CHAPTER 4

APPENDIX A

EXCERPT FROM 2009 AUDIT OF PG&E'S OPERATIONS,

MAINTENANCE AND EMERGENCY PLANS

STATE OF CALIFORNIA

ARNOLD SCHWARZENEGGER. Governor

PUBLIC UTILITIES COMMISSION 122 VAN 1923 AVENUE SAN FRUNCISCO CA 91122-314

April 30, 2009

Mr. Glen Carter, Director Gas Engineering (GT&D) Pacific Gas and Electric Company 375 N. Widget Lane, Suite 200 Walnut Creek, CA 94598

SUBJECT: Notice of Violations of General Order 112E - Audit of PG&E's OM&E Plan

Dear Mr. Carter:

The staff of the Utilities Safety and Reliability Branch (USRB) of the California Public Utilities Commission conducted a General Order 112-E safety audit of Pacific Gas & Electric Company's (PG&E) Operation, Maintenance, and Emergency (OM&E) Plan. The audit, which was conducted on March 2-5, 2009, consisted of a review of PG&E's gas distribution and transmission standards and guidelines which are the basis of, and support, its OM&E Plan. No field inspections were performed as a part of this audit.

During the audit, PG&E staff provided details on the broad effort PG&E has undertaken to meet compliance with 49 CFR, Part 192, Section 192,605. Through this offort, PG&E is utilizing subject matter experts (SMEs) to review its existing standards and guidelines in order to eliminate outdated standards and to re-tabel, or expand, others to include work procedures that support, and provide more details related to the standards. Based on findings from our previous OM&E audits of PG&E, we believe this effort was much needed and we look forward to seeing the end product during our next audit.

PG&E staff requested clarification from USRB regarding the frequency on which the USRB was expecting SMEs to review the individual standards to which any SME was assigned. The USRB believes that since Section 192.605 requires the OM&E Plan to be reviewed and updated each calend ar year, and a frequency not exceeding 15 months, the individual standards, guidelines, work procedures that together form the OM&E will be expected to be reviewed on the same once per calendar year, not to exceed 15 months, basis. This is not to imply that work to revise a document could not cross from one calendar year into the next; however, a review must be performed within the frequency, specified herein, to confirm that procedures within existing documents are still valid and applicable to the work being performed under these documents.

Violations of GO 112-E. Identified by USRB staff during the audit, are itemized within the Summary of Inspection Findings (Summary) enclosed with this letter. The Summary also contains any Areas of Concern Identified during the audit.

By May 31, 2009, please provide a written response indicating the measures taken by PG&E to address the Violations and Areas of Concern noted in the Summary.

If you have any questions, please do not hesitate to contact me at (415) 703-2407.

Sincerely,

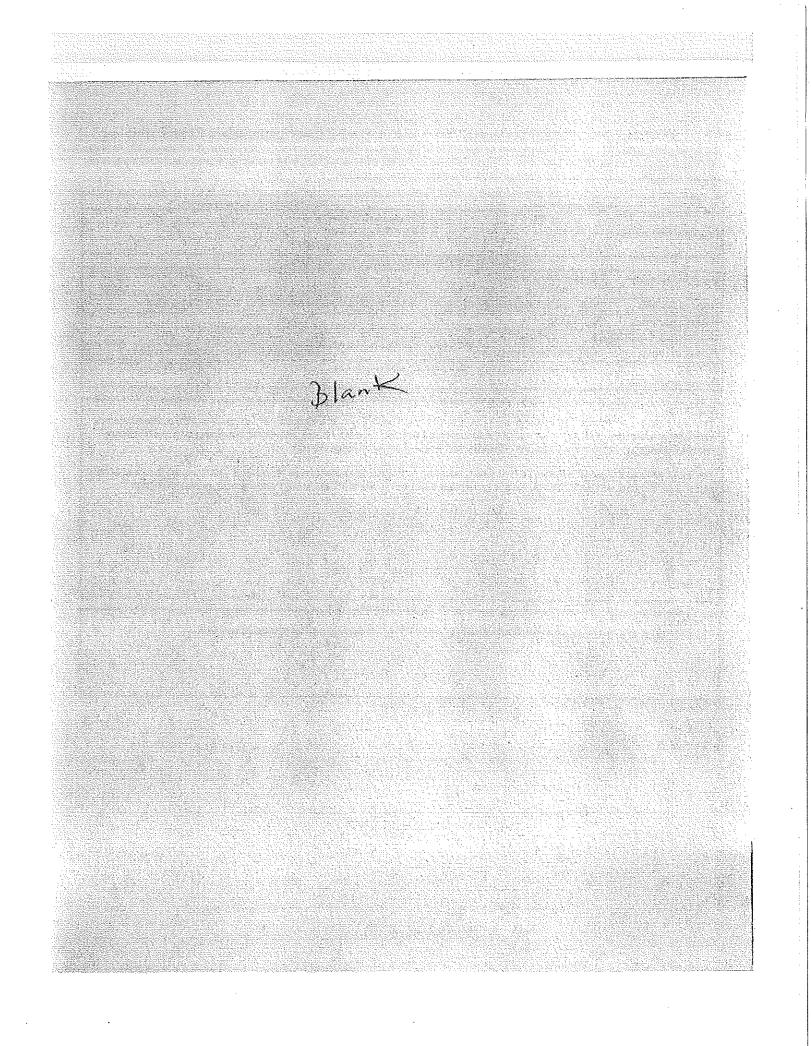
λ. -- X .

Sunil K. Shon Utilities Engineer Utilities Safety and Reliability Branch Consumer Protection and Safety Division

Enclosure: Summary of Inspection Findings

Electronic copy:

Ed Chun – PG&E Larry Berg – PG&E Ivan Garcia – CPSD/USRB Steve Artus – CPSD/USRB Terence Eng – CPSD/USRB



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 Inspection Memoran	dum
Inspector/Submit Da	te:	Inspector/Submit Date: Peer Review/Date: Director Approval/Date:	
	POST INSPECTION	MEMORANDUM (PIM)	
Name of Operator:	Pacific Gas and Electric		OPID #: 15007 & 18608
Name of Unit(s):	Pacific Gas & Electric transmission and S	tandard Pacific Pipeline (operated by PG&E)	Unit #(s);
Records Location:	San Francisco, CA		·
Unit Type & Commo	dity:		· · · · · · · · · · · · · · · · · · ·
Inspection Type:	Audit of OM&E Standards	Inspection Date(s): Ma	ırch 3-5, 2009
PHMSA Representative(s):	Sunil Shori, Ivan Garcia, Steve Artu	, and Terence Eng	AFO Days: 3

Summary:

This report is a centralized audit of documents that form Pacific Gas & Electric Company's (PG&E) Operations, Maintenance, and Emergency Plans. This audit examined gas distribution and transmission related standards; however, only transmission related findings are included in this report (distribution findings are in another report).

The findings from this audit will be resolved and a template for subsequent audits will be created based on the findings of this audit. The template will be used as the USRB Inspection Form for audits of PG&E until PHMSA next revises this form;

Findings:

The findings are as noted throughout this report. A written report noting the findings will be sent to the operator.

Name of Operator: Pacific Gas	and Electric	·····	
OP ID No. ¹¹¹		Unit ID No. (9	
HQ Address:		System/Unit Name & Address:	
77 Beale Street		123 Mission Street	
San Francisco, CA		San Francisco, CA	
		· · · ·	
Co. Official:		Activity Record ID No.:	<u> </u>
Phone No.:		Phone No.:	
Fax No.:	-	Fax No.:	
Emergency Phone No.:		Emergency Phone No.:	
Persons Interviewed	T	itle	Phone No.
Lawrence M. Berg		as Engineer	
Edward Chun		ior Gas Engineer	
Brian J. Leary		ards Manager	
and a second	· · · · · · · · · · · · · · · · · · ·		
		· · · · · · · · · · · · · · · · · · ·	·
PHMSA Representative(s) (1) See abo		Date(s) (1) March 3-5, 2009	
Company System Maps (Copies for Re	egion Files): NO MAPS	OBTAINED DURING AUDIT	
Unit Description: Documents related to entire PG&E gas	cúctáits		
	ų skolu		
	1.300 m		ę
	1.200H		ę
	1939H		4
	1,315H		
Portion of Unit Inspected: ⁽¹⁾		water war war an a second and a second	
		un and a subscription of the subscription of t	
Portion of Unit Inspected: ⁽¹⁾		an a	
Portion of Unit Inspected: ⁽¹⁾		enteren en e	
Portion of Unit Inspected: ⁽¹⁾			
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Portion of Unit Inspected: ⁽¹⁾			
Portion of Unit Inspected: (1)	system :		

For gas transmission pipeline inspections, the attached evaluation form should be used in conjunction with 49 CFR 191 and 192 during PHMSA inspections. For those operators, procedures do not have to be evaluated for content unless: 1) new or amended regulations have been placed in force after the team inspection, or 2) procedures have changed since the team inspection. Items in the procedures sections of this form identified with "*" reflect applicable and more restrictive new or amended regulations that became effective between 03/16/04 and 03/16/09.

¹ Information not required if included on page 1.

Unless otherwise noted, all code references are to 49CFR Part 192. S = Satisfactory U = 1 msatisfactory N/A - Not Applicable N/C - Not Checked If an item is marked U. N/A, or N/C, an explanation must be included in this report.

	49 CFR PART 191		
	REPORTING PROCEDURES	S	U N/AN/C
.605(b)(4)	Procedures for gathering duta for incident reporting		
	191.5 Telephonically reporting incidents to NRC (800) 424-8802	X	
	191.15(a) 30-day follow-up written report (Form 7100-2)	X	
	191.15(b) Supplemental report (to 30-day follow-up)	X	
.605(a)	191.23 Reporting safety-related condition (SRCR)	X	
	191.25 Filing the SRCR within 5 days of determination, but not later than 10 days after discovery	X	
	191.27 Offshore pipeline condition reports - filed within 60 days after the inspections		X
.605(d)	Instructions to enable operation and maintenance personnel to recognize putential Safety Related Condition	s X	

Comments:

Reporting procedures can be found in UO Standard 4413

:

49 CFR PART 192

.13(c) ,605(a)	1	CUSTOMER NOTIFICATION PROCEDURES	S	U	N/A	N/C
		ires for notifying new customers, within 90 days, of their responsibility for those selections of service at maintained by the operator.	X			
		NORMAL OPERATING and MAINTENANCE PROCEDURES	S	U	N/A	NIC
	.605(a)	O&M Plan review and update procedure (1 per year/15 months)	X			
	.605(b)(3)	Making construction records, maps, and operating history available to appropriate operating personnel	X			
	.605(b)(5)	Start up and shut down of the pipeline to assure operation within MAOP plus allowable buildup	x			
	.605(b)(8)	Periodically reviewing the work done by operator's personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedures when definitenance and found	x			
	.605(b)(9)	Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapors or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and a rescue harness and line.	x			
	.605(b)(10)	Routine inspection and testing of pipe-type or bottle-type holders	X		I	Ŀ
i.	.605(b)(11)	Responding promptly to a report of a gas odor inside or near a building, unless the operator's emergency proced, under § 192.615(a)(3) specifically apply to these reports.	x			

Comments:

A93.3 Excess Flow Valves voluntory installation program; 192.16 addressed by PG&E WP 5449-04; DCS Standard D-S0423 provides 192.16 notice to customers when work takes place;

192.605(b)(8) being addressed by IQI and PG&E quality assurance program;

WP 4000-02 (est. 09/2008) addresses review of manuals required by 192.605(a).

