

**Utilities and Transportation Commission
Standard Inspection Report for Small LPG Systems**

Records Review and Field Inspection – Form F2

S – Satisfactory U – Unsatisfactory N/A – Not Applicable N/C – Not Checked
If an item is marked U, N/A, or N/C, an explanation must be included in this report.

A completed **Standard Inspection Checklist, OQ Field Validation Protocol form and Cover Letter/Field Report** are to be submitted to the Senior Engineer within **30 days** from completion of the inspection.

Inspection Report			
Docket Number	Insp ID 2617		
Inspector/Submit Date	Lex Vinsel, 7/6/2012		
Sr. Eng Review/Date	Joe Subsits, 7/11/2012		
Operator Information			
Name of Operator:	Puget Sound Energy	OP ID #:	22189
Name of Unit(s):	Sumner LPG Distribution		
Records Location:	Tacoma WA		
Date(s) of Last (unit) Inspection:	November 2-4, 2009	Inspection Date(s):	June 12-14, 18, 2012

Inspection Summary:

The Liquefied Propane Gas Distribution system located at 171 Avenue Court East in Sumner WA was inspected. The system uses a 1000 water gallon sized tank to store Propane in Liquid form and distributes Propane Gas throughout the small Propane system. The system consists of 900' of wrapped Steel Main with five connected services at the following addresses.

7417
7423
7510 (connected but service is currently locked off)
7516* Odometer test site.
7521

During the inspection we reviewed records for Cathodic Protection (Galvanic), odorant in the Propane, and procedures used for this Propane System

Note: Exit meeting on June 18, 2012 by PSE request, OK per DL

HQ Address: 355 110 th Ave. NE Bellevue, WA 98004	System/Unit Name & Address: LP Gas Distribution – Valley Crest 171 Ave Ct. E (See addresses above) Sumner, WA	
Co. Official: Sue McLain Phone No.: (425)462-3696 Fax No.: Emergency Phone No.: (800)552-7171	Phone No.: Fax No.: Emergency Phone No.: (800)552-7171 (800)710-1515	
Persons Interviewed	Title	Phone No.
Darryl Hong	Compliance Program Coordinator	(425)462-3911
Chuck Dougerty	Supervisor Alternative Fuel	(253)476-6202
Greg Lillenhaug	Plant Operator	(206)391-8126
Scott Husted	Corrosion Tech	(206)571-8521
Cheryl McGrath	Manager, Gas Compliance and Regulatory Audits	(425)462-3207
Dave Mofett	Corrosion Supervisor	
Tony Imad	Consulting Engineer	(425)456-2970

GAS SYSTEM OPERATIONS	
Propane Supplier	Ferrellgas
Services:	
Residential 3 active, 4 total	Commercial Industrial Other
Number of reportable safety related conditions last year None	Number of deferred leaks in system None
Number of <u>non-reportable</u> safety related conditions last year None	Number of third party hits last year None

Pipe Specifications:			
Year Installed (Range)	1973 (PE 2000)	Pipe Diameters (Range)	11/4-1/2" steel, 5/8 PE
Material Type	Steel wrap and PE	Line Pipe Specification Used	Sch. 40, .140 wt
Mileage	Approximately 900 feet	SMYS %	1.5 % SMYS @ MAOP of 60 PSIG

Operator Qualification Field Validation	
Important: Per OPS, the OQ Field Inspection Protocol Form (Rev 3, Mar 07) shall be used by the inspector as part of this standard inspection. When completed, the inspector will upload this information into the PHMSA OQ Database (OQDB) located at http://primis.phmsa.dot.gov/oqdb/home.oq Date Completed: June 19, 2012	

REPORTING RECORDS			S	U	N/A	N/C
1.	191.5	Telephonic reports to NRC (800-424-8802)			X	
2.	480-93-200(1)	Telephonic Reports to UTC Pipeline Safety Incident Notification 1-888-321-9146 (Within 2 hours) for events which; None			X	
3.	480-93-200(1)(a)	Result in a fatality or personal injury requiring hospitalization; None			X	
4.	480-93-200(1)(b)	Results in damage to property of the operator and others of a combined total exceeding fifty thousand dollars; None			X	
5.	480-93-200(1)(c)	Results in the evacuation of a building, or high occupancy structures or areas; None			X	
6.	480-93-200(1)(d)	Results in the unintentional ignition of gas; None			X	
7.	480-93-200(1)(e)	Results in the unscheduled interruption of service furnished by any operator to twenty five or more distribution customers; None			X	
8.	480-93-200(1)(f)	Results in a pipeline or system pressure exceeding the MAOP plus ten percent or the maximum pressure allowed by proximity considerations outlined in WAC 480-93-020 None			X	
9.	480-93-200(1)(g)	Is significant, in the judgment of the operator, even though it does not meet the criteria of (a) through (g) of this subsection; or None			X	
10.	480-93-200(2)	Telephonic Reports to UTC Pipeline Safety Incident Notification 1-888-321-9146 (Within 24 hours) for; None			X	
11.	480-93-200(2)(a)	The uncontrolled release of gas for more than two hours; None			X	
12.	480-93-200(2)(c)	A pipeline or system operating at low pressure dropping below the safe operating conditions of attached appliances and gas equipment; or None			X	
13.	480-93-200(2)(d)	A pipeline or system pressure exceeding the MAOP None			X	
14.	191.9 9 (a)	Incidents: 30-day follow-up written report (Form 7100-1) None			X	
15.	480-93-200(4)	Written incident reports to the Commission (within 30 days); supplemental incident reports None			X	
16.	480-93-200(5)	Written report within 45 days of receiving the failure analysis of any incident or hazardous condition due to construction defects or material failure None			X	
17.	480-93-200(6)(a)	To the Commission a copy of PHMSA F-7100.1-1 and F-7100.2-1 annual report required by U.S. Department of Transportation, PHMSA/Office of Pipeline Safety Sent to UTC by March 13, 2012	X			
18.	480-93-200(6)(c)	Annual report on construction defects or material failures Completed March 9, 2012 for PSE, no defects in this system.	X			
19.	480-93-200(9)	Submitting copy of DOT Drug and Alcohol Testing MIS Data Collection Form when required (eff 6/02/05) Submitted to UTC on March 13, 2012.	X			
20.	191.25	Filing the SRCR within 5 days of determination, but not later than 10 days after discovery None			X	

