#### **POST INSPECTION MEMORANDUM**

RECEIVED

JUN 11 2012

State of Washington UTC Pipeline Safety Program **Inspector:** Scott Rukke-UTC **Reviewed:** Joe Subsits-UTC

Peer Review:\_ RR

Follow-Up Enforcement: No Violation PCP\* PCO\* NOA WL LOC

Director Approval\*

S/13/12

S/13/12

S/13/12

S/13/12

**Date:** 11/23/2011

**Operator Inspected:** 

Northwest Pipeline Corp (WGP)

**OPID:** 

13845

Region: Western

**Unit Address:** 

42612 East Christy Road P.O. Box 330 Plymouth, WA 99346

**Unit Inspected:** Plymouth LNG

**Unit ID:** 1155

**Unit Type:** Liquefied Natural Gas Plant

**Inspection Type:** Standard

**Record Location:** On-site at above address

**Inspection Dates:** November 14 - 17, 2011

**AFOD:** 6 (4 - Scott Rukke and 2 - Lex Vinsel)

SMART Activity Number: 133017

**Operator Contact:** Boyd Schow

**Phone:** (801) 584-6741 Fax: (801) 584-6988 **Emergency:** (800) 972-7733

### **Unit Description:**

Liquefied Natural Gas Plant consisting of two storage tanks with a capacity of 348,000 bbl each and 90 feet tall. The liquefaction process consists of two, 6MMCFD cold towers, each operated as an integrated cascade loop system. The facility includes four vaporizers rated at 75MMCFD. LNG 1 was placed in operation in 1975 and LNG 2 was placed in operation in 1979. Both LNG system 1 and LNG system 2 share use of the four vaporizers. The facility is located approximately 45 minutes southwest of Pasco, Washington, west of Interstate 395 and south of Highway 82, in Plymouth, Washington. The Plymouth LNG facility uses an integrated cascade loop liquefaction process to produce and store LNG gas during the summer months as a peak shaving operation. The LNG can then be vaporized and injected into the pipeline during times of higher than normal demand. LNG boil off is re-injected into the pipeline.

## **Facilities Inspected:**

Operations and maintenance records were reviewed. A field inspection was conducted of fire eyes, gas detectors, random CP reads, rectifier maintenance, atmospheric corrosion, supports, tank foundations and walls, ESD's, fire protection equipment, backup power, control room, fencing and emergency valves.

#### **Persons Interviewed:**

Von Studer Joe Frazzini Dustin Wallis Boyd Schow Tanya Hemphill Justin Reynolds Ron Ehrstrom

#### **Probable Violations/Concerns:**

No violations or concerns.

Follow up on the history of prior offenses that are still open:

-	(	Prior Offenses (for the past 5 years)
CPF#	What type of open enforcement action(s)?	Status of the regulations(s) violated (Reoccurrence Offenses, Implement a NOA Revision, Completion of PCO or CO, and etc)

#### Recommendations:

Place emphasis on Unit no. 2 in 2013. Emphasis was placed on unit no. 1 in November 2011.

#### Comments:

Cathodic protections systems were off for an annual depolarization to obtain native potentials.

#### **Attachments:**

- PHMSA Form 4 Standard Inspection Report of an LNG Facility
- PHMSA Form 13 Pipeline Drug and Alcohol Questions

Version Date: 5/5/08

## STANDARD INSPECTION REPORT OF AN LNG FACILITY

A completed Standard Inspection Report is to be submitted to the Director within 60 days from completion of the inspection. A Post Inspection Memorandum (PIM) is to be completed and submitted to the Director within 30 days from the completion of the inspection, or series of inspections, and is to be filed as part of the Standard Inspection Report.

Inspection Report				Post Ins	pecti	on Memora	ndum	
Inspector/Submit D	Date: S	Scott Rukke 11/23/2011		Inspector/Submit Date: Scott Peer Review/Date: Director Approval/Date:			t Rukke 11/2	23/2011
			PECTIO	N MEMOF	ANDUM (PIM	)		
Name of Operator:	Northw	rest Pipeline Corp (WGP)					OPID#:	13845
Name of Unit(s):	Plymou	th Liquefied Natural Gas	Plant				Unit #(s):	1155
Records Location:	Plymou	th, Washington			-		Activity #	
Unit Type & Comn	odity:	Natural Gas Peak Shaving	g by LNC	3 Storage				
Inspection Type:	Standar	·d			Inspection Dat	e(s):	November 1	4 – 17, 2011
PHMSA Representative(s):		Scott Rukke – WUTC (2 Lex Vinsel – WUTC (2	• /		AFO Days:		6	
Company System N	Maps (co	ppies for Region Files):						
Validate SMART I	Data (cor	nponents, miles, etc):	Acqı	uisition(s), S	Sale or New Con	ıstruc	ction (submit	t SMART update):
Validate Additiona	l Requir	ements Resulting From	Waiver(	s) or Specia	l Permit(s):	V/A		
consists of two stolliquefaction proces a capacity of 75 transmission pipel.  The Plant's Open Maintenance reconsupports for above systems were field activated for LNG.  The LNG Plant's criteria.	rage tan ssors con MMCF ine. rations a ds were ground tested 2.	ity is located southwest lks commissioned in 197 asist of an integrated cas D, each. The boil-off and Maintenance Man reviewed. The following LNG piping, ventilation and all fire and gas de protection system uses	5 and 19 cade loop gas vap ual was g areas w systems, tectors o	ors are co included vere inspect auxiliary	capacity of appoint a capacity of a capacity of a capacity of the	roxim 6 MM ie sto Feam 2 - tan ightin vent	ately 14,616 MCFD, each orage tanks Review cook foundatio g equipmen ilation fans	5,000 gallons each. Two a. Four vaporizers have and injected into the omplete in June 2005. In ring walls, tank shell, t, fire and gas detection and ESD system were
Findings: No areas of non-cor	npliance	noted.						

