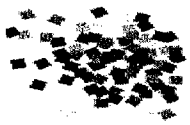

Marina Woodard/WUTC
12/28/2004 02:07 PM

To thomas.finch@rspa.dot.gov
cc David Lykken/WUTC@WUTC, Lindsay Marquez/WUTC@WUTC, Alan Rathbun/WUTC@WUTC, Sondra Walsh/WUTC@WUTC, Al Jones/WUTC@WUTC
bcc
Subject (Peer Review) St. of WA - Williams Gas Pipeline-West (Plymouth LNG)
WUTC Docket No. PG-041895

Hello Tom:

Please find attached the following documents for your review of the Williams Gas Pipeline-West (Plymouth LNG Peak Shaving Plant) Inspection (WUTC Docket No. PG-041895)) conducted by WUTC inspector Al Jones. There were no violations of federal pipeline safety regulations during the inspection. See attached documents for additional information.

- IOCS
- Standard Inspection Repiort of an LNG Facility


IOCS .doc

Form 4 - Standard_Lng_Insp 5-18-04.doc

Please do not hesitate to contact me or Lindsay if you have any questions or need additional information. Thanks!

Marina Woodard
WA Utilities & Transportation Commission
Pipeline Safety Division
Tel: 360.664.1305
Fax: 360.586.1172
e-mail: mwoodard@wutc.wa.gov

RMS

Operator Information Needed for IOCS Database

Date of Inspection: Start Date 11/15/2004 End Date 11/18/2004

Number of Inspection Days: 4 **Name of Inspector(s):** Al Jones, WUTC Staff

Activity Type: I01
Activity Types: I01 Unit Inspection, I02 Construction Inspection, I03 Failure Investigation, I04 Public Complaint Investigation, I05 Specialized Inspection (See Guidance Attached).

Operator ID: 3845
Operator Name: Williams Gas Pipeline-West
Unit ID: 1155
Unit Name: Plymouth LNG Peak Shaving Plant
Unit Address: PO Box 330
City: Plymouth **State:** WA **Zip Code:** 99346

Line Segment(s) Inspected: N/A

Contact Name: Larry Olson
Contact Title: Compliance Officer
Contact Phone: (801) 584-6117 **Contact Fax:** (801) 584-6768

Comments: There did not appear to be probable violations as a result of the LNG inspection. The Plymouth District has recently acquired the maintenance responsibility for the pipelines from Plymouth to Goldendale and the Oregon lateral to Walla Walla, Washington. Future inspections should include the transmission pipeline in the normal inspection cycle.

Probable Violations: YES_____ NO__**X**_____

If Probable Violations were found provide the following information regarding the compliance correspondence to be sent:

Name of Company Executive:_____
Executive Title: _____
Executive Address: _____
_____
City: _____ **State:** _____ **Zip Code:**_____
Executive Phone:_____ **Executive Fax:**_____

Revised June 14, 2001 - RZB

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.** Refer to the last page of this form for **PIM** example entries.

Inspection Report		Post Inspection Memorandum	
Inspector/Submit Date:	Al Jones 12/28/2004	**Senior Engineer Review/Date:**	David Lykken 12/28/2004
		Peer Review/Date:	Tom Finch
		Director Approval/Date:	Chris Hoidal

POST INSPECTION MEMORANDUM (PIM)			
Name of Operator:	Williams Gas Pipeline West	**OPID #:**	3845
Name of Unit(s):	Plymouth Liquified Natural Gas (LNG) Plant	**Unit # (s):**	1155
Records Location:	Plymouth, Washington		
Unit Type & Commodity:	Natural Gas Peak Shaving LNG Storage Facility		
Inspection Type:	Standard	**Inspection Date(s):**	11/ 15–18 /2004
OPS Representative(s):	Al Jones WUTC	**AFO Days:**	4

Summary:

The Plymouth LNG facility is located approximately 45 minutes southwest of Pasco, Washington, west of Interstate Highway 395, south of Highway 82 and approximately two miles west of the Town of Plymouth, WA. The LNG facility consists of two storage tanks with a capacity of approximately 14,616,000 gallons each and approximately 90 feet in height. The tanks were commissioned in 1975 and 1979. The LNG is manufactured and stored during the summer months and the tanks are topped off in late fall. The liquefaction process takes place in one of two integrated cascade loop process with a capacity of 6 MMCFD, each. During storage, the LNG boil-off gas vapors are collected, compressed, and injected into the transmission pipeline. When the demand for natural gas is the greatest the LNG can be vaporized, called peak shaving, and injected into the pipeline from one or more of four vaporizers at the rate of 75 MMCFD, each.