Comments:				
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CUSTOMER and EXCESS FLOW VALVE INSTALLATION NOTIFICATION			S	U	N/A	N/C
21.	192.16	New customers notified, within 90 days, of their responsibility for those service lines not maintained by the operator System installed prior to 2006.			X	
22.	192.381	Does the excess flow valve meet the performance standards prescribed under §192.381? System installed prior to 2006.			X	
23.	192.383	Does the operator have a voluntary installation program for excess flow valves and does the program meet the requirements outlined in §192.383? Are records adequate? System installed prior to 2006.			X	
24.	192.383	If no voluntary program for EFV installations, are customers notified in accordance with §192.383? Are records adequate? No voluntary Program.			X	

Comments:				
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			S	U	N/A	N/C
25.	5.2.1.1	Are containers designed, fabricated, tested, and marked (or stamped) in accordance with the regulations of the U.S. Department of Transportation (DOT), the ASME Boiler and Pressure Vessel Code, Section VIII, "Rules for the Construction of Unfired Pressure Vessels," or the API-ASME Code for Unfired Pressure Vessels for Petroleum Liquids and Gases, except for UG-125 through UG-136? Pressure vessel designed with pressure relief valve.	X			
26.	5.2.5.6	Are connections for safety relief devices located and install in such a way as to have direct communication with the vapor space?	X			
27.	5.2.8.3	Are the markings specified for ASME containers on a stainless steel metal nameplate attached to the container, and located to remain visible after the container is installed?	X			
28.	5.2.8.3 (A)	Nameplate attached in such a way to minimize corrosion of the nameplate or its fasteners and not contribute to corrosion of the container?	X			
29.	5.2.8.3 (B)	Where the container is buried or otherwise covered so the nameplate is obscured, is the information contained on the nameplate duplicated and installed on adjacent piping or a structure in a clearly visible location? ASME name visible on top of tank.			X	
30.	5.2.8.3 (1)	Are ASME containers marked with the following information? Service for which the container is designed (for example, underground, aboveground, or both) LP - Gas	X			
31.	5.2.8.3 (2)	Name and address of container supplier or trade name of container. Ferrellgas, Auburn WA	X			
32.	5.2.8.3 (3)	Water capacity of container in pounds or gallons 1000 gallons	X			
33.	5.2.8.3 (4)	MAWP in pounds per square inch 250 psig @ 400F	X			
34.	5.2.8.3 (5)	The wording "This container shall not contain a product that has a vapor pressure in excess of 215 psig at 100°F" (See Table 5.2.4.2)	X			
35.	5.2.8.3 (6)	Outside surface in square feet 173 sq ft	X			
36.	5.2.8.3 (7)	Year of manufacture 1979	X			
37.	5.2.8.3 (8)	Shell thickness and Head thickness Shell .318", Head .202"	X			
38.	5.2.8.3 (9)	OL (Overall Length), OD (Outside Diameter), HD (Head Design) OL 193.5 inch, OD 41 inch, HD HEMI	X			

