#### Utilities and Transportation Commission Standard Inspection Report for Intrastate Gas Systems Procedures and Plan Review

S-S Satisfactory U-U unsatisfactory N/A-N of Applicable N/C-N of Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

A completed Inspection Checklist, Cover Letter and Field Report are to be submitted to the Senior Engineer within 30 days from completion of the inspection.

	Inspection Re	port			
Docket Number	PG-090041				
Inspector Name & Joe Subsits 4/06/2009 Submit Date					
Sr. Eng Review/Date	D. Lykken 4/7/2009				
	Operator Information	mation			
Name of Operator:	Air Liquide Industrial, U.S. LP		<b>OP ID #:</b> 1850		
Name of Unit(s):	Kalama Plant				
Records Location:	Kalama				
Date(s) of Last N/A, First inspection Inspection Date March 23. 2009 to 25, 2009					

#### **Inspection Summary:**

Operations and Maintenance procedures Manual were reviewed. Several required items were not found. These are:

- a. 49 CFR 192.55 Steel Pipe
- b. 49 CFR 192.150 Passage of Internal Inspection Devices
- c. 49 CFR 192.179 Transmission Line Valves
- d. 49 CFR 192.463 External Corrosion Control: Cathodic Protection-(Criteria needs to reflect appendix D considering IR drop)
- e. 49 CFR 192,469 External Corrosion Control: Test Stations
- f. WAC 480-93-013 Covered Tasks

HQ Address:		System/Unit Name & Address:	
Air Liquide. Industrial U.	S. LP	Air Liquide Industrial U.S. LP	
2700 Post Oak Blvd	• •	185 East Wind Road	
Suite 1800		PO Box 10	
Houston, Texas. 77056		Kalama, WA 98625	·
Co. Official:	Mike Graff, President	Phone No.:	(360) 673-1400
Phone No.:	(713) 624-8000	Fax No.:	(360) 673-1428
Fax No.:	(713) 438-6990	Emergency Phone No.:	(360) 673-1488
Emergency Phone No.:	(713) 438-6302		
Persons Int	erviewed	Title	Phone No.
Eric Thor	stenson	Plant Manager	(360) 673-1400
Bobby S	kelton	Senior Maintenance Engineer	(713) 438-6351
Kenny Or	tamond	District Engineer	(979) 239-5266
·			

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.

	GAS SYSTEM OPERATIONS						
Gas Sup	plier: Air Liquide	in the same states and the same states are the same states and the same states are the					
	Operating Pressure(s):	MAOP (Within last year)	Actual Operating Pressure (At time of Inspection)				
Feeder:							
Town:							
Other:	Hydrogen manufactured by Air Liquide	354 psig	280 psig max (based on compressor capacity)				
Does the	operator have any transmission pipelin	nes? yes					

Pipe Specifications:			
Year Installed (Range)	1997	Pipe Diameters (Range)	2-inch
Material Type	Steel	Line Pipe Specification Used	X-42, w.t218 inch
Mileage	2.03 M	SMYS %	9 %

#### 49 CFR PART 191 & CHAPTER 480-93 WAC

		REPORTING PROCEDURES	S	U	N/A	N/C
1.		Telephonic reports to NRC (800-424-8802) 191.5	х			
2.		Telephonic Reports to UTC Pipeline Safety Incident Notification 1-888-321-9146 (Within 2 hours) for events which; 480-93-200(1) (eff 6/02/05)				
3.		(a) Results in a fatality or personal injury requiring hospitalization;	· x			
4.		(b) Results in damage to the property of the operator and others of a combined total exceeding fifty thousand dollars;	х			
5.		(c) Results in the evacuation of a building, or high occupancy structures or areas	х			
6.	480-93-180 (1)	(d) Results in the unintentional ignition of gas;	х			
7.	(.,	(e) Results in the unscheduled interruption of service furnished by any operator to twenty-five or more distribution customers;			х	
8.		(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;	x			
9.		g) Is significant, in the judgment of the operator, even though it does not meet the criteria of (a) through (e) of this subsection; or	х			
10.		(h) Results in the news media reporting the occurrence, even though it does not meet the criteria of (a) through (e) of this subsection.	х			
11.		Telephonic Reports to UTC Pipeline Safety Incident Notification 1-888-321-9146 (Within 24 hours) for; 480-93-200(2) (eff 6/02/05)	х			
12.		(a) The uncontrolled release of gas for more than two hours;	х			
13.		b) The taking of a high pressure supply or transmission pipeline or a major distribution supply pipeline out of service;	x	-		
14.	·	(c) A pipeline or system operating at low pressure dropping below the safe operating conditions of attached appliances and gas equipment; or			х	
15.	480-93-180 (1)	(d) A pipeline or system pressure exceeding the MAOP.	х			
16.		Annual reports; (DOT Form F 7100.1) 191.11	х			
17.		30 day written incident (federal) reports; (DOT Form F 7100.2) 191.15(a)	х			
18.		Supplemental incident reports 191.15(b)	х			
19.		Written incident reports including supplemental reports (within 30 days); and include the following; 480-93-200(4) (a) thru (g) (eff 6/02/05)	х			

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.

		REPORTING PROCEDURES	S	U	N/A	N/C
20.		Written report within 45 days of receiving the failure analysis of any incident or hazardous condition due to construction defects or material failure 480-93-200(5) (eff 6/02/05)	x			
21.	480-93-180 (1)	Annual Report (DOT Form PHMSA F-7100.2-1) 191.17(a)	х			
	44	Annual Reports filed no later than March 15 for the proceeding calendar year 480-93-200(6) (eff 6/02/05)				
22.		<ul> <li>A copy of PHMSA form F-7100.1-1 or F-7100.2-1 annual report required by the PHMSA/OPS 480-93-200(6)(a) (eff 6/02/05)</li> </ul>	х		,	
23.		<ul> <li>Annual Damage Prevention Statistics Report (eff 6/02/05) including the following; 480-93-200(6)(b)(i) thru (iii) (eff 6/02/05)</li> </ul>	х			
24.		Annual report on construction defects or material failures 480-93-200(6)(c) (eff 6/02/05)	х			
25.	480-93-180 (1)	Providing updated emergency contact information to the Commission and appropriate officials 480-93-200(7) (eff 6/02/05)	x			
26.	Ì	Providing daily construction and repair activities reports 480-93-200(8) (eff 6/02/05)	х			
27.		Submitting copy of DOT Drug and Alcohol Testing MIS Data Collection Form (when required) 480-93-200(9) (eff 6/02/05)	х			
28.		Safety related condition reports (SRCR) 191.23	х			
29.	1	Filing the SRCR within 5 days of determination, but not later than 10 days after discovery 191.25	х			

Documentation Reviewed:		
Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-191.5	May 2008
Operations and Maintenance Manual	P-191.17	May 2008
Operations and Maintenance Manual	P-191.23	May 2008

Comments:	

System has 2 customers

		49 CFR PART 192 SUBPART A – GENERAL CHAPTER 480-93 WAC – GAS COMPANIESSAFETY	S	U	N/A	N/C
30.	480-93-180 (1)	Procedures for notifying new customers, within <b>90 days</b> , of their responsibility for those selections of service lines not maintained by the operator. §192.16			х	
31.	400-93-100(1)	Conversion to Service - Any pipelines previously used in service not subject to Part 192? 192.14	х			

Documentation Reviewed:				
Document Title	Document/Section Number	Revision Date		
Operations and Maintenance Manual	P-192.161	May 2008		

Comments:		
Not a distribution system		

		SUBPART B - MATERIALS	S	U	N/A	N/C
		Are minimum requirements prescribed for the selection and qualification of pipe and components for use in pipelines 192.51				
32.	480-93-180 (1)	For <b>steel</b> pipe, manufactured in accordance with and meet the listed specification found under Appendix B 192.55		х		
		For <b>new</b> plastic pipe, qualified for use under this part if: 192.59(a)				
33.	480-93-180 (1)	<ul> <li>It is manufactured in accordance with a listed specification; and 192.59(a)(1)</li> <li>It is resistant to chemicals with which contact may be anticipated. 192.59(a) (2)</li> </ul>			x	
		For used plastic pipe, qualified for use under this part if: 192.59(b)				
34.	480-93-180 (1)	<ul> <li>It was manufactured in accordance with a listed specification; 192.59(b)(1)</li> <li>It is resistant to chemicals with which contact may be anticipated; 192.59(b)(2)</li> <li>It has been used only in natural gas service. 192.59(b)(3)(4)</li> <li>Its dimensions are still within the tolerances of the specification to which it was manufactured; and, 192.59(b)</li> <li>It is free of visible defects. 192.59(b)(5)</li> </ul>			x	
35.	· ·	Marking of Materials 192.63	х			

Documentation Reviewed:						
Document Title	Document/Section Number	Revision Date				
Operations and Maintenance Manual	P-192.305	May 2008				

Comments:			 
No plastic in system	•		

		SUBPART C – PIPE DESIGN				
		Procedures for assuring that the minimum requirements for design of pipe are met				
		For Steel Pipe	S	U	N/A	N/C
36.		Pipe designed of sufficient wall thickness, or installed with adequate protection, to withstand anticipated external pressures and loads that will be imposed on the pipe after installation. 192.103	×			
37.		Design formula for steel pipe. 192.105(a)	х			
38.	480-93-180 (1)	Yield strength (S) for steel pipe. 192.107				