The on-site inspection included a review of the Operations and Maintenance (O&M) Manual (LNG Section 41) and records of plant maintenance. The following areas were visually inspected including: perimeter fencing, LNG tank foundation ring walls, tank shell, supports for aboveground LNG piping, exposed piping, ventilation fans, auxiliary power supply, aboveground fuel and refrigerant storage containers, first air kits, lock-out tag-out storage cabinet, personnel fire protection clothing, fire fighting equipment including foam generators, control nozzles, storage building, and foam tanks, and signs for emergency numbers, public notice, and "non" smoking warnings were observed.

The SCADA system was recently upgraded with new instrumentation. The fire detectors in the LNG compressor buildings, refrigerant, and propane storage areas were tested with an ultraviolet light source. The following fire detectors were tested and monitored in the control room for activation: F-1, F-2, F-7, F-8, and F-21. All detectors operated and locked out as designed. The gas detectors were tested in the LNG compressor building and monitored in the control room for activation at: G-12, G-25, and G-60. Each test alarmed visually, audibly, activated the ventilation fans, and ESD the plant.

On July 24, 2004, the cathodic protection (CP) test readings were changed from the 100-mvDC "shift" criteria to the 850-mvDC "on" criteria. The CP was field checked at: block valve #110 with a C/P= –1.344 vDC, 1-inch diameter drain line (CP Sta. #101) with a C/P= -1.497 vDC, and the 26-inch diameter pipeline to Goldendale (C/P Sta. #68) with a CD/P= -1.35 vDC. All the CP values exceeded the minimum criterion.

The purpose of the backup power supply is to maintain the plant's lighting, ventilation systems, and other essential systems. During a power interruption the backup power supplies would not likely be used to start the vaporization unit because of the large power demands and the intermittent use as a peak shaving facility. During normal operation the local PUD is aware of the large power demand and provides addition generation when the variable speed motor comes on line.

The foundation walls at the LNG storage tanks are monitored for settlement. Consolidation of the subsoil is to be expected over time. Survey data is available to review the differential settlement with respect to the previous survey. The historical data may be reviewed by engineering to show the elevation versus time to identify the total differential and the rate of settlement at each data point on the circumference of the foundation ring wall.

Persons Interviewed:
Von Studor - District Manager
Larry Olson - Compliance, Williams Gas Compliance
Douglas Kluender – Sr. Technical Specialist
Lance Hobbs – Sr. Engineer
Rick Altergott – Sr. Control Technician V
Mike Yunker – Operation Technician V
Dave Otnes – Operation Technician V

Comments:
The 2004 field inspection was comprehensive including inspection of the two LNG storage tanks.
The Plymouth District has recently acquired the maintenance responsibilities of the pipelines from Plymouth to Goldendale and the Oregon lateral to Walla Walla, Washington.

Recommendations:
Continue to inspect the LNG facility on a normal inspection cycle. Include the newly acquired transmission pipeline from Plymouth to Goldendale and the Oregon lateral to Walla Walla in annual or semi annual inspections. During the 2005 inspection, review foundation data analysis and annual auxiliary power source capacity test data.

Findings:
During the inspection, no new items of concern or non-compliance were identified. The emergency notification sign at the front gate was missing and a new sign was installed during the inspection.

Attachments:
IOCS Form.
Standard Inspection Report for an LNG Facility.

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Name of Operator: Williams Gas Pipeline West	
H.Q. Address: 295 Chipeta Way Salt Lake City, UT 84108	**System/Unit Name and Address:** Plymouth Liquified Natural Gas Plant PO Box 330 Plymouth, WA 99346
Co. Official: Randy Bernard, VP Operations **Phone No.:** (801) 584-6786 **Fax No.:** (801) 584-7919 **Emergency Phone No.:** (800) 453-3810	**Activity Record ID#:** **Phone No.:** (509) 783-2421 **Fax No.:** (509) 783-4717 **Emergency Phone No.:** (800) 453-3810

Persons Interviewed	Titles	Phone No.
Von Studer	District Manager	(509) 783-2421
Larry Olson	Compliance, Williams Gas Pipeline	(801) 548-6117
Douglas Kluender	Sr. Technical Specialist	
Lance Hobbs	Technical Specialist	
Rick Altergott	Sr. Control Technical V	
Mike Yunker	Operation Technical V	
Dave Otnes	Operation Technical V	

OPS Representative(s): Al Jones, WUTC **Date(s):** November 15-18, 2004

Company System Maps (copies for Region Files):

Type of facility: **Base Load** ____ **Satellite** ____ **Peak Shaving** X **Mobile/Temporary** ____

Note: Some mobile and temporary LNG facilities must meet the requirements of Section 2.3.4 of NFPA 59A (2001 edition) in lieu of the requirements of Part 193 per 193.2019.