## STANDARD INSPECTION REPORT OF AN LNG FACILITY

Name of Operator: N	orthwest Pipeline	Corp (WGP)						
<b>OP ID No.</b> (1) 13845	·		Unit ID	No. (1) 115	5	-		
H.Q. Address:			System/	Unit Name a	nd Address (1	)		
295 Chipeta Way				h Liquefied N		ant		
Salt Lake City, Utah 8410 2800 Post Oak Blvd.	)8		42612 E P.O. Box	ast Christy Ro	oad			
Houston, Texas 77056)				th, WA 99346				
Co. Official:	Allison Bridges, West	VP & General Ma	anager	Activity Rec	ord ID#:			
Phone No.:	801-584-6090			Phone No.:		(509) 783-2421		
Fax No.:	801-584-7862		ļ	Fax No.:		(509) 735-4717		
Emergency Phone No.:	800-972-7733			Emergency	Phone No.:	(800) 972-7733		
Persons Interv	iewed		Titles			Phone No.		
Von Studer		District Manage	er			(509) 783-2421		
Joe Frazzini		Assistant Distri	ct Manage	er		(509) 783-2421		
Dustin Wallis		Engineer II				(801) 584-6599		
Boyd Schow		Sr. Technical S <sub>1</sub>	pecialist			(801) 584-6741		
Tanya Hemphill		Sr. Office Admi	inistrator			(509) 783-2421		
Justin Reynolds		Team Leader Fi	eld Pipeli	ne Integrity		(509) 465-2310		
Ron Ehrstrom		Sr. Integrity Spe	ecialist			(509) 783-2421		
PHMSA Representative(	s): (1) Scott Rukl	ke and Lex Vinse	1	]	Date(s):(1) 1	November 14 - 17		
LNG Plant Maps/Diagra	ms (copies for Re	gion Files): In	office		•			
Type of facility:	Base Load	Satellite [		eak Shaving		obile/Temporary erquirements of Part 193 per 193,2019.		
Year Facility Was Placed		1975 and 1979 T			union) in neu or in	e requirements of Fart 173 per 173,2017.		
Liquefaction Rate, MMC		Two Units at 6 M			<del></del>			
Type Of Liquefaction Cy	cle:	Integrated Casca	ide Loop 1					
Number of Vaporizers &	Capacities:	Four Units at 75	MMCFD	each				
Storage Tank Statistics -	Storage Tank Statistics - Fabricator, Volumes, Materials, etc:				Storage tanks were fabricated by Pittsburgh Des Moines (PDM) with a volumetric capacity of 14,616,000 gallons, 9% nickel alloy steel inner tank, perlite insulation, and steel outer shell.			
			•	by steer inner	, регис	<del></del>		

<sup>&</sup>lt;sup>1</sup> Information not required if included on page 1.

For information relating to cooperation and coordination between PHMSA, FERC, and Coast Guard, reference the 1985 Memorandum of Understanding Between the Department of Transportation and the Federal Energy Regulatory Commission Regarding LNG Transportation Facilities, and the February 10, 2004 Interagency Agreement Among the Federal Energy Regulatory Commission United States Coast Guard and Research and Special Programs Administration for the Safety and Security Review of Waterfront Import/Export Liquefied Natural Gas Facilities.

	NPMS INFORMATION and UPDATE	Yes	No
Did the operator submit the 49 U.S.C. 60132 and AD	heir pipeline information to NPMS and did they submit any updates or changes? B-08-07	X	

		PROCEDURES				
		' 193.2011 REPORTING PROCEDURES	S	U	N/A	N/C
		Immediate Notification of Certain Events				
:		Telephonically reporting incidents to NRC (800) 424-8802 or electronically at <a href="http://www.nrc.uscg.mil">http://www.nrc.uscg.mil</a> . 10.08.01	X			
	191.3 / 191.5	Event that involves a release of gas or liquefied gas from an LNG facility and a death or personal injury necessitating in-patient hospitalization or property damage (includes cost of lost gas) of \$50,000 or more, unintentional estimated gas loss of three million cubic feet or more.	X			
		Event that results in an emergency shutdown. (Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident.).	Х			
		Significant event (operator's judgment).	х			
	191.7	Reports (except SRCRs) must be submitted electronically to PHMSA at <a href="https://opsweb.phmsa.dot.gov">https://opsweb.phmsa.dot.gov</a> unless an alternative reporting method is authorized IAW with paragraph (d) of this section.	Х			
		Incident Reporting (DOT Form PHMSA F 7100.3)	i es			
	191.15	(b) Incident Report, as soon as practicable but NTE 30 days	Х			
		(c) Supplemental Report, where additional related information is obtained.	Х			
.2011	191.17(b)	Annual Reporting (DOT Form PHMSA F 7100.3-1) Submitted annually not later than March 15 (June 15, for 2011) for preceding year.	Х			
		Each operator must obtain an OPID, validate its OPIDs, and notify PHMSA of certain events at <a href="https://opsweb.phmsa.dot.gov">https://opsweb.phmsa.dot.gov</a>	X			
	191.22	(c) Changes. Each operator of a gas pipeline, gas pipeline facility, LNG plant or LNG facility must notify PHMSA electronically through the National Registry of Pipeline and LNG Operators at <a href="https://opsweb.phmsa.dot.gov">https://opsweb.phmsa.dot.gov</a> of certain events.  (1) An operator must notify PHMSA of any of the following events not later than 60 days before the event occurs:  (i) Construction or any planned rehabilitation, replacement, modification, upgrade, uprate, or update of a facility, other than a section of line pipe, that costs \$10 million or more. If 60 day notice is not feasible because of an emergency, an operator must notify PHMSA as soon as practicable;  (iii) Construction of a new LNG plant or LNG facility. 10.08.01	X			
		Filing safety-related condition reports.				
	191.25(a)	Within five (5) working days of determination.	Х			
		• Within ten (10) working days of discovery.	Х			

Comm	ents:
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Comments:		 		

		' 193.2017		U	N/A	N/C
.2017	.2017(c)	Operator must have plans and procedures required for the plant. These plans and procedures must be reviewed and updated:  (1) when a component is changed significantly or a new component is installed; and 41.01.075	х			
		(2) at intervals NTE 27 months, but at least once every 2 calendar years.	X			

Comments		
Comments:		

		' 193.2503 NORMAL OPERATING PROCEDURES	s	U	N/A	N/C
	.2503	Written operating procedures that cover the topics in (a) through (g) must be provided.				
	.2503(a)	Monitoring operating components and buildings for leaks, fires, and malfunctions that could cause a hazardous condition (see '193.2507). 41.05.095	Х			
	.2503(b)	Startup and shutdown, including initial startup and performance testing to demonstrate that components will operate satisfactorily in service. 41.01.118, 119, 120	X			
	.2503(c)	Recognizing abnormal operating conditions. 41.01.115	X			
.2017	.2503(d)	Purging and inerting - procedure must meet the provisions of AGA <i>Purging Principles</i> and <i>Practices</i> after being taken out of service and before being returned to service (see '193.2517). 41.01.110 THIRD EDITION 2001	х			
	.2503(e)	Maintaining the operation of vaporizers within design limits. (with regard to vaporization rate, temperatures, and pressures).41.04.150	х			
	.2503(f)	Maintaining the operation of liquefaction units within design limits. (with regard to temperatures, pressures, diff. pressures, and flow rates). 41.04.118 - 20	X			
	.2503(g)	Cool down of components so thermal stresses are kept within design limits. After stabilization, cryo. piping systems must be checked for leaks. (see '193.2505). 41.04.150	х			

Comments:			 

		' 193.2509 EMERGENCY PROCEDURES	S	U	N/A	N/C
.2017	.2509(a)	The operator must determine the types and locations of non-fire emergencies that may reasonably be expected to occur due to operating malfunctions, structural collapse, personnel error, forces of nature, and activities adjacent to the plant. EMERGENCY MANUAL TAB 8	х			
.2017	.2509(b)	Written emergency procedures that cover topics (b)(1) through (b)(4) must be provided.	1 to 1 to 2 to 2 to 2 to 2 to 2 to 2 to			
	.2509(b)(1)	Responding to controllable emergencies including personnel notification and use of appropriate equipment.	х			