	SUBPART C – PIPE DESIGN				
480-93-180 (1)	Nominal wall thickness (t) for steel pipe. 192.109 (a) & (b)  (a) If the nominal wt is not known Determined by measuring the thickness of each piece of pipe at quarter points on one end unless  (b) If the pipe is of uniform grade, size, and thickness and more than 10 lengths of pipeline, only 10 percent of the individual lengths, but not less than 10 lengths, need be measured. The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement. The nominal wall thickness to be used in the design formula in §192.105 is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness used may not be more than 1.14 times the smallest measurement taken on pipe less than 20 inches (508 millimeters) in outside diameter, nor more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more in outside diameter.	x			
	Design factor (F) for steel pipe. 192.111				
•	(a) Except as otherwise provided in paragraphs (b), (c), and (d) of this section, the design factor to be used in the design formula in §192.105 is determined in accordance with the following Class location Design factor (F) table.  Class 1 0.72, Class 2 0.60, Class 3 0.50, Class 4 0.40	x			
	<ul> <li>(b) A design factor of 0.60 or less must be used in the design formula in §192.105 for steel pipe in Class 1 locations that:</li> <li>(1) Crosses the right-of-way of an unimproved public road, without a casing;</li> <li>(2) Crosses without a casing, or makes a parallel encroachment on, the right-of-way of either a hard surfaced road, a highway, a public street, or a railroad;</li> <li>(3) Is supported by a vehicular, pedestrian, railroad, or pipeline bridge; or</li> <li>(4) Is used in a fabricated assembly, (including separators, mainline valve assemblies, crossconnections, and river crossing headers) or is used within five pipe diameters in any direction from the last fitting of a fabricated assembly, other than a transition piece or an elbow used in place of a pipe bend which is not associated with a fabricated assembly.</li> </ul>	x			
	(c) For Class 2 locations, a design factor of 0.50, or less, must be used in the design formula in §192.105 for uncased steel pipe that crosses the right-of-way of a hard surfaced road, a highway, a public street, or a railroad.	х			
	<ul> <li>(d) For Class 1 and Class 2 locations, a design factor of 0.50, or less, must be used in the design formula in §192.105 for-</li> <li>(1) Steel pipe in a compressor station, regulating station, or measuring station, and</li> <li>(2) Steel pipe, including a pipe riser, on a platform located offshore or in inland navigable waters.</li> </ul>	x			
	Longitudinal joint factor (E) for steel pipe. 192.113	х			. "
480-93-180 (1)	Temperature derating factor (T) for steel pipe. 192.115	х			
	For Plastic Pipe				
480-93-180 (1)	Subject to the limitations of §192.123, for determining the design pressure for plastic pipe in accordance with either formula listed. 192.121  For assuring that the design limitations for plastic pipe are not exceeded. 192.123 (a) thru (e)			x x	
	480-93-180 (1)	Nominal wall thickness (t) for steel pipe. 192.109 (a) & (b)  (a) If the nominal wt is not known Determined by measuring the thickness of each piece of pipe at quarter points on one end unless  (b) If the pipe is of uniform grade, size, and thickness and more than 10 lengths of pipeline, only 10 percent of the individual lengths, but not less than 10 lengths, need be measured. The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement. The nominal wall thickness to be used in the design formula in §192.105 is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness used may not be more than 1.14 times the smallest measurement taken on pipe less than 20 inches (508 millimeters) in outside diameter, nor more than 1.11 times the smallest measurement taken on pipe less than 20 inches (508 millimeters) or more in outside diameter.  Design factor (F) for steel pipe. 192.111  (a) Except as otherwise provided in paragraphs (b), (c), and (d) of this section, the design factor to be used in the design formula in §192.105 is determined in accordance with the following Class location Design factor (F) table.  Class 1 0.72, Class 2 0.60, Class 3 0.50, Class 4 0.40  (b) A design factor of 0.60 or less must be used in the design formula in §192.105 for steel pipe in Class 1 locations that:  (1) Crosses the right-of-way of an unimproved public road, without a casing; (2) Crosses without a casing, or makes a parallel encroachment on, the right-of-way of either a hard surfaced road, a highway, a public street, or a railroad; (3) Is supported by a vehicular, pedestrian, railroad, or pipeline bridge; or  (4) Is used in a fabricated assembly, (including separators, mainline valve assemblies, cross-connections, and river crossing headers) or is used within five pipe diameters in any direction from the last fitting of a fabricated assembly, other th	Nominal wall thickness (t) for steel pipe. 192.109 (a) & (b)  (a) If the nominal wt is not known Determined by measuring the thickness of each piece of pipe at quarter points on one end unless  (b) If the pipe is of uniform grade, size, and thickness and more than 10 lengths of pipeline, only 10 percent of the individual lengths, but not less than 10 lengths, need be measured. The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement. The nominal wall thickness to be used in the design formula in §192.105 is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness used may not be more than 1.14 times the smallest measurement taken on pipe 120 inches (508 millimeters) or more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more than 1.11 times the smallest measurement taken on pipe long of the design formula in §192.105 for steel pipe in Class 1 locations that:  (1) Except as otherwise provided in paragraphs (b), (c), and (d) of this section, the design factor of 0.60 or less must be used in the design formula in §192.105 for special plant taken to pipe in the design formula in §192.105 for uncased steel pipe that crosses the right-of-way of a hard surfaced road, a highway, a public street, or a railroad.  (d) For Class 2 locations, a design factor of 0.50, or less, must be used in the design formula in §192.105 for correct plant in the design f	Nominal wall thickness (t) for steel pipe. 192.109 (a) & (b)  (a) If the nominal wt is not known Determined by measuring the thickness of each piece of pipe at quarter points on one end unless  (b) If the pipe is of uniform grade, size, and thickness and more than 10 lengths of pipeline, only 10 percent of the individual lengths, but not less than 10 lengths, need be measured. The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement. The nominal wall thickness to be used in the design formula in §192.105 is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness used may not be more than 1.14 times the smallest measurement taken on pipe 20 inches (508 millimeters) in outside diameter, nor more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more in outside diameter.  Design factor (F) for steel pipe. 192.111  (a) Except as otherwise provided in paragraphs (b), (c), and (d) of this section, the design factor to be used in the design formula in §192.105 is determined in accordance with the following Class location Design factor (F) table.  Class 1 0.72, Class 2 0.60, Class 3 0.50, Class 4 0.40  (b) A design factor of 0.60 or less must be used in the design formula in §192.105 for steel pipe in Class 1 locations that:  (1) Crosses the right-of-way of an unimproved public road, without a casing;  (2) Crosses without a casing, or makes a parallel encroachment on, the right-of-way of either a hard surfaced road, a highway, a public street, or a railroad;  (3) Is supported by a vehicular, pedestrian, railroad, or pipeline bridge; or  (4) Is used in a fabricated assembly, (including separators, mainline valve assemblies, cross-connections, and river crossing headers) or is used within the pipe diameters in any direction from the last fitting of a fabricated assembly, other than a transition pice	Nominal wall thickness (i) for steel pipe. 192.109 (a) & (b)  (a) If the nominal wt is not known Determined by measuring the thickness of each piece of pipe at quarter points on one end unless  (b) If the pipe is of uniform grade, size, and thickness and more than 10 lengths of pipeline, only 10 percent of the individual lengths, but not tess than 10 lengths, need be measured. The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement. The nominal wall thickness to be used in the design formula in §19.105 is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness used may not be more than 1.14 times the smallest measurement taken on pipe less than 20 inches (508 millimeters) in outside diameter.  Design factor (F) for steel pipe. 192.111  (a) Except as otherwise provided in paragraphs (b), (c), and (d) of this section, the design factor to be used in the design formula in §192.105 is determined in accordance with the following Class location Design factor (F) table.  Class 1 0.72, Class 2 0.60, Class 3 0.50, Class 4 0.40  (b) A design factor of 0.60 or less must be used in the design formula in §192.105 for steel pipe in Class 1 locations that:  (1) Crosses the right-of-way of an unimproved public road, without a casing; (2) Crosses without a casing, or makes a parallel encroachment on, the right-of-way of either a hard surfaced road, a highway, a public street, or a railroad,  (d) Is sued in a fabricated assembly, (including separators, mainline valve assemblies, cross-connections, and river crossing headers) or is used within five pipe diameters in any direction from the last fitting of a fabricated assembly, other than a transition piece or an elbow used in place of a pipe bend which is not associated with a fabricated assembly.  (c) For Class 2 locations, a design factor of 0.50, or less, must be used in the design formula i

Documentation Reviewed:							
Document Title	Document/Section Number	Revision Date					
Operations and Maintenance Manual	P-192.105	March 2009					

Comments:	
No plastic pipe in system	

		SUBPART D – DESIGN OF PIPELINE COMPONENTS	S	U	N/A	N/C
	5.5	For the design and installation of pipeline components and facilities, and relating to protection against accidental over-pressuring. 192.141				
49.		General requirements 192.143	х			
50.	·	Qualifying metallic components. 192.144 (a) & (b)	х			
51.		For steel valves; meeting the minimum requirements of API 6D, or other standard that provides an equivalent performance level. 192.145 (a) thru (e)	х			
52.		For each flange or flange accessory (other than cast iron) must meet the minimum requirements of ASME/ANSI B16.5, MSS SP-44, or the equivalent. 192.147 (a) thru (c)	х			
53.	480-93-180 (1)	For ensuring that each new transmission line and each replacement of line pipe, valve, fitting, or other line component in a transmission line is designed and constructed to accommodate the passage of instrumented internal inspection devices. 192.150 (a) thru (c)		х		
54.		Components fabricated by welding. 192.153 (a) thru (d)	х			
55.		Welded branch connections. 192.155	х			
56.		Flexibility. 192.159	х		٠	
57.		Supports and Anchors 192.161(a) (a) thru (f)	х			
		Compressor Stations				
58.		Compressor stations: Design and construction. 192.163 (a) thru (e)			х	
59.	480-93-180 (1)	Compressor stations: Liquid removal. 192.165 (a) & (b)			х	
60.		Compressor stations: Emergency shutdown. 192.167 (a) thru (c)			х	
61.		Compressor stations: Pressure limiting devices. 192.169 (a) & (b)			х	
62.		Compressor stations: Additional safety equipment. 192.171 (a) thru (e)			х	
63.	480-93-180 (1)	Compressor stations: Ventilation. 192.173			х	
64.		Pipe-type and bottle-type holders. 192.175			х	
65.		Additional provisions for bottle-type holders. 192.177			х	
66.	480-93-180 (1)	Transmission line valves.192.179 (a) thru (d)		х		
67.	400-93-100 (1)	Distribution line valves. 192.181(a) thru (c)			х	
68.		Vaults: Structural design requirements 192.183 (a) thru (c)			х	
69.	480-93-180 (1)	Vaults: Accessibility 192.185 (a) thru (c)			х	
70.	100 /2 100 (1)	Vaults: Sealing, venting, and ventilation. 192.187 (a) thru (c)			х	

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	<u></u>	SUBPART D – DESIGN OF PIPELINE COMPONENTS	S	Ú N/A	N/C
71.		Vaults: Drainage and waterproofing 192.189 (a) thru (c)	Ĭ <u>.</u>	х	
72.		Design pressure of plastic fittings 192.191 (a) & (b)		х	
73.	]	Valve installation in plastic pipe. 192.193		х	
74.	480-93-180 (1)	Protection against accidental over-pressuring 192.195 (a) & (b)		х	
75.	400-93-100 (1)	Control of the pressure of gas delivered from high-pressure distribution systems. 192.197 (a) thru (c)		x	
76.		Except for rupture discs, each pressure relief or pressure limiting device must: 192.199 (a) thru (h)		х	
77.		Required capacity of pressure relieving and limiting stations. 192.201(c)		х	
78.	1	Instrument, Control, and Sampling Pipe and Components 192.203(a) & (b)	х		

Documentation Reviewed:		
Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.105	March 2009
		·

#### Comments:

No regulated compressor stations in system, existing compressor station is considered processing equipment.

No bottle-type holder in system

Not a distribution system

No vaults in system

No plastic in system

W	AC 480-93-080 –	SUBPART E – WELDING OF STEEL IN PIPELINES WELDER & PLASTIC JOINER IDENTIFICATION and QUALIFICATION	S	U	N/Å	N/C
79.		Welding procedures must be qualified under Section 5 of API 1104 (19 <sup>th</sup> ed.1999, 10/31/01 errata) or Section IX of ASME Boiler and Pressure Code (2001 ed.) by destructive test225(a)	х			
80.		Retention of welding procedure – details and test .225(b)	х			
81.	480-93-180(1)	Welders must be qualified by Section 6 of API 1104 (19 <sup>th</sup> ed.1999, 10/31/01 errata) or Section IX of ASME Boiler and Pressure Code (2001 ed.) See exception in .227(b)227(a)	x			
82.		Welders may be qualified under section I of Appendix C to weld on lines that operate at < 20% SMYS227(b)	х			-
		Oxyacetylene welders may qualify under 49 CFR § 192 Appendix C, but may only weld the	S	U	N/A	N/C

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.

		following size pipe: 480-93-080(1)(a) (eff 6/02/05)				
83.		Nominal two-inch or smaller branch connections to nominal six-inch or smaller main or service pipe. 480-93-080(1)(a)(i)			х	
84.	480-93-180 (1)	Nominal two-inch or smaller below ground butt welds 480-93-080(1)(a)(ii)				
85.	(1)	Nominal four-inch or smaller above ground manifold and meter piping operating at			^	
		10 psig or less. 480-93-080(1)(a)(iii)			Х	
86.	480-93-180(1)	• Appendix C Welders re-qualified 2/Yr (7.5Months) 480-93-080(1)(a)(iv)			х	
87.		Use of testing equipment to record and document essential variables 480-93-080(1)(b) (eff 6/02/05)	х			
88.		Qualified written welding procedures must be located on-site where welding is being performed 480-93-080(1)(d)	х			
89.		Identification and qualification cards/certificates w/name of welder/joiner, their qualifications, date of qualification and operator whose qualification procedures were followed. 480-93-080(3) (eff 6/02/05)	x			
90.		To weld on compressor station piping and components, a welder must successfully complete a destructive test .229(a)			X,	
91.		Welder must have used welding process within the preceding 6 months .229(b)	х			
92.		A welder qualified under .227(a)229(c)				
93.	480-93-180(1)	<ul> <li>May not weld on pipe that operates at ≥ 20% SMYS unless within the preceding 6 calendar months the welder has had one weld tested and found acceptable under the sections 6 or 9 of API Standard 1104; may maintain an ongoing qualification status by performing welds tested and found acceptable at least twice per year, not exceeding 7½ months; may not requalify under an earlier referenced edition229(c)(1)</li> </ul>	х			
94.		<ul> <li>May not weld on pipe that operates at &lt; 20% SMYS unless is tested in accordance with .229(c)(1) or re-qualifies under .229(d)(1) or (d)(2)229(c)(2)</li> </ul>	х			
		Welders qualified under .227(b) may not weld unless: .229(d)	S	U	N/A	N/C
95.		• Re-qualified within 1 year/15 months, or .229(d)(1)			х	
96.		• Within 7½ months but at least twice per year had a production weld pass a qualifying test .229(d)(2)			x	
97.		Welding operation must be protected from weather .231	х			
98.	400 02 100/1	Miter joints (consider pipe alignment) .233	х			
99.	480-93-180(1)	Welding preparation and joint alignment .235	х			
100.		Visual inspection must be conducted by an individual qualified by appropriate training and experience to ensure: .241(a) thru (c)	х			
101.		Nondestructive testing of welds must be performed by any process, other than trepanning, that clearly indicates defects that may affect the integrity of the weld .243 (a) thru (f)	х			
102.		Repair or removal of defects.245 (a) thru (c)	х			
		Sleeve Repair – low hydrogen rod (Best Practices –ref. API 1104 App. B, In Service Welding)				