			S	U	N/A	N/C
39.	5.2.8.3 (10)	Manufacturer's serial number RT3 96462	X			
40.	5.2.8.3 (11)	ASME code symbol	X			
41.	5.2.8.3 (12)	Minimum design metal Temperature ____°F at MAWP ____ psi 250 PSI @ 400°F	X			
42.	5.2.8.3 (13)	Type of Construction "W" W for welded construction.	X			
43.	5.2.8.3 (14)	Degree of radiography "RT- ____" RT 3	X			
44.	5.7.1.1	Are container appurtenances fabricated of materials that are compatible with LP-Gas and resistant to the action of LP-Gas under service conditions? The following may not be used. (1) Grey cast iron, (2) Nonmetallic materials shall not be used for bonnets or bodies of valves of regulators Bonnet is made of metal, as are all valves.	X			
45.	5.7.1.4 (A)	Are gaskets used to retain LP-Gas in containers resistant to the action of LP-Gas and made of metal or other suitable material having a melting point over 1,500 °F? Note: Gaskets for use with approved or listed liquid level gauges for installation on a container of 3500 gal water capacity or less are exempt from the minimum melting point requirement. Storage tank water capacity is 1000 gallons, brass			X	
46.	5.7.1.4 (B)	When a flange is opened, is the gasket replaced? No flanges			X	
47.	5.7.1.4 (C)	Aluminum O-rings and spiral wound metal gaskets shall be permitted. No flanges			X	
48.	5.7.1.4 (D)	Gaskets for use with approved or listed liquid level gauges for installation on a container of 3500 gal (13.2 m3) water capacity or less shall be exempt from the minimum melting point requirement. Storage tank water capacity is 1000 gallons.			X	
49.	5.7.2.8 (1)	For ASME containers, is the pressure relief valve plainly and permanently marked with.....The pressure (psig) at which the valve is set to start-to-leak.	X			
50.	5.7.2.8 (2)	The rated relieving capacity in cubic feet per minute of air at 60°F (16°C and 14.7 psia (101 kPa) ASME 4.035 CU FT/MIN	X			
51.	5.7.2.8 (3)	The manufacturer's name and catalog number REGO 8685G	X			
52.	5.7.5.1	Is pipe or tubing used to vent regulators on of the following.....Metal pipe and tubing in accordance with 5.8.3 (5.7.5.1 (1)) or PVC meeting the requirements of UL 651, Schedule 40 or 80 Rigid PVC Conduit (5.7.5.1 (2)) Direct vent to atmosphere	X			
53.	5.7.7.1	Do containers ≤ 2000 water capacity comply with Table 5.7.7.1?	X			
54.	5.7.7.1	Note: Refer to Table 5.7.7.1 (A) The requirement for internal spring-type pressure relief valves that are shown in Table 5.7.7.1 for stationary ASME containers up to and including 4000 gal (15.2 m3) water capacity shall not apply to underground containers where external pressure relief valves are permitted or to containers that were originally equipped with external pressure relief valves. (B) Containers of 125 gal through 4000 gal (0.5 m3 through 15.2 m3) water capacity shall be provided with an actuated liquid withdrawal excess-flow valve with a connection not smaller than ¾-in. national pipe thread. (C) An actuated liquid withdrawal excess-flow valve shall not be required on container connections equipped for liquid withdrawal with a positive shutoff valve that is located as close to the container as practical in combination with an excess-flow valve installed in the container connection. (D) The actuated liquid withdrawal excess flow valve shall not be connected for continuous use unless the valve is recommended by the manufacturer for such service. (E) An overfilling prevention device shall not be required for engine fuel cylinders used on industrial (and forklift) trucks powered by LP-Gas or for engine fuel cylinders used on vehicles (including floor maintenance machines) having LP-Gas-powered engines mounted on them. (F) Excess-flow protection shall not be required for manual shutoff valves for vapor service where an approved regulator is directly attached or attached with a flexible connector to the outlet of the manual shutoff valve for vapor service and the controlling orifice between the container contents and the shutoff valve outlet does not exceed in. (8 mm) in diameter. (G) Overfilling prevention devices shall be required on cylinders having 4 lb through 40 lb (1.8 kg through 18 kg) propane capacity for vapor service. (See 5.7.6.)	X			

			S	U	N/A	N/C
55.	5.7.7.2	<p>Are ASME containers over 4000 gal (15.2 m3) water capacity equipped in accordance with 5.7.7.2(A) through 5.7.7.2(G) and Table 5.7.7.3? Storage tank water capacity is 1000 gallons.</p> <p>Note: Also refer to table 5.7.7.3.</p> <p>A) Vapor withdrawal openings shall be equipped with either of the following: (1) A positive shutoff valve located as close to the container as practical in combination with an excess-flow valve installed in the container (2) An internal valve</p> <p>(B) Liquid withdrawal openings in new installations shall be equipped with an internal valve that is fitted for remote closure and automatic shutoff using thermal (fire) actuation where the thermal element is located within 5 ft (1.5 m) of the internal valve.</p> <p>(C) Liquid withdrawal openings in existing installations where the container is equipped with an internal valve that is not fitted for remote closure and automatic shutoff using thermal (fire) actuation shall be equipped for remote and thermal closure by July 1, 2003.</p> <p>(D) Liquid withdrawal openings in existing installations shall be equipped with either of the following by July 1, 2011: (1) An internal valve that is fitted for remote closure and automatic shutoff using thermal (fire) actuation where the thermal element is located within 5 ft (1.5 m) of the internal valve (2) An emergency shutoff valve that is installed in the line downstream as close as practical to a positive shutoff valve in combination with an excess flow valve installed in the container</p> <p>(E) Vapor inlet openings shall be equipped with either of the following: (1) A positive shutoff valve that is located as close to the container as practical in combination with either a backflow check valve or excess-flow valve installed in the container (2) An internal valve</p> <p>(F) Liquid inlet openings in new installations shall be equipped with either of the following: (1) An internal valve that is fitted for remote closure and automatic shutoff using thermal (fire) actuation where the thermal element is located within 5 ft (1.5 m) of the internal valve (2) A positive shutoff valve that is located as close to the container as practical in combination with a backflow check valve that is designed for the intended application and is installed in the container</p> <p>(G) Liquid inlet openings in existing installations where the container is equipped with an internal valve that is not fitted for remote closure and automatic shutoff using thermal (fire) actuation shall be equipped for remote and thermal closure by July 1, 2003.</p> <p>(H) Liquid inlet openings in existing installations shall be equipped with any of the following by July 1, 2011: (1) An internal valve that is fitted for remote closure and automatic shutoff using thermal (fire) actuation where the thermal element is located within 5 ft (1.5 m) of the internal valve (2) An emergency shutoff valve that is installed in the line upstream as close as practical to a positive shutoff valve in combination with an excess flow valve installed in the container (3) A positive shutoff valve that is located as close to the container as practical in combination with a backflow check valve that is designed for the intended application and is installed in the container (4) A backflow check valve that is designed for the intended application and is installed in the line upstream as close as practical to a positive shutoff valve in combination with an excess-flow valve installed in the container</p> <p>(I) Container openings that are not compatible with internal valves shall be permitted to utilize both an excess flow valve installed in the container and a valve complying with API 607, Fire Test for Soft-Seated Quarter Turn Ball Valves, with the following features: (1) The valve shall be activated either hydraulically or pneumatically and shall fail in the closed position. (2) The valve shall be equipped for remote closure and thermal actuation with a thermal element located within 5 ft of the valve.</p>			X	
56.	5.7.7.3	<p>Are appurtenances used on inlet and outlet connections of containers larger than 2000 gallons water capacity through 4000 gallons water capacity in accordance with Table 5.7.7.1? Are appurtenance requirements for inlet and outlet connections of containers in bulk plant and industrial plant service in accordance with Table 5.7.7.3?</p> <p>Note: Refer to tables. Storage tank water capacity is 1000 gallons.</p>			X	