Year Facility Was Placed In Operation:	LNG Tank #1 in 1975 and Tank #2 in 1979
Liquefaction Rate, MMCFD:	Two unites at 6 MMCFD
Type Of Liquefaction Cycle:	Integrated Cascade Loop (MRL)
Number of Vaporizers & Capacities:	Four Vaporizer Units at 75 MMCFD
Storage Tank Statistics:	Two Storage Tanks at 348,000 bbl (1.2 BCF) each.
- (Fabricator, Volumes, Materials, etc).:	Inner tanks are manufactured using nickel alloy for Tank #1 and aluminum alloy for Tank #2. No cathodic protection system for the tank bottoms because the tanks are insulated.

Comments:

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

PROCEDURES

		§193.2011 REPORTING PROCEDURES	S	U	N/A	N/C
.2017	191.5 / 191.3	Incident reporting.				
		▪ Telephonically reporting incidents to NRC (800) 424-8802.	S			
		▪ Event that involves a release of gas or liquefied gas from an LNG facility and a death or personal injury requiring hospitalization or property damage (includes cost of lost gas) of $50,000 or more.	S			
		▪ Event that involves an emergency shutdown.	S			
		▪ Significant event (operator's judgment).	S			
	191.25(a)	Filing safety-related condition reports.	S			
		▪ Within five (5) working days of determination.	S			
		▪ Within ten (10) working days of discovery.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2017	S	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 in changed significantly or a new component is installed; and (2) at intervals not exceeding 27 months, but at least once every 2 calendar years.	S			

Comments: ***(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):***

		§193.2503 NORMAL OPERATING PROCEDURES	S	U	N/A	N/C
.2017	.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).	S			
	.2503(b)	Startup and shutdown, including initial startup and performance testing to demonstrate that components will operate satisfactorily in service.	S			
	.2503(c)	Recognizing abnormal operating conditions.	S			
	.2503(d)	Purging and inerting - procedure must meet the provisions of AGA *Purging Principles and Practices* after being taken out of service and before being returned to service (see §193.2517).	S			

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

		§193.2503 NORMAL OPERATING PROCEDURES (con't.)	S	U	N/A	N/C
	.2503(e)	Maintaining the operation of vaporizers within design limits. (with regard to vaporization rate, temperatures, and pressures).	S			
	.2503(f)	Maintaining the operation of liquefaction units within design limits. (with regard to temperatures, pressures, diff. pressures, and flow rates).	S			
	.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).	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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.	S			
	.2509(b)	Written emergency procedures that cover topics (b)(1) through (b)(4) must be provided.				
	.2509(b)(1)	Responding to controllable emergencies including personnel notification and use of appropriate equipment.	S			
	.2509(b)(2)	Recognizing and acting on uncontrollable emergencies.	S			
	.2509(b)(3)	Coordinating evacuation plans with local authorities including catastrophic LNG tank failure.	S			
	.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.	S			
	.2509(b)(4)(ii)	Potential hazards at the plant, including fires.	S			
	.2509(b)(4)(iii)	Communication and emergency control capabilities at the plant.	S			
	.2509(b)(4)(iv)	The status of each emergency.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2511 PERSONNEL SAFETY PROCEDURES	S	U	N/A	N/C
.2017	.2511(a)	Appropriate protective clothing and equipment must be provided for personnel who are performing emergency response duties.	S			
	.2511(b)	Personnel at fixed locations must either be protected from the heat of fires or have a means of escape.	S			
	.2511(c)	First aid materials must be available at a clearly marked location.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

