignition, direct vent appliance, or mechanical ventilation air intake.	Satisfactory	
6.7.4.8 - The vent of a regulator that is installed inside of a building must be piped to the outside and the vent location meets the requirements.	Satisfactory	
6.13 - In areas where heavy snow fall is anticipated, piping, regulators and meters, and other equipment installed in the piping system shall be protected from the forces anticipated as a result of accumulated snow.	Satisfactory	
6.15.5.3 - Vapor meters shall be installed so as to minimize the possibility of physical damage.	Satisfactory	
Field Performance Review		
Question	Answer	Flag
192.463 - Cathodic protection measures are in place.	Satisfactory	
192.479 - The facility has been inspected for the presence of atmospheric corrosion.	Satisfactory	
192.807 - The operator must maintain records supporting the qualification of individuals performing covered tasks.	Satisfactory	
420.4.A - Meter, tanks, domes, and other facilities located adjacent to a roadway, street, alley, driveway, easement or otherwise	Satisfactory	

susceptible to damage from motor vehicles shall be provided protective barriers on each side exposed to vehicular traffic.

420.4.D - All LPG operator-owned containers, installed at consumer locations, shall be marked in a legible manner with the name and telephone number of the owner by decal, tag, stencil, or similar marking. Containers gained through acquisition shall be marked as soon as possible, but no later than 30 days after acquisition.

Satisfactory