192.605(b)(11) is addressed in Company Gas Emergency Plan (CGEP) Parts 1 and 2.

.605(a)

ABNORMAL OPERATING PROCEDURES

S U N/AN/C

Unless otherwise noted, all code references are to 49 CFR Part 192: S = Satisfactory U = Unsatisfactory N/A = Not Applicable N/C = Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

	ABNORMAL OPERATING PROCEDURES	S	U	N/A	N/C
.605(c)(1)	Procedures for responding to, investigating, and correcting the cause of:		•		
· · · .	(i) Unintended closure of valves or shut downs	X			
	(ii) Increase or decrease in pressure or flow rate outside of normal operating limits	X		T.	
	(iii) Loss of communications	X			
	(iv) The operation of any safety device	X			
	(v) Malfunction of a component, deviation from normal operations or personnel error	X			
.605(c)(2)	Checking variations from normal operation after abnormal operations ended at sufficient critical locations	- X			
.605(c)(3)	Notifying the responsible operating personnel when notice of an abnormal operation is received	X			
,605(c)(4)	Periodically reviewing the response of operating personnel to determine the effectiveness of the procedures and taking corrective action where deficiencies are found	X		2	

Comments:

PG&E Company Gas Emergency Plan, Part 1, Section 2.9 and Part 2,

UO Standard \$4450 (Operator Qualification Program);

DCS D-S0355 CPUC and DOT Reportable Incidents, Curtailments & Conditions, and Low Pressure System Problem Reporting. Gas Control (PG&E Gas SCADA Alarm limits (policy and procedure).

UO Standard S5351 (District Reg Station Maintenance) and Gas Information Bulletin (GIB) 279

.605(8)		CHANGE IN CLASS LOCATION PROCEDURES					NA	N(C
	.609	Cluss location study			X.			
. , * .	.611	Confirmation or revision of MAOP.	Final Rule Pub. 10/17/08, cff. 12/22/08.		\mathbf{X}^{\prime}		I	

Commentsi Standard S4127

Reviewed and confirmed 03/2009

.613	CONTINUING SURVEILLANCE PROCEDURES		s	Ų	N/A	N/Q
	.613(a)	Procedures for surveillance and required actions relating to change in class location, failures, leakage history, corrosion, substantial changes in CP requirements, and unusual operating and maintenance conditions	x			
	.613(b)	Procedures requiring MAOP to be reduced, or other actions to be taken, if a segment of pipeline is in- unsatisfactory condition	X ;			

Comments:

Standard 4127; UO Standard 54111-Patrolling Pipelines & Mains; UO Std S0350/S4110-Leak Survey and Repair; GS&S O-16-Corrosion Control; UO Std S4133-Corrosion Control Distribution and Transmission; UO Std S4133-Corrosion Control Distribution and Transmission; UO Std S4133-Corrosion Control Distribution and Transmission; UO Std S4133-CPUC Curialiments; UO Std S0353-Physical Inspection of Mains and Pipeline Services Reviewed and confirmed same standards 03/2009

.605(a)	1	DAMAGE PREVENTION PROGRAM PROCEDURES	S	UN	I/AN/C
	.614	Participation in a qualified one-call program, or if available, a company program that complies with the following:		<u> </u>	
		(1) Identify persons who engage in excavating	X	\square	
		(2) Provide notification to the public in the Ono Call area	X	LL	

N/C - Not Checked Unless otherwise unted, all code references are in 49CFR Part 192. 5 - Sulisfactory U- Cossilisfactory N/A - Not Applicable If an item is marked U, N/A, or N/C, an explanation must be included in this report.

	DAMAGE PREVENTION PROGRAM PROCEDURES	S	U	N/A	N/C
· -	(3) Provido means for receiving and recording notifications of pending excavations	x			
	(4) Provide notification of pending excavations to the members	X			
F	(5) Provide means of temporary marking for the pipeline in the vicinity of the excavations	X			
	(6) Provides for follow-up inspection of the pipeline where there is reason to believe the pipeline could be damaged	×			
-	(i) Inspection must be done to verify integrity of the pipeline:	X			
	(ii) After blasting, a leak survey must be conducted as part of the inspection by the operator	X			

Comments:

UO Standard S4412-Protection of Underground Infrastructure; PG&E Manual titled "Protection of Underground Infrastructure"

.615

e - 1995.	EMERGENCY PROCEDURES	Ş	v	N/A	N/C
615(a)(1)	Receiving, identifying, and classifying notices of events which require immediate response by the operator	x			
615(a)(2)	Establish and maintain communication with appropriate public officials regarding possible emergency.	X		:	L.,
615(a)(3)	Prompt response to each of the following emergencies:	N. 1			~ ~ ~ ?
	(i) Gas detected inside a building	X		<u> </u>	<u> </u>
	(ii) Fire located near a pipeline	X	[
	(iii) Explosion near a pipeline	х			<u> </u>
	(iv) Natural disaster	X			
615(a)(4)	Availability of personnel, equipment, instruments, tools, and material required at the scene of an emergency	x			
615(a)(5)	Actions directed towards protecting people first, then property	X		<u> </u>	ļ
615(a)(6)	Emergency shuldown or pressure reduction to minimize hazards to life or property	X	L		
615(a)(7)	Making safe any actual or potential hazard to life or property.	X	<u> </u>		<u> </u>
615(a)(8)	Notifying appropriate public officials required at the emergency scene and coordinating planned and actual responses with these officials	x	<u> </u>		
.615(a)(9)	Instructions for restoring service outages after the emergency has been rendered safe	X.		Ĺ	<u> </u>
.615(a)(10)	Investigating accidents and failures as soon as possible after the emergency	X	1		
.615(b)(1)	Furnishing applicable portions of the emergency plan to supervisory personnel who are responsible for entercomy action	X	ļ	 	-
.615(b)(2)	Training appropriate employees as to the requirements of the entergency plan and verifying effectiveness of training	X	<u> </u>	<u> </u>	ļ.
.615(b)(3)	Reviewing activities following emergencies to determine if the procedures were effective	X	L	<u> </u> .	1.
.615(c)	Establish and maintain liaison with appropriate public officials, such that both the operator and public officials are aware of each other's resources and capabilities in dealing with gas emergencies	x			

Comments:

PG&E's Emergency Plan consists of 2 parts: (1) Basic Plan (company-wdle) and (2) Appendix which contains the Division-specific portion. Each division or district is responsible for updating their own binders including any changes received on the company-wide plan and the division-specific plan. The Basic Plan/company-wide plan is reviewed by PG&E's SME by 8/31 of each year. Personnel that may be involved in emergency response are required to do an initial and subsequent training and evaluation. Additionally, personnel are required to take a computer-based examination on emergency procedures to stay informed of any recent changes in the plan.

192:615(a)(4) - Availability of equipment addressed in TO&M EG4124 Emergency Pre-tested Transmission Pipe. This is referenced in

l'alex athernise noted, all code references are in 49CFR Part 192: S - Salisfactory U - Unsatisfactory N/A - Not Applicable N/C = Not Checked If an item is marked U. N/A. or N/C. an explanation must be included in this report.

the Emer. Plan Section 2.5.1. EG4124 is currently being revised to become a work procedure.

1. 1

and a second	<u>.</u>					
		PUBLIC AWARENESS PROGRAM PROCEDURES (Also in accordance with API RP 1162)	S	ប	N/A	N/C
605(s) *	.616	Public Awareness Program also in accordance with API RP 1162: Amdt 192-99 pub. 5/19/05 eff. 06/20/05.				
	.616(d)	The operator's program must specifically include provisions to educate the public, appropriate government organizations, and persons engaged in excavation related activities on:				
	<u>}</u>	(1) Use of a one-call notification system prior to excavation and other damage prevention activities;	X	1		
		(2) Possible hazards associated with unintended releases from a gas pipeline facility:	X			
		(3) Physical indications of a possible release:	X			
		(4) Steps to be taken for public safety in the event of a gas pipeline release; and	X	1		
		(5) Procedures to report such an event (to the operator).	X	-		
	.616(2)	The operator's program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.	X			
	.616(f)	The operator's program and the media used must be comprehensive enough to reach all areas in which the operator transports gas.	X			
	.616(g)	The program conducted in English and any other languages commonly understond by a significant number of the population in the operator's area?	X			

Comments:

Comments:

PG&E's PAP was reviewed by the USDOT Clearinghouse. The USRB (Sunil Shori) worked with PG&E in 2008 to resolve findings noted by the clearinghouse.

,617	FAILURE INVESTIGATION PROCEDURES	S	U	N/AN/	/C
	.617 Analyzing accidents and failures including laboratory analysis where appropriate to determine cause and prevention of recurrence	x			

Comments:

WP 1465-02 Gas Event and Near Hit Reporting Issued 5/2008.

.605(a)	MAOP PROCEDURES	S	U	N//	AN/C
	Note: If the operator is operating at 80% SMVS with waivers, the inspector needs to review the special conditions of the waivers.				
	.619 Establishing MAOP so that it is commensurate with the class location	X			
*	MAOP cannot exceed the lowest of the following:				
	(a)(1) Design pressure of the weakest element, Amdt. 192-103 pub. 06/09/06, eff. 07/10/06	X			
1	(a)(2) Test pressure divided by applicable factor	X	<u>.</u>	•	

STANDARD INSPECTION REPORT OF A CAS TRANSMISSION PIPELINE Daless otherwise noted, all code references are to 49 CFR Part 392. S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not C If an item is marked U, N/A, or N/C, an explanation must be included in this report: N/C - Not Checked.