		§193.2513 TRANSFER PROCEDURES	S	U	N/A	N/C
.2017	.2513(a)	Written procedures for transferring LNG and other hazardous fluids must be provided.	S			
	.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).	S			
	.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.	S			
	.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.	S			
	.2513(b)(4)	When transferring LNG into a partially filled vessel, take whatever steps are necessary to prevent stratification.	S			
	.2513(b)(5)	During transfer, keep an eye on transfer rates, liquid levels, and vapor returns in order to prevent overfilling or overpressuring.	S			
	.2513(b)(6)	Manually terminate flow before overfilling or overpressuring occurs.	S			
	.2513(b)(7)	After transfer, deactivate the cargo transfer system in a safe manner (depressuring, venting, disconnecting, etc.).	S			
	.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.	S			
	.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.	S			
	.2513(c)(3)	Before transfer, verify (c)(3)(i) through (c)(3)(iv).				
	.2513(c)(3)(i)	Tank cars and tank trucks comply with applicable regulations.	S			
	.2513(c)(3)(ii)	All transfer hoses have been visually inspected for damage and defects.	S			
	.2513(c)(3)(iii)	Tank truck is electrically grounded and the wheels are chocked.	S			
	.2513(c)(3)(iv)	Tank truck engine is off, unless it is needed for the transfer.	S			
	.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.	S			
	.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.	S			
	.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.	S			
	.2513(c)(7)	Verify that transfers into a pipeline system will not exceed the pressure or temperature limits of the pipeline.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2515 INVESTIGATION OF FAILURE PROCEDURES	S	U	N/A	N/C
.2017	.2515	Each operator shall investigate the cause of each explosion, fire, or LNG spill or leak which results in:				
	.2515(a)	(1) death or an injury that requires hospitalization, or (2) property damage in excess of $10,000.	S			

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

		§193.2515 INVESTIGATION OF FAILURE PROCEDURES (con't.)	S	U	N/A	N/C
.2017	.2515(b)	After an investigation, appropriate action must be taken to minimize a recurrence.	S			
	.2515(c)	Operator must cooperate during post-accident investigations and should maintain the scene in its post-accident state (to the extent practical).	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2519 COMMUNICATION SYSTEM PROCEDURES	S	U	N/A	N/C
.2017	.2519(a)	Primary communications system (verbal) for all employees and their assigned work stations.	S			
	.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.	S			
	.2519(c)	Each communication system must have a backup power supply.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2521 OPERATING RECORD PROCEDURES	S	U	N/A	N/C
.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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2605 MAINTENANCE PROCEDURES	S	U	N/A	N/C
.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.	S			
	.2605(b)	Written procedures for maintenance and corrosion control (if applicable) of each component must be provided. These procedures must include the information called for in (b)(1) and (b)(2).				
	.2605(b)(1)	Details of the inspections and tests (§193.2605(a)) and their frequencies.	S			
	.2605(b)(2)	Descriptions of other actions necessary to maintain the plant in accordance with the requirements of Subpart G.	S			
	.2605(c)	The maintenance manual must include instructions on how to recognize safety-related conditions that would need to be reported (191.23).	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

		§193.2609 SUPPORT SYSTEM PROCEDURES	S	U	N/A	N/C
.2017	.2609	Foundations and support systems (e.g., pipe rack supports) must be inspected for changes that could impair their support.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2611 FIRE PROTECTION PROCEDURES	S	U	N/A	N/C
.2017	.2611(a)	The maintenance schedule for fire control equipment must minimize the amount of equipment that is out of service at any one time.	S			
	.2611(b)	Maintain access routes for movement of fire control equipment within the plant to reasonably provide for use in all weather conditions.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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.	S			
	.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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2617 REPAIR PROCEDURES	S	U	N/A	N/C
.2017	.2617(b)	The maintenance procedures must include precautions to be taken when repairing a component while it is operating.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

		§193.2619 CONTROL SYSTEM PROCEDURES	S	U	N/A	N/C
.2017	.2619(a)	Each control system must be properly adjusted to operate within design limits.	S			
	.2619(b)	If a control system is out of service for 30 days or more, it must be inspected and tested for operational capability before returning it to service.	S			
	.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.	S			
	.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.	S			
	.2619(e)	Relief valves must be inspected and tested for verification of the valve seat lifting pressure and reseating.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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.	S			
	.2621(b)	Hoses used for transferring LNG or flammable refrigerant must be inspected for damage or defect before each use.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2623 INSPECTING LNG STORAGE TANKS	S	U	N/A	N/C
.2017	.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.	S			
	.2623(b)	Inner tank leakage.	S			
	.2623(c)	Effectiveness of insulation.	S			
	.2623(d)	Frost heave	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