	193.2509 EMERGENCY PROCEDURES	S	U	N/A	N/C
.2509(b)(2)	Recognizing and acting on uncontrollable emergencies.	Х			
.2509(b)(3)	Coordinating evacuation plans with local authorities including catastrophic LNG tank failure.	Х			
.2509(b)(4)	Cooperating with local officials when mutual assistance is required, and keeping them informed of (i) - (iv).				
.2509(b)(4)(i)	Types, quantities, and locations of fire control equipment. TAB 5 EMERGENCY PLAN	X			
.2509(b)(4)(ii)	Potential hazards at the plant, including fires.	X			
.2509(b)(4)(iii)	Communication and emergency control capabilities at the plant.	Х			
.2509(b)(4)(iv)	The status of each emergency.	Х			

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Comments:		

	· · ·	'193.2511 PERSONNEL SAFETY PROCEDURES	s	U	N/A	N/C
	.2511(a)	Appropriate protective clothing and equipment must be provided for personnel who are performing emergency response duties. 65.00.30, cryogenic equipment under emergency procedure tab 8	Х			
.2017	.2511(b)	Personnel at fixed locations must either be protected from the heat of fires or have a means of escape.	Х			
	.2511(c)	First aid materials must be available at a clearly marked location. 65.00.15, map of fire equipment, evacuation routes	X			

Comments:			

		'193.2513 TRANSFER PROCEDURES	S	U	N/A	N/C
	.2513(a)	Written procedures for transferring LNG and other hazardous fluids must be provided. 41.01.122 AND 125	X			
	.2513(b)	The procedures must include provisions for personnel to perform the tasks in (b)(1) through (b)(7).				
	.2513(b)(1)	Before transfer, verify that the transfer system is ready for use and that the system has been purged (if necessary).	Х			
.2017	.2513(b)(2)	Before transfer, verify that the receiving vessel does not contain an incompatible substance, and that it has enough available capacity to receive the amount of fluid to be transferred.	Х			
.2017	.2513(b)(3)	Before transfer, verify the maximum filling volume of the receiving vessel to ensure that expansion of the incoming fluid (due to warming) will not result in overfilling or overpressure.	Х			
	.2513(b)(4)	When transferring LNG into a partially filled vessel, take whatever steps are necessary to prevent stratification.	X			
	.2513(b)(5)	During transfer, keep an eye on transfer rates, liquid levels, and vapor returns in order to prevent overfilling or overpressuring.	X			
	.2513(b)(6)	Manually terminate flow before overfilling or overpressuring occurs.	X			

	' 193.2513 TRANSFER PROCEDURES	S	U	N/A	N/C
.2513(b)(7)	After transfer, deactivate the cargo transfer system in a safe manner (depressuring, venting, disconnecting, etc.).	Х			
.2513(c)	Written procedures for cargo transfer must be located at the transfer area, and they must include provisions for personnel to perform the tasks in (c)(1) through (c)(7).				
.2513(c)(1)	Be in constant attendance during all cargo transfer operations.	X			,
.2513(c)(2)	Whenever a truck is being driven in reverse in the transfer area, ensure that someone is positioned at the back of the truck to aid the driver. 122 C.4	Х			
.2513(c)(3)	Before transfer, verify (c)(3)(i) through (c)(3)(iv).				
.2513(c)(3)(i	) All transfer hoses have been visually inspected for damage and defects.	X			
.2513(c)(3)(i	i) Tank truck is electrically grounded and the wheels are chocked.	Х			
.2513(c)(3)(i	Tank truck engine is off, unless it is needed for the transfer.	Х			
.2513(c)(4)	If the truck engine is off during transfer, it is not to be restarted until the transfer lines are disconnected and any released vapors have dissipated.	Х			
.2513(c)(5)	Prevent loading of LNG into a tank car or tank truck that is not in exclusive LNG service, unless specific tests have been performed.	Х			
.2513(c)(6)	Verify that all transfer lines have been disconnected and equipment cleared before allowing the tank car or tank truck to move from the transfer position.	Х			
.2513(c)(7)	Verify that transfers into a pipeline system will not exceed the pressure or temperature limits of the pipeline.			X	

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Does not transfer into pipelines.

		' 193.2515 INVESTIGATION OF FAILURE PROCEDURES	S	U	N/A	N/C
	.2515	Each operator shall investigate the cause of each explosion, fire, or LNG spill or leak which results in:	2. 2.	44.50		
2017	.2515(a)	(1) death or an injury that requires hospitalization, or (2) property damage in excess of \$10,000.	X			
.2017	.2515(b)	After an investigation, appropriate action must be taken to minimize a recurrence. 10.18.01	Х			
	.2515(c)	Operator must cooperate during post-accident investigations and should maintain the scene in its post-accident state (to the extent practical).	х			

Comments	;
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-		' 193.2519 COMMUNICATION SYSTEM PROCEDURES	S	U	N/A	N/C
	.2519(a)	Primary communications system provides verbal communications for all employees and their assigned work stations.	Х			
.2017	.2519(b)	Plants over 70,000 gallons storage capacity must provide an emergency communication system separate from the primary and security communication systems in 193.2909.	Х			
ĺ	.2519(c)	Each communication system must have a backup power supply.	Х			

Comments:

	ts:					
<del></del>		' 193,2521 OPERATING RECORD PROCEDURES	S	U	N/A	N/
.2017	.2521	Each operator shall maintain a record of results of each inspection, test and investigation required by this subpart. For each LNG facility that is designed and constructed after March 31, 2000 the operator shall also maintain related inspection, testing, and investigation records that NFPA 59A requires. Such records, whether required by this part or NFPA 59A, must be kept for a period of not less than five years. 41.01.75 blue procedures manual.	X			
omment						
omment						
					1	1
		'193.2605 MAINTENANCE PROCEDURES	S	U	N/A	N
2017	.2605(a)	The operator must establish a schedule for conducting, consistent with generally accepted engineering practices, the periodic inspections or tests required by Subpart G, and must perform those inspections or tests.	1			
					1	$\overline{}$
	.2605(c)	The maintenance manual(s) must include instructions on how to recognize safety-related conditions that would need to be reported (191.23). 10.07.01	X			
			X			
Comment			X			
Comment			X			
Comment			х			
Comment			X			
Comment			X	U	N/A	N
Comment		conditions that would need to be reported (191.23). 10.07.01		U	N/A	N
.2017	.2609	'193.2609 SUPPORT SYSTEM PROCEDURES  Foundations and support systems (e.g., pipe rack supports) must be inspected for changes	S	U	N/A	N
2017	.2609	'193.2609 SUPPORT SYSTEM PROCEDURES  Foundations and support systems (e.g., pipe rack supports) must be inspected for changes	S	U	N/A	r
	.2609	'193.2609 SUPPORT SYSTEM PROCEDURES  Foundations and support systems (e.g., pipe rack supports) must be inspected for changes	S	U	N/A	- I
2017	.2609	'193.2609 SUPPORT SYSTEM PROCEDURES  Foundations and support systems (e.g., pipe rack supports) must be inspected for changes	S	U	N/A	
2017	.2609	'193.2609 SUPPORT SYSTEM PROCEDURES  Foundations and support systems (e.g., pipe rack supports) must be inspected for changes	S	U	N/A	
2017	.2609	reported (191.23). 10.07.01	S X			
2017	.2609	'193.2609 SUPPORT SYSTEM PROCEDURES  Foundations and support systems (e.g., pipe rack supports) must be inspected for changes that could impair their support. 20.13.01 SECTION 3  '193.2611 FIRE PROTECTION PROCEDURES  The maintenance schedule for fire control equipment must minimize the amount of	S	U	N/A	
2017	.2609 ts:	reconditions that would need to be reported (191.23). 10.07.01  reconditions that would need to be reported (191.23). 10.07.01	S X			P