	MAOP PROCEDURES		and the second	S	U	V/A	vid
***************************************	(a)(3) The highest actual operating pressure to which the segment preceding the applicable date in second column, unless the sego after the applicable date in the third column or the segment was 192-102 pub. 3/15/06, eff. 04/14/06. For gathering line related gathering line requirements, refer to Part 192 including this a	nent was tested a s uprated accordin compliance dea	ccording to .619(a)(2) ig to subpart K. Arndt				
	Pipeline segment Onshore gathering line that first became subject to this part tother than \$ 192.612) after April 13, 2006. Onshore transmission line that was a gathering line not subject to this part before March 15, 2006.	Pressure date March 15, 2006, or date line becomes subject to this part; which ever is later.	Test date 5 years preceding applicable date in second column.	X			
	Offshore gathering lines. All other pipelines.	July 1, 1976. July 1, 1970.	July 1, 1971. July 1, 1965.				
ŀ	(a)(4) Maximum safe pressure determined by operator.			x			
	(b) Overpressure protective devices must be installed if .619(a)(4)) is annlicable	i	x	<u> </u>		
*	(c) The requirements on pressure restrictions in this section do not apply in the following instance: An operator may operate a segment of pipeline found to be in satisfactory condition, considering its operating and maintenance history, at the highest actual operating pressure to which the segment was subjected during the 5 years preceding this applicable date in the second column of the table in paragraph (a)(3) of this section. An operator must still comply with § 192.611. And: 192-102 pub. 3/15/06. cff. 04/14/06. For gathering line related compliance deadlines, and additional gathering, line requirements, refer to Part 192 including this amendment.						
*	 620 If the pipeline is designed to the alternative MAOP standard in 19 requirements for: General standards Fracture control Plate and seam quality control Mill hydrostatic testing: Coating Fittings and flanges. Compressor stations 		et the additional design			x	
1970; MAOP es 1970, The form	st dard D-S0430 and GTS Standard S4125-Establishing MAOP for Transf stablished by test conducted in accordance with GS&S A-34 for lines , "Establishing MAOP, exhibit A", and its use needs to be referenced in ill from Ed Chung of PG&E, the company has decided that .620 will not	installed, replac DCS/GTS Stand	ed, or rehabilitated of lard D-S0430				
.13(c)	PRESSURE TEST PROCEDURI	ES.		S	U	N/A	N/C
	.503 Pressure testing			x	<u> </u>		Ļ
Comment GS&S A	s: 34 Piping Design and Test Requirements, Attachment A-Test Requirem	ients, Table A-1					
-,13(c)	UPRATING PROCEDURES	·····		S X	U	N/A	N/C
	.553 Uprating			1			L

Unless otherwise noted, all code references are to 49CFR Part 192. Second Sectory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked If an Item is marked U. N/A, or N/C, an explanation must be included in this report.

Comments: TO&M UO Std S4125 - requires reporting of proposed increase of MAOP to CPUC in accordance to GS&S A34.1; Exhibit 1 is filled out prior to uprating.

OS&S A-34.2 - Low, Semi-high, and High Pressure Uprating Procedure, Table 1-Uprating Matrix; Also requires CPUC notification and developing written procedures for the uprate as specified in 192.553(c).

.605(1)		ODORIZATION of GAS PROCEDURES	S	U	N/A	N/C
	.625(b)	Odorized gas in Class 3 or 4 locations (if applicable) – must be readily detectable by person with normal sense of smell at W_3 of the LEL.	×.	·		
	.625(1)	Periodic gas sampling, using an instrument capable of determining the percentage of gas in air at which the odor becomes readily detectable.	Ŕ			

Comments:

UO Standard S4350 - Gas Odor Detection at 0.6% gas in air or less: Periodic sampling recorded on Monthly Odorization Report (Form 62-4650)

.605(a)		TAPPING PIPELINES UNDER PRESSURE PROCEDURES	S	U	N/A	N/C
	.627	Hot taps must be made by a qualified crew NDT testing is suggested prior to tapping the pipe. Reference API RP 2201 for Best Practices.	X			

,605(s)		PIPELINE PURGING PROCEDURES	S	Ľ	N/A	N/C
1	629	Purging of pipelines must be done to prevent entropment of an explosive mixture in the pipeline	ŀ		13 1	
		(a) Lines containing air must be properly purged,	X			
		(b) Lines containing gas must be properly purged	X			

Comments:

GS&S A-38 Procedures for Purging Gas Facilities, Attachment A and B

PG&E has not examined API RP 2201 for possible use in its practices.

Work Practice (WP.4100-01), Hot and Cold Work Methods for Natural Gas Transmission Pipeline Shutdown and Tic-in) replaces \$4131, August 2008.

.605(a)		MAINTENANCE PROCEDURES	S	U	N/AN/C
	.703(b)	Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from service	X .		
	(c)	Hazardous leaks must be repaired promptly	X		

Comments:

192,703(b) - UO Std S4430 CGT Gas Facility Requirements; UO Std S4134 Selection of Steel Gas Pipeline Repair Methods; UO Std S4129 Deactivation of Gas Facilities.

192,703(c) - UO Std S41.10/S0350 addresses repairs of hazardous leaks; UO Policy 3-7 Gas and Electric Operations, Maintenance, and Construction; CT&CS S0205 Replacement of Deteriorated or Damaged Facilities; GS&S A-66 Repair of Cost Iron; GS&S A-67 Repair of Copper.

S4134 and S4100-11

.605(b)	Т	RANSMISSION LINES - PATROLI	LING & LEAKAGE SURVEY PROCEDURES	S.	U	N/A	N/C
	.705(a)	Patrolling ROW conditions		X ,			
	(b)	Maximum interval between patrols of li	ines:	<u> </u>	`		

Unless otherwise noted, all code references ure to 49CFR Part 192. S. Satisfictory (1-Unsatisfactory) N/A Not Applicable NIC - Not Checked If an item is marked if. N/A, or N/C, an explanation must be included in this report.

	TRANSMISSION LINES	PATROLLING & LEAKAGE SURV	EY PROCEDURES	S	<u>v</u>		
	Class Location	At Highway and Rollroad Crossings	At All Other Places.				
	1 and 2	2/yr (7½ months)	1/yr (15 months)				
	3	4/yr (4½ months)	2/yr (7½ months)	X			
	4	4/yr (4½ months)	4/yr (41/2 months)				
.706	.706 Leakage surveys ~ 1 year/15 months				 		÷
		it survey requirements for lines transporting un	•odorized gas		<u>.</u>	ملحجيا	بحنير
1:	(a) Class 3 locations -	71/2 months but at least twice each calendar ye	ar -			x	
	(b) Class 4 locations -	4% months but at least 4 times each calendar	year.		Γ	' × [

Comments:

UO Std S4111, Attachment 1 Procedure for Patrolling Pipelines and Mains: UO Std S4111, Table I Minimum Patrol Frequencies; All transmission and gathering lines are patrolled quarterly UO Std S4110, Table 1 Frequency of Periodic Required Gas Leak Surveys

	,605(b)	LINE MARKER PROCEDURES	s	UN	/AN/	ď
ļ		.707 Line markers installed and labeled as required	X		<u></u>	

Comments;

GS&S L-10 Pipeline Markers Posts;

UO Std S4122, Attachment - Detailed Procedures, Table 1 - Pipeline Marking Requirements;

Appendix A - Pipeline Marker Posts and Signs In GS&S Section L.

.605(b)	[RECORD KEEPING PROCEDURES	S	U	N/A	N/C
	709	Records must be maintained;				
	}	(a) Repairs to the pipe - life of system	X			<u> </u>
	<u>}</u>	(b) Repairs to "other than pipe"-5 years		X		
:	}	(c) Operation (Sub L) and Maintenance (Sub M) patrols, surveys, tests - 5 years or until next one	X	L		L,_

Commenta;

UO Std S41 10, Attachment 1 - Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report (Form "A"), Gas Dig-In Report (Form "A") shall be retained for the life of any gas facility plus 1 year.

Gas TS Manual, Gas Information Bulletin, Supervisory Review of Leak Survey Documents-provide clarity to assess Grade 1 leaks. This document ammends Attachment 1 of UO Standard 4110 and will be incorporated into the initial release of Work Procedure WP4110-1

PG&E needs to add the correct language to answer .709(b), no set procedure defined for repairs to "other than pipe"

.605(b)	ľ	FIELD REPAIR PROCEDURES	S	U	N/A	N/C
		Imperfections and Damages			•	.*
	.713(a)	Repairs of imperfections and damages on pipelines operating above 40% SMYS			,	
		(1) Cut out a cylindrical piece of pipe and replace with pipe of 2 design strength	x		·	
		(2) Use of a reliable engineering method	×			
	.713(b)	Reduce operating pressure to a safe level during the repair	×			
		Permanent Field Repair of Welds			۰.	· .
	.715	Welds found to be unacceptable under § 192.241(c) must be repaired by:				

Units a utherwise noted, all cade references are to 49CFR Part 192. 8 - Satisfactory U - Universitationy N/A - Not Applicable N/C - Not Checked Uran item is marked U, N/A, or N/C, an explanation must be included in this report.

		FIELD REPAIR PROCEDURES	\$	U	N/A	N/C
		 (a) If feasible, taking the line out of service and repairing the weld in accordance with the applicable requirements of § 192.245. 	X			
		(b) If the line remains in service: the weld may be repaired in accordance with §192.245 if:		· · · · ·		
		(1) Thu weld is not leaking	X			
		(2) The pressure is reduced to produce a stress that is 20% of SMYS or less	X			
		(3) Grinding is limited so that 1/2 inch of pipe weld remains	X			\square
	i	(c) If the weld cannot be repaired in accordance with (a) or (b) above, a full encirclement welded split sleeve must be installed	X		1	· · ·
		Permanent Field Repairs of Leaks	ľ			
	.717 Field repairs of leaks must be made as follows:					1.11
	i	(a) Replace by cutting out a cylinder and replace with pipe similar or of greater design	X			
		(b)(1) Install a full encirclement welded split sleeve of an appropriate design unless the pipe is joined by mechanical couplings and operates at less than 40% SMYS	. X			
		(b)(2) A leak due to a corrosion pit may be repaired by installing a bolt on leak clamp	X			
		(b)(3) For a corrosion pit leak, if a pipe is not more than 40,000 psi SMYS, the pits may be repaired by fillet welding a steel plate. The plate must have rounded corners and the same thickness or greater than the pipe, and not more than ½D of the pipe size.	, x ,			
		(b)(4) Submerged offshore pipe or pipe in inland navigable waterways may be repaired with a mechanically applied full encirclement split sleeve of appropriate design			x	
		(b)(5) Apply reliable engineering method	X			
	Testing of Repairs					3.22
	.719(a)	Replacement pipe must be pressure tested to meet the requirements of a new pipeline	x			
	(b)	For lines of 6-inch diameter or larger and that operate at 20% of more of SMVS; the repair must be nondestructively tested in accordance with §192.241(c)	X			

Comments:

Transmission field repair procedures are addressed in UO S4134, GS&S A-60, A-60, I, A-60.2, D-22, A-34, A-64, D-23, B-53, and D-40 (NDT).

b)		ABANDONMENT OF DEACTIVATION OF PACILITIES PROCEDURES	S:	U	N/A	N/C
	.727(b)	Operator must disconnect both ends, purge, and seal each end before abandonment or a period of deactivation where the pipeline is not being maintained. Offshore abandoned pipelines must be filled with water or an inert material, with the ends sealed.	x			
÷.	(¢)	Except for service lines, each inactive pipeline that is not being maintained under Part 192 must be disconnected from all gas sources/supplies, purged, and sealed at each end.	X			
	(d)	Whenever service to a customer is discontinued, do the procedures indicate one of the following:				
		(1) The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator.			x .	
		(2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly			X	
		(3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed			X	
	(e)	If air is used for purging, the operator shall ensure that a comhustible mixture is not present after purging	X			
Å	,727 (g)	Operator must file reports upon abandoning underwater facilities crossing navigable waterways, including offshore facilities. Amdt. 192-103 corr, pub 02/01/07, eff. 03/05/07.	x			

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Comments:

Unless otherwhe noted, all code references are to 49CFR Part 192. S - Satisfactory U-Unsatisfactory N/A - Not Applicable N/C - Not Checked: If an item is marked U, N/A, or N/C, an explanation must be included in this report.