		§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.	S			
	.2625(b)	Components identified in §193.2625(a) must either be (1) protected from corrosion, or (2) inspected and replaced on a regular basis.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2627 ATMOSPHERIC CORROSION PROCEDURES	S	U	N/A	N/C
.2017	.2627	Components subject to atmospheric corrosion must either be;				
	.2627(a)	▪ made of a material that resists such corrosion, or	S			
	.2627(b)	▪ be protected by a suitable coating or jacketing.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

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

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2631 INTERNAL CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
.2017	.2631	Components subject to internal corrosion must either be:				
	.2631(a)	▪ made of a material that resists such corrosion, or	S			
	.2631(b)	▪ protected by a suitable coating, inhibitor, or other means (includes electric heating elements within conduits are used beneath LNG tanks).	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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For any item marked U, N/A, or N/C, there must be a note indicating why.

		§193.2633 INTERFERENCE CURRENT PROCEDURES	S	U	N/A	N/C
.2017	.2633(a)	Components subject to electrical current interference must be protected by a continuing program to minimize the detrimental effects of such currents.	S			
	.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.	S			
	.2633(c)	Each impressed current power source must be installed and maintained in a manner that prevents adverse interference with communication and control systems.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2635 MONITORING CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
.2017	.2635(a)	Each buried or submerged component must be tested at least once each calendar year, with intervals not to exceed 15 months.	S			
	.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 2½ months.	S			
.2017	.2635(c)	Each reverse current switch and diode must be checked at least 6 times per year, with intervals not to exceed 2½ months.	S			
		Each interference bond whose failure would jeopardize component protection must be checked at least 6 times per yr, with intervals not to exceed 2½ mo.	S			
		All other interference bonds must be checked at least once each calendar year, with intervals not to exceed 15 months.	S			
	.2635(d)	Each component that is protected from atmospheric corrosion must be inspected at intervals not exceeding 3 years.	S			
	.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 7½ months.			N/A	

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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.	S			
	.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.	S			

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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§193.2707 OPERATIONS AND MAINTENANCE (con't)						
.2017	.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.	S			
		§193.2711 PERSONNEL HEALTH	**S**	**U**	**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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2713 TRAINING PROCEDURES: OPERATIONS AND MAINTENANCE	S	U	N/A	N/C
.2017	.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.	S			
	.2713(a)(1)(i)	Characteristics and hazards of LNG and other flammable fluids handled at the plant.				
		▪ Low boiling point and storage temperature (-260°F).	S			
		▪ Flammable limits of natural gas (5% to 15% in air).	S			
		▪ LNG and its vapor are odorless.	S			
		▪ LNG boils even more rapidly when spilled onto water or sprayed with water.	S			
	.2713(a)(1)(ii)	Potential hazards involved in operations and maintenance.	S			
	.2713(a)(1)(iii)	How to carry out operations and maintenance procedures that relate to their assigned functions.	S			
	.2713(a)(2)	All new personnel must receive initial training in the following subjects. The training must be based on a written plan.	S			
	.2713(a)(2)(i)	How to carry out the emergency procedures that relate to their assigned functions (see §193.2509).	S			
.2017	.2713(a)(2)(ii)	How to administer first aid.	S			
	.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.	S			
	.2713(a)(3)(i)	Detailed instructions on facility operations, including:				
		▪ Controls	S			
		▪ Functions	S			
		▪ Operating Procedures	S			
	.2713(a)(3)(ii)	LNG transfer procedures (see §193.2513).	S			
	.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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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		§193.2715 TRAINING; SECURITY	S	U	N/A	N/C
.2017	.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.	S			
	.2715(a)(1)	How to recognize breaches of security.	S			
	.2715(a)(2)	How to carry out security procedures that relate to their assigned duties (see §193.2903).	S			
	.2715(a)(3)	Whatever plant operations and emergency procedures they need to know to effectively perform their assigned duties.	S			
	.2715(a)(4)	How to recognize conditions that call for security assistance.	S			
	.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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2717 TRAINING; FIRE PROTECTION PROCEDURES	S	U	N/A	N/C
.2017	.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;	S			
	.2717(a)(2)	▪ Know the types, sizes, and predictable consequences of fire: and	S			
	.2717(a)(3)	▪ 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.	S			
	.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.	S			
	.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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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		§193.2801 FIRE PROTECTION **Note: For plants existing on March 31, 2000, operators have 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
.2017	NFPA-59A 9.1.2	The operator must conduct a fire protection evaluation.	S			
		(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.	S			
		(2) The type, quantity, and location of equipment necessary for the detection and control of potential electrical fires and fires not involving LNG processes.	S			
		(3) The methods necessary for protection of the equipment and structures from the effects of fire exposure.	S			
		(4) Fire protection water systems.	S			
		(5) Fire extinguishing and other fire control equipment.	S			
		(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.	S			
		(7) The type and location of sensors necessary to initiate automatic operation of the ESD system or its subsystems.	S			
		(8) The availability and duties of individual plant personnel and what response personnel from outside the plant are available during an emergency.	S			
		(9) The protective equipment, special training, and qualification needed by individual plant personnel for his or her respective emergency duties.	S			
	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.	S			
	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.	S			
	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 designed to be failsafe design shall have all components located 50 ft (15 m) or more from the equipment it controls **or** be: (1) Installed or located where they cannot be exposed to a fire (2) Protected against failure due to a fire exposure for at least 10 minutes'.	S			
	NFPA-59A 9.2.4	Operating instructions identifying the location and operation of emergency controls must be posted conspicuously in the facility area.	S			
	NFPA-59A 9.2.5	Initiation of the ESD system(s) shall be either 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.	S			
	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.	S			
	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.	S			
	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.	S			