Documentation Reviewed:						
Document Title	Document/Section Number	Revision Date				
Operations and Maintenance Manual	P-192.221	May 2008				
Operations and Maintenance Manual	P-122.243	May 2008				
Operations and Maintenance Manual	P-192.245	May 2008				

#### Comments:

No oxy-acetylene or appendix C welding performed No regulated compressor stations in system

WAC 480-93-0800		SUBPART F	- JOINING OF PIPELINE MATERIALS OTHER THAN BY WELDING				
A plastic pipe joint that is joined by solvent cement, adhesive, or heat fusion may not be disturbed until it has properly set. Plastic pipe may not be joined by a threaded joint or miter joint. 281(a)  106.  Each solvent cement piont on plastic pipe must comply with the following: 281(b)  The mating surfaces of the joint must be clean, dry, and free of material which might be detrimental to the joint. 281(b)(1)  The solvent cement must conform to ASTM Designation: D 2513, 281(b)(2)  The joint may not be heated to accelerate the setting of the cement. 281(b)(3)  Each heat-fusion joint on plastic pipe must comply with the following: 281(c)  A but heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper a figurate with the plastic hardens. 281(c)(1)  A socket heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper a figurate with the help alstic hardens. 281(c)(1)  A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature. 281(c)(2)  A no electrofission joint must be joined utilizing the equipment and techniques of the fittings manufacturer. 281(c)(3)  Heat may not be applied with a torch or other open flame. 281(c)(4)  Each adhesive joint on plastic pipe must comply with the following: 281(d)  The adhesive must conform to ASTM Designation: D 2517. 281(d)(1)  A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(c)(2)  The burst test requirements of - 283(a)(1)  The burst test requirements of open paragraph 8.7 (Minimum Hydrostatic Bur	W	AC 480-93-080 -	- WELDER & PLASTIC JOINER IDENTIFICATION and QUALIFICATION	S	U	N/A	N/C
disturbed until if has properly set. Plastic pipe may not be joined by a threaded joint or miter joint. 281(a)   Each solvent cement joint on plastic pipe must comply with the following: 281(b)   x   x	103.	-	Joining of plastic pipe .281				
joint. 281(a)   Seach solvent cement joint on plastic pipe must comply with the following: .281(b)   x   x	104.		A plastic pipe joint that is joined by solvent cement, adhesive, or heat fusion may not be				
Each solvent cement joint on plastic pipe must comply with the following: 281(b)   x						х	
105.		*					
be detrimental to the joint. 281(b)(1)  108.  109.  110.  110.  111.  11				<b></b>		X	
108. 109. 109. 100. 100. 100. 100. 100. 100						х	
Each heat-fusion joint on plastic pipe must comply with the following: 281(c)	107.		The solvent cement must conform to ASTM Designation: D 2513281(b)(2)			x	
Each heat-fusion joint on plastic pipe must comply with the following: .281(c)   A but heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipin in proper alignment while the plastic hardens281(c)(1)   A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature281(c)(2)   A netertofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testing joints to the requirements of \$192.283(a)/(jiii), to be at least equivalent to those of the fittings manufacturer281(c)(3)   Heat may not be applied with a torch or other open flame281(c)(4)   Each adhesive joint on plastic pipe must comply with the following: .281(d)   The materials and adhesive must be compatible with each other281(d)(1)   Each compression type mechanical joint on plastic pipe must comply with the following: .281(e)   The gasket material in the coupling must be compatible with the plastic281(e)(1)   A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling .281(e)(2)   Before any written procedure established under \$192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)   The burst test requirements of283(a)(1)   Thermoplastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 9.9 (Sustained Static Pressure Test) of ASTM D2513, .283(a)(1)(i)   Thermosetting plastic pipe: paragraph 9.4 (Joint Integrity Tests) of ASTM D2513, or .283(a)(1)(ii)   For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to	108.		• The joint may not be heated to accelerate the setting of the cement281(b)(3)			х	
A but heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper alignment while the plastic hardens. 281(c)(1)  A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature.  281(c)(2)  An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testing joints to the requirements of §192.283(a)(1/iii), to be at least equivalent to those of the fittings manufacturer . 281(c)(3)  Heat may not be applied with a torch or other open flame. 281(c)(4)  Each adhesive joint on plastic pipe must comply with the following: 281(d)  The materials and adhesive must comply with the following: 281(d)  The materials and adhesive must be compatible with each other. 281(d)(1)  Each compression type mechanical joint on plastic pipe must comply with the following: 281(e)  The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(c)(2)  Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: 2.83(a)  The burst test requirements of—2.83(a)(1)  Thermostici pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static pressure Test) or ASTM D2517; or .283(a)(1)(ii)  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifie	109.						
square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper alignment while the plastic hardens. 281(c)(1)  111.  480-93-180(1)  • A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature. 281(c)(2)  • An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testifi joints to the requirements of \$192.283(a)(1)(iii), to be at least equipment to those of the fittings manufacturer. 281(c)(3)  • Heat may not be applied with a torch or other open flame. 281(c)(4)  • The adhesive joint on plastic pipe must comply with the following: 281(d)  • The materials and adhesive must be compatible with each other. 281(d)(1)  • The materials and adhesive must be compatible with each other. 281(d)(1)  • A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  Before any written procedure established under \$192.273(b)\$ is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: 283(a)  The burst test requirements of—283(a)(1)  • Thermoplastic pipe: paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513, 283(a)(1)(ii)  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.1 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.1 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055. 283(a)(1)(iii)  For procedures intended							W.C. CO. P. ST. LOVES
the joint uniformly and simultaneously to essentially the same temperature.  281(c)(2)  • An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testing joints to the requirements of §192.283(a)(1)(iii), to be at least equivalent to those of the fittings manufacturer. 281(c)(3)  • Heat may not be applied with a torch or other open flame. 281(c)(4)  Each adhesive joint on plastic pipe must comply with the following: 281(d)(1)  • The adhesive must conform to ASTM Designation: D 2517. 281(d)(1)  * The materials and adhesive must be compatible with each other. 281(d)(1)  * The materials and adhesive must be compatible with the following: 281(e)  * The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  * A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: 2.83(a)  The burst test requirements of283(a)(1)  • Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or 283(a)(1)(ii)  * Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) or paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) or ASTM Designation P1055. 283(a)(1)(iii)  * For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joint and a right analges according to the procedure to a force on the lateral pipe until failure occurs i			square to the ends of the piping, compresses the heated ends together, and holds the			х	
A80-93-180(1)	111.		A socket heat-fusion joint must be joined by a device that heats the mating surfaces of				
### An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques show, by testing joints to the requirements of \$192.283(a)(1)(iii), to be at least equivalent to those of the fittings manufacturer. 281(c)(3)  ### Heat may not be applied with a torch or other open flame. 281(c)(4)  ### Each adhesive joint on plastic pipe must comply with the following: 281(d)  ### Each adhesive joint on plastic pipe must comply with the following: 281(d)(1)  ### The adhesive must conform to ASTM Designation: D 2517. 281(d)(1)  ### The materials and adhesive must be compatible with each other. 281(d)(1)  ### Each compression type mechanical joint on plastic pipe must comply with the following: 281(e)(2)  ### The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  ### The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  ### A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  ### Before any written procedure established under \$192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: 283(a)  ### Designation Floss are stables of the procedure to the following tests: 283(a)  ### Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or 283(a)(1)(ii)  ### Thermosetting plastic pipe: paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.2 (Sustained Pressure Test) of ASTM Designation Floss. 283(a)(1)(iii)  ### AB0-93-180(1)  ### For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral		/80 <u>-03-190/1</u> )	.281(c)(2)			х	
requirements of \$192.283(a)(1)(iii), to be at least equivalent to those of the fittings manufacturer. 281(c)(3)  Heat may not be applied with a torch or other open flame. 281(c)(4)  Each adhesive joint on plastic pipe must comply with the following: .281(d)  The adhesive must conform to ASTM Designation: D 2517281(d)(1)  The adhesive must conform to ASTM Designation: D 2517281(d)(1)  The materials and adhesive must be compatible with each other281(d)(1)  Each compression type mechanical joint on plastic pipe must comply with the following: .281(e)  The gasket material in the coupling must be compatible with the plastic281(e)(1)  A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling281(e)(2)  Before any written procedure established under \$192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)  The burst test requirements of — .283(a)(1)  The burst test requirements of — .283(a)(1)  The morphastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(ii)  Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) or ASTM D2513 .283(a)(1)(iii)  Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sectio	112.	400-93-100(1)					
requirements of §192.283(a)(1)(iii), to be at least equivalent to those of the fittings manufacturer. 281(c)(3)  • Heat may not be applied with a torch or other open flame. 281(c)(4)  • Heat may not be applied with a torch or other open flame. 281(c)(4)  • The adhesive joint on plastic pipe must comply with the following: 281(d)  116.  • The materials and adhesive must be compatible with each other. 281(d)(1)  Each compression type mechanical joint on plastic pipe must comply with the following: 281(e)  117.  Each compression type mechanical joint on plastic pipe must comply with the following: 281(e)  118.  • The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  • A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)  121.  122.  • Thermostetic Burst Test) or paragraph 8.9 (Sustained Pressure Test) of ASTM D2513, 283(a)(1)(ii)  • Thermosteting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517, or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Sustained Pressure Test), paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.4 (Sustained Static Pressure Test), paragraph						l x	
113. 114. Each adhesive joint on plastic pipe must comply with the following: 281(d)  115. Each adhesive joint on plastic pipe must comply with the following: 281(d)  116. The adhesive must conform to ASTM Designation: D 2517. 281(d)(1)  2 The adhesive must conform to ASTM Designation: D 2517. 281(d)(1)  2 The materials and adhesive must be compatible with each other. 281(d)(1)  2 Each compression type mechanical joint on plastic pipe must comply with the following: 281(e)  117. Each compression type mechanical joint on plastic pipe must comply with the following: 281(e)  118. The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  2 A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  3 Before any written procedure established under § 192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: 283(a)  121. The burst test requirements of — 283(a)(1)  122. Thermosplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Pressure Fost) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(ii)  123. Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure or paragraph 8.9 (Sustained Static Pressure Test) or ASTM D2517; or .283(a)(1)(ii)  124. 480-93-180(1)  125. Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydrallic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  126. For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure in							
Each adhesive joint on plastic pipe must comply with the following: .281(d)  • The adhesive must conform to ASTM Designation: D 2517281(d)(1)	112		\	<del>                                     </del>			
The adhesive must conform to ASTM Designation: D 2517281(d)(1)						X	
116.  117.  118.  119.  119.  119.  120.  121.  121.  121.  122.  123.  124.  480-93-180(1)  125.  126.  127.  128.  128.  129.  120.  120.  120.  121.  122.  123.  124.  125.  126.  127.  128.  128.  129.  120.  121.  121.  122.  122.  123.  124.  125.  126.  127.  128.  128.  129.  129.  129.  120		· :					
Each compression type mechanical joint on plastic pipe must comply with the following:  281(e)  • The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  • A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  120.  Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)  The burst test requirements of _ 283(a)(1)  • Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(i)  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  * Thermosetting plastic pipe: paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  125.  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	115.		The adhesive must conform to ASTM Designation: D 2517281(d)(1)			х	
281(e)  • The gasket material in the coupling must be compatible with the plastic. 281(e)(1)  • A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  120.  Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: 283(a)  121.  The burst test requirements of— 283(a)(1)  • Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513—283(a)(1)(ii)  123.  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055—283(a)(1)(iii)  125.  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	116.	•	• The materials and adhesive must be compatible with each other281(d)(1)			x	
118.  • The gasket material in the coupling must be compatible with the plastic281(e)(1)  • A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling281(e)(2)  Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)  The burst test requirements of283(a)(1)  • Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(i)  • Thermosetting plastic pipe: paragraph 8.9 (Sustained Static pressure Test) or paragraph or paragraph 8.9 (Sustained Static Pressure Test) or paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  125.  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	117.						
119.  • A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling. 281(e)(2)  Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)  The burst test requirements of— .283(a)(1)  • Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513—.283(a)(1)(i)  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	118.		• The gasket material in the coupling must be compatible with the plastic281(e)(1)			х	
Before any written procedure established under §192.273(b) is used for making plastic pipe joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)  The burst test requirements of— .283(a)(1)  • Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(i)  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	119.		A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in			х	
joints by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by subjecting specimen joints made according to the procedure to the following tests: .283(a)  The burst test requirements of283(a)(1)  • Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(i)  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  Tor procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	120.				A.		
subjecting specimen joints made according to the procedure to the following tests: .283(a)  The burst test requirements of— .283(a)(1)  Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(i)  Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	1201						
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Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(i)  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055 . 283(a)(1)(iii)  125.  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	121.					1.7	
Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513 .283(a)(1)(i)  • Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  125.  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	122.		Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum				
paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or .283(a)(1)(ii)  • Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)  125.  For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  126.  For procedures intended for non-lateral pipe connections, follow the tensile test requirements of						х	-
Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055283(a)(1)(iii)      For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)      For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	123.					х	
Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM  Designation F1055283(a)(1)(iii)  125. For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  126. For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	124.	480-93-180(1)					
9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM  Designation F1055283(a)(1)(iii)  125. For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  126. For procedures intended for non-lateral pipe connections, follow the tensile test requirements of		100 25-100(1)	Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph			v	
sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  126. For procedures intended for non-lateral pipe connections, follow the tensile test requirements of			Designation F1055283(a)(1)(iii)				
failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  126. For procedures intended for non-lateral pipe connections, follow the tensile test requirements of	125.						
failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and, .283(a)(2)  126. For procedures intended for non-lateral pipe connections, follow the tensile test requirements of						x	•
126. For procedures intended for non-lateral pipe connections, follow the tensile test requirements of						^	
	125			<del> </del>			<del></del>
	126.		For procedures intended for non-lateral pipe connections, follow the tensile test requirements of ASTM D638, except that the test may be conducted at ambient temperature and humidity If the			х	