			S	U	N/A	N/C
57.	5.7.10.1	Are container openings equipped with one of the following: (1) A positive shutoff valve in combination with either an excess-flow check valve or a backflow check valve, plugged (2) An internal valve, plugged (3) A backflow check valve, plugged (4) An actuated liquid withdrawal excess-flow valve, normally closed and plugged, with provision to allow for external actuation (5) A plug, blind flange, or plugged companion flange	X			
58.	5.7.2.4 (a)	Are ASME containers for LP-Gas equipped with direct spring-loaded pressure relief valves conforming with applicable requirements of UL 132, Standard on Safety Relief Valves for Anhydrous Ammonia and LP-Gas, or other equivalent pressure relief valve standards?	X			
59.	5.7.2.5	Is the minimum rate of discharge of pressure relief valves in accordance with Table 5.7.2.5 or calculated using the following formula: Flow Rate (ft ³ /min air) = 53.632 x A to the power of 0.82 where: A = total outside surface area of container in square feet A = 173 square feet. Flow rate is adequate per Table 5.7.2.5	X			
60.	5.7.8	Do Liquid Level Gauging Devices comply with the following? 5.7.8.1 Liquid level gauging devices shall be installed on all containers filled by volume. 5.7.8.2 The gauging devices shall be either fixed maximum liquid level gauges or variable gauges of the slip tube, rotary, or float types (or combinations of such gauges). 5.7.8.3* Every container designed to be filled on a volumetric basis shall be equipped with a fixed maximum liquid level gauge(s) to indicate the maximum filling level(s) for the service(s) in which the container is to be filled or used (see 7.4.3.3)	X			
61.	5.7.9.1	Are pressure gauges attached directly to the container opening or to a valve or fitting that is directly attached to the container opening? No pressure gauge required.			X	
62.	5.7.11	Are shutoff valves located as close to the container as practical and readily accessible for operation and maintenance under normal and emergency conditions? Are valves, regulators, gauges, and other container appurtenances protected against physical damage?	X			
63.	5.8.3.1	Are all pipe and tubing of the proper materials and joint design for pressure and strength?	X			
64.	5.8.5	Are joints in polyamide and polyethylene pipe and polyethylene tubing made by heat fusion, by compression-type mechanical fittings, or by factory-assembled transition fittings? PSE does not fill propane tank			X	
65.	5.8.6	Are hose, hose connections, and flexible connectors fabricated of materials that are resistant to the action of LP-Gas both as liquid and vapor? (A) If wire braid is used for reinforcement, it shall be of corrosion-resistant material such as stainless steel. (B) Hose shall be designed for a working pressure of 350 psig (2.4 MPag) with a safety factor of 5 to 1 and shall be continuously marked with LP-GAS, PROPANE, 350 PSI WORKING PRESSURE, and with the manufacturer's name or trademark. (C) Hose assemblies, after the application of couplings, shall have a design capability of not less than 700 psig (4.8 MPag). PSE does not fill propane tank			X	
66.	5.10	Are pressure-containing metal parts of valves of steel, ductile (nodular) iron, malleable iron, or brass? Are all materials used, including valve seat discs, packing, seals, and diaphragms, resistant to the action of LP-Gas under service conditions? Are emergency shutoff valves approved and incorporate all of the following means of closing: (1) Automatic shutoff through thermal (fire) actuation (2) Manual shutoff from a remote location (3) Manual shutoff at the installed location If fusible elements are used, do they have a melting point not exceeding 250°F (121°C). Are valves in polyethylene piping systems manufactured from thermoplastic materials listed in ASTM D 2513, Standard Specification for Thermoplastic Gas Pressure Pipe, Tubing and Fittings, and have been shown to be resistant to the action of LP-Gas and comply with ASTM D 2513? Are metallic valves in polyethylene and polyamide piping systems protected to minimize corrosion in accordance with 6.14?	X			
67.	5.11	Do hydrostatic relief valves installed in sections of liquid piping between closed shutoff valves have pressure settings not less than 400 psig (2.8 MPag) or more than 500 psig (3.5 MPag)? None, vapor withdrawal only.			X	
68.	6.4.5.2	Is loose or piled combustible material and weeds and long dry grass separated from containers by a minimum of 10 ft (3 m)?	X			