Comments: WP 4100-11 Deactivation of Gas & Electric Facilities issued 10/2008 GS&S A-38 Procedures for Purging Gas Facilities WP 6435-04 Procedures for Discontinuing Gas Service

Transmission districts are not involved in deactivating customer services.

.605(b)		COMPRESSOR STATION PROCEDURES	S	U	N/A	N/C
	.605(b)(6)	Maintenance procedures, including provisions for isolating units or sections of pipe and for purging before returning to service	x			
	.605(b)(7)	Starting, operating, and shutdown procedures for gas compressor units	x			
	.731	Inspection and testing procedures for remote control shutdowns and pressure relieving devices (1 per yr/15 months), prompt repair or replacement	x			
	.735	 (a) Storage of excess flammable or combustible materials at a safe distance from the compressor buildings 	x			.
		(b) Tank must be protected according to NFPA #30: Amdt 192-103 pub. 06/09/06 eff. 07/10/06.	X			
, †	.736	Compressor buildings in a compressor station must have fixed gas detection and alarm systems' (must be performance tested), unless:	x			
		. 50% of the upright side areas are permanently open, or	X		I	<u> </u>
	1.11	It is an unattended field compressor station of 1000 hp or less	X			

Comments:

Compressor station procedures are contained in GS&S A-38, UO S4432, UO S4291, Compressor stations have individual Station Operating and Maintenance Procedures. WP 4430-02, S4431 now address 0.735

05(b)			GULATING STATION PROCEDURES	S.	U	N/A	N/C
	,739(a)	Inspection and testing procedures for pr stations and equipment (1 per yr/15 mt	essure limiting stations, relief devices, pressure regulating maths)	X			
		(1) In good mechanical condition		X	Ĺ		
		employed	apacity and reliability of operation for the service in which it is	x			
4	.739(a)	(3) Set to control or relieve at correct p 192-96 pub. 5/17/04, eff.10/8/04	pressures consistent with .201(a), except for .739(b). Amdt.	x			
	<u></u>	(4) Properly installed and protected fr	om din, liquids, other conditions that may prevent proper oper.	X	1		
*	.739(b)	.739(b) For steel lines if MAOP is determined per .619(c) and the MAOP is 60 psi (414 kPa) gage or more Andt. 192-96 pub. 5/17/04, eff.10/8/04					T
		If MAOP produces hoop stress that	Then the pressure limit is:	1			
		Is greater than 72 percent of SMYS	MAOP plus 4 percent.	8		1	
		Is unknown as a percent of SMYS	A pressure that will prevent unsafe operation of the pipeline considering its operating and maintenance history and MAOP				
	.743	Testing of Relief Devices		Ľ			
*	.743	Amdt, 192-96 pub, 5/17/04, eff. H	01(a) except for .739(b), and be determined 1 per yr/15 mo. J/8/04	x			-
	.743	(b) If calculated, capacities must be c	ompared; annual review and documentation are required.	X			
	.743	(c) If insufficient capacity, new or ad	ditional devices must be installed to provide required capacity.	X			

Comments:

N/A - Not Applicable N/C - Nat Checked Unters atherwise noted, all code references are to 49CFH Part 193, S-Satisfactory 1- Uusatisfactory If an item is marked U, N/A, or N/C, an explanation must be included in this report.

Comments:

CES Std C-T & CS-S0351 District Regulator Station Maintenance;

COT Standard 4432 and COT Std S4433 Gas Pressure Relief Devices - Responsibility for Annual Inspection and Verification of Capacity);

G5&S [1-70 Pressure Relief Devices.

COT Std 4431 - Major Gas Facilities

(Note: During an audit; the inspector should ask transmission districts to identify its majore facilities considered per this standard.)

Standards review and confirmad as still applicable during audit of 03/3009

.605(b)	4	VALVE AND VAULT MAINTENANCE PROCEDURES	S	U N/	AN/C
		Valves			È,
	.745:	(a) Inspect and partially operate each transmission valve that might be required during an emergency (1 per yr/15 months)	x	·	
	745	(b) Prompt remedial action required, or designate alternative valve,	X		
		Vaults			
	.749	Inspection of vaults greater than 200 cubic feet (1 per yr/15 months)	X		

.605(b)	}	PREVENTION of ACCIDENTAL IGNITION PROCEDURES	S U NANC
	.751	Reduce the hazard of fire or explosion by:	
		(a) Removal of Ignilion sources in presence of gas and providing for a fire extinguisher	X
		(b) Prevent welding or cutting on a pipeline containing a combustible mixture	X
		(c) Post warning signs.	X

Comments

Safety Health & Claims procedure 236, WP-4100-01, A-38

192.745-.749 - UO Std S4446 Vault Inspection Procedures applies to both Transmission and Distribution; UO Std S4220 and WP S4430-04 Gas Valve Maintenance Requirements, applies to transmission and distribution.

G-14832 will become WP 4414-04.

3(c)		WELDING AND WELD DEFECT REPAIR/REMOVAL PROCEDURES	S	U	N/A	N/C
*	225	(a) Welding procedures must be qualified under Section 5 of API 1104 (10 th ed. 1999, 10/31/0) errata) or Section IX of ASME Boiler and Pressure Cade (2004. ed. including addenda through July 1, 2005.) by destructive test. Amdt:192-94. pub. 6/14/04, cil. 7/14/04; Amdt. 192-103 pub. 06/09/06, eff. 07/10/06;	x			
		(b) Retention of welding procedure - details and test	X			
	Note: Alle	emate welding procedures criteria are addressed in API 1104 Appendix A, section A.3.		··· ·		
¢.	.227	 (a) Welders must be qualified by Section 6 of API 1104 (19ⁿ ed. 1999, 10/31/01 errata) or Section IX of ASME Boiler and Pressure Code (2004 ed. including addenda through July 1, 2005) Sec exception in .227(b). Andt.192-94 pub. 6/14/04, eff. 7/14/04; Amdt. 192-103 pub 06/09/06, eff. 07/10/06; Amdt. 192-103 corr. Pub 02/01/07 eff. 03/05/07. 	x			
		(b) Weldors may be qualified under section 1 of Appendix C to weld on lines that operate at < 20% SMVS.			. X	
	.339	 (a) To weld on compressor station piping and components, a welder must successfully complete a destructive lest 	X			
		(b) Welder must have used welding process within the preceding 6 months	X			
		(c) A welder qualified under .227(a) -				
	.229(c)	(1) May not weld on pipe that operates at ≥20% SMYS unless within the preceding 6 colendar months the welder has had one weld tested and found acceptable under the sections 6 or 9 of API Standard 1104; may maintain an ongoing qualification status by performing welds tested and found acceptable at least twice per year, not exceeding 7½ months; may not requalify under an earlier referenced edition. Anidt. 192-94 pub. 6/14/04, eff. 7/14/04.	x			

If an item is marked U, N/A; or N/C, an explanation must be included in this report. .13(c) S U N/AN/C WELDING AND WELD DEFECT REPAIR/REMOVAL PROCEDURES May not weld on pipe that operates at < 20% SMYS unless is tested in accordance with £24 x 229(c)(1) or regualifies under 229(d)(1) or (d)(2). (d) Welders qualified under .227(b) may not weld unless: (1)Requalified within 1 year/15 months, or X Within 71/2 months but at least twice per year had a production weld pass a qualifying tost \mathbf{X} (2)X .231 Welding operation must be protected from weather x .233 Miter joints (consider pipe alignment) X .235 Welding preparation and joint alignment Visual inspection must be conducted by an individual qualified by appropriate training and .241 (a) x experience to ensure: Amdt, 192-94 pub. 6/14/04, eff. 7/14/04 (1) Compliance with the welding procedure x Weld is acceptable in accordance with Section 9 of API 1104 X (2)Welds on pipelines to be operated at 20% or more of SMVS must be nondestructively (0) tested in accordance with 192.243 except welds that are visually inspected and approved by X a qualified welding inspector if: X (1) The nominal pipe diameter is less than 6 inches, or The pipeline is to operate at a pressure that produces a hoop stress of less than 40% of (2)X SMYS and the welds are so limited in number that nondestructive testing is impractical Acceptability based on visual inspection or NDT is determined according to Section 9 of API .241 ¥ (c) 1104. If a girth weld is unacceptable under Section 9 for a reason other than a crack, and if X Appendix A to API 1104 applies to the weld, the acceptability of the weld may be further. determined under that appendix. Amdt. 192-94 pub. 6/14/04, eff. 7/14/04 Note: If the alternative acceptance criteria in API 1104 Appendix A are used, has the operator performed an Engineering Critical Assessment (ECA)? Repair and Removal of Weld Defects .245 Each weld that is unacceptable must be removed or repaired. Except for offshore pipelines: a (a) X weld must be removed if it has a crack that is more than 8% of the weld length Each weld that is repaired must have the defect removed down to sound metal, and the segment (b) to be repaired must be preheated if conditions exist which would adversely affect the quality of x the weld repair. After repair, the weld must be inspected and found acceptable. Repair of a crack or any other defect in a previously repaired area must be in accordance with (e) X a written weld repair procedure, qualified under §192.225 Note: Sleeve Repairs - use low hydrogen rod (Best Practices -ref. API 1104 App. B. In Service Welding)

Unless atherwise noted, all codo references are to 49CFR Part 192. S .. Satisfactory U-Unsatisfactory N/A - Not Applicable N/C - Not Checked

Comments:

192,231, 192,235 - GS&S D-20 P.2

192,233 - OS&S A-36 P.6

192,241 - Welding, is addressed in GS&S D-40 and D-22.

192,245 - Repair and Removal of Weld Defect, is addressed in UO Std S4134 and GS&S D-30.-

GS&S D-30 - Welder Qualification For Under 20% of SMYS

GS&S D-30.2 - Arc Welder Qualification For Working on Pipelines that Operate At Over 20% SMYS

GS&S D-22 Arc Welding Procedure Requirement All Stress Levels

GS&S A-36 Design Construction Requirements

.13(c)		NONDESTRUCTIVE-TESTING PROCEDURES	S	U	N/A	N/C
	.243	(a) Nondestructive testing of welds must be performed by any process, other than trepanning, that clearly indicates defects that may affect the integrity of the weld.	×			
		(b) Nondestructive testing of welds must be performed:				
		(1) In accordance with a written procedure, and	X			
		(2) By persons trained and qualified in the established procedures and with the test equipment used	x			
		(c) Procedures established for proper interpretation of each nondestructive test of a weld to ensure acceptability of the weld under 192.241(c)	×			

Untesa atherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U Unvatisfactory N/A - Not Applicable N/U - Not Checked. If an item is marked U, N/A, or N/C, an explanation must be included in this report.