	s:					
			<del></del>	<del></del>		
		'193.2613 AUXILIARY POWER SOURCE PROCEDURES	S	U	N/A	N/C
.2017	.2613	Each auxiliary power source must be tested monthly to check its operational capability and tested annually for capacity. The capacity test must take into account the power needed to start up and simultaneously operate equipment that would have to be served by that power source in an emergency. 41.03.800 AND 802	X			
Comment	is:					
		' 193.2615 ISOLATING AND PURGING PROCEDURES	S	U	N/A	N/C
.2017	.2615(a)	Before personnel begin maintenance activities on components handling flammable fluids which are isolated for maintenance, the component must be purged in accordance with a procedure which meets the requirements of AGA "Purging Principles and Practice," unless the maintenance procedures under '193.2605 provide that the activity can be safely performed without purging. 41.01.110  NEED TO REFERENCE THE CORRECT EDITION OF AGA PURGING	X			
	.2615(b)	If the component or maintenance activity provides an ignition source, a technique in addition to isolation valves (such as removing spool pieces or valves and blank flanging the piping, or double block and bleed valving) must be used to ensure that the work area is free of flammable fluids.	Х			
						<u> </u>
Comment	ts:					
Comment	ts:	1103 2617 DEDAID PROCEDURES	q		N/A	N/C
Comment	.2617(b)	'193.2617 REPAIR PROCEDURES  The maintenance procedures must include precautions to be taken when repairing a component while it is operating. 41.01.075	s x	U	N/A	N/C
101	.2617(b)	The maintenance procedures must include precautions to be taken when repairing a		U	N/A	N/C
.2017	.2617(b)	The maintenance procedures must include precautions to be taken when repairing a		U	N/A	N/C
.2017	.2617(b)	The maintenance procedures must include precautions to be taken when repairing a		U	N/A	N/C
.2017	.2617(b)	The maintenance procedures must include precautions to be taken when repairing a		U	N/A	
.2017	.2617(b)	The maintenance procedures must include precautions to be taken when repairing a component while it is operating. 41.01.075	X S			
.2017	.2617(b)	The maintenance procedures must include precautions to be taken when repairing a component while it is operating. 41.01.075  '193.2619 CONTROL SYSTEM PROCEDURES	X			N/C

	' 193.2619 CONTROL SYSTEM PROCEDURES	S	U	N/A	N/C
.2619(c)	Control systems in service, but not normally in operation, such as relief valves and automatic shutdown devices, and control systems for internal shutoff valves for bottom penetration tanks must be inspected and tested once each calendar year, not exceeding 15 months, with the following exceptions:  (1) Control systems used seasonally, such as for liquefaction or vaporization, must be inspected and tested before use each season.  (2) Control systems that are intended for fire protection must be inspected and tested at regular intervals not to exceed 6 months. 41.05.001 41.05.120 – 6 MONTHS and BEFORE EACH SEASON	Х			
.2619(d)	Control systems that are normally in operation, such as required by a base load system, must be inspected and tested once each calendar year but with intervals not exceeding 15 months.			Х	
.2619(e)	Relief valves must be inspected and tested for verification of the valve seat lifting pressure and reseating. 60.02.00 AND 60.02.02 PARAGRAPH 5	Х			

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No baseload control systems. Other control systems are inspected at a higher frequency than required by code.

		' 193.2621 TESTING TRANSFER HOSE PROCEDURES	S	U	N/A	N/C
.2017	.2621(a)	Hoses used for transferring LNG or flammable refrigerant must be tested to the maximum pump pressure or the relief valve setting (whichever is less) once each calendar year, with intervals not to exceed 15 months. 41.01.126	Х			
	.2621(b)	Hoses used for transferring LNG or flammable refrigerant must be inspected for damage or defect before each use.	X			

Comments:		

		' 193.2623 INSPECTING LNG STORAGE TANK PROCEDURES	S	U	N/A	N/C
	.2623	Storage tanks and their foundations must be inspected or tested to verify that the structural integrity or safety has not been impaired by conditions (a) through (d).				
	.2623(a)	Foundation and tank movement during normal operation and after each major meteorological or geophysical disturbance. 41.04.105	X			
.2017	.2623(b)	Inner tank leakage.	X			
	.2623(c)	Effectiveness of insulation.	Х			
	.2623(d)	Frost heave	Х			

Comments:		

		193.2625 CORROSION PROTECTION PROCEDURES	S	U	N/A	N/C
2017	.2625(a)	Components that might have their integrity or reliability adversely affected by corrosion (internal, external, or atmospheric) must be identified.	Х			
.2017	.2625(b)	Components identified in '193.2625(a) must either be (1) protected from corrosion, or (2) inspected and replaced on a regular basis.	Х			

Comments:	 	 	 

		'193.2627 ATMOSPHERIC CORROSION PROCEDURES	S	U	N/A	N/C
	.2627	Components subject to atmospheric corrosion must either be;				
.2017	.2627(a)	<ul> <li>made of a material that resists such corrosion, or 20.13.00 CORROSION PROCEDURES</li> </ul>	Х			
	.2627(b)	• be protected by a suitable coating or jacketing.	Х			

Comments:		
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		'193.2629 EXTERNAL CORROSION CONTROL PROCEDURES: BURIED OR SUBMERGED COMPONENTS	S	U	N/A	N/C
	.2629(a)	Buried or submerged components that are subject to external corrosion must be:	14			
	.2629(a)(1)	made of a material that resists such corrosion, or 20.03 1.1	X			
.2017	.2629(a)(2)(i)	<ul> <li>protected by an external protective coating that meets 192.461, and</li> </ul>	X			
	.2629(a)(2)(ii)	<ul> <li>protected by a cathodic protection system that meets 192.463 (within one year of construction or installation).</li> </ul>	X			
	.2629(b)	Where cathodic protection is applied, electrically interconnected components must be protected as a unit.	X			

Comments:	 		