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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		§193.2801 FIRE PROTECTION (con't.)	S	U	N/A	N/C
.2017	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.	S			
	NFPA-59A 9.3.4	Gas detector and low temperature detector tests and maintenance records.	S			
	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.	S			
	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.	S			
	NFPA-59A 9.5.1	Portable or wheeled fire extinguishers, recommended for gas fires, available at strategic locations.	S			
	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.	S			
	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).	S			
	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).	S			
	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).	S			
	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.	S			
	NFPA-59A 9.7.4	At least three portable flammable gas detectors must be readily available for use.	S			
	NFPA-59A 9.9.1	Procedures to manually depressurize portions of the plant that can be isolated from storage tanks or other LNG sources by venting to the atmosphere in case of an emergency. (The direction of discharge shall minimize exposure to personnel or equipment.)	S			
	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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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		§193.2903 SECURITY PROCEDURES	S	U	N/A	N/C
.2017	.2903	Written security procedures must be available at the plant. The procedures must discuss topics (a) through (g).				
	.2903(a)	Description and schedule of security inspections and patrols.	S			
	.2903(b)	A list of security personnel positions or responsibilities.	S			
	.2903(c)	Brief description of the security duties of security personnel.	S			
	.2903(d)	Description of actions to be taken when there is an actual or attempted breach of security.	S			
	.2903(e)	Method(s) for determining which persons are allowed access to the LNG plant.	S			
	.2903(f)	Positive identification of all persons who enter the plant, using a method at least as effective as picture badges.	S			
	.2903(g)	Liaison with local law enforcement officials to keep them informed about current security procedures.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2907 PROTECTIVE ENCLOSURE CONSTRUCTION PROCEDURES	S	U	N/A	N/C
.2017	.2907(a)	Each protective enclosure must have a combination of strength and configuration that is sufficient to obstruct unauthorized access to the enclosed facilities.	S			
	.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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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.	S			
	.2909(b)	There must be a means for communications between all on-duty personnel who have security duties and all control rooms/control stations.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§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).			N/A	

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

The LNG facility is staffed including security monitoring 24-hours, 7-day a week.

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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		§193.2913 SECURITY MONITORING PROCEDURES	S	U	N/A	N/C
.2017	.2913	If the plant has 250,000 bbls or more storage capacity, each protective enclosure, and the area around the facilities listed in 193.2905(a), must be monitored for the presence of unauthorized persons, using one of the following methods. (If less than 250,000 bbls of storage capacity, only the protective enclosures need to be monitored.) ▪ security warning systems that continuously transmit information to an attended location. ▪ visual observation in accordance with a schedule (193.2903(a)).	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2915 ALTERNATIVE POWER SOURCE PROCEDURES	S	U	N/A	N/C
.2017	.2915	An alternative source of power that meets §193.2445 must be provided for security lighting and for security monitoring and warning systems.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