	NONDESTRUCTIVE TESTING PROCEDURES	S	U	N/AN/C
	(d) When nondestructive testing is required under §192.241(b), the following percentage of each day's field built welds, selected at random by the operator, must be nundestructively tested over the entire circumference.			
	(1) In Class 1 locations at least 10%	X	2	
	(2) in Class 2 locations at least 15%	X		
	(3) In Class 3 and 4 locations, at crossings of a major navigable river, offshore, and within railroad or public highway rights-of-way, including tunnels, bridges, and overhead road crossings, 100% unless impractical, then 90%. Nondestructive testing must be impractical for each girth weld not tested.	x		
	(4) At pipeline tie-ins, 100%	X		
	(c) Except for a welder whose work is isolated from the principal welding activity, a sample of each welder's work for each day must be nondestructively tested, when nondestructive testing is required under §192.241(b)	X		
•	(f) Nondestructive testing – the operator must retain, for the life of the pipeline, a record showing by mile post, engineering station, or by geographic feature, the number of welds nondestructively tested, the number of welds rejected, and the disposition of the rejected welds.	X		

Comments:

GS&S D-40 Weld Inspection

GS&S D-31 Standard of Acceptability for Welding: Non-destructive and Destructive Testing

192.243(d)(1) - PO&E tests a minimum of 20% instead of 10% 192.243(d)(2) - PO&E tests a minimum of 20% instead of 15%

.273(b)			JOINING OF PIPELINE MATERIALS	S	U	N/A	N/C
	.281	ند میں	Joining of plastic pipe	•.	ت 200 لو		
		÷	Type of plastic used	X			
	}	. •	Proper markings in accordance with \$192.63	X			
	<u> </u>	<u>.</u>	Manufacturer	X		[
		•	Type of joint used	×		Ľ.	
	.283	:	Qualified joining procedures for plastic pipe must be in place Amdt. 192-94 pub. 6/14/04. eff. 7/14/04; Amdt. 192-103 pub. 06/09/06, eff. 07/10/06.	X		ļ	
; 4 .	.285		Persons making joints with plastic pipe must be qualified Amdt. 192-94 pub. 6/14/04, eff. 7/14/04	.X			<u> </u>
4	.287		Persons inspecting plastic joints must be qualified Amdt. 192-94 pub. 6/14/04, cff. 7/14/04	х			

Comments:

OS&S A-90 Plastic Main and Service Installation

GS&S A-93 Polychylene Plpe Specifications and Design Considerations

GS&S A93.1 Plastic Gas Distribution System Construction and Maintenance

GS&S D-34 Qualifications For Joining Plastic Pipes

GS&S D-21 Joining of Polyethylene Pipe

Reviewed and confirmed during 03/2009 audit that existing standards are still applicable.

.605(b)	T.	CORROSION CONTROL PROCEDURES	S	U	N/A	N/C
	.453	Are corrosion procedures established and carried out by or under the direction of a qualified person for:				•
		Design:	X			Ľ
		Operations	X			
		Installation	X	<u> </u>		
×		Maintenance	X	<u> </u>		
	.455	 (a) For pipelines installed after July 31, 1971, buried segments must be externally coated and (b) cathodically protected within one year after construction (see exceptions in code) 	×			

STANDARD INSPECTION REPORT OF A GAS TRANSMISSION PIPELINE Unless otherwise noted, all code references are to 490 FR Part 192. S-Salisfactory. V-Unsatisfactory. N/A-Not Applicable N/C-Not & If an item is marked U, N/A; or N/C; an explanation must be included in this report. N/C - Not Checked

	CORROSION CONTROL PROCEDURES	s	U	N/A	1
	(c) Aluminum may not be installed in a buried or submerged pipeline if exposed to an environment with a natural pH in excess of 8 (see exceptions in code).			X	
.457	(a) All effectively obsted steel transmission pipelines installed prior to August 1, 1971, must be cathodically protected	X		L	
	(b) If installed before August 1, 1971, cathodic protection must be provided in areas of active corrosion for: bare or ineffectively coated transmission lines, and bare or coated e/s, regulator sta, and meter sta, piping.	x			
.459	Examination of buried pipeline when exposed if corrosion is found, further investigation is required	X			
.461	Procedures must address the protective coating requirements of the regulations. External coating on the steel pipe must meet the requirements of this part.	×.			_
463	Cathodic protection level according to Appendix D criteria	X			
.465	(a) Pipe-to-soil monitoring (1 per yr/15 months) or short sections (10% per year, all in 10 years)	X		ļ	
	(b) Rectificr monitoring (6 per yr/21/2 months)	×			_
	(c) Interference bond monitoring (as required)	X			
	(d) Prompt remedial action to correct any deficiencies indicated by the monitoring	X			
.465	(e) Electrical surveys (closely spaced pipe to soil) on bare/unprotected lines, cathodically protect active corrosion areas (1 per 3 years/39 months).	x	ļ	<u> </u>	_
467	Electrical isolation (include casings)	X	 	<u> :</u>	_
,469	Sufficient test stations to determine CP adequacy	X	1	<u> </u>	-
.471	Tešt leads	X		<u> </u>	
.473	Interference currents	X	1	Ľ	
.475	(a) Proper procedures for transporting corrosive gas?			×	1
	(b) Removed pipe must be inspected for internal corrosion. If found, the adjacent pipe must be inspected to determine extent. Certain pipe must be replaced. Steps must be taken to minimize internal corrosion.	x			
.476	Systems dusigned to reduce internal corrosion Final Rule Pub. 4/23/07. cfl. 5/23/07. (a) New construction	X			-
	(b) Exceptions - offshore pipeline and systems replaced before \$/23/07	_	ļ	<u> </u>	ŝ
	(c) Evaluate impact of configuration changes to existing systems	X	1		
.477	Internal corrosion control coupon (or other suit. Means) monitoring (2 per yr/7% months)	X			
479	(a) Each exposed pipe must be cleaned and coated (see exceptions under .479(c))	X			
	Offshore splash zones and soil-to-air interfaces must be coated	X			
}	(h). Coaling material must be suitable	X	Ľ.		
	Coating is not required where operator has proven that corresion will:			, ,	
 	(c) (1) Only be a light surface oxide, or	X	<u> </u> .		
	(2) Not affect safe operation before tiext scheduled inspection	X			_
:481	(a) Atmospheric corrosion control monitoring (1 per 3 yrs/39 months onshure: 1 per yr/15 months offthare)	x			
.481	 (b) Special attention required at soil/air interfaces, thermal insulation, under disbonded coating, pipe supports, splash zones, deck penetrations, spans over water. 				-
481	(c) Protection must be provided if atmospheric corrosion is found (per §192,479).	<u>x</u>	_		-
.483	Replacement pipe must be coated and cathodically protected (see code for exceptions)	×			-
.485	(a) Procedures to replace pipe or reduce the MAOP if general corrosion has reduced the wall thickness?	×			
	(b) Procedures to replace/repair pipe or reduce MAOP if localized corrosion has reduced wall thickness (unless reliable engineering repair method exists)?	X X	_∔	_	-
	(c) Procedures to use Rstreng or B-31G to determine remaining wall strength?		-	_	-
.491	Corrosion control maps and record retention (pipeline service life or 5 yrs)	X		<u> </u>	

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STANDARD INSPECTION REPORT OF A GAS TRANSMISSION PIPELINE Unless otherwise noted, all code references are to 49CFR Part 192. S-Satisfactory U-Unsatisfactory N/A-Not Applicable N/C-Not C If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

Comments Overall co 3S&S E-2	moston co	ntrol procedures are contained in GS&S O-16, US S 4133, O-10 & A34, S4134, and UO Std S4126, Associated Stds D-10, D-10,1				
605(b)		INDERWATER INSPECTION PROCEDURES - GULF of MEXICO and INLETS	S	U	N/A	N/4
*	.612(a)	Operator must have a procedure prepared by August 10, 2005 to identify pipelines in the Oulf of Mexico and its inlets in waters less than 15 feet (4.6 meters) deep that are at risk of being an exposed underwater pipeline or a hazard to payigation? Amdt. 192-98 pub. 8/10/04, eff. 9/9/04			x	
•	.612(h)	Operator must conduct appropriate periodic underwater inspections based on the identified risk Amdt. 192-98 Jun. 8/10/04, cff. 9/9/04			x	
ч. Ч	.612(c)	Do procedures require the operator to take action when the operator discovers that a pipeline is exposed on the sented or constitutes a hazard to navigation.			x	
		(1) Prompily, within 24 hours, notify the National Response Center of the location of the pipeline?			X	
<u></u>		(2) Promptly, but not later than 7 days after discovery, mark the location of the pipeline in accordance with 33 CFR Part 64 at the ends of the pipeline segment and at intervals of not over 500 yards long, except that a pipeline segment less than 200 yards long need only be marked at the center?			X	
		(3) Place the pipeline so that the top of the pipe is 36 inches below the seabed for normal excavation or 18 inches for rock excavation within 6 months of discovery or not later than November 1 of the following year if the 6 month period is later than November 1 of the year the discovery is made? See code re: engineering alternatives. PHMSA notification.			×	

.801-	Subpart N Qualification of Pipeline Personnel Procedures SUN/AN/	q
.809	Refer to Operator Qualification Inspection Forms and Protocols (OPS web sile)	
		1

.901-	Subpart O — Pipeline Integrity Management	S U N/AN/C
951	This form does not cover Gas Pipeline Integrity Management Programs	

1		PART 199 DRUG and ALCOHOL TESTING REGULATIONS and PROCEDURES	S	ÛN	I/A N/C	
	Subparts A - C	Drug & Alcohol Testing & Alcohol Misuse Prevention Program - Use PHMSA Form # 13. PHMSA	×.		,	
		2008 Drug and Alcohol Program Check.	L			1

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Comments:

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	PIPELINE INSPECTION (Field)	S	U	N/A	N/C
179	Valve Protection from Tampering or Damage		ļ	X	
463	Cathodic Protection		_	_	_
.465	Recifiers		ļ		4.
.476	Systems designed to reduce internal corrosion		<u> </u>		\vdash
.479	Pipeline Components Exposed to the Atmosphere	<u></u>		┝┼╴	_
.60\$	Knowledge of Operating Personnel			14	┣—
612 (c) (2)	Pipelines exposed on seabed (Gulf of Mexico and Inlets): Marking		1	\vdash	
613(b), 701	Pipeline condition, unsatisfactory conditions, hazards, etc.		· <u> </u>	H	╞
.707	ROW Markers, Road and Railroad Crossings				+
.719	Pre-pressure Tested Pipe (Markings and Inventory)				,
.739/.743	Pressure Limiting and Regulating Devices (spot-check field installed equipment vs. inspection records)				L