		' 193.2631 INTERNAL CORROSION CONTROL PROCEDURES	s	U	N/A	N/C
	.2631	Components subject to internal corrosion must either be:				
.2017	.2631(a)	made of a material that resists such corrosion, or 20.18.00	Х			
	.2631(b)	protected by a suitable coating, inhibitor, or other means	Х			

nts:
nts

Comment	s:					
		'193.2633 INTERFERENCE CURRENT PROCEDURES	S	U	N/A	N/C
	.2633(a)	Components subject to electrical current interference must be protected by a continuing program to minimize the detrimental effects of such currents. 20.10.00	X			
.2017	.2633(b)	Each cathodic protection system must be designed and installed such that the detrimental effects it might have on adjacent metal components are minimized.	X			
	.2633(c)	Each impressed current power source must be installed and maintained in a manner that prevents adverse interference with communication and control systems.	X			
Comment	S:					
		'193.2635 MONITORING CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
	· · · · · · · · · · · · · · · · · · ·		<u> </u>		IN/A	IN/C
	.2635(a)	Each buried or submerged component must be tested at least once each calendar year, with intervals not to exceed 15 months. 20.07.	X			
	.2635(b)	Each cathodic protection rectifier or other impressed current power source must be inspected at least 6 times per year, with intervals not to exceed 2 ½ months. 20.07	X			
	.2635(c)	Each reverse current switch and diode must be checked at least 6 times per year, with intervals not to exceed 2 ½ months. 20.07	X			
.2017		Each interference bond whose failure would jeopardize component protection must be checked at least 6 times per yr, with intervals not to exceed 2 ½ mo.	X			
		All other interference bonds must be checked at least once each calendar year, with intervals not to exceed 15 months. 20.07	X			
	.2635(d)	Each component that is protected from atmospheric corrosion must be inspected at intervals not exceeding 3 years. 20.13.00	X			
	.2635(e)	If corrosion coupons or probes are used to monitor internal corrosion, they must be checked at least twice each calendar year, with intervals not to exceed 7 ½ months. 20.11.03	Х			
Comment	s:				,	
		'193.2637 REMEDIAL MEASURE PROCEDURES	s	U	N/A	N/C
.2017	.2637	Prompt remedial action must be taken whenever corrosion control deficiencies are found. 20.07.00	X			
			1	.1	<del></del>	<u> </u>
					•	
Comment	.5:					

		' 193.2707 OPERATIONS AND MAINTENANCE	S	U	N/A	N/C
.2017	.2707(a)	Operation or maintenance of components must be conducted only by personnel who have demonstrated their capability to perform their assigned functions by-  (1) Successful completed training required by §§193.2713 and 193.2717;  (2) Experience related to the assigned operation or maintenance function; and,  (3) Acceptable performance on a proficiency test relevant to the assigned function. 41.05.050	Х			
	.2707(b)	Personnel not meeting the requirements of paragraph .2707(a) may operate or maintain a component when accompanied and directed by an individual who meets the requirements. 41.05.050	X			
	.2707(c)	Corrosion control including the design, installation, operation, and maintenance of cathodic protection systems, must be carried out by, or under the direction of, a person qualified by experience and training in corrosion control technology.	X			

Comments:	 	<del></del>	 

		'193.2711 PERSONNEL HEALTH	S	ָּע י	N/A	N/C
.2017	.2711	Must have a written plan for evaluating the health and physical condition of personnel assigned operations, maintenance, security, or fire protection duties. 41.05.050	X			

Comments:		

		' 193.2713 TRAINING PROCEDURES: OPERATIONS AND MAINTENANCE	S	U	N/A	N/C
	.2713(a)(1)	New permanent maintenance, operating, and supervisory personnel must receive initial training in the following subjects. The training must be based on a written plan. 41.05.050	Х			
		Characteristics and hazards of LNG and other flammable fluids handled at the plant.				
		• Low boiling point and storage temperature (-260° F).	Х			
	.2713(a)(1)(i)	Flammable limits of natural gas (5% to 15% in air).	X			
		LNG and its vapor are odorless.	Х			
		• LNG boils even more rapidly when spilled onto water or sprayed with water.	Х			
.2017	.2713(a)(1)(ii)	Potential hazards involved in operations and maintenance.	Х			
	.2713(a)(1)(iii)	How to carry out operations and maintenance procedures that relate to their assigned functions.	х			
	.2713(a)(2)	All new personnel must receive initial training in the following subjects:				
	.2713(a)(2)(i)	How to carry out the emergency procedures that relate to their assigned functions (see '193.2509).	x			
	.2713(a)(2)(ii)	How to administer first aid.	X			
	.2713(a)(3)	All operating personnel and appropriate supervisory personnel must receive initial training in the following subjects. The training must be based on a written plan.	х			
	.2713(a)(3)(i)	Detailed instructions on facility operations, including:		·		

	' 193.2713 TRAINING PROCEDURES: OPERATIONS AND MAINTENANCE	s	U	N/A	N/C
	• Controls	X			
	• Functions	Х			
	Operating Procedures	х			
.2713(a)(3)(ii)	LNG transfer procedures (see '193.2513).	х			
.2713(b)	At intervals not to exceed two years, all personnel must receive refresher training in the subjects in which they received initial training. Refresher training must be based on a written plan.	Х			

Comments:			<del></del>	

		'193.2715 TRAINING; SECURITY	S	U	N/A	N/C
	.2715(a)	Personnel responsible for security at an LNG plant must receive initial training in the following subjects. The training must be based on a written plan. 41.05.055	Х			
	.2715(a)(1)	How to recognize breaches of security.	x			
	.2715(a)(2)	How to carry out security procedures that relate to their assigned duties (see '193.2903).	Х			
.2017	.2715(a)(3)	Whatever plant operations and emergency procedures they need to know to effectively perform their assigned duties.	X			
	.2715(a)(4)	How to recognize conditions that call for security assistance.	Х			
	.2715(b)	At intervals not to exceed two years, all personnel must receive refresher training in the subjects in which they received initial training. Refresher training must be based on a written plan.	х			

Comments:	 ·		 <del></del>	

		' 193.2717 TRAINING; FIRE PROTECTION PROCEDURES	S	U	N/A	N/C
	.2717(a)	All operations and maintenance personnel, and their immediate supervisors, must be trained according to a written plan of initial instruction, including plant fire drills, to:	-			
	.2717(a)(1)	Know the potential causes and areas of fires;	Х			
	.2717(a)(2)	Know the types, sizes, and predictable consequences of fire: and	Х			
.2017	.2717(a)(3)	<ul> <li>Know and be able to perform their assigned fire control duties according to the procedures established under '193.2509 and by proper use of equipment provided under '193.2801.</li> </ul>	х			
	.2717(b)	At intervals not to exceed two years, all operations and maintenance personnel, and their immediate supervisors, must receive refresher fire protection training. This training must include fire drills and must be based on a written plan.	х			
	.2717(c)	Plant fire drills must provide personnel hands-on experience in carrying out their duties under the fire emergency procedures required by '193.2509.	Х			

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Co	m	m	en	TS:

Comments:	 . <u> </u>	

		'193.2801 FIRE PROTECTION			10.5	
		Note: For plants existing on March 31, 2000, operators had until September 12, 2005 to bring the LNG facility's ESD system, water delivery systems, detection systems, and personnel qualification and training into compliance with NFPA-59A.	S	U	N/A	N/C
		The operator must conduct a fire protection evaluation.	X			
		(1) The type, quantity, and location of equipment necessary for the detection and control of fires, leaks, and spills of LNG, flammable refrigerants, or flammable gases.	X			
		(2) The type, quantity, and location of equipment necessary for the detection and control of potential electrical fires and fires not involving LNG processes.	X			
		(3) The methods necessary for protection of the equipment and structures from the effects of fire exposure.	X			
		(4) Fire protection water systems.	X			
	NFPA-59A 9.1.2	(5) Fire extinguishing and other fire control equipment.	X	,		
		(6) The equipment and processes to be incorporated within the ESD system, including analysis of subsystems, if any, and the need for depressurizing specific vessels or equipment.	Х			
		(7) The type and location of sensors necessary to initiate automatic operation of the ESD system or its subsystems.	Х			
		(8) The availability and duties of individual plant personnel and what response personnel from outside the plant are available during an emergency.	Х	i 		
		(9) The protective equipment, special training, and qualification needed by individual plant personnel for his or her respective emergency duties.	X			
.2017	NFPA-59A 9.2.1	LNG Facility shall incorporate an ESD system(s) that when operated isolates or shuts off sources of LNG and all other flammable liquids or gases, and shuts down equipment that adds or sustains an emergency if continued to operate.	Х			
	NFPA-59A 9.2.2	Equipment, that when shutdown, introduces an additional hazard or result in substantial mechanical damage to equipment, may be omitted from the ESD system as long as the effects of the continued release of flammable or combustible fluids are controlled.	х			
	NFPA-59A 9.2.3	The ESD system(s) shall be of a failsafe design or shall be installed, located, or protected from becoming inoperative during an emergency or failure at the normal control system. ESD systems that are not of a failsafe design, all components that are located within 50 'ft (15 m) of the equipment it controls shall be:  (1) Installed or located where they cannot be exposed to a fire, or  (2) Protected against failure due to a fire exposure for at least 10 minutes'.	x			
	NFPA-59A 9.2.4	Operating instructions identifying the location and operation of emergency controls must be posted conspicuously in the facility area.	Х			
	NFPA-59A 9.2.5	Initiation of the ESD system(s) shall be manual, automatic, or both manual and automatic. Manual actuators shall be located in an area accessible in an emergency, and at least 50 ft (15 m) from the equipment they serve, and shall be distinctly marked with their designated function.	X			
	NFPA-59A 9.3.1	Areas, including enclosed buildings, that have a potential for flammable gas concentration, LNG, or flammable refrigerant spills and fire must be monitored for the presence of gas or spilled liquid.	Х			
	NFPA-59A 9.3.2	Flammable gas detectors must activate visual and audible alarms at the plant site and at an attended location if the facility is not constantly attended.	х			
	NFPA-59A 9.3.2	The low-temperature sensors or flammable gas detection system shall sound an alarm at a constantly attended location. Flammable gas detection system must be set no higher than 25% of the LFL of the gas being monitored.	Х			

	'193.2801 FIRE PROTECTION  Note: For plants existing on March 31, 2000, operators had until September 12, 2005 to bring the LNG facility's ESD system, water delivery systems, detection systems, and personnel qualification and training into compliance with NFPA-59A.	S	U	N/A	N/C
NFPA-59A 9.3.3	Fire detectors must sound an alarm at the plant site and at an attended location if the facility is not constantly attended. If so determined IAW 9.1.2 fire detectors shall activate portions of the ESD system.	х			
NFPA-59A 9.3.4	Any changes to the detection systems as the result of the NFPA-59A 9.1.2 survey shall be designed, installed, and maintained IAW NFPA-72 or NFPA-1221.	X			
NFPA-59A 9.4.1	A fire water supply and delivery system must be provided, unless the fire protection evaluation (9-1.2) indicates that fire water is unnecessary or impractical.	X			
NFPA-59A 9.4.2	The fire water supply and distribution systems shall provide for the simultaneous supply of fixed fire protection systems, at their design flow and pressure, plus 1000 gpm (63 L/sec) for not less than 2 hours.	X			
NFPA-59A 9.5.1	Portable or wheeled fire extinguishers, recommended for gas fires, available at strategic locations.	X			
NFPA-59A 9.5.2	If automotive and trailer-mounted fire apparatus is provided at the plant it shall not be used for any other purpose.	X			
NFPA-59A 9.5.3	All automotive vehicles assigned to the plant shall have a minimum of one portable dry chemical extinguisher with a capacity of at least 18 lb (8.2 kg).	X			
NFPA-59A 9.7.1	Protective clothing shall be available and readily accessible at the facility to provide protection against exposure to LNG (including cryogenic gloves, safety glasses, face shields, and coveralls or long-sleeve shirts).	Х			
NFPA-59A 9.7.2	Each facility worker who might be endangered by exposure to fire or smoke while performing fire control duties must be supplied with appropriate protective clothing and equipment (including SCBA, if necessary).	X			
NFPA-59A 9.7.3	Operator shall have written practices and procedures to protect employees from the hazards if required to enter a confined or hazardous space.	X			
NFPA-59A 9.7.4	At least three portable flammable gas detectors must be readily available for use.	X			
NFPA-59A 9.9.1	Procedures to manually depressurize portions of the plant, as necessary for safety. Isolate portions of the plant from storage tanks or other LNG sources by venting LNG to the atmosphere in case of an emergency. (The direction of discharge shall minimize exposure to personnel or equipment.)	х			
NFPA-59A 9.9.2	Detailed procedures for taking an LNG container out of service. This action shall not be regarded as a normal operation and not attempted on a routine basis.	X			

Comments:		

		'193.2903 SECURITY PROCEDURES	S	U	N/A	N/C
	.2903	Written security procedures must be available at the plant. The procedures must discuss topics (a) through (g). 41.05.055	Х			
	.2903(a)	Description and schedule of security inspections and patrols.	X			
	.2903(b)	A list of security personnel positions or responsibilities.	Х			
.2017	.2903(c)	Brief description of the security duties of <b>security</b> personnel.	X			
	.2903(d)	Description of actions to be taken when there is an indication of an actual or attempted breach of security.	Х			
	.2903(e)	Method(s) for determining which persons are allowed access to the LNG plant.	X			
	.2903(f)	Positive identification of all persons who enter the plant or are in the plant area, using a method at least as effective as picture badges.	Х			