		§193.2917 WARNING SIGN PROCEDURES	S	U	N/A	N/C
.2017	.2917(a)	Warning signs, readable at night from a distance of 100 ft, must be placed conspicuously along each protective enclosure.	S			
	.2917(b)	The signs must be marked with the words "NO TRESPASSING," or words of comparable meaning, on a background of sharply contrasting color.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

RECORDS

	§191.5 and §191.25 REPORT RECORDS (5-year minimum retention)	S	U	N/A	N/C
191.5	Incident reports (telephonic notification).			N/A	
191.25	Safety-related condition reports (corrective action?).			N/A	

	§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.	S			
.2503(c)	Investigation of Abnormal Operating Conditions.			N/A	
.2503(e)	Vaporization Records.	S			

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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	§193.2521 OPERATING RECORDS (con't.) (5-year minimum retention)	S	U	N/A	N/C
.2503(f)	Liquefaction Records.	S			
.2505	Cooldown Records.	S			
.2507	Records associated with Monitoring Operations.	S			
.2509(b)(3&4)	Public Liaison with Fire, Police, emergency responders, and local officials.	S			
.2513	Records associated with transferring LNG or other hazardous fluids.	S			
.2515	Investigation of Failures.			N/A	

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

During the past year there has been on incident, safety-related condition, and abnormal operating condition to report.

	§193.2639(a) MAINTENANCE RECORDS (5-year minimum retention)	S	U	N/A	N/C
.2603(c & d)	Components taken out of service.	S			
.2609	Support systems (foundations and pipe rack supports).	S			
.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.	S			
.2613	Auxiliary power sources.				
	▪ Operational tests (starting, fuel supply, etc.) (monthly).	S			
	▪ Capacity tests (under load) (annually).	S			
.2617	Repairs.	S			
.2619(b)	Control systems out of service for 30 days or more must be inspected and tested for operational capability before returning to service.	S			
.2619(c)	Automatic shutdown devices (once per year; not to exceed 15 months).	S			
.2619(c)(1)	Seasonal control systems (liquefaction/vaporization) (prior to use).	S			
.2619(c)(2)	Fire protection control systems (not to exceed 6 months).	S			
.2619(d)	Control systems normally in use (once per year; not to exceed 15 months).	S			
.2619(e)	Relief valves (once per year; not to exceed 15 months).	S			
.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.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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	§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).	S			
.2623	LNG storage tank inspection records.				
	▪ Foundation and tank movement.	S			
	▪ Inner tank leakage.	S			
	▪ Effectiveness of insulation.	S			
	▪ Frost heave.	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

	§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).	S			
.2635(b)	Rectifier inspection records (6 per year; not to exceed 2 ½ months).	S			
.2635(c)	Critical interference bonds (6 per year; not to exceed 2 ½ months); noncritical interference bonds (15 months).	S			
.2635(d)	Atmospheric corrosion records (once every 3 years).	S			
.2635(e)	Internal corrosion monitoring records (twice per year; not to exceed 7 ½ months).	S			
.2639(c)	Records or maps showing CP components, and structures bonded to the pipeline. (Maintained for the life of the pipeline.)	S			

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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	§193.2711 Personnel health (Retain for duration of employment, or per requirements of operator's health plan.)	S	U	N/A	N/C
.2711	Personnel health records.	S			
Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*					

	§193.2713 / .2715 / .2717 TRAINING (retain for duration of employment, plus one year)	S	U	N/A	N/C
.2713(a)	Initial training - operations and maintenance.				
	▪ Characteristics and hazards of LNG.	S			
	▪ Emergency procedures related to assigned duties.	S			
	▪ First-aid.	S			
	▪ Facility operations, controls, functions.	S			
	▪ LNG transfer operations.	S			
.2713(b)	Follow-up operations and maintenance training (every 2 years).	S			
.2715(a)	Initial training - security.				
	▪ Recognize breaches of security.	S			
	▪ Carry out security procedures related to assigned function.	S			
	▪ Recognize conditions where security assistance is needed.	S			
.2715(b)	Follow-up security training (every 2 years).	S			
.2717(a)	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:				
	▪ Know the potential causes and areas of fire;	S			
	▪ Know the types, sizes, and predictable consequences of fire; and	S			
	▪ Know and be able to perform their assigned fire control duties and proper use of equipment.	S			
.2717(b)	Follow-up fire protection training, including plant fire drills, (every 2 years).	S			
.2717(c)	Plant fire drills must provide personnel hands-on experience in carrying out their duties under the fire emergency procedures.	S			
Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*					