specimen elonguases no less than 25 percent or failure initiates outside the joint area, the procedure qualifies for use. 233(b)(3)  Before any written procedure established under §192.273(b) is used for making mechanical plastice pipe joints that are designed to withsund tensile forces, the procedure must be qualified by subjecting five specimen joints made according to the procedure to the following tensile test: 238(b)(1)  129.  480-93-180(1)  130.  131.  132.  133.  134.  135.  136.  137.  138.  139.  139.  139.  139.  139.  139.  139.  130.						
Before any written procedure established under \$19.2.73(b) is used for making mechanical plastic pipe joints that ack designed to written that the plastic pipe joints that acked estaged to written and the plastic pipe joints that acked estaged to written and the plastic pipe in the procedure to the following tensite test. 283(b)(2)   283(b)(1)   • The specimen joints made according to the procedure to the following tensite test. 283(b)(2)   • The specimen must be of such length that the distance between the grips of the paperatus and the end of the stiffener does not affect the joint strength. 283(b)(2)   • The specimen must be of such length that the distance between the grips of the paperatus and the end of the stiffener does not affect the joint strength. 283(b)(2)   • The specimen test than 4 inches (102 mm) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area. 283(b)(4)   • Pipe specimens 4 inches (102 mm) and larger in diameter shall be pulled until the pipe is pulled from the fitting. If the pipe pulls from the fitting, it has been a pull-protect to a tensile stress equal to or greater than the must must be used in the design calculations for stress. 283(b)(5)   • Each specimen that fails at the grips must be retested using new pipe. 283(b)(6)   x    133.   • Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall failkness. 285(b)(7)   x    135.   A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints. 283(c)   x    136.   Pipe of fittings manufactured before July 1, 1980, may be used in accordance with procedures that the ten manufacturer excitegion with a lesser wall failkness. 285(b)(7)   x    137.   No person may make a plastic pipe point unless that person has been qualified under the applicable pio						
283(b)(1)	127.		Before any written procedure established under §192.273(b) is used for making mechanical plastic pipe joints that are designed to withstand tensile forces, the procedure must be qualified by subjecting five specimen joints made according to the procedure to the following tensile test:			
### 480-93-180(1)  **The specimen must be of such length that the distance between the grips of the apparatus and the end of the stiffener does not affect the joint strength. 283(b)(2)  *The speed of testing is 0.20 in (.30 mm) per minute, plus or minute 25 percent.  283(b)(3)  *Pipe specimens less than 4 inches (102 mm) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area. 283(b)(4)  *Pipe specimens 4 inches (102 mm) and larger in diameter shall be pulled until the pipe is subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the pipe is pulled from the fitting. If the object we streamly one than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the pipe is pulled from the fitting. If the lower value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculations for stress. 283(b)(5)  **Each specimen that fails at the grips must be retested using new pipe. 283(b)(6)  **Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall thickness. 283(b)(7)  **A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints. 283(e)  **Pipe of fittings manufactured before July 1, 1980, may be used in accordance with procedures that persons making and inspecting joints. 283(e)  **Pipe of fittings manufactured before July 1, 1980, may be used in accordance with procedures that persons making and inspecting joints. 283(e)  **A person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by: 285(b)  **A person proportial training or experience in the use of the procedure; and .285(a)(1)	128.				х	
The speed of testing is 0.20 in. (5.0 mm) per minute, plus or minus 25 percent.   X   283(b)(3)	129.	490 02 190(1)			х	
Pipe specimens less than 4 inches (102 mm) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area. 283(b)(4)   Pipe specimens 4 inches (102 mm) and larger in diameter shall be pulled until the pipe is subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the pipe is pulled from the fitting, the lowest value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculation for stress. 283(b)(5)   Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall thickness. 283(b)(7)   A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints. 283(a)   Pipe or fittings manufactured before liquid y. 1 j980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe. 283(d)   Pipe or fittings manufactured before liquid. 1 joint unless that person has been qualified under the applicable joining procedure by: 285(a)   A person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by: 285(b)   A passes the inspection and test set forth in paragraph (b) of this section. 285(a)(1)   A passes the inspection and test set forth in paragraph (b) of this section. 285(a)(2)   A passes the inspection and test set forth in paragraph (b) of this section. 285(a)(2)   A person may make a plastic pipe joint unless that person the source of the procedure; and 285(b)(1)   A person may make a plastic pipe joint unless that person the set of the procedure that passes the inspection and test set forth in paragraph (b) of this section. 285(a)(2)   A proportion to photographs of a joint unless that p	130.	460-93-160(1)	• The speed of testing is 0.20 in. (5.0 mm) per minute, plus or minus 25 percent.		х	
subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the tipic is pulled from the fitting. If the pipe pulls from the fitting, the lowest value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculations for stress. 233(b)(5)  • Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall thickness. 283(b)(7)  A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints. 283(c)  Pipe or fittings manufactured before July 1, 1980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe. 285(d)  No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by: 285(a)  • Appropriate training or experience in the use of the procedure; and 285(a)(1)  **A Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section. 285(a)(2)  The specimen joint must be: 285(b)  **A Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and 285(b)(2)  **A Visually examined during and after assembly or joining and found to have the same appearance as a folint or photographs of a joint that is acceptable under the procedure; and 285(b)(2)(iii)  **A Visually examined and found not to contain flaws that may cause failure; or .285(b)(2)(iii)  **Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area; and .285(b)(2)(iii)(B)  **A person must be requalified under an applicable procedure; in furning any 12-month peri	131.		<ul> <li>Pipe specimens less than 4 inches (102 mm) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area.</li> </ul>		х	·
**Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall thickness. 283(b)(7)  **A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints. 283(c)  **Pipe or fittings manufactured before July 1, 1980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe. 283(d)  **No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by: 285(a)  **O Appropriate training or experience in the use of the procedure; and .285(a)(1)  **Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section. 285(a)(2)  **The specimen joint must be: 285(b)  **Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and .285(b)(1)  **In the case of a heat fusion, solvent cement, or adhesive joint; .285(b)(2)  **In the case of a heat fusion, solvent cement, or adhesive joint; .285(b)(2)  **Tested under any one of the test methods listed under \$192.283(a)\$ applicable to the type of joint and material being tested; .285(b)(2)(ii)  **Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(iii)  **Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(iii)  **Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(iii)  **Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(iii)  **Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area. 285(b)(2)(iii)(B)  **A person must b			subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the pipe is pulled from the fitting. If the pipe pulls from the fitting, the lowest value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculations for stress283(b)(5)		x	
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persons making and inspecting joints. 283(c)  Pipe or fittings manufactured before July 1, 1980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe. 283(d)  No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by: 285(a)  • Appropriate training or experience in the use of the procedure; and .285(a)(1)  • Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section285(a)(2)  The specimen joint must be: .285(b)  • Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and .285(b)(1)  • In the case of a heat fusion, solvent cement, or adhesive joint; .285(b)(2)  Tested under any one of the test methods listed under §192.283(a) applicable to the type of joint and material being tested; .285(b)(2)(i)  Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(ii)  Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(ii)  Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and .285(b)(2)(iii)(A)  Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  • Does not make any joints under that procedure; or .285(c)(1)  • Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)	134.		except that testing of a heavier wall pipe may be used to qualify pipe of the same		х	
that the manufacturer certifies will produce a joint as strong as the pipe. 283(d)  No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by: 285(a)  • Appropriate training or experience in the use of the procedure; and .285(a)(1)	135.				х	
No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by: .285(a)  • Appropriate training or experience in the use of the procedure; and .285(a)(1)  • Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section285(a)(2)  The specimen joint must be: .285(b)  • Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and .285(b)(1)  • In the case of a heat fusion, solvent cement, or adhesive joint; .285(b)(2)  Tested under any one of the test methods listed under §192.283(a) applicable to the type of joint and material being tested; .285(b)(2)(i)  Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(ii)  Cut into at least three longitudinal straps, each of which is: .285(b)(2)(iii)  X   Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and .285(b)(2)(iii)(A)  Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  • Does not make any joints under that procedure; or .285(c)(1)  • Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)	136.				х	
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Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and .285(b)(1)      In the case of a heat fusion, solvent cement, or adhesive joint; .285(b)(2)      Tested under any one of the test methods listed under § 192.283(a) applicable to the type of joint and material being tested; .285(b)(2)(i)      Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(ii)      Cut into at least three longitudinal straps, each of which is: .285(b)(2)(iii)      Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and .285(b)(2)(iii)(A)      Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  Boes not make any joints under that procedure; or .285(c)(1)  Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under § 192.513285(c)(2)	139.					
480-93-180(1)  appearance as a joint or photographs of a joint that is acceptable under the procedure; and .285(b)(1)  • In the case of a heat fusion, solvent cement, or adhesive joint; .285(b)(2)  Tested under any one of the test methods listed under §192.283(a) applicable to the type of joint and material being tested; .285(b)(2)(i)  Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(ii)  Cut into at least three longitudinal straps, each of which is: .285(b)(2)(iii)  x  Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and .285(b)(2)(iii)(A)  Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  • Does not make any joints under that procedure; or .285(c)(1)  480-93-180(1)  480-93-180(1)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  • Does not make any joints under that procedure; or .285(c)(1)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  • Does not make any joints under that procedure; or .285(c)(1)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  • Does not make any joints under that procedure; or .285(c)(1)		]	- The state of the		•	
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the type of joint and material being tested; .285(b)(2)(i)  Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or .285(b)(2)(ii)  Cut into at least three longitudinal straps, each of which is: .285(b)(2)(iii)  x  Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and .285(b)(2)(iii)(A)  Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  A poss not make any joints under that procedure; or .285(c)(1)  A poss not make any joints under that procedure; or .285(c)(1)  A poss not make any joints under that procedure; or .285(c)(2)  A poss not make any joints under that procedure; or .285(c)(2)  A poss not make any joints under that procedure; or .285(c)(2)  A poss not make any joints under that procedure; or .285(c)(2)  A poss not make any joints under that procedure; or .285(c)(2)  A poss not make any joints under that procedure; or .285(c)(2)  A poss not make any joints under that procedure; or .285(c)(2)	142.		• In the case of a heat fusion, solvent cement, or adhesive joint; .285(b)(2)		х	
failure; or .285(b)(2)(ii)  Cut into at least three longitudinal straps, each of which is: .285(b)(2)(iii)  X  Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and .285(b)(2)(iii)(A)  Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  A posson of make any joints under that procedure; or .285(c)(1)  Boes not make any joints under that procedure is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)  For least the fall with the fall was blocked at the procedure in the point in the fall was blocked at the procedure.			the type of joint and material being tested; .285(b)(2)(i)		x	
Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and .285(b)(2)(iii)(A)  Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  Does not make any joints under that procedure; or .285(c)(1)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  Does not make any joints under that procedure; or .285(c)(1)  Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)			failure; or .285(b)(2)(ii)		 х	
480-93-180(1)  Surfaces of the joint area; and .285(b)(2)(iii)(A)  Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  Does not make any joints under that procedure; or .285(c)(1)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  Does not make any joints under that procedure; or .285(c)(1)  Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)		Į			х	
initiate in the joint area285(b)(2)(iii)(B)  A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)  Does not make any joints under that procedure; or .285(c)(1)  **No-93-180(1)**  Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)  Tech procedure that procedure is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)		480-93-180(1)	surfaces of the joint area; and .285(b)(2)(iii)(A)		х	-
person: .285(c)  149.  150.  480-93-180(1)  person: .285(c)  • Does not make any joints under that procedure; or .285(c)(1)  • Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)  The person of the points made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)			initiate in the joint area285(b)(2)(iii)(B)		x	
480-93-180(1)  • Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513285(c)(2)			person: .285(c)			
that are found unacceptable by testing under §192.513285(c)(2)					x	
Each operator shall establish a method to determine that each person making joints in plastic x		480-93-180(1)	that are found unacceptable by testing under §192.513285(c)(2)		 х	
	151.		Each operator shall establish a method to determine that each person making joints in plastic	Ť	x	