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STANDARD INSPECTION REPORT OF A GAS TRANSMISSION PIPELINE Unless otherwise noted, all code references are to 49 CFR Part 192. S. Satisfoctory U-Unsatisfactory N/A-NoI Applicable N/C-Not C If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

	PIPELINE INSPECTION (Field)	S	U	N/A	N/I
.745	Valve Maintenance		 	¥	
.751	Warning Signs		┡	Ц.	Į.
801 - 809	Operator Qualification - Use PHMSA Form 15 Operator Qualification Field Inspection Protocol Form	<u> </u>		47	

	COMPRESSOR STATIONS INSPECTION (Field) (Note: Facilities may be "Grandfathered")	8	U	N/A	N/
63 (c)	Main operating floor must have (at least) two (2) separate and unobstructed exits		L	اكر	┡
	Door latch must open from inside without a key	<u> </u>			-
	Doors must swing outward				╞
(d)	Each fence around a compressor station must have (at least) 2 gates or other facilities for emergency exit		 .	4	Ļ
• • •	Each gate located within 200 ft of any compressor plant building must open nutward		<u> </u>	Ш	Ļ
	When occupied, the door must be opened from the inside without a key				Ļ
(e)	Does the equipment and wiring within compressor stations conform to the National Electric Code, ANSI/NFPA 70?		<u> </u>		
65(a)	If applicable, are there liquid separator(s) on the intake to the compressors?			₊	Ļ
6S(b)	Do the limit separators have a manual means of removing liquids?	4	 		╇
	If slugs of liquid could be carried into the compressors, are there automatic dumps on the separators, Automatic compressor shutdown devices, or high liquid level alarms?	<u> </u>		. /	1
67(6)	ESD system must:	4-	1	1.4	÷
	- Discharge blowdown gas to a safe location		.		4
	Division of a low down the gas in the station	<u> </u>	<u> </u>	11	4
	- Shut down gas compressing equipment, gas fires, electrical facilities in compressor building and near	-	<u> </u>	<u> </u>	
	Maintain necessary electrical citcuits for emergency lighting and circuits needed to protect equipment from damage			1.2	
	ESD system must be operable from at least two locations, each of which is:		1	TZ	Т
	- Outside the gas area of the station	<u> </u>		$+\frac{1}{1}$	4
	- Not more than 500 feet from the limits of the station	<u> </u>	+-	+	4
	- ESD switches near emergency exits?	4	<u> </u>	4	-
167 (6)	For stations supplying gas directly to distribution systems, is the ESD system configured so that the LDC will not be shut down if the ESD is activated?	`		ļ	
167(c)	Are ESDs on platforms designed to actuate automatically by	-	, ²		ġ
	· For unattended compressor stations, when:			.	-
	The gas pressure equals MAOP plus 15%?	_			+
	* An uncontrolled fire occurs on the platform?			7	1
	· For compressor station in a building, when	4	-1		. 1
	An uncontrolled fire occurs in the building?		-	-++	4
	 Gus in air reaches 50% or more of LEL in a building with a source of ignition (facility conforming to NEC Class 1, Group D is not a source of ignition)? 		· ·		_
.171(a)	Does the compressor station have adequate fire protection facilities? If fire pumps are used, they must not be		- . 		_
(b)	Do the compressor station prime movers (other than electrical movers) have over-speed shutdown? Do the compressor units alarm or shutdown in the event of inadequate cooling or lubrication of the unit(s)?			_	r

STANDARD INSPECTION REPORT OF A GAS TRANSMISSION PIPELINE Unless otherwise auted, all code references are to 49 CFR pure 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not C If an item is marked U, N/A, or N/C, an explanation must be included in this report: N/C - Not Checked

	COMPRESSOR STATIONS INSPECTION (Field) (Note: Facilities may be "Grandfathered")	S	U	N/A	N/C
(d)	Are the gas compressor units equipped to automatically stop fuel flow and vent the engine if the engine is stopped for any reason?	•		£	
(2)	Are the mufflers equipped with vents to vent any trapped gas?	<u> </u>	<u> </u>		<u> </u>
,173	Is each compressor station building adequately ventilated?	<u> </u>	<u> </u>		<u> </u>
.457	Is all buried piping cathodically protected?			4	_
,481	Atmospheric corrosion of aboveground facilities		ļ		
.603	Does the operator have procedures for the start-up and shut-down of the station and/or compressor units?		ļ		<u> </u>
	Are facility maps current/up-to-date?		<u> </u> :		<u></u>
.615	Emergency Plan for the station on site?		<u> </u>		<u> </u>
,707	Markers	_ _	ļ		<u>l</u>
731	Overpressure protection - reliefs or shutdowns				1
.73 5	Are combustible materials in quantities exceeding normal daily usage, stored a safe distance from the compressor building?		<u> </u>		<u> </u>
	Are aboveground oil or gusoline storage tanks protected in accordance will NFPA standard No. 30?			4	<u> </u>
736	Gas detection – location		1	1	

Comments:

······	CONVERSION TO SERVICE PERFORMANCE and RECORDS	Ş	U	N/A	N/C
.14 (a)(2)	Visual inspection of right of way, aboveground and selected underground segments			X	<u> </u>
(a)(3)	Correction of unsafe defects and conditions				. <u></u>
(a)(4)	Pipeline testing in accordance with Subpart J				<u> </u>
(b)	Pipeline records: investigations, tests, repairs, replacements, alterations (life of pipeline)	1		1	

	REPORTING PERFORMANCE and RECORDS	S	U	N/A	N/C
1915	Telephonic reports to NRC (800-424-8802)			12	
19115	Written incident reports; supplemental incident reports (DOT Form RSPA F 7100.2)				
191.17(a)	Annual Report (DOT Form RSPA F 7100.2-1)			Ц.	<u> </u>
191.23	Safety related condition reports	 ,			<u> </u>
191 27	Offshore pipeline condition reports	 			
192.727 (g)	Abandoned facilities offshore, onshore crossing commercially navigable waterways reports		<u> </u>	1.6	<u>.</u>

	CONSTRUCTION PERFORMANCE and RECORDS	S	U		N/C
225	Test Results to Qualify Welding Procedures			$ \gamma $	ļ
27	Welder Qualification			1	
41 (a)	Visual Weld Inspector Training/Experience			ĽĻ.	Ļ
243 (h)(2)	Nondestructive Technician Qualification				Ļ
(c)	NDT procedures	ļ	<u>`</u>		<u> </u>
(1)	Total Number of Girth Welds	L	 	ļ	
ທີ	Number of Welds Inspected by NDT	<u> </u>	<u> </u>	<u>.</u>	<u>,</u>
()	Number of Welds Rejected		<u> </u>		

STANDARD INSPECTION REPORT OF A GAS TRANSMISSION PIPELINE Unless otherwise noted, all code references are to 19CFA part 192. S.- Sutisfactury. U-Unsatisfactury. N/A - Not Applicable N/C - Not Checked If an item is marked U. N/A, or N/C, an explanation must be included in this report.

	CONSTRUCTION PERFORMANCE and RECORDS	S	ា	N/A	N/C
(1)	Disposition of each Weld Rejected			×	
303 (Construction Specifications				
325	Underground Clearance			l f	
.327	Amount, Location, Cover of each Size of Pipe Installed				÷
.328	If the pipeline will be operated at the alternative MAOP standard calculated under 192,620 (80% SMYS) does it meet the additional construction requirements for: Quality assurance, Girth welds, depth of cover, initial strength testing, and interference currents?				
.455	Cathodic Protection		1	T U	· .

	OPERATIONS and MAINTENANCE PERFORM	NCE and RECORDS	S	U	N/A	NIC
.16	Customer Notification (Verification - 90 days - and	Elements			4	
.603(b)	.605(a) Procedural Manual Review - Operations and Mainten	ance (1 per yr/15 months)				
.603(b)	.605(c) Abnormal Operations				Π	Γ
.603(b)	.605(b)(3) Availability of construction records, maps, operating	history to operating personnel			Π	Τ
.603(b)	.605(b)(8) Periodic review of personnel work - effectiveness of				T)	
.603(b)	.605(c)(4) Periodic review of personnel work - effectiveness of			Ì	11-	1
709	609 Class Location Study (If Applicable)				1	
603(b)	.612(b) Gulf of Mexico/inlets: Periodic underwater inspection	s based on the identified risk				<u>†</u>
.709	614 Damage Provention (Miscellaneous)					+
					1	+
603(b)	.615(b)(1) Location Specific Emergency Plan					+
.603(៦)	.615(b)(2) Emergency Procedure training, verify effectiveness of				14	
.603(b)	.615(b)(3) Employee Emergency activity review, determine if p	occdures were followed.		<u> </u>	1	<u> </u>
.603(b)	.615(c) Liaison Program with Public Officials			L	<u> </u>	<u> </u>
.603(b)	.616 Public Awateness Program .616(e & f) Documentation properly and adequately reflects impl			3 e 2		۰.
	mailing rosters, postage receipts, return receipts, au emergency responder, public officials, school superi below: API RP 1162 Baseline* Recommende	ntendents, program evaluations, etc.). See tab	lc .	<u>.</u>		<u>}</u>
	Stakeholder Audience (Natural Gas Tran	smission Line Operators)		,	•	
4	Residents Along Right of Way and Places of Congregation	Baseline Message Frequency (starting from effective date of Plan)			. •	•
	Emergency Officials	2 years				<i>.</i>
	Public Officials	Annual				:** [*]
	Excavator and Contractors	3 years Annual	, s		4. 1	
	One-Call Centers Stakeholder Audience (Gathering Line Operators)	As required of One-Call Center			14	*1,14 *1
	Residents and Places of Congregation	Baseline Message Frequency				` *
	Emergency Officials	Annual	.		•	
	Public Officials	Annual				
	Excavators and Contractors	3 years			÷.,	
	One-Call Centers	Annual				, i
	* Refer to API RP 1162 for additional requirements,	As required of One-Call Center				
	including general program recommendations,		1.0			j.
	supplemental requirements, recordkeeping, program evaluation, etc.					
	bl6(g) The program must be conducted in English and any o	ther languages commonly understood by a	<u> </u>		 {	
	significant number of the population in the operator			L	T	1
517	Pressure Testing				12	1

19

. . .