STANDARD INSPECTION REPORT OF AN LNG FACILITY

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	FIELD REVIEW	S	U	N/A	N/C
.2441	Control Center	S			
.2511(c)	First aid material.	S			
.2519(a)	Verbal communication system for all operating personnel.	S			
.2519(b)	Verbal emergency communication system (if >70,000 gal).	S			
.2519(c)	Backup power supply for communication systems.	S			
.2607(a)	Excessive external icing.	S			
.2607(b)	LNG plant grounds maintenance and upkeep (grass, trash, ... etc.).	S			
.2609	Support systems (foundations, pipe rack supports, etc.).	S			
.2611(b)	Access routes for fire control equipment kept clear of snow, etc.	S			
.2613	Auxiliary power supply.	S			
.2619(a)	Control systems calibration.	S			
.2621(b)	Transfer hose(s).	S			
.2623	Storage tanks.	S			
.2627	Atmospheric corrosion.	S			
.2635	Cathodic protection (CP levels).	S			
NFPA-59A 9.2.3	ESD System initiation devices and ESD Station locations.	S			
NFPA-59A 9.2.4	Operating instructions attached at the location of controls to fire control equipment.	S			
NFPA-59A 9.3.1	Monitor enclosed building that have a potential for flammable refrigerant spills and fire.	S			
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.	S			
NFPA-59A 9.3.3/4	Fire detection system.	S			
NFPA-59A 9.4	Fire protection water system.	S			
NFPA-59A 9.5.1	Portable fire extinguishers	S			
NFPA-59A 9.5.3	Fire extinguisher (at least 18 lb. (8.2 kg) on each automotive vehicle assigned to the plant).	S			
NFPA-59A 9.7.1	Protective clothing, equipment (including cryogenic gloves, safety glasses, face shields, and coveralls or long-sleeve shirts).	S			
NFPA-59A 9.7.4	Portable gas detectors available (a least 3).	S			
.2905	Protective enclosures.	S			
.2911	Lighting.	S			
.2915	Alternative power sources.	S			
.2917	Warning signs along fence or boundary, visible at 100 ft. at night.	S			

STANDARD INSPECTION REPORT OF AN LNG FACILITY

Unless otherwise noted, all code references are to Part 193. **S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked**
For any item marked U, N/A, or N/C, there must be a note indicating why.

Comments: *(If any of the above is marked U, N/A, or N/C, please indicate why, either in this box or in a referenced note):*

PIM Entry Examples

(reference http://www.gpoaccess.gov/fr/advanced.html ; fr12no03N Pipeline Safety: Corrosion Threat to Newly Constructed Gas and Hazardous Liquid Pipelines).POST INSPECTION MEMORANDUM (PIM)			
POST INSPECTION MEMORANDUM (PIM)			
Name of Operator:	NoFail Pipeline Company	**OPID #:**	2314
Name of Unit(s):	Boardwalk and Parkplace	**Unit # (s):**	234, 278
Records Location:	Pipelineville, NC		
Unit Type & Commodity:	Interstate Natural Gas (A3) – Natural Gas		
Inspection Type:	Standard	**Inspection Date(s):**	12/24-27/03
OPS Representative(s):	John Brown	**AFO Days:**	4

Summary:

On December 24-27, I performed a standard inspection of the NoFail pipeline facilities contained in units 234 and 278. The evaluation report contains a component description of the two units. The inspection included a records and facilities review. A Joint O&M inspection was conducted in 2003 and no procedures were evaluated during this inspection. Pre-inspection preparation identified previous valve inspection violations: I reviewed all of the company's valve inspection records and five aboveground valve settings and did not identify any potential non-compliances. Right-of-way inspection and periodic cathodic protection checks were conducted between Chance, NC to Community Chest, NC and from Reading, SC to Ventnor, SC. The Mighty Big'nWet River crossing was evaluated for atmospheric corrosion.

Findings:

The pipeline facilities appeared to be well maintained and serious concerns were noted: surface rusting was observed at the Pipelineville compressor station. No pitting was observed. NoFail is in the process of repainting all of the aboveground piping at this facility.

The following concerns were noted from the records review:

1. The rectifiers in Unit 234 were inspected on 3 times in 2001, twice in 2002, and five times in 2003. Copies of the subject records were obtained.
2. The right-of-way in Unit 234 was densely overgrown such that aerial patrols would be ineffective. Pictures were taken of representative areas.