		pipelines in the operator's system is qualified in accordance with this section285(d)			
		Plastic pipe joiners re-qualified 1/Yr (15 Months) 480-93-080 (2) (eff 6/02/05)	1.5		100
152.		<ul> <li>Qualified written plastic joining procedures must be located on-site where plastic joining is being performed. 480-93-080(2)(a)</li> </ul>		х	
<b>153.</b>	480-93-180(1)	<ul> <li>Plastic pipe joiners re-qualified if no production joints made during any 12 month period 480-93-080(2)(b) (eff 6/02/05)</li> </ul>		х	
154.		<ul> <li>Tracking production joints or re-qualify joiners 1/Yr (12Months) 480-93-080(2)(c) (eff 6/02/05)</li> </ul>		х	
155.	480-93-180(1) / 192.273(b)	No person may carry out the inspection of joints in plastic pipes required by §§192.273(c) and 192.285(b) unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure. 287		х	

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Comments:		
No plastic in system		

S	UBPART G – CO	ONSTRUCTION REQUIREMENTS for TRANSMISSION LINES and MAINS	S	U	N/A	N/C
156.		Compliance with specifications or standards. 192.303	х			·
157.		Inspection of each transmission line and main during construction 192.305	х			
158.		Inspection of materials 192.307	х			
159.	400 02 100(1)	Repair of steel pipe 192.309 (a) thru (e)	х			
160.	480-93-180(1)	Repair of plastic pipe. 192.311			x	
161.	*	Bends and elbows. 192.313 (a) thru (c)	х			
162.		Wrinkle bends in steel pipe. 192.315 (a) & (b)	х			
163.		Protection from hazards 192.317 (a) thru (c)	х			
164.	•	Installation of Pipe in a ditch 192.319 (a) thru (c)	х			
165.		Installation of plastic pipe. 192.321 (a) thru (h)			х	
		480-93-178 WAC PROTECTION OF PLASTIC PIPE	S	U	N/A	N/C
166.		Procedures for the storage, handling, and installation of plastic pipelines in accordance with the latest applicable manufacturer's recommended practices. 480-93-178(1) eff 6/02/06)			х	
167.		Stated acceptable time limit for maximum cumulative ultraviolet light exposure 480-93-178 (2) eff 6/02/06)			х	
168.	400 00 100(4)	Separation requirements when installing plastic pipelines parallel to other underground utilities 480-93-178 (4) eff 6/02/06)			х	
169.	480-93-180(1)	Separation requirements when installing plastic pipelines perpendicular to other underground utilities 480-93-178 (5) eff 6/02/06)			х	
170.		Casings 192.323 (a) thru (d)	х			
171.		Casing of pipelines. 480-93-115 (1) thru (4)	х			

172.	Underground clearance. 192.325 (a) thru (d).	х		
173.	Cover. 192.327 (a) thru (g)	Х		

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P192-305	March 2009
Operations and Maintenance Manual	P-192-319	May 2008
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Comments:	
No plastic in system	

		SUBPART H - CUSTOMER METERS, SERVICE REGULATORS, and SERVICE LINES				
			S	U	N/A	N/C
174.		Meters and service regulators installed at locations as prescribed under 192.353 (a) thru (d)			х	
175.	480-93-180 (1)	Service regulator vents and relief vents installed and protected from damage. Vaults housing meters and regulators protected from loading due to vehicular traffic. 192.355 (a) thru (c)			х	
176.	480-93-180 (1)	Meters and regulators installed to minimize stresses and insure that potential releases vent to outside atmosphere. 192.357 (a) thru (d)			х	
		480-93-140 WAC SERVICE REGULATORS	S	U	N/A	N/C
177.	480-93-180 (1)	Procedures for installing, operating, and maintaining service regulators in accordance with federal and state regulations, and manufacturer's recommended installation and maintenance practices. 480-93-140(1) (eff 6/02/05)			x	
178.		Procedures for inspecting and testing service regulators and associated safety devices during the initial turn-on, and when a customer experiences a pressure problem. Testing must include 480-93-140(2) (eff 6/02/05)			х	
179.		Minimum service line installation requirements as prescribed under 192.361 (a) thru (g)			х	
180.		Location of service-line valves as prescribed under 192.365 (a) thru (c)			х	
181.	480-93-180 (1)	General requirements for locations of service-line connections to mains and use of compression fittings 192.367 (a) thru (b)(2)			х	
182.	,	Connections of service lines to cast iron or ductile iron mains. 192.369 (a) thru (b)			х	
183.		Provisions for new service lines not in use 192.379 (a) thru (c)			х	
184.		Excess flow valve performance standards 192.381 (a) thru (e)			х	
185.		Excess flow valve customer notification. 192.383 (a) thru (f)			х	

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.

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No regulated service regulators in system No service lines in system

		SUBPART I - CORROSION CONTROL	S	Ü	N/A	N/C
				100		
186.	480-93-180(1)	Corrosion procedures established for the Design, Operations, Installation & Maintenance of CP systems, carried out by, or under the direction of, a person qualified in pipeline corrosion control methods .453	x			
187.	480-93-180(1)	For pipelines installed after July 31, 1971, buried segments must be externally coated and .455 (a) cathodically protected within one year after construction (see exceptions in code) .455 (b)	x			
188.	480-93-180(1)	Aluminum may not be installed in a buried or submerged pipeline if exposed to an environment with a natural <b>pH</b> in excess of 8 (see exceptions in code) .455 (c)	х			
189.	480-93-180(1)	All effectively coated steel transmission pipelines installed prior to August 1, 1971, must be cathodically protected .457 (a)	х			
190.		If installed <b>before August 1, 1971</b> , cathodic protection must be provided in areas of active corrosion for: bare or ineffectively coated transmission lines, and bare or coated c/s, regulator sta., meter sta. piping, and (except for cast iron or ductile iron) bare or coated distribution lines457 (b)			х	
191.		Written procedures explaining how cathodic protection related surveys, reads, and tests will be conducted. 480-93-110(4) (eff 6/02/05)	х			
192.		Examination of buried pipeline when exposed: if corrosion is found, further investigation is required .459	х			
193.		Recording the condition of all underground metallic facilities each time the facilities are exposed. 480-93-110(6) (eff 6/02/05)	х			
194.		CP test reading on all exposed facilities where coating has been removed 480-93-110(8) (eff 6/02/05)	х			
195.	480-93-180(1)	Procedures must address the protective coating requirements of the regulations. External coating on the steel pipe must meet the requirements of this part461	S	U	N/A	N/C
196.		Cathodic protection level according to Appendix D criteria .463		х		
197.		Pipe-to-soil monitoring (1 per yr/15 months) .465(a)	х			
198.		Rectifier monitoring (6 per yr/2½ months) .465(b)	х			
199.		Interference bond monitoring (as required) .465(c)	х			

		SUBPART I - CORROSION CONTROL	S	U	N/A	N/C
200.		Remedial action taken within 90 days (Up to 30 additional days if other circumstances. Must document) 480-93-110(2) (eff 6/02/05)	x			
201.	480-93-180(1)	Electrical surveys (closely spaced pipe to soil) on bare/unprotected lines, cathodically protect active corrosion areas (1 per 3 years/39 months) .465(e)			x	
202.		Sufficient test stations to determine CP adequacy .469		х		
203.		Test lead maintenance .471				
204.		Interference currents .473	х			
205.		Proper procedures for transporting corrosive gas? .475(a)			х	
206.		Written program to monitor for indications of internal corrosion. The program must also have remedial action requirements for areas where internal corrosion is detected. 480-93-110(7) (eff 6/02/05)	х			
207.		Removed pipe must be inspected for internal corrosion. If found, the adjacent pipe must be inspected to determine extent. Certain pipe must be replaced. Steps must be taken to minimize internal corrosion475(b)	х			
208.		Internal corrosion control coupon (or other suit. Means) monitoring (2 per yr/7½ months) .477	х			
209.		Each exposed pipe must be cleaned and coated (see exceptions under .479(c)) .479(a)	х			
210.		Offshore splash zones and soil-to-air interfaces must be coated	х			
211.	480-93-180(1)	Coating material must be suitable .479(b)	х			
212.	( )	Coating is not required where operator has proven that corrosion will: .479(c)				
213.		1. Only be a light surface oxide, or .479(c)(1)			х	
214.		2. Not affect safe operation before next scheduled inspection .479(c)(2)			х	
215.		Written atmospheric corrosion control monitoring program. The program must have time frames for completing remedial action. 480-93-110(9) (eff 6/02/05)	х			
216.		Atmospheric corrosion control monitoring (1 per 3 yrs/39 months onshore; 1 per yr/15 months offshore) .481(a)	х		-	
217.		Special attention required at soil/air interfaces, thermal insulation, under dis-bonded coating, pipe supports, splash zones, deck penetrations, spans over water .481(b)	х			
218.		Protection must be provided if atmospheric corrosion is found (per §192.479) .481(c)	х			
219.		Replacement and required pipe must be coated and cathodically protected (see code for exceptions) .483	х			
220.		Procedures to replace pipe or reduce the MAOP if general corrosion has reduced the wall thickness? .485(a)	х			
221.	480-93-180(1)	Procedures to replace/repair pipe or reduce MAOP if localized corrosion has reduced wall thickness (unless reliable engineering repair method exists)? .485(b)	х		٠	
222.	400-23-160(1)	Procedures to use <b>Rstreng</b> or <b>B-31G</b> to determine remaining wall strength? .485(c)	х			
223.		Remedial measures (distribution lines other than cast iron or ductile iron) .487			х	
224.		Remedial measures (cast iron and ductile iron pipelines) .489			х	·
225.		Records retained for <u>each</u> cathodic protection test, survey, or inspection required by 49 CFR Subpart I, and chapter 480-93 WAC. 480-93-110 (eff 6/02/05)	х			
226.		Corrosion control maps and record retention (pipeline service life or 5 yrs) .491	х			
	•	WAC 480-93-110 Corrosion Requirements	S	U	N/A	N/C
227.		Casings inspected/tested annually not to exceed <b>fifteen months</b> 480-93-110(5) (eff 6/02/05)	x			
228.		Casings w/no test leads installed prior to 9/05/1992. Demonstrate other acceptable test methods 480-93-110(5)(a) (eff 6/02/05)	x			
229.	480-93-180(1)	Possible shorted conditions – Perform confirmatory follow-up inspection within 90 days 480-93-110(5)(b) (eff 6/02/05)	х			
230.		Casing shorts cleared when practical 480-93-110(5)(c) (eff 6/02/05)	х			

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.