Unless uthernise noted, all code references are to 490FR Part 122. S - Satisfactory. U-Unsatisfactory. N/A-Not Applicable N/C-Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

	OPE	RATIONS and MAIN	TENANCE PERFORMANCE and RECO)RDS	S	υ	N/	<u> </u>	1/C
553(h)		Uprating				L	X	4	
709	.6197.620	Maximum Allowable (perating Pressure (MAOP)		<u> </u>		$\downarrow\downarrow$	1	
709	.625	Odorization of Gas		· · · · · · · · · · · · · · · · · · ·				Ц	
.709	705	Patrolling (Refer to Tr	ble Below)		<u> </u>		×,	1	
	······································			At All Other Places	j :				
		Class Location	At Highway and Railroad Crossings		¥.				
		1 and 2	2/yr (7½ months)	1/yr (15 months)	1				
			4/yr (4½ months) 4/yr (4½ months)	2/yr (7½ months) 4/yr (4½ months)	ļ	-			
:	L	<u> </u>	4/98 (4/2 months)	4/31 (4/2 modifies)	3.	•			
109	.706	Leak Surveys (Refer t	o Table Below)				7	T	
		Class Location	Required	Not Exceed]				
		l and 2	I/yr	15 months					
1	·	3	2/yr*	7½ months					
		d	4/yr*	4% months	1				
	Leal	detector equipment su	vey required for lines transporting un-odorized ga	<u> </u>	1				
.709	.731(a)	Compressor Station R	tief Devices (1 per yr/15 months)	· · · · · · · · · · · · · · · · · · ·	T	Τ	TY	7	<u> </u>
.709	.731(c)		nergency Shutdown (1 per yr/15 months)		1	T		П	
.109	,736(c)		Detection and Alarms (Performance Test)	<u>.</u>			T	Ī	
709	719		Regulating Stations (1 per yr/15 months)			T	TI		
.709	.743		Regulator Stations - Capacity (1 per yr/15 month	hs)					
,709	.745	Valve Maintenance (I	per yr/15 months)		Τ				
709	.749		200 cubic feet)(1 per yr/15 months)			L	\Box		
		Prevention of Accider	tal Ignition (hot work permits)		1				
.603(b)	.751	1 to software of 1 sources						1 1	
.603(b) 603(b)	.751 .225(b)	Welding - Procedure				<u> </u>		\square	
						-		H	
603(b)	.225(b)	Welding - Procedure	alification						
603(b) 603(h)	.225(b) .227/.229	Welding - Procedure Welding - Welder Qu	alification I Qualification						

Comments:

s U N/AN/C CORROSION CONTROL PERFORMANCE and RECORDS CP procedures (system design, installation, operation, and maintenance) must be carried out by qualified personnel 2 ,453 .491 491(8) Maps or Records Examination of Buried Pipe when Exposed 491 .459 Annual Pipe-to-soil Monitoring (1 per yr/15 months) or short sections (10 % per year, all in 10 years). 491 .465(a) Rectifier Monitoring (6 per yr/21/2 months) .465(b) -191 Interference Bond Monitoring - Critical (6 per yr/21/2 months) .491 .465(c) Interference Bond Monitoring - Non-critical (1 per yr/15 months) ,491 .465(c) Ì Prompt Remedial Actions .491 .465(d) 4 Unprotected Pipeline Surveys, CP active corrosion areas (1 per 3 cal yr/39 months) .491 .465(c)

STANDARD INSPECTION REPORT OF A GAS TRANSMISSION PIPELINE Unless otherwise moted, all code references are to 49CFR Part 192. S - Satisfactory U-Unsatisfactory N/A - Not Applicable N/C - Not C If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

		CORROSION CONTROL PERFORMANCE and RECORDS	 S	U	N//	N/C
.491	,467	Electrical (solution (Including Casings)			¥	
491	.469	Test Stations - Sufficient Number				
.491	.471	Test Leads	 	L		
.491	.473	Interference Currents	 		<u>[[</u>	
491	.475(a)	Internal Corrosion; Corrosive Gas Investigation		Ľ		
.491	.475(b)	Internal Corrosion; Internal Surface Inspection; Pipe Replacement	 	L	LÌ	
-491	.476 (d)	Internal Corrosion; New system design; Evaluation of impact of configuration changes to existing systems				<u> </u>
491	.477	Internal Corrosion Control Coupon Monitoring (2 per yr/71/2 months)				
,491	.481	Atmospheric Corrosion Control Monitoring (1 per 3 cal yr/39 months onshore; 1 per yr/15 months offshore)		<u> </u>	\prod	
.491	.483/.485	Remedial: Replaced or Repaired Pipe: coated and protected: corrosion evaluation and actions	 L.	1		

Comments:

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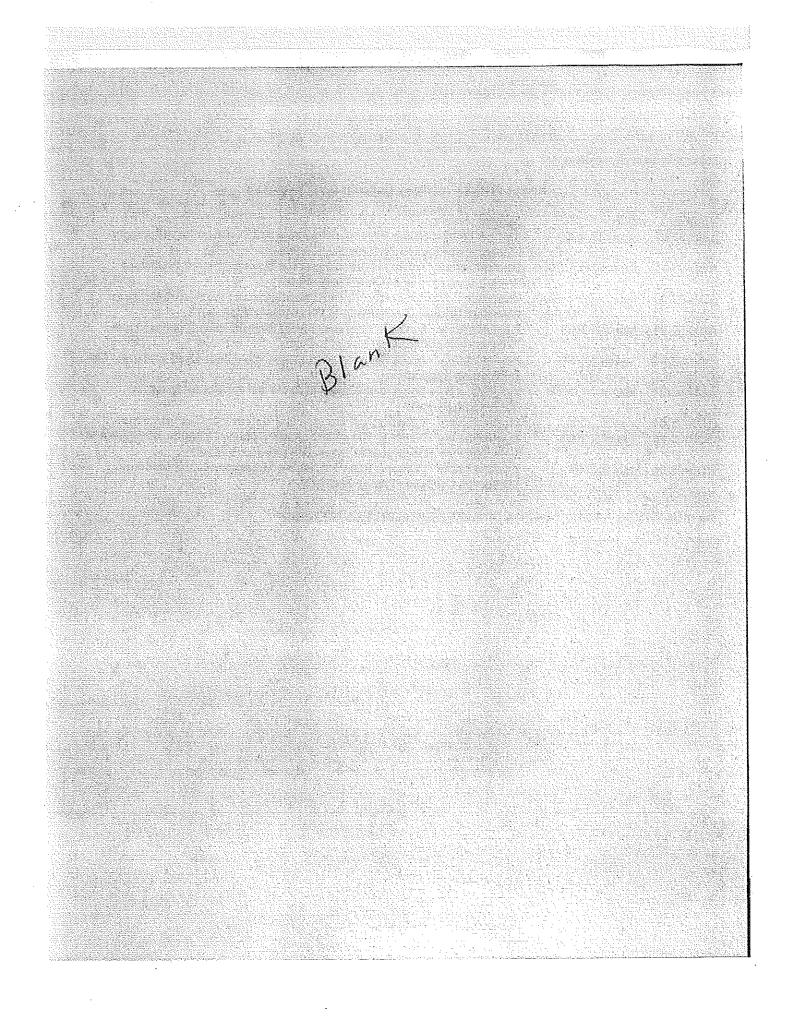
Leave this list with the operator.

Recent PHMSA Advisory Bulletins (Last 2 years)

Number	Date	Subject
ADB-07-01	April 27, 2007	Pipeline Safety: Senior Executive Signature and Certification of Integrity
		Management Program Performance Reports
ADB-07-02	September 6, 2007	Pipeline Safety: Updated Notification of the Susceptibility to Premature
		Brittle-Like Cracking of Older Plastic Pipe
ADB-07-02	February 29, 2008	Correction - Pipeline Safety: Updated Notification of the Susceptibility to
•		Premature Brittle-Like Cracking of Older Plastic Pipe
ADB-08-01	May 13, 2008	Pipeline Safety - Notice to Operators of Gas Transmission Pipelines on the
		Regulatory Status of Direct Sales Pipelines:
ADB-08-02	March 4, 2008	Pipeline Safety - Issues Related to Mechanical Couplings Used in Natural Gas
	,	Distribution Systems
ADB-08-03	March 10, 2008	Pipeline Safety - Dangers of Abnormal Snow and Ice Build-Up on Gas
		Distribution Systems
ADB-08-04	June 5, 2008	Pipeline Safety - Installation of Excess Flow Valves into Gas Service Lines
ADB-08-05	June 25, 2008	Pipeline Safety + Notice to Hazardous Liquid Pipeline Operators of Request for
		Voluntary Adv Notification of Intent To Transport Biofuels
ADB-08-06	July 2, 2008	Pipeline Safety - Dynamic Riser Inspection, Maintenance, and Monitoring
· - · · · · · · ·	i et al	Records on Offshore Floating Facilities

For more PHMSA Advisory Bulletins, go to http://ops.dot.gov/regs/advise.htm

Form 1 Standard Inspection Report of a Gas Transmission Pipeline (Rev. 03/23/09 through Final Rule of 16 January 2009)



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.

Ĭ	nspection Report		Post Inspection Memoran	idum
Inspector/Submit Date	· · · · · · · · · · · · · · · · · · ·	Inspector/Submit I Peer Review/Date: Director Approval		······································
	POST INSPECTION	ON MEMORANDUM	I (PIM)	
Name of Operatori	Pacific Gas and Electric Company			OPID #: 15007
Name of Unit(s):	All PG&E Distribution and Transmiss	ion		Unit #(s):
Records Location:	San Francisco, California			
Unit Type & Commod	ity: Distribution with some transmis	sion - Natural gas only)	
Inspection Type:				arch 3-5, 2009
PHMSA Representative(s):	Sunil Shori, Ivan Garcia, Steve Ar	rtus, and Terence Eng		AFO Days: 3

Summary:

This report is a centralized audit of documents that form Pacific Gas & Electric Company's (PO&E) Operations, Maintenance, and Emergency Plans. This audit examined gas distribution and transmission related standards; however, only distribution related findings are included in this report (transmission findings are in another report).

The findings from this audit will be resolved and a tempelate for subsequent audits will be created based on the findings of this audit. The template will be used as the USRB Inspection Form for audits of PG&E conducted until PHMSA next revises this form.

Findings:

The findings are as noted throughout this report. A written report noting the findings will be sent to the operator.

From 2 Standard Igeneration Report of a Gas Distribution Operator (Rev. 03/23/09 through Final Rule of 16 Innuary 2009)

Name of Operator: Pacif	fie Gas and Electric Company	<u> </u>	
Nume of Operator: Pacit OP ID No: ⁽¹⁾		Unit ID No. ^(I)	
HQ Address:		System/Unit Name & Ad	dress: "
77 Beale Street		123 Mission Street	
San Francisco, CA		San Francisco, CA	· ·
			~
		•	
Co. Official:		Activity Record ID No.:	<u> </u>
Phone Non		Phone No.:	· · · ·
Findine Ivo.		Fax No.:	
Emergency Phone No.:		Emergency Phone No.:	:
Persons Interviewed	T	itle	Phone No.
Lawrence M. Berg	Senior Ga	s Engineer	
Edward Chun	Consulting Sen	ior Gas Engineer	
Brian J. Leary	Gas Standa	rds Manager	
			<u> </u>
			<u> </u>
		<u>x</u>	<u></u>
PHMSA Representative(s) (1)	Inspection	Jate(s)	NIT
Company System Maps (Copies	s for Region Files): NO MAPS (DBTAINED DURING AUE	<u>/////////////////////////////////////</u>
			And a second
Unit Description	Contractoria		
Documents related to entire PG&	r. Bas system		
}			
			the second s
Portion of Unit Inspected; (1)	-		
Documents related to entire PG8	E gas system		

For gas transmission and distribution pipeline inspections, the attached evaluation form should be used in conjunction with 49CFR Parts 191 and 192.