		'193.2903 SECURITY PROCEDURES	S	U	N/A	N/C
	.2903(g)	Liaison with local law enforcement officials to keep them informed about current security procedures.	Х			
Comment	ts:					<del></del>
Commen						
<u> </u>						T
		' 193.2907 PROTECTIVE ENCLOSURE CONSTRUCTION PROCEDURES	S	U	N/A	N/C
.2017	Each protective enclosure must have a combination of strength and configuration that is sufficient to obstruct unauthorized access to the enclosed facilities.					
12017	.2907(b)	Openings in or under the enclosure must be secured by grates, doors, or covers that provide at least the same level of protection as the enclosure.	Х			
Comment	ts:					
-			<u> </u>		T	,
		'193.2909 SECURITY COMMUNICATIONS PROCEDURES	S	U	N/A	N/C
.2017	.2909(a)	There must be a means for prompt communications between personnel with supervisory security duties and law enforcement personnel.	X			
.2017	.2909(b)	There must be a means for communications between all on-duty personnel who have security duties and all control rooms/control stations.	X			
Commen						
Commen	15.					
				······································		
		'193.2911 SECURITY LIGHTING PROCEDURES	S	U	N/A	N/C
.2017	.2911	If security warning systems are not provided for security monitoring, security lighting must be provided for protective enclosures and the areas they enclose (minimum of 2.2 lux from sunset to sunrise). 41.05.055	X			
Comment	te•					
Comment	13.					
<u> </u>						
		' 193.2913 SECURITY MONITORING PROCEDURES	S	U.	N/A	N/C

		'193.2913 SECURITY MONITORING PROCEDURES	S	U	N/A	N/C
.2017 .29		If 250,000 bbls or more of storage capacity:  • each protective enclosure and the area around each facility listed in §193.2905(a) must be monitored for the presence of unauthorized persons.  • monitoring must be by visual observation in accordance with the schedule in the security procedures under §193.2903(a) or by security warning systems that continuously transmit data to an attended location.	Х			
	If less than 250,000 bbls of storage capacity: • only the protective enclosures need to be monitored.					
Comment	ts:					
						·
		' 193.2915 ALTERNATIVE POWER SOURCE PROCEDURES	S	U	N/A	N/C
.2017	.29	An alternative source of power that meets '193.2445 must be provided for security lighting and for security monitoring and warning systems. 41.05.055	X			
Comment	ts:					
- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		L102 2017, WARNING SIGN PROCEDURES			T DY/A	- NG
		' 193.2917 WARNING SIGN PROCEDURES  Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously.	S	U	N/A	N/C
.2017	.291	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.	S X	U	N/A	N/C
.2017	.291	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.  The signs must be marked with the words "NO TRESPASSING", or words of		U	N/A	N/C
.2017	.291	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.  The signs must be marked with the words "NO TRESPASSING", or words of	X	U	N/A	N/C
	.291	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.  The signs must be marked with the words "NO TRESPASSING", or words of	X	U	N/A	
	.291'	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.  The signs must be marked with the words "NO TRESPASSING", or words of comparable meaning, on a background of sharply contrasting color.	X			
Comment	.291'	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.  The signs must be marked with the words "NO TRESPASSING", or words of comparable meaning, on a background of sharply contrasting color.  PART 199 – DRUG and ALCOHOL TESTING REGULATIONS and PROCEDURES  Drug & Alcohol Testing & Alcohol Misuse Prevention Program – Use PHMSA Form # 13,	X			
Comment	.291'	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.  The signs must be marked with the words "NO TRESPASSING", or words of comparable meaning, on a background of sharply contrasting color.  PART 199 – DRUG and ALCOHOL TESTING REGULATIONS and PROCEDURES  Drug & Alcohol Testing & Alcohol Misuse Prevention Program – Use PHMSA Form # 13, PHMSA 2008 Drug and Alcohol Program Check	X			N/C
Comment	.291'	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.  The signs must be marked with the words "NO TRESPASSING", or words of comparable meaning, on a background of sharply contrasting color.  PART 199 – DRUG and ALCOHOL TESTING REGULATIONS and PROCEDURES  Drug & Alcohol Testing & Alcohol Misuse Prevention Program – Use PHMSA Form # 13, PHMSA 2008 Drug and Alcohol Program Check  RECORDS  '191.5 and '191.25 RECORDS	x x	U	N/A	N/C

	' 193.2521 OPERATING RECORDS (5-year minimum retention)	S	U	N/A	N/C
.2017(c)(2)	Review and update the plans and procedures at intervals not exceeding 27 months, but at least once every 2 calendar years.	X			
.2503(c)	Investigation of Abnormal Operating Conditions. No abnormal operating conditions since last inspection.			Х	
.2503(e)	Vaporization Records. CR	X			
.2503(f)	Liquefaction Records. CR	X			
.2505(b)	Cooldown Records. CR	X			
.2507	Records associated with Monitoring Operations. CR	Х			
.2509(b)(3&4)	Public Liaison with Fire, Police, emergency responders, and local officials. 11/08, 1/10 and 11/10	X			
.2513	Records associated with transferring LNG or other hazardous fluids.	X			
.2515	Investigation of Failures. No failures since last inspection.			Х	

	' 193.2639(a) MAINTENANCE RECORDS (5-year minimum retention)	S	U	N/A	N/C
.2603(c & d)	Components taken out of service. CR	Х			
.2609	Support systems (foundations and pipe rack supports).	Х			
.2611(a)	Maintenance activities scheduled on fire control equipment so a minimum of equipment is out of service at one time. Equipment is returned to service in a reasonable period of time. CR	Х			
	Auxiliary power sources.			.*	
.2613	Operational tests (starting, fuel supply, etc.) (monthly).	Х			
	Capacity tests (under load) (annually).	Х			
.2617	Repairs. BOTH CR AND OFFICE	Х			
.2619(b)	Control systems out of service for 30 days or more must be inspected and tested for operational capability before returning to service.  Note: 2011 system was being reconstructed so the annual tests were done in August instead of March.	X			
.2619(c)	Automatic shutdown devices (once per year; not to exceed 15 months).	Х			
.2619(c)(1)	Seasonal control systems (liquefaction/vaporization) (prior to use).	X			
.2619(c)(2)	Fire protection control systems (not to exceed 6 months). Quarterly on Gas detectors	X			
.2619(d)	Control systems normally in use (once per year; not to exceed 15 months).  Note: 2011 system was being reconstructed so the annual tests were done in August instead of March.	X			
.2619(e)	Relief valves (once per year; not to exceed 15 months).	Х			
.2605(b)	Any applicable components not listed in the line items above (such as ESD system, gas and low temperature detectors, fire protection water systems, and fire extinguishers) inspections/tests per operator's maintenance manual.	X			

Comments:			