		SUBPART I - CORROSION CONTROL	S	U	N/A	N/C
231.		Shorted conditions leak surveyed within 90 days of discovery. <b>Twice annually/7.5 months</b> 480-93-110(5)(d) (eff 6/02/05)	x			
232.	480-93-180(1)	CP Test Equipment and Instruments checked for accuracy/intervals (Mfct Rec or Opr Sched) 480-93-110(3) (eff 6/02/05)	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.455	May 2008
Operations and Maintenance Manual	P-192.463	May 2008
Operations and Maintenance Manual	P-192.459	May 2008
Operations and Maintenance Manual	P-192.465	May 2008
Operations and Maintenance Manual	P-192.483	May 2008
Operations and Maintenance Manual	P-192.473	May 2008
Operations and Maintenance Manual	P-192.475(b)	May 2008
Operations and Maintenance Manual	P-192.477	May 2008
Operations and Maintenance Manual	P-192.479	May 2008
Operations and Maintenance Manual	P-192.481	May 2008

#### Comments:

No bare unprotected pipe in system No distribution in system No cast iron or ductile iron pipe

		SUBPART J – TEST REQUIREMENTS	S	Ü	N/A	N/C
233.		Procedures to ensure that the provisions found under 192.503(a) thru (d) for new segments of pipeline, or Return to Service segments of pipeline which have been relocated or replaced are met.	x			
234.		Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS. 192.505 (a) thru (e)	х			
235.	480-93-180(1)	Test requirements for pipelines to operate at a hoop stress less than 30 percent of SMYS and at or above 100 psig. 192.507 (a) thru (c)	х			
236.		Test requirements for pipelines to operate below 100 psig. 192.509 (a) & (b)	х			
237.		Test requirements for service lines. 192.511 (a) thru (c)			Х	
238.		Test requirements for plastic pipelines. 192.513 (a) thru (d)			х	
239.		Environmental protection and safety requirements. 192.515 (a) & (b)	х			
240.		Records 192.517 Refer also to 480-93-170 (7) (a-h) below.	х			

Documentation Reviewed:						
Document Title	Document/Section Number	Revision Date				
Operations and Maintenance Manual	P-192.501	May 2008				

Comments:	No	service	lines	in	system
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No plastic pipe in system		
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		WAC 480-93-170	G		BYZA	NI/CI
		PRESSURE TEST PROCEDURES	3	U	N/A	IV/C
241.		Notification in writing, to the commission, at least two business days prior to any pressure test of a gas pipeline that will have a MAOP that produces a hoop stress of twenty percent or more of the SMYS 480-93-170(1) (eff 6/02/05)	x			
242.		• In Class 3 or Class 4 locations, as defined in 49 CFR § 192.5, or within one hundred yards of a building, must be at least eight hours in duration. 480-93-170(1)(a)	х			
243.	480-93-180(1)	<ul> <li>When the test medium is to be a gas or compressible fluid, each operator must notify the appropriate public officials so that adequate public protection can be provided for during the test. 480-93-170(1)(b)</li> </ul>	x			
244.		• In an emergency situation where it is necessary to maintain continuity of service, the requirements of subsection (1) of this section and subsection (1)(a) may be waived by notifying the commission by telephone prior to performing the test. 480-93-170(1)(c)	x			
245.		Minimum test pressure for any steel service line or main, must be determined by multiplying the intended MAOP by a factor determined in accordance with the table located in 49 CFR § 192.619 (a)(2)(ii). 480-93-170(2)			x	
246.		Re-testing of service lines broken, pulled, or damaged, resulting in the interruption of gas supply to the customer, must be pressure tested from the point of damage to the service termination valve prior to being placed back into service. 480-93-170(4)			x	
247.		Maintain records of all pressure tests performed for the life of the pipeline and document information as listed under 480-93-170(7) (a-h).	х			
248.	480-93-180(1)	Maintain records of each test where multiple pressure tests are performed on a single installation. 480-93-170(9)	х			
249.		Pressure testing equipment must be maintained, tested for accuracy, or calibrated, in accordance with the manufacturer's recommendations.480-93-170(10)	х			
250.		When there are no manufacturer's recommendations, then tested at an appropriate schedule determined by the operator.	. x			
251.		<ul> <li>Test equipment must be tagged with the calibration or accuracy check expiration date.</li> </ul>	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.501	May 2008

Comments: No mains or services are in sytem	

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.

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		SUBPART K - UPRATING				
	100	Provisions for meeting the minimum requirements for increasing maximum allowable operating pressure (uprating) for pipelines.	S	U	N/A	N/C
252.		General requirements. 192.553 (a) thru (d)			х	
253.	480-93-180(1)	Uprating to a pressure that will produce a hoop stress of 30 % or more of SMYS in steel pipelines. 192.555 (a) thru (e)	х		-	
254.		Uprating: Steel pipelines to a pressure that will produce a hoop stress less than 30 % of SMYS: (plastic, iron, and ductile iron pipelines.) 192.557 (a) thru (d)	х			
	WAC 480-93-155 - UPRATING					
255.		Notification of uprate and submission of written plan 480-93-155 (1)			х	
256.	480-03-180(1)	Content of written plan 480-93-155 (1) (a) thru (j)			х	

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Operations and Maintenance Manual	P-192.553	May 2008

Uprates must be based on a previous or current pressure test that will substantiate the intended

MAOP. 480-93-155 (2)

257.

Comments:	32.20	

		SUBPART L - OPERATIONS	S	U.	N/A	N/C
258.		Procedural Manual Review – Operations and Maintenance (1 per yr/15 months) 192.605(a)	х			
259.		Availability of construction records, maps, operating history to operating personnel 192.605(b)(3)	х			
260.		Start up and shut down of the pipeline to assure operation within MAOP plus allowable buildup 192.605(b)(5)	х			
261.	480-93-180(1)/	Periodic review of personnel work – effectiveness of normal O&M procedures 192.605(b)(8)	х			
262.	192.605(a)	Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapors or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and a rescue harness and line 192.605(b)(9)	x			

	SUBPART L - OPERATIONS			N/A	N/C
263. 264.	Routine inspection and testing of pipe-type of bottle-type notices 192.005(b)(10)			х	
	192.605(b)(11)				

Documentation Reviewed:							
Document Title	Document/Section Number	Revision Date					
Operations and Maintenance Manual	P-192.605(a)	May 2008					
Operations and Maintenance Manual	P-192.605(b)(3)	May 2008					
Operations and Maintenance Manual	P-192.605(b)(8)	May 2008					
Operations and Maintenance Manual	P-192.605(b)(9)	May 2008					

Comments:		<del></del>	
No bottle type holders in system			
A.			
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		SUBPART L – OPERATIONS ABNORMAL OPERATING PROCEDURES – TRANSMISSION LINES	····			
		Procedures for responding to, investigating, and correcting the cause of: 192.605(c)(1)	S	U	N/A	N/C
265.		Unintended closure of valves or shut downs 192.605(c)(1)(i)	х			
266.	•	• Increase or decrease in pressure or flow rate outside of normal operating limits 192.605(c)(1)(ii)	х			
267.		Loss of communications 192.605(c)(1)(iii)	х			
268.	480-93-180(1)/	The operation of any safety device 192.605(c)(1)(iv)	х			
269.	192.605(a)	<ul> <li>Malfunction of a component, deviation from normal operations or personnel error 192.605(c)(1)(v)</li> </ul>	х			
270.		Checking variations from normal operation after abnormal operations ended at sufficient critical locations 192.605(c)(2)	х			
271.		Notifying the responsible operating personnel when notice of an abnormal operation is received 192.605(c)(3)	х			
272.		Periodic review of personnel work – effectiveness of abnormal operation procedures 192.605(c)(4)	х		·	

Documentation Reviewed:		
Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.605(c)(1)	May 2008

Comments:	

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	CUDDADT	I CHANCE : CLA	CC I OCATION D	DOCEDUDEC		e Ti	EXTENSION OF

	SUE	BPART – L CHANGE in CLASS LOCATION PROCEDURES	· S	U	N/A	N/C
273.	480-93-180(1)/	Class location study 192.609	X	•		
274.	192.605(a)	Confirmation or revision of MAOP 192.611	х			

	\$	SUBPART – L CONTINUING SURVEILLANCE PROCEDURES	S	U	Ñ/A	N/C
275.	192.613	Procedures for surveillance and required actions relating to change in class location, failures, leakage history, corrosion, substantial changes in <b>CP</b> requirements, and unusual operating and maintenance conditions 192.613(a)				
276.	192.613	Procedures requiring MAOP to be reduced, or other actions to be taken, if a segment of pipeline is in unsatisfactory condition 192.613(b)	x		·	

	SUBPA	ART – L DAMAGE PREVENTION PROGRAM PROCEDURES	S	U	N/A	N/C
277.		Participation in a qualified one-call program, or if available, a company program that complies with the following:	х			
278.		Identify persons who engage in excavating 614(c)(1)	х			
279.		Provide notification to the public in the One Call area .614(c) (2)	х			
280.		Provide means for receiving and recording notifications of pending excavations .614(c) (3)	х			
281.	480-93-180(1)/	Provide notification of pending excavations to the members .614(c) (4)	х			
282.	192.605(a)	Provide means of temporary marking for the pipeline in the vicinity of the excavations .614(c) (5)	х			
283.		Provides for follow-up inspection of the pipeline where there is reason to believe the pipeline could be damaged $.614(c)$ (6)	х			
284.		Inspection must be done to verify integrity of the pipeline .614(c)(6)(i)	х			
285.		After blasting, a leak survey must be conducted as part of the inspection by the operator .614(c)(6)(ii)	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.613	May 2008
Operations and Maintenance Manual	P-192.614(c)(5)	May 2008
Operations and Maintenance Manual	P-192.5	May 2008
100		

Comments:			 •	
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		SUBPART – L EMERGENCY PROCEDURES	S	U	N/A	N/C
286.		Receiving, identifying, and classifying notices of events which require immediate response by the operator .615(a)(1)	х			
287.		Establish and maintain communication with appropriate public officials regarding possible emergency .615(a)(2)	х			
288.		Prompt response to each of the following emergencies: .615(a)(3)	х			
289.	480-93-180(1)/	(i) Gas detected inside a building	х			
290.	192.615	(ii) Fire located near a pipeline	х			
291.		(iii) Explosion near a pipeline	х			
292.		(iv) Natural disaster	х			
293.		Availability of personnel, equipment, instruments, tools, and material required at the scene of an emergency .615(a)(4)	х			
294.		Actions directed towards protecting people first, then property .615(a)(5)	X.			
295.		Emergency shutdown or pressure reduction to minimize hazards to life or property .615(a)(6)	х			
296.	·	Making safe any actual or potential hazard to life or property .615(a)(7)	х			
297.		Notifying appropriate public officials required at the emergency scene and coordinating planned and actual responses with these officials .615(a)(8)	х			
298.		Instructions for restoring service outages after the emergency has been rendered safe .615(a)(9)			х	
299.	480-93-180(1)/	Furnishing applicable portions of the emergency plan to supervisory personnel who are responsible for emergency action .615(b)(1)	х			
300.	192.615	Training appropriate employees as to the requirements of the emergency plan and verifying effectiveness of training .615(b)(2)	х			
301.		Reviewing activities following emergencies to determine if the procedures were effective .615(b)(3)	х			
302.		Establish and maintain liaison with appropriate public officials, such that both the operator and public officials are aware of each other's resources and capabilities in dealing with gas emergencies .615(c)	. <b>x</b>			

Documentation Reviewed:							
Document Title	Document/Section Number	Revision Date					
Operations and Maintenance Manual	P-192.615(a)	May 2008					
Operations and Maintenance Manual	Emergency Response Plan	May 2008					
Operations and Maintenance Manual	P-192.615(b)(3)	May 2008					
Operations and Maintenance Manual	P-192.615(c)	May 2008					

Comments:			
No services in system			

	SUBPART – L PUBLIC AWARENESS PROCEDURES					
303.	480-93-180(1)/	Public Awareness Program in accordance with API RP 1162 [HQ clearinghouse review after June 20, 2006] Amdt 192-99 pub. 5/19/05, eff. 06/20/05 .616(a)	х			
304.	192.605(a)	The program conducted in English and in other languages commonly understood by a significant number and concentration of the non-English speaking population in the operator's area616(g)				

	SI	UBPART – L FAILURE INVESTIGATION PROCEDURES	S	U	N/A	N/C
305.	480-93-180(1) / 192.617	Analyzing accidents and failures including laboratory analysis where appropriate to determine cause and prevention of recurrence .617	х			

Documentation Reviewed:						
Document Title	Document/Section Number	Revision Date				
Operations and Maintenance Manual	P-192.617	May 2008				
Operations and Maintenance Manual	P-192.615(a)	May 2008				

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Comments:			
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		SUBPART – L MAOP PROCEDURES			S	U	N/A	N/C
306.		Establishing MAOP so that it is commensurate with the class	s location .619		x ·			
307.	480-93-180(1)	MAOP cannot exceed the lowest of the following:						
308.	192.605(a)	<ul> <li>Design pressure of the weakest element; .619(a</li> </ul>	)(1)		х	•		
309.		Test pressure divided by applicable factor .619(a)	(2)		х			
310.	480-93-180(1) / 192.605(a)	The highest actual operating pressure to which during the 5 years preceding the applicable date in was tested according to .619(a)(2) after the applicate segment was uprated according to subpart K61  Pipeline segment  Onshore transmission line that was a gathering line not subject to this part before March 15, 2006.  All other pipelines.	second column, able date in the t	unless the segment	x			
311.		Maximum safe pressure determined by operator.	610(a)(4)		X			
312.				nlicable 619(b)	x			<del>                                     </del>
313.				x				
314.		MAOP - High Pressure Distribution Systems .621					х	
315.		Max./Min. Allowable Operating Pressure - Low Pressure Dis	stribution System	ıs .623			х	