			S	U	N/A	N/C
69.	6.4.7	Are structures such as fire walls, fences, earth or concrete barriers, and other similar structures not permitted around or over installed nonrefrigerated containers? Note: Exceptions as follows: (1) Structures partially enclosing containers shall be permitted if designed in accordance with a sound fire protection analysis. (2) Structures used to prevent flammable or combustible liquid accumulation or flow shall be permitted in accordance with 6.4.5.3. (3) Structures between LP-Gas containers and gaseous hydrogen containers shall be permitted in accordance with 6.4.5.9. (4) Structures such as fences shall be permitted in accordance with 6.16.5. No structures around tank.			X	
70.	6.6.3.1	Are containers designed for permanent installation in stationary service above ground placed on masonry or other noncombustible structural supports located on concrete or masonry foundations with the container supports? (A) Where saddles are used to support the container, do they allow for expansion and contraction and prevent an excessive concentration of stresses? (B) Where structural steel supports are used, do they shall comply with 6.6.3.3	X			
71.	6.7.2.1	Are pressure relief devices installed so that the relief device is in direct communication with the vapor space of the container?	X			
72.	6.7.2.3	Are pressure relief devices on ASME containers installed so that any gas released is vented away from the container upward and unobstructed to the open air?	X			
73.	6.7.2.4	Are rain caps or other means provided to minimize the possibility of the entrance of water or other extraneous matter into the relief device or any discharge piping? Are provision made for drainage where the accumulation of water is anticipated?	X			
74.	6.7.2.7	Is the pressure relief valve discharge on each aboveground container of more than 2000 gal (7.6 m ³) water capacity piped vertically upward to a point at least 7 ft (2.1 m) above the top of the container, and the discharge opening unobstructed to the open air? Storage tank water capacity is 1000 gallons.			X	
75.	6.7.4.4	Are all regulators for outdoor installations designed, installed, or protected so their operation will not be affected by the elements (freezing rain, sleet, snow, ice, mud, or debris)? Under Bonnet	X			
76.	6.7.4.5	Is the point of discharge from the relief device on regulating equipment installed outside of buildings located not less than 3 ft (1 m) horizontally away from any building opening below the level of such discharge, and not beneath any building unless this space is well ventilated to the outside and is not enclosed for more than 50 percent of its perimeter?	X			
77.	6.7.4.6	Is the point of discharge also located not less than 5 ft (1.5 m) in any direction away from any source of ignition, openings into direct-vent (sealed combustion system) appliances, or mechanical ventilation air intakes?	X			
78.	6.9.2	Are indirect-fired vaporizers installed outdoors, or in separate buildings or structures that comply with Section 10.2, or in attached structures or rooms that comply with Section 10.3? If a building or structure is used, does it have any unprotected drains to sewers or sump pits? Are the pressure relief valves on vaporizers within buildings piped to a point outside the building or structure and discharged vertically upward? None			X	
79.	6.9.3	If a direct-fired vaporizer is installed in a separate structure, is the separate structure constructed in accordance with Chapter 10? Does the housing for direct-fired vaporizers not have any drains to a sewer or a sump pit that is shared with any other structure? Does the pressure relief valve discharges on direct-fired vaporizers piped to a point outside the structure or building? Is the direct-fired vaporizers connected to the liquid space or to the liquid and vapor space of the ASME container? 6.19.3.5 A manually operated shutoff valve shall be installed in each connection of the ASME container supplying the vaporizer. None			X	
80.	6.9.5	Are emergency remote shutdown stations identified by a sign, visible from the point of transfer, incorporating the words "Propane - Container Liquid Valve Emergency Shutoff" in block letters of not less than 2 in. (51 mm) in height on a background of contrasting colors to the letters? No Liquid Withdrawal			X	
81.	6.10.9	Are emergency shutoff valves and backflow check valves required by the code tested annually, and are the results of the test documented? PSE operates the emergency shutoff valve annually and has records of inspection. Back flow check valve and liquid check valve are operated during each liquid fill, 3-4 fills per year.	X			
82.	6.10.10	Do all emergency shutoff valves comply with the following? (1) Each emergency shutoff valve shall have at least one clearly identified and easily accessible manually operated remote emergency shutoff device. (2) The shutoff device shall be located not less than 25 ft (7.6 m) or more than 100 ft (30.5 m) in the path of egress from the emergency shutoff valve.	X			

			S	U	N/A	N/C
83.	6.11	Are hydrostatic relief valves, or a device providing pressure-relieving protection, installed in each section of piping and hose in which liquid LP-Gas can be isolated between shutoff valves so as to relieve the pressure that could develop from the trapped liquid to a safe atmosphere or product-retaining section? None, vapor withdrawal only.			X	
84.	6.13	In areas where heavy snowfall is anticipated, are the piping, regulators, meters, and other equipment protected from the forces anticipated as a result of accumulated snow. Heavy snow not anticipated.			X	
85.	6.15.4	Are strainers installed so that the strainer element can be removed without removing equipment or piping? None			X	

Comments:

Liquid valve is REGO 7579

Gas Valve is REGO 7556

			S	U	N/A	N/C
86.	6.16.5.2	Is the facility area enclosed with at least a 6 ft (1.8 m) high industrial-type fence, chain link fence, or equivalent protection? Is there at least two means of emergency egress from the enclosure except as follows: (1) The fenced or otherwise enclosed area is not over 100 ft ² (9 m ²) (2) The point of transfer is within 3 ft (1 m) of the gate (3) Containers are not filled within the enclosure Is clearance of at least 3 ft (1 m) provided to allow emergency access to the required means of egress. Note: Fencing shall not be required where devices that can be locked in place are provided that prevent unauthorized operation of valves, equipment, and appurtenances. No enclosure around tank.			X	
87.	6.23.4.2	Is each industrial plant, bulk plant, and distributing point provided with at least one approved portable fire extinguisher having a minimum capacity of 18 lb (8.2 kg) of dry chemical with a B:C rating? No plant, no enclosures.			X	
88.	6.23.4.4	Are emergency controls conspicuously marked, and the controls located so as to be readily accessible in emergencies	X			
89.	192.201 (a)	Is pressure-limiting equipment set to operate so that the MAOP + allowable buildup pressure will not be exceeded? Is adequate consideration given to any buildup over the set pressure required to fully open each relief valve? OPSO Over pressure shut off. Burst disk (Yellow – 50-60 psig) is pressure limiting device.	X			
90.	192.469	Are there sufficient test stations or test points?	X			
91.	192.605(a)	Are O&M procedures (for LPG Systems) reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year? Are appropriate procedures kept at locations where LPG O&M activities are conducted? Limited requirements for LPG system. Propane Leakage Program – 2675.1200 Emergency Plans for Propane – 2675.1300 Standard Propane Tank Farm – 2675.1000 As of 3/01/2012.	X			
92.	192.615(b)(1)	Does the operator provide each supervisor who is responsible for emergency action with a current copy of the applicable emergency procedures;	X			
93.	192.615(b)(2)	Does the operator train operating personnel in the emergency procedures and verify that the training was effective (Test); and, Emergency Scenario Training every 2 years. Reviewed Practical Service Scenario for four employees that would most likely be called in an emergency.	X			
94.	192.615(b)(3)	review employee's activities to determine whether procedures are effectively followed in each emergency (does not have to be an incident)? No emergencies in timeframe.	X			

			S	U	N/A	N/C
95.	192.615(c)	Have face-to-face meetings taken place with fire, police, or other public officials to: (1) Learn their responsibility and resources to respond to gas pipeline emergencies; (2) Acquaint officials with the operator's ability to respond; (3) Identify the types of gas pipeline emergencies that the operator would notify officials; and, (4) Plan how they can engage in mutual assistance to minimize hazards? PSE provides training and seminars to cities on request. Reviewed meeting minutes for two cities.	X			
96.	192.616	Has the operator established a continuing education program to better inform the public on how to recognize and report potential pipeline emergencies? Customized for LPG users? (TV, Newspaper, mailing, trade shows, etc.) PSE website has many links that can be accessed. For any person in proximity a propane flier has been prepared and distributed.	X			
97.	192.616 (a)	Each pipeline operator must develop and implement a written continuing public education program that follows the guidance provided in the American Petroleum Institute's (API) Recommended Practice (RP) 1162 (IBR, see § 192.7). Ferrellgas has a program where during filling of Propane tank they attempt to contact a resident and ask questions regarding the residents understanding of emergency procedures.	X			
98.	192.616 (b)	The operator's program must follow the general program recommendations of API RP 1162 and assess the unique attributes and characteristics of the operator's pipeline and facilities. For LPG systems? PSE program has additional information and fliers related to LPG gas and their service.	X			
99.	192.616 (c)	The operator must follow the general program recommendations, including baseline and supplemental requirements of API RP 1162, unless the operator provides justification in its program or procedural manual as to why compliance with all or certain provisions of the recommended practice is not practicable and not necessary for safety. PA inspection in Nov 2011.	X			
100.	192.619 (a)	Are MAOP's established for each segment of the pipeline? Yes, pressure test of 104 PSIG on 9-5-73	X			
101.	480-93-015(2)	Odorization of Gas PSE 2650.1000 Odorization Requirements and Odor Level Testing effective 03/01/12.	X			
102.	480-93-015(2)	Monthly Odorant Testing Reviewed Odorant Reads from 10/18/2009 to 4/18/2012. All readings below .44% for propane gas odorant.	X			
103.	480-93-015(3)	Odorant Testing Equipment Calibration/Intervals (Annually or Manufacturers Recommendation) Checked equipment calibrations for equipment used during time frame. Two different machines were used H2738-5 and 2000852007.	X			
104.	480-93-124(3)	Pipeline markers attached to bridges or other spans inspected? 1/yr(15 months) None			X	
105.	480-93-124(4)	Markers reported missing or damaged replaced within 45 days? None			X	
106.	480-93-140(2)	Service regulators and associated safety devices tested during initial turn-on. No new services since last inspection.			X	
107.	480-93-155(1)	Up-rating of system MAOP to >60 psig? Procedures and specifications submitted 45 days prior? None			X	
108.	480-93-185(1)	Reported gas leaks investigated promptly graded. Records retained? None	X			
109.	480-93-185(3)	Leaks originating from a foreign source reported promptly/notification by mail. Records retained? None	X			
110.	480-93-186(3)	Leak evaluations: Are follow-up inspections performed within 30 days of a leak repair? No leak repairs in system			X	
111.	480-93-186(4)	Leak evaluations: Grade 1 and 2 leaks (if any), downgraded once to a grade 3 without physical repair? No leak evaluation in system.			X	
112.	480-93-187	Gas leak records: at a minimum include required information listed under 480-93-187(1-13) None in system			X	
113.	480-93-188(1)	Gas leak surveys performed using a gas detection instrument covering the areas and circumstances identified under 480-93-188 (1) a thru e? Leak Survey Documentation on 5/28/2012 show survey type as FI (Flame Ionization): Propane Leak survey per 2675.1200 Section 5.1 requires the use of CGI(Combustible Gas Indicator) and bar holes next to pipeline. Instrument tracking form documentation not on leak survey form.		X		
114.	480-93-188(2)	Gas detection instruments tested for accuracy/intervals (Mfct rec or monthly not to exceed 45 days)	X			