	' 193.2639(a) MAINTENANCE RECORDS - CONTROL SYSTEMS - (5-year minimum retention)	S	U	N/A	N/C
.2621	Transfer hose inspection records (once per year; not to exceed 15 months).	X			
	LNG storage tank inspection records.				•
	Foundation and tank movement.	Х			
.2623	Inner tank leakage.	X			
	Effectiveness of insulation.	X			
	• Frost heave.	X			
	' 193.2639(b) MAINTENANCE RECORDS - CORROSION CONTROL - (retain for life of facility)	S	U	N/A	N/C
.2635(a)	Cathodic protection records (once per year; not to exceed 15 months).	X			
.2635(b)	Rectifier inspection records (6 per year; not to exceed 2 ½ months).	Х			
.2635(c)	Critical interference bonds (6 per year; not to exceed 2 ½ months); noncritical interference bonds (15 months). No critical interference bonds.			Х	
.2635(d)	Atmospheric corrosion records (once every 3 years). March 2006 to March 2009	X		İ	
.2635(e)	Internal corrosion monitoring records (twice per year; not to exceed 7 ½ months). No internal corrosion monitoring.			Х	
.2639(c)	Records or maps showing CP components, and structures bonded to the pipeline. (Maintained for the life of the pipeline.)	X			
	'193.2711 PERSONNEL HEALTH	S	U	N/A	N/C
.2711	(Retain for duration of employment, or per requirements of operator's health plan.)  Personnel health records.	X			
.2/11	r croomer near records.	Λ.			1
Comments:		-			
Comments:	' 193.2713 / .2715 / .2717 INITIAL and FOLLOW-UP TRAINING (retain for duration of employment, plus one year)	S	u, u	N/A	N/C
omments:		S	, <b>U</b>	N/A	N/C
	(retain for duration of employment, plus one year)	S	\(\frac{1}{2}\),\(\begin{picture}(1,0) & \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	N/A	N/C
.2713(a)	(retain for duration of employment, plus one year)  Initial training - operations and maintenance.		, <b>U</b>	N/A	N/C

	' 193.2713 / .2715 / .2717 INITIAL and FOLLOW-UP TRAINING (retain for duration of employment, plus one year)	s	U	N/A	N/C
	Facility operations, controls, functions.	X			
	• LNG transfer operations.	Х			
.2713(b)	Follow-up operations and maintenance training (every 2 years).	х			
	Initial training - security.				
2515( )	Recognize breaches of security.	Х			
.2715(a)	Carry out security procedures related to assigned function.	Х			
	Recognize conditions where security assistance is needed.	Х			
.2715(b)	Follow-up security training (every 2 years).	Х			
	All plant maintenance and operations personnel including immediate supervisors, must be trained according to a written plan of initial instruction, including plant fire drills, to:				
2717(-)	<ul> <li>Know the potential causes and areas of fire;</li> </ul>	X			
.2717(a)	Know the types, sizes, and predictable consequences of fire; and	X			
	<ul> <li>Know and be able to perform their assigned fire control duties and proper use of equipment.</li> </ul>	х			
.2717(b)	Follow-up fire protection training, including plant fire drills, (every 2 years).	Х			
.2717(c)	Plant fire drills must provide personnel hands-on experience in carrying out their duties under the fire emergency procedures.	х			

Comments:		

	FIELD REVIEW	S	U	N/A	N/C
.2441	Control Center	X			
.2511(c)	First aid material.	X			
.2519(a)	Verbal communication system for all operating personnel.	X			
.2519(b)	Verbal emergency communication system (if >70,000 gal).	X			
.2519(c)	Backup power supply for communication systems.	X			
.2607(a)	Excessive external icing.	X			
.2607(b)	LNG plant grounds maintenance and upkeep (grass, trash, Y etc.).	X			
.2609	Support systems (foundations, pipe rack supports, etc.).	X			
.2611(b)	Access routes for fire control equipment kept clear of snow, etc.	X			
.2613	Auxiliary power supply.	X			
.2619(a)	Control systems calibrated to operate within design limits.	X			
.2621(b)	Transfer hose(s).	X			

	FIELD REVIEW	S	U	N/A	N/C
.2623	Storage tanks.	Х			
.2627	Atmospheric corrosion.	х			
.2635	Cathodic protection (CP levels). Williams was depolarizing the system to get native potentials.  All rectifiers were off and reads were down.			Х	
NFPA-59A 9.2.3	ESD System initiation devices and ESD Station locations.	X			
NFPA-59A 9.2.4	Operating instructions identifying the location and operation of emergency controls shall be posted conspicuously in the facility area.	х			
NFPA-59A 9.3.1	Monitor enclosed buildings that have a potential for flammable refrigerant spills and fire.	X			
NFPA-59A 9.3.2	Continuously monitored low-temperature sensors to sound an alarm or flammable gas detection system (to activate at not more than 25% LFL) to activate an audible and visual alarm.	х			
NFPA-59A 9.3.3/4	Fire detection system.	X			
NFPA-59A 9.4	Fire protection water system.	X			
NFPA-59A 9.5.1	Portable fire extinguishers	X			
NFPA-59A 9.5.3	Fire extinguisher (at least 18 lb. (8.2 kg) on each automotive vehicle assigned to the plant).	Х			
NFPA-59A 9.7.1	Protective clothing, equipment (including cryogenic gloves, safety glasses, face shields, and coveralls or long-sleeve shirts).	Х			
NFPA-59A 9.7.4	Portable gas detectors available (a least 3).	Х			
.2905	Protective enclosures.	Х			
.2911	Lighting.	X			
.2915	Alternative power sources.	X			
.2917	Warning signs along fence or boundary, visible at 100 ft. at night.	Х			

Comments:		

# PHMSA Pipeline Drug & Alcohol Questions

## **Instructions**

- 1. Use in conjunction with Unit inspections
- 2. Interview the primary operator contact for the Unit inspection you are conducting and enter their responses. Do not request the operator substance abuse expert to provide responses to these questions.
- 3. Send completed form to <a href="mailto:stanley.kastanas@dot.gov">stanley.kastanas@dot.gov</a>

Name of Opera	tor Northwest Pipeline	Corp (WGP)	Op ID#	13845
Inspec	tor Scott Rukke (WUTC	Scott Rukke (WUTC)		1155
Date of Inspect	on 11/15/2011			
Inspection Location City & St	ate Plymouth, WA	Boyd Schow		
Operator Employee Interview	ed Boyd Schow			(801) 584-6741
Position/T	tle   Compliance Engi			
Operator Designated Employer Representative (DER), (a.k.a. Substance Abuse Program Manager)		Merle Bowler		
<b>DER Phone #</b> 713-215-2422				

§199		Pipeline Safety Regulations Drug and Alcohol Testing	Yes	No	Does Not Know
.3, .101 .201, .245	1.	Does the company have a plan for drug and alcohol testing of employees and contractors performing, or ready to perform, covered functions of operations, maintenance, and emergency response?	X		
Comments	İ				
.3 .105(c) .225(b)	2.	Does the company perform random drug testing and reasonable suspicion drug and alcohol testing of employees performing covered functions? For random drug testing, enter the number of times per year employees are selected and the number of employees in each selection in Comments below.	X		
Comments			•	•	
.3 .105(b)	3.	Does the company conduct post-accident/incident drug and alcohol testing for employees who have caused or contributed to the consequences of an accident/incident? Enter the position/title of the employee who would make the decision to conduct post-accident/incident testing in Comments below.	X		
Comments					
.113(c) .117(a)(4) .227(b)(2) .241	4.	Does the company provide training for supervisors on the detection of potential drug abuse (minimum 60 minutes) and alcohol misuse (minimum 60 minutes)?	X		
Comments				•	
.3 .113(b) .117(a)(4) .239(b)(11)	5.	Does the company give covered employees an explanation of the drug & alcohol policies and distribute information about the Employee Assistance Program, including a hotline number? Provide details in Comments below.	X		
Comments				•	