Documentation Reviewed:							
Document Title	Document/Section Number	Revision Date					
Operations and Maintenance Manual	P-192.619	May 2008					

Operations and Maintenance Manual	Form F-192.619(a)	May 2008	
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Comments:			

Comments:				
System not operated as distribu	ution system	•		

		WAC 480-93-015 ODORIZATION PROCEDURES	S	U	N/A	N/C
316.		Odorization of gas at the proper concentration in air 480-93-015 (1)	х			
317. 318.	480-93-180(1)	Use of odorant testing instrumentation/Monthly testing interval 480-93-015 (2) (eff 6/02/05)	х			
318.	100-23-100(1)	Odorant Testing Equipment Calibration/Intervals (Annually or Manufacturers Recommendation) 480-93-015 (3) (eff 6/02/05)	х			
319.	480-93-180(1)	Records maintained for usage, odorant tests performed and equipment calibration (5yrs) 480-93-015(4) (eff 6/02/05)	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.625	May 2008

Comments:			
	N •		

	SUBPAR	T – L TAPPING PIPELINES UNDER PRESSURE PROCEDURES	S	U	N/A	N/C
320.		Hot taps must be made by a qualified crew NDT testing is suggested prior to tapping the pipe.				
	480-93-180(1)	Reference API RP 2201 for Best Practices627	х			

		SUBPART – L PIPELINE PURGING PROCEDURES	S	U	N/A	N/C
321.		Purging of pipelines must be done to prevent entrapment of an explosive mixture in the pipeline				
1	480-93-180(1)	.629	x			
322.	480-93-180(1)	(a) Lines containing air must be properly purged.	х			
323.	480-93-180(1)	(b) Lines containing gas must be properly purged	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.627	May 2008
Operations and Maintenance Manual	P-192.629	May 2008

Comments:			

	.,	SUBPART – M MAINTENANCE PROCEDURES	S	U	N/A	N/C
324.	480-93-180(1)	Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from Service .703(b)	х			
325.	480-93-180(1)	Hazardous leaks must be repaired promptly .703(c)	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.706	May 2008

Comments:			
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	TRANSMI	SSION LINES - PATR	SUBPART - M COLLING & LEAKAGE SUR	VEY PROCEDURES	S	U,	N/A	N/C
326.		Patrolling ROW conditi	ons .705(a)		x			
327.		Maximum interval betw	een patrols of lines: .705 (b)					
	400 02 100/1)	Class Location	At Highway and Railroad Crossings	At All Other Places				:
	480-93-180(1) /192.605(b)	1 and 2	2/yr (7½ months)	1/yr (15 months)	×			
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3	4/yr (4½ months)	2/yr (7½ months)				
		4	4/yr (4½ months)	4/yr (4½ months)				
328.		Leakage surveys – 1 ye	ar/15 months .706		x	<u> </u>		

329.		Leak detector equipment survey requirements for lines transporting un-odorized gas (N/A - All pipelines in WA require odorization)				
		WAC 480-93-185 GAS LEAK INVESTIGATION	S	U	Ñ/A	N/C
		Procedures for the prompt investigation of any notification of a leak, explosion, or fire, which may involve gas pipelines or other gas facilities.				
330.	480-93-180(1)	<ul> <li>received from any outside source such as a police or fire department, other utility, contractor, customer, or the general public 480-93-185(1)</li> </ul>	х			
331.	480-93-180(1)	• Grade leak in accordance with WAC 480-93-186, and take appropriate action 480-93-185(1)	х			
332.	480-93-180(1)	• retain the leak investigation record for the life of the pipeline. 480-93-185(1)	х			
333.	480-93-180(1)	Prevent removal of any suspected gas facility until the commission or the lead investigative authority has designated the release of the gas facility and keep the facility intact until directed by the lead investigative authority 480-93-185(2)	x			
334.	480-93-180(1)	Taking appropriate action when leak indications originating from a foreign source. Notification requirements. 480-93-185(3)	х	·		

		WAC 480-93-186 LEAK EVALUATION	S	Ü	N/A	N/C
335.	480-93-180(1)	Grade leaks as defined in WAC 480-93-18601 to establish the leak repair priority. 480-93-186(1)	х			
336.	480-93-180(1)	procedure for evaluating the concentration and extent of gas leakage 480-93-186(2)	х			
337.	480-93-180(1)	Use of a combustible gas indicator to check the perimeter of a leak area. Follow-up inspection on repaired leaks no later than thirty days following repair. 480-93-186(3)	x			
338.	480-93-180(1)	Grade 1 and 2 leaks downgraded once to Grade 3 leak without a physical repair. After downgrade, repair must be made not to exceed twenty-one months 480-93-186(4)	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.705	May 2008
Operations and Maintenance Manual	P-192.706	May 2008
Operations and Maintenance Manual	P-192.615(a)	May 2008
7.00		

Comments:		

		WAC480-93187 GAS LEAK RECORDS	S	U	N/A	N/C
		Gas leak records must contain, at a minimum, the criteria outlined in 480-93-187 (1-13)				
339.	480-93-180(1)	<ol> <li>Date and time the leak was detected, investigated, reported, and repaired, and the name of the employee(s) conducting the investigation;</li> <li>Location of the leak (sufficiently described to allow ready location by other qualified personnel);</li> <li>Leak grade;</li> <li>Pipeline classification (e.g., distribution, transmission, service);</li> <li>If reported by an outside party, the name and address of the reporting party;</li> <li>Component that leaked (e.g., pipe, tee, flange, valve);</li> <li>Size and material that leaked (e.g., steel, plastic, cast iron);</li> <li>Pipe condition;</li> <li>Type of repair;</li> <li>Leak cause;</li> <li>Date pipe installed (if known);</li> <li>Magnitude and location of CGI readings left; and</li> <li>Unique identification numbers (such as serial numbers) of leak detection equipment.</li> </ol>	x			

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Comments:	· · · · · · · · · · · · · · · · · · ·
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		WAC 480-93-188 GAS LEAK SURVEYS	Ŝ	Ü	N/A	NÆ
340.		gas leak surveys using a gas detection instrument covering areas listed in 480-93-188(1)(a-e)	х			
341.		Gas detection instruments tested for accuracy/intervals (Mfct rec or monthly not to exceed 45 days) 480-93-188(2) eff 6/2/05	х			
342.		Surveys conducted according to the minimum frequencies outlined under 480-93-188(3)(a-d)	х			
343.		Surveys conducted under the following circumstances outlined under 480-93-188(4)(a-e)	х			
344.	480-93-180(1)	Survey records must be kept for a minimum of five years and contain information required under 480-93-188(5)(a-f)	х			
345.		Self audits as necessary, but not to exceed three years between audits and meet the criteria outlined under 480-93-188(6)(a-e)	х			
346.		Must fully implement subsection (3)(a) of this section no later than 6/01/07. 480-93-188(7)			х	

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Comi	ments:						
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No bu	usiness Districts in s	ystem					
							-
			E MARKERS PROCEDURES	S	U	N/A	N/C
347.	Placement of markers - railroad, road, irrigation and drainage ditch crossings 480-93-124 (1) (eff 6/02/05)						
348.			s - Separation/Other locations 480-93-124 (2) (eff 6/02/05) & 192.		<u> </u>	<u> </u>	<u> </u>
349. 350.	480-93-180(1)		of bridges or other spans / Inspected 1/YR (15 Months) 480-93-124		<del> </del>	<u>                                      </u>	ļ
351.	400-93-100(1)		sing or damaged replaced within 45 days? 480-93-124(4) (eff 6/02/narkers – Not to exceed 5/YR Records 10/Yrs minimum 480-93-	(05) x	<del> </del>		
331.	ļ	124(5) (eff 6/02/05)	larkers - that to exceed 3/ k is records 10/ 113 minimum - 400-73-	x			
352.			ings or other records indicating class locations and other areas where required 480-93-124(6) (eff 6/02/05)	x			
	Document		Document/Section Number	Revision D	ate		
Opera	tions and Maintenar	ice Manual	P-192.707 May 2008				
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Com	nents:		CIIDDADT _ M				
Comr	nents:	TRANSMISSION	SUBPART - M I RECORD KEEPING PROCEDURES	S	U	N/A	N/C
	nents:		RECORD KEEPING PROCEDURES	S	U	N/A	N/G
353. 354.	480-93-180(1)/	Records must be main  (a) Repairs to the pipe	RECORD KEEPING PROCEDURES  ntained709  e – life of system		U	N/A	N/G
353. 354. 355.		Records must be main  (a) Repairs to the pipe  (b) Repairs to "other	RECORD KEEPING PROCEDURES  ntained709  e – life of system  than pipe" – 5 years	x x x	U	N/A	N/G
353. 354.	480-93-180(1)/	Records must be main  (a) Repairs to the pipe  (b) Repairs to "other  (c) Operation (Sub L)	RECORD KEEPING PROCEDURES  ntained709  e – life of system	x x x x	U	N/A	N/C
353. 354. 355.	480-93-180(1)/	Records must be main  (a) Repairs to the pipe  (b) Repairs to "other	RECORD KEEPING PROCEDURES  ntained709  e – life of system  than pipe" – 5 years	x x x	U	N/A	N/G
353. 354. 355.	480-93-180(1)/	Records must be main  (a) Repairs to the pipe  (b) Repairs to "other  (c) Operation (Sub L)	RECORD KEEPING PROCEDURES  ntained709  e - life of system than pipe" - 5 years  ) and Maintenance (Sub M) patrols, surveys, tests - 5 years or until ne	x x x x x x x	U		
353. 354. 355.	480-93-180(1)/	Records must be main  (a) Repairs to the pipe  (b) Repairs to "other  (c) Operation (Sub L)  one	RECORD KEEPING PROCEDURES  ntained709 e - life of system than pipe" - 5 years ) and Maintenance (Sub M) patrols, surveys, tests - 5 years or until ne  SUBPART - M LINE FIELD REPAIR PROCEDURES	x x x x	U	N/A	N/C
353. 354. 355. 356.	480-93-180(1)/	Records must be main  (a) Repairs to the pipe  (b) Repairs to "other  (c) Operation (Sub L)  one	RECORD KEEPING PROCEDURES  ntained709 e - life of system than pipe" - 5 years ) and Maintenance (Sub M) patrols, surveys, tests - 5 years or until ne	x x x x x x x			
353. 354. 355.	480-93-180(1)/	Records must be main  (a) Repairs to the pipe (b) Repairs to "other (c) Operation (Sub L) one  TRANSMISSION	RECORD KEEPING PROCEDURES  ntained709 e - life of system than pipe" - 5 years ) and Maintenance (Sub M) patrols, surveys, tests - 5 years or until ne  SUBPART - M LINE FIELD REPAIR PROCEDURES	x x x x x x x			

		SUBPART - M TRANSMISSION LINE FIELD REPAIR PROCEDURES	S	U	N/A	N/C
359.		Use of a reliable engineering method .713(a)(2)	X			
360.		Reduce operating pressure to a safe level during the repair .713(b)	x			<u> </u>
		Permanent Field Repair of Welds	^			
361.		Welds found to be unacceptable under §192.241(c) must be repaired by: .715				
362.		(a) Taking the line out of service and repairing in accordance with §192.245:	х			
363.		Cracks longer than 8% of the weld length (except offshore) must be removed	X			<del> </del>
364.		For each weld that is repaired, the defect must be removed down to clean metal and the pipe preheated if conditions demand it	x			<u></u>
365.		Repairs must be inspected to ensure acceptability	х			
366.	480-93-180(1) / 192.605 (b)	<ul> <li>Crack repairs or defect repairs in previously repaired areas must be done in accordance with qualified written welding procedures</li> </ul>	х	·		
367.	·	(b) If the line remains in service, the weld may be repaired in accordance with §192.245 if:				4.1
368.		• The weld is not leaking (1)	х			
369.	·	• he pressure is reduced to produce a stress that is 20% of SMYS or less (2)	х			<u> </u>
370.		• Grinding is limited so that ¼ inch of pipe weld remains (3)	х			
371.		• If the weld cannot be repaired in accordance with (a) or (b) above, a full encirclement welded split sleeve must be installed (c)	х			
		Permanent Field Repair of Leaks				
372.	, i	Field repairs of leaks must be made as follows: .717				
373.		• Replace by cutting out a cylinder and replace with pipe similar or of greater design (a)	х		·	
374.	480-93-180(1) / 192.605 (b)	<ul> <li>Install a full encirclement welded split sleeve of an appropriate design unless the pipe is joined by mechanical couplings and operates at less than 40% SMYS (b)(1)</li> </ul>	х			
375.	·	<ul> <li>A leak due to a corrosion pit may be repaired by installing a bolt on leak clamp (b)(2)</li> </ul>	х			
376.	480-93-180(1) / 192.605 (b)	<ul> <li>For a corrosion pit leak, if a pipe is not more than 40,000 psi SMYS, the pits may be repaired by fillet welding a steel plate.</li> <li>The plate must have rounded corners and the same thickness or greater than the pipe, and not more than ½D of the pipe size (b)(3)</li> </ul>	х			-
377.		• Submerged offshore pipe or pipe in inland navigable waterways may be repaired with a mechanically applied full encirclement split sleeve of appropriate design (b)(4)	х			
378.		Apply reliable engineering method (b)(5)	х			
250		Testing of Repairs		-1.9		
379. 380.	480-93-180(1) / 192.605 (b)	Replacement pipe must be pressure tested to meet the requirements of a new pipeline .719(a)  (b) For lines of 6-inch diameter or larger and that operate at 20% of more of SMYS, the repair must be nondestructively tested in accordance with §192.241(c)			x	

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.711	May 2008
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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.