			S	U	N/A	N/C								
115.	480-93-188(3)	Leak survey frequency (Refer to Table Below) Leak Surveys required every 5 years but PSE does their survey every 3 years along with their atmospheric corrosion survey.	X											
<table border="1"> <tr> <td>Business Districts (implement by 6/02/07)</td> <td>1/yr (15 months)</td> </tr> <tr> <td>High Occupancy Structures</td> <td>1/yr (15 months)</td> </tr> <tr> <td>Pipelines Operating ≥ 250 psig</td> <td>1/yr (15 months)</td> </tr> <tr> <td>Other Mains: CI, WI, copper, unprotected steel</td> <td>2/yr (7.5 months)</td> </tr> </table>							Business Districts (implement by 6/02/07)	1/yr (15 months)	High Occupancy Structures	1/yr (15 months)	Pipelines Operating ≥ 250 psig	1/yr (15 months)	Other Mains: CI, WI, copper, unprotected steel	2/yr (7.5 months)
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116.	480-93-188(4)(a)	Special leak surveys - Prior to paving or resurfacing, following street alterations or repairs None on system			X									
117.	480-93-188(4)(b)	Special leak surveys - areas where substructure construction occurs adjacent to underground gas facilities, and damage could have occurred None on system			X									
118.	480-93-188(4)(c)	Special leak surveys - Unstable soil areas where active gas lines could be affected None			X									
119.	480-93-188(4)(d)	Special leak surveys - areas and at times of unusual activity, such as earthquake, floods, and explosions None on system			X									
120.	480-93-188(4)(e)	Special leak surveys - After third-party excavation damage to services, operators must perform a gas leak survey from the point of damage to the service tie-in None on system			X									
121.	480-93-188(5)	Gas Survey Records			X									
122.	192.603(b)	Patrolling Business District (4 per yr/4½ months) 192.721(b)(1) None on system			X									
123.	192.603(b)	Patrolling Outside Business District (2 per yr/7½ months) 192.721(b)(2) None on system			X									
124.	192.603(b)	Leakage Survey - Outside Business District (5 years) 192.723(b)(1) None on system			X									
125.	192.603(b)	Tests for Reinstating Service Lines 192.725 None on system			X									
126.	192.603(b)/.727(g)	Abandoned facilities 192.727 None on system			X									
127.	192.709	Pressure Limiting and Regulating Stations (1 per yr/15 months) .739 See Note Below	X											
128.	192.709	Pressure Limiting and Regulator Stations – Capacity (1 per yr/15 months) .743	X											
129.	192.709	Valve Maintenance – Transmission (1 per yr/15 months) .745 None on system			X									
130.	192.709	Valve Maintenance – Distribution (1 per yr/15 months) .747	X											
131.	480-93-100(3)	Service valve maintenance (1 per yr/15 months) 2009-2012	X											
132.	480-93-100(4)	Service valve installation and maintenance program None on this system during timeframe.			X									
133.	192.709	Vault maintenance (≥200 cubic feet)(1 per yr/15 months) .749 None			X									
134.	192.603(b)	Prevention of Accidental Ignition (hot work permits) .751 None			X									
135.	192.709	Repair: pipe (pipeline life); Other than pipe (5 years) None for this system.			X									

Comments:

Item 113 & 115 - Leak surveys not in business districts must be done every five (5) years. PSE does Leak Survey at the same time as Atmospheric Surveys every three(3) years. Previous leak survey in 2006. PSE failed to prove that on May 28, 2009 PSE contractor (Heath) performed a leak survey using a Combustible Gas Indicator (CGI) calibrated for Propane per 2675.1200 Section 5.1 Subsurface Gas Detection Survey Method (Bar Hole Survey). Flame Ionization (FI) was listed as the Survey Type on the Leak Survey Documentation for 5/28/09, PSE Form 1158 (rev)03/08. Combustible Gas Indicator (CGI) was not listed as the Survey Type on the Leakage Survey Documentation.

Item 114 – Propane gas scope calibration for Propane Gascope 650462S, 116362, Gascope 1094 Propane, 650562S, 108162, 3721. Dates from 10/2009 to 5/2012

Item 127 - 6/7/12 inspection lockup at 11.20 psig, Pressure limiting is by rupture disk. Does not require annual inspection. Annual inspection will be by operational test of regulator properties. When does the regulator lock up and what is the gas pressure at normal flow. Only 2011 maintenance is in question, and because it is a rupture disk on the PSE side of the custody transfer then there is nothing for PSE to test. PSE has developed a method where they can monitor the operational characteristics of the Ferrellgas regulator that is on the tank. They do a lockup by closing the second valve and can monitor pressure level.