Comments:		
Pipeline is less than 6-inches in diameter		
•		

	DISTRIBUT	SUBPART - M TION SYSTEM PATROLLING & LEAKAGE SURVEY PROCEDURES	S	U	N/A	N/C
381.		Frequency of patrolling mains must be determined by the severity of the conditions which could cause failure or leakage (i.e., consider cast iron, weather conditions, known slip areas, etc.) .721(a)			х	
382.		Patrolling surveys are required in business districts at intervals not exceeding 4½ months, but at least four times each calendar year .721 (b)(1)			х	
383.	480-93-180(1) / 192.605 (b)	Patrolling surveys are required outside business districts at intervals not exceeding 7½ months, but at least twice each calendar year .721 (b)(2)			х	
384.		Periodic leak surveys determined by the nature of the operations and conditions723 (a)& (b)			х	
385.		In business districts as specified, 1/yr (15 months) .723(b)(1)			х	
386.		Outside of business districts as specified, once every 5 calendar years/63 mos.; for unprotected lines subject to .465(e) where electrical surveys are impractical, once every 3 years/39 mos723 (b)(2)			х	

	TE	SUBPART - M ST REQUIREMENTS FOR REINSTATING SERVICE LINES	S	U	N/A	N/C
387.	480-93-180(1)/	Except for .725(b), disconnected service lines must be tested the same as a new service line725(a)			х	
388.	192.605 (b)	Service lines that are temporarily disconnected must be tested from the point of disconnection, the same as a new service line, before reconnect. See code for exception to this725(b)			х	

Document Title	Document/Section Number	Revision Date

#### Comments:

Not operated as distribution system, no service lines in system

	SUBPART - M ABANDONMENT or DEACTIVATION of FACILITIES PROCEDURES	S	U	N/A	N/C
389.	Operator must disconnect both ends, purge, and seal each end before abandonment or a period of deactivation where the pipeline is not being maintained. Offshore abandoned pipelines must be filled with water or an inert material, with the ends sealed .727(b)	х			
390.	Except for service lines, each inactive pipeline that is not being maintained under Part 192 must be	х			

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.

		disconnected from all gas sources/supplies, purged, and sealed at each end727 (c)			
391.		Whenever service to a customer is discontinued, do the procedures indicate one of the following: .727(d)			
392.	480-93-180(1) / 192.605 (b)	The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator .727(d) (1)	x		
393.	•	A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly .727(d)(2)	х		
394.		The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed .727(d) (3)	х		
395.		If air is used for purging, the operator shall ensure that a combustible mixture is not present after purging .727 (e)	х		
396.		Operator must file reports upon abandoning underwater facilities crossing navigable waterways, including offshore facilities727(g)		х	

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.727	May 2008
,		·

# Comments: No navigable waters in system

	PRES	SURI	SUBPART E LIMITING and REGULA	' - M TING STATION PROCEDURES	S	U	N/A	N/C
397.			ection and testing procedures : lating stations and equipment (1 p	for pressure limiting stations, relief devices, pressure per yr/15 months) .739(a)	х			
398.		In go	ood mechanical condition .739(a)	(1)	х			
399.	400 00 100(1) /		quate from the standpoint of capa appropriate property (2)	city and reliability of operation for the service in which it	х			
400.	480-93-180(1) / 192.605 (b)			essures consistent with .201(a), except for .739(b)739(a)	х			
401.			erly installed and protected from739(a)(4)	n dirt, liquids, other conditions that may prevent proper			х	
402.		For .739		d per .619(c) and the MAOP is 60 psi gage or more				
403.			If MAOP produces hoop stress that	Then the pressure limit is:				
	480-93-180(1)/		Is greater than 72 percent of SMYS	MAOP plus 4 percent	x			
	192.605 (b)		Is unknown as a percent of SMYS	A pressure that will prevent unsafe operation of the pipeline considering its operating and maintenance history and MAOP	^			
404.	480-93-180(1) /	Pres	sure limiting and regulating static	ons: Telemetering or recording gages 192.741(a) thru (c)			х	
405.	192.605 (b)	Test	ing of Relief Devices .743 (a) thr	u (c)	х			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.739	May 2008

No distribution in system		
Comments:		

		SUBPART - M VALVE AND VAULT MAINTENANCE PROCEDURES	S	U	N/A	N/C
406.	480-93-180(1) / 192.605 (b)	Written valve maintenance program detailing the valve selection process, inspection, maintenance, and operating procedures. The written program must detail which valves will be maintained under 49 CFR § 192.745, 49 CFR § 192.747, and 480-93-100. 480-93-100(1) (eff 06/02/05)	x			
		Transmission Valves				
407.	480-93-180(1) /	Inspect and partially operate each transmission valve that might be required during an emergency (1 per yr/15 months) .745(a)	x			
408.	192.605 (b)	Prompt remedial action required, or designate alternative valve .745(b)	х			
		Distribution Valves				
409.	480-93-180(1) / 192.605 (b)	Check and service each valve that may be necessary for the safe operation of a distribution system (1 per yr/15 months) .747(a)			х	·
410.		Prompt remedial action required, or designate alternative valve .747(b)			х	
		Service Valves	S	U	N/A	N/C
411.	480-93-180(1)/	Written service valve installation and maintenance program detailing the valve selection process, inspection, maintenance, and operating procedures. Does the program consider the criteria listed under 480-93-100(2)(a-f)? (eff. 06/02/05)			х	
412.	192.605 (b)	Service valve maintenance (1 per yr/15 months) 480-93-100(3) (eff. 06/02/05)			х	
413.		Service valve installation and maintenance program fully implemented by 6/01/07? 480-93-100(4) (eff. 06/02/05)			x	
		Vaults				
414.	480-93-180(1) / 192.605 (b)	Inspection of vaults greater than 200 cubic feet (1 per yr/15 months) .749			х	

	· P	SUBPART - M PREVENTION of ACCIDENTAL IGNITION PROCEDURES	S	Ü	N/A	N/C
415.	480-93-180(1) / 192.605 (b)	Reduce the hazard of fire or explosion by: 192.751 (a) thru (c)	x			

Document Title	Document/Section Number	Revision Date
Operations and Maintenance Manual	P-192.745	May 2008
Operations and Maintenance Manual	P-192.751	May 2008

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.

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•	n	m	m	Δ	m	te	

No distribution, service valves in system. No vaults in system.

		SUBPART - M CAULKED BELL AND SPIGOT JOINTS PROCEDURES	S	Ü	N/A	N/C
416.		Cast-iron caulked bell and spigot joint repair: .753			·	
417.	480-93-180(1) / 192.605 (b)	<ul> <li>When subject to more than 25 psig, sealed with mechanical clamp, or sealed with material/device which does not reduce flexibility, permanently bonds, and seals and bonds as prescribed in §192.753(a)(2)(iii) .753(a)</li> </ul>			х	
418.		<ul> <li>When subject to 25 psig or less, joints, when exposed for any reason, must be sealed by means other than caulking .753(b)</li> </ul>			×	

		SUBPART - M PROTECTING CAST-IRON PIPELINE PROCEDURES	S	U	N/A	N/C
419.		Operator has knowledge that the support for a segment of a buried cast-iron pipeline is disturbed must provide protection755				
420.	. 400 03 100(1) /	<ul> <li>Vibrations from heavy construction equipment, trains, trucks, buses or blasting?</li> <li>.755(a)</li> </ul>			х	
421. 422.	480-93-180(1) / 192.605 (b)	Impact forces by vehicles? .755(b)			х	
422.	192.003 (0)	Earth movement? .755(c)			Х	
423.		<ul> <li>Other foreseeable outside forces which might subject the segment of pipeline to a bending stress .755(d)</li> </ul>			х	
424.		Provide permanent protection for the disturbed section as soon as feasible .755(e)			х	

Documentation Reviewed:						
Document Title	Document/Section Number	Revision Date				
NO.						

#### Comments:

No cast iron in system

	SU	JBPART N — QUALIFICATION of PIPELINE PERSONNEL	S	Ū	N/A	N/C
Date of last UTC staff OQ plan review N/A						
425.	192.801 192.809	Any revisions to plan since last review? Yes No x If yes, review revisions made.	х			
426.	480-93-180(1)	Have "New Construction" activities been identified and included in the operator's covered task list? 480-93-013 (eff 6/02/05)		х		

#### **Documentation Reviewed:**

Document Title	Document/Section Number	Revision Date
Comments:		

	FILING RI	EQUIREMENTS for DESIGN, SPECIFICATION, and CONSTRUCTION	S	U	N/A	N/C
427.	480-93-180(1)	Submittal of construction procedures, designs, and specifications used for each pipeline facility prior to operating the pipeline. All procedures must detail the acceptable types of materials, fittings, and components for the different types of facilities in the operator's system. 480-93-017(1)	х			
428.	480-93-180(1)	Construction plans not conforming with a gas company's existing and accepted construction procedures, designs, and specifications on file with the commission, submitted to the commission for review at least forty-five days prior to the initiation of construction activity. 480-93-017(2)	x			

		MAPS, DRAWINGS, and RECORDS of GAS FACILITIES	S	U.	N/A	N/C
429.	480-93-180(1)	Records updated no later then 6 months from completion of construction activity and made available to appropriate personnel. 480-93-018(3)	х			

		PROXIMITY CONSIDERATIONS	S	U	N/A	N/C
430.	480-93-180(1)	Each operator must submit a written request and receive commission approval prior to: 480-93-20(1)	х			-
		Operating any gas pipeline facility at greater than five hundred psig that is within five hundred feet of any of the following places: 480-93-20 (1)(a)				
431.	480-93-180(1)	• A building that is in existence or under construction prior to the date authorization for construction is filed with the commission, and that is not owned and used by the petitioning operator in its gas operations; or : 480-93-20 (1)(a)(i)	x			
432.	480-93-180(1)	<ul> <li>A high occupancy structure or area that is in existence or under construction prior to the date authorization for construction is filed with the commission; or : 480-93- 20(1)(a)(ii)</li> </ul>	x		-	
433.	480-93-180(1)	<ul> <li>A public highway, as defined in RCW 81.80.010(3). 480-93-20 (1)(a)(iii)</li> </ul>	х			
434.	480-93-180(1)	Operating any gas pipeline facility at greater than two hundred fifty psig, up to and including five hundred psig, that is operated within one hundred feet of either of the following places: 480-93-20(1)(b)	S	U	N/A	N/C
435.	480-93-180(1)	<ul> <li>A building that is in existence or under construction prior to the date authorization for construction is filed with the commission, and that is not owned and used by the petitioning operator in its gas operations; or : 480-93-20(1)(b)(i)</li> </ul>	X ·			
436.	480-93-180(1)	<ul> <li>A high occupancy structure or area that is in existence or under construction prior to the date authorization for construction is filed with the commission. : 480-93- 20(1)(b)(ii)</li> </ul>	х			
437.	480-93-180(1)	For proposed new construction, document evidence to demonstrate that it is not practical to select an alternate route that will avoid areas or which demonstrates that the operator has	х			

considered future development of the area and has designed their pipeline facilities accordingly.  480-93-20(2)		
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