CORROSION CONTROL RECORDS			S	U	N/A	N/C
136.	192.457(b)	Pipelines installed before 8/1/71; Is CP provided in areas of active corrosion? (1) Bare or ineffectively coated transmission lines, Bare or coated pipes at compressor, regulator, and measuring stations, Bare or coated distribution line. Wrapped steel installed 1973.			X	
137.	192.491	Maps or Records .491(a) Plat # 249.082	X			
138.	192.491	Examination of Buried Pipe when exposed .459 None			X	
139.	480-93-110(8)	CP test reading on all exposed facilities where coating has been removed None			X	
140.	192.491	Annual Pipe-to-soil monitoring (1 per yr/15 months) .465(a) Reviewed annual pipe to soil readings. 2009-2012	X			
141.		Isolated, Mains .465(a) None			X	
142.		Isolated, Services .465(a) None			X	
143.	192.491	Rectifier Monitoring (6 per yr/2½ months) .465(b) None, galvanic system			X	
144.	192.491	Interference Bond Monitoring – Critical (6 per yr/2½ months) .465(c) None			X	
145.	192.491	Interference Bond Monitoring – Non-critical (1 per yr/15 months) .465(c) None			X	
146.	480-93-110(2)	Remedial action taken within 90 days (Up to 30 additional days if other circumstances. Must document) .465(d) No Low Reads during time period.			X	
147.	192.491	Unprotected Pipeline Surveys, CP active corrosion areas (1 per 3 cal yr/39 months) .465(e) No unprotected pipeline			X	
148.	192.491	Electrical Isolation (Including Casings) .467 None			X	
149.	480-93-110(5)	Casings inspected/tested annually not to exceed fifteen months None			X	
150.	480-93-110(5)(a)	Casings w/no test leads installed prior to 9/05/1992. Demonstrate other acceptable test methods None			X	
151.	480-93-110(5)(b)	Possible shorted conditions – Perform confirmatory follow-up inspection within 90 days None			X	
152.	480-93-110(5)(c)	Casing shorts cleared when practical None			X	
153.	480-93-110(5)(d)	Shorted conditions leak surveyed within 90 days of discovery. Twice annually/7.5 months None			X	
154.	192.491	Interference Currents .473 None			X	
155.	192.491	Internal Corrosion; Corrosive Gas Investigation .475(a) None			X	
156.	192.491	Internal Corrosion; Internal Surface Inspection; Pipe Replacement .475(b) None			X	
157.	192.491	Internal Corrosion Control Coupon Monitoring (2 per yr/7½ months) .477 None			X	
158.	192.491	Atmospheric Corrosion Control Monitoring (1 per 3 cal yr/39 months onshore; 1 per yr/15 months offshore) .481 Riser condition is monitored monthly.	X			
159.	192.491	Remedial: Replaced or Repaired Pipe; coated and protected; corrosion evaluation and actions .483/.485 None			X	
160.	480-93-110(3)	CP Test Equipment and Instruments checked for accuracy/intervals (Mfct Rec or Opr Sched) Reviewed calibration record for Digital Multimeter for 2009-2011	X			

Comments:

Item #146 – The annual readings were printed on a separate page, I asked for the copies of the work orders for the readings. PSE provided copies of the work orders. OK

PIPELINE INSPECTION (Field)			S	U	N/A	N/C
161.	192.161	Supports and anchors	X			
162.	192.179	Valve Protection from Tampering or Damage	X			
163.	192.199(e)	Regulator and Relief discharge stacks, vents, or outlet ports designed to prevent accumulation of water, ice, or snow, located where gas can be discharged into the atmosphere without undue hazard?	X			

PIPELINE INSPECTION (Field)			S	U	N/A	N/C
164.	480-93-080(3)	Identification and qualification cards/certificates w/name of welder/joiner, their qualifications, date of qualification and operator whose qualification procedures were followed. No welding performed during time period.			X	
165.	480-93-013	Personnel performing "New Construction" covered tasks OQ qualified? No new construction during time period.			X	
166.	480-93-015(1)	Odorization	X			
167.	480-93-018(3)	Updated records, inc maps and drawings made available to appropriate operations personnel? (eff 6/02/05)	X			
168.	192.455	Pipeline coatings meet requirements of 192.461 (for buried pipelines installed after 7/31/71) Steel wrap per original install.	X			
169.	192.463	Levels of Cathodic Protection	X			
170.	192.465	Rectifiers None			X	
171.	192.467	CP - Electrical Isolation	X			
172.	192.469	Sufficient test stations or test points?	X			
173.	192.479	Pipeline components exposed to the atmosphere	X			
174.	192.481	Atmospheric Corrosion: monitoring	X			
175.	192.491	Test Stations – Sufficient Number .469	X			
176.	480-93-115(2)	Casings – Test Leads (casings w/o vents installed after 9/05/1992) None			X	
177.	480-93-115(2)	Mains or transmission lines installed in casings/conduit. Are casing ends sealed? eff 6/02/05 None			X	
178.	480-93-115(4)	Service lines installed in casings/conduit. Are casing ends nearest to building walls sealed? Procedure 4575.1050, but no casings on system.			X	
179.	192.605	Knowledge of Operating Personnel (of procedures manuals and operating procedures)	X			
180.	480-93-124	Pipeline markers installed	X			
181.	192.707	Warning Signs	X			
182.	192.195	Overpressure protection designed and installed where required?	X			
183.	192.727 (d)	Whenever service to a customer is discontinued, does the operator : (1) provide a locking device on the service line valve; (2) install a mechanical device to prevent the flow of gas: or, (3) disconnect the customer's piping from the gas supply and seal the open ends?	X			
184.	192.743	Pressure Limiting and Regulating Devices (Capacities)	X			
185.	192.355	Customer meters and regulators. Protection from damage	X			
186.	192.355(c)	Pits and vaults: Able to support vehicular traffic where anticipated. None			X	
187.	480-93-140	Service regulators installed, operated and maintained per state/fed regs and manufacturers recommended practices?	X			
188.	192.747	Valve Maintenance	X			

Comments:

PSE 4675.1000 – Odorator procedure.