Information not required if included on page 1.

FAIR & Standard Internation Report of a One Distribution Countries (Dec. A) (33400 through First Rule of 16 January Mill)

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all cude references are in 49CFR Part 192. S-Satisfactory U-Gusatisfactory S/A-Nat Applicable N/C-Nat Ch If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

	GAS SYSTEM OPERATIONS				
Gas Supplier N/A	Date:				:
Unaccounted for Gas:	Servicest	esidential	Commercial	Industrial	Other
Operating Pressure(s):	MAOP (Within last year)		Actual O	perating Pressime of Inspection)	ure
Feeders			الله با در اليه بيار ما بي بيا به بيارينا التاريخيات		
Town:	· · · · · · · · · · · · · · · · · · ·		·····		
Other:					
Does the operator have any transmission pipelines?					
For compressor station inspections, use Attachment 4.					

49CFR PART 191

Negaria.	REPORTING PROCEDURES	Ś	i ji	i NIA	N/C
.605(b)(4)	Procedures for gathering data for incident reporting			· · · · ·	
	191.5 Telephonically reporting incidents to NRC (800) 424-8802	X			
	191.15(a) 30-day follow-up written report (Form 7100-2)	X			1. 1
	191,15(b) Supplemental report (to 30-day follow-up)	X			
.605(a)	191/23 Reporting safety-related condition (SRCR)	X	-		
	191.25 Filing the SRCR within 5 days of determination, but not later than 10 days after discovery	X			
.605(d)	Instructions to enable operation and maintenance personnel to recognize potential Safety Related Conditions	X	÷		

Comments: PG&E's reporting procedures are addressed in UO Std S4413.

49CFR PART 192

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.13(c)		CUSTOMER AND EFV INSTALLATION NOTIFICATION PROCEDURES	S	U	N/A	N/C
	.16	Procedures for notifying new customers, within 90 days, of their responsibility for those selections of service lines not maintained by the operator.	X		1	:
.13(c)	.381	IFEFVs are installed, they must meet the performance requirements of §192.381	x	· ·		
	.383	If the operator has a voluntary installation program for excess flow valves, the program must meet the requirements outlined in § 192.383.	x			
	.383	If the operator does not have a voluntary program for EFV installations, customers must be notified in accordance with §192 383.			x	

.605(a)		NORMAL OPERATING and MAINTENANCE PROCEDURES	S	U N	AN/C
	.605(a)	O&M Plan review and update procedure (1 per year/15 months)	X		
۶.	,605(b)(3)	Making construction records, maps, and operating history available to appropriate operating personnel	X		
	.605(b)(5)	Stort up and shut down of the pipeline to assure operation within MAOP plus allowable buildup	x		
	.605(b)(8)	Periodically reviewing the work done by operator's personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedures when deficiencies are found	x		
	.603(b)(9)	Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapors or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and a rescue harness and line	X.		

N/C - Not Checked Culese niherwise noted, all code references are to 49CFR Part 192. S-Salisfactory D-Unsalisfactory NA-Not Applicable If an item is marked U. N/A, or N/C; an explanation must be included in this report.

NORMAL OPERATING and MAINTENANCE PROCEDURES	S	U	N/A	N/C
.605(b)(10) Routine inspection and testing of pine-type or bottle-type holders	x		•	
.605(b)[11] Responding promptly to a report of a gas odor inside or near a building, unless the operator's emergency proced, under § 192.6[5(a)(3) specifically apply to these reports:	x			4

Comments:

Procedures for 192.16 are in WP 5449-04. DCS Std D-S0423, which provides 192.16 notice to customers when work takes place, superceded by WP 5449-02. Standard A-93.3 disallows EFVs for 1/4" CTS because no EFV available for 1/4" (e-mail provided noting this fact).

192,605(a) WP 4000-02 established in 09/2008. 192,605(b)(3)--UO Standard S0470 192.605(b)(5) -- \$4125 192.605(b)(8) IQI and PO&E's Quality Assurance Program 192.605(b)(9) -- WP 4414-04 & S4415 192,605(b)(10) -- \$4345, \$4414-04, and \$4411

S0470 (Design & Construction Standards) GS&S A93.3 Excess Flow Valves voluntary installation program;

192.605(b)(11) addressed in Company Gas Emergency Procedures (CGEP) Part 1 Section 5.8

.605(#)		CHANGE IN CLASS LOCATION PROCEDURES	S	U	N/A	N/C
	.609	Class location suidy	X			
· · ·	611	Confirmation or revision of MAOP	X			Ļ

Comments:

UO Standard 4127 (This was shown as S4126 in Brian Leary's spreadsheet)

.613		CONTINUING SURVEILLANCE PROCEDURES	S	U	N//	N/0
	.613(a)	Procedures for surveillance and required actions relating to change in class location, failures, leakage history, corrosion, substantial changes in CP requirements, and unusual operating and maintenance conditions	x			
	.613(b)	Procedures requiring MAOP to be reduced, or other actions to be taken, if a segment of pipeline is in unsatisfactory condition	x			

Comments:

UO Std S4127; UO Std S4111 Patrolling of Pipelines and Mains; UO Std S 03 50/S4110 Leak Survey and Repair; GS&S O-16 and UO Std S4133 Corrosion Control Distribution and Transmission Pipelines; UO Std S2333 Material Problem Reporting; UO Std S4413 CPUC Curtailments; UO Std S0353 Physical Inspection of Mains and Pipeline Services; GS&S A93.1 Plastic Gas Distribution System Construction and Maintenance.

192,613(b) - UO Std S4134 (DM-Tab A) -- Reviewed during 03/2009 audit and confirmed that same standards apply; These may change as PG&E completees review of standard and transitions to new format.

.605(a)	DAMAGE PREVENTION PROGRAM PROCEDURES	S	U	N/AN/C
	.614(c) Participation in a qualified one-call program, or if available, a company program that complies with the following:			
	(1) Identify persons who engage in excavating	X		

Considered Personalism D post of a Case Interchation Conserve Main 03(13709 theorem Find Date of 24 farmer 3000)

N/C - Not Checked Untess otherwise noted, all code references are to 49CFR Part 192. S-Satisfactory U-Unsatisfactory N/A-Nat Applienble If an Hem is marked U, N/A, or N/C, an explanation must be included in this report-

	DAMAGE PREVENTION PROCRAM PROCEDURES	S	U	N/A	N/C
	(2) Provide notification to the public in the One Call area	X			
-	(3) Provide means for receiving and recording notifications of pending excavations	X			
	(4) Provide notification of pending excavations to the members	X			
	(5) Provide means of temporary marking for the pipeline in the vicinity of the excavations	X			
· .	(6) Provides for follow-up inspection of the pipeline where there is reason to believe the pipeline could be damaged	x			
	(i) Inspection must be done to verify integrity of the pipeling	X			
	(ii) After blasting, a leak survey must be conducted as part of the inspection by the operator	X			

Comments:

UO Standard S4412 Protection of Underground Infrastructure PG&E Manual titled "Protection of Underground Infrastructure" UO-S4412 (TS); UO S4114 (DM-Tab A) addresses leak survey requirement following blasting. Gas Information Bulletin 151 -Rev. 2 addresses 192.614(c)(6)

.615		EMERGENCY PROCEDURES	S	U	N/À	N/C
	.615(8)(1)	Receiving, identifying, and classifying notices of events which require immediate response by the operator	x			
	.615(a)(2)	Establish and maintain communication with appropriate public officials regarding possible emergency	X			L
.615	.615(a)(3)	Printipl response to each of the following emergencies:	<u> </u>			.
		(i) Gas detected inside a building.	X			
		(ii) Fire located near a pipeline	X			
		(iii) Explosion near a pipeline	X	<u> </u>		
		(iv) Natural disaster	X	[<u> </u>	
	.615(a)[4)	Availability of personnel, equipment, instruments, tools, and material required at the scene of an emergency	x	_	<u> </u>	
	.615(a)(5)	Actions directed towards protecting people first, then property.	X.		1	<u> </u>
	,615(a)(6)	Emergency shutdown or pressure reduction to minimize hazards to life or property	X			
	.615(a)(7)	Making safe any actual or potential hazard to life or property.	X			
	.615(a)(8)	Notifying appropriate public officials required at the emergency scene and coordinating planned and actual responses with these officials	x		<u> </u>	
	.615(a)(9)	Instructions for restoring service outages after the emergency has been rendered safe	X		<u> </u>	
•	.615(a)(10)	Investigating accidents and failures as soon as possible after the emergency	X			Ľ.
	.615(b)(1)	Furnishing applicable portions of the emergency plan to supervisory personnel who are responsible for emergency action	X			
	.615(b)(2)	Training appropriate employees as to the requirements of the emergency plan and verifying effectiveness of training	X		<u> </u> :	
	.615(b)(3)	Reviewing activities following emergencies to determine if the procedures were effective	X			<u> </u>
1	.613(c)	Establish and maintain liaison with appropriate public officials, such that both the operator and public officials are aware of each other's resources and capabilities in dealing with gas emergencies	x			

Comments:

PG&E's Emergency Plan consists of 2 parts: (1) Basic Plan (company-wide) and (2) Appendix which contains the Division-specific portion. Each division or district is responsible for updating their own binders including any changes received on the company-wide plan and the division-specific plan. The Basic Plan/company-wide plan is reviewed by PG&E's SME by 8/31 of each year. Personnel that may be involved in emergency response are required to do an initial and subsequent training and evaluation. Additionally, personnel are required to take a computer-based examination on emergency procedures to stay informed of any recent changes in the

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Unless otherwise soted, all code references are to J9CFH Part 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

Comments:

plan. UO Std S6434 Gas Leak and Odor Response contains PG&E standards for investigating leak and odor complaints within a customer's premises.

	<u>.</u>	PUBLIC AWARENESS PROGRAM PROCEDURES (Also in accordance with API RP 1162)	6	U	N/A	Ŋ/C
.605(a)	.616	Public Awareness Program also in accordance with API RP 1162 (Amdt 192-99 pub. 5/19/05 eff. 06/20/05 and Amdt 192-not numbered pub 12/13/07 eff. 12/13/07).				50 4 1 51 4 1 51 - 1
2	.616(d)	The operator's program must specifically include provisions to educate the public, appropriate government organizations, and persons engaged in excavation related activities on:				
		(1) Use of a one-call notification system prior to excavation and other damage prevention activities;	N.,			<u> </u>
	(2) Possible bazards associated with unintended releases from a gas pipeline facility:	(2) Possible bazards associated with unintended releases from a gas pipeline facility:	X			
		(3) Physical indications of a possible release:	- X.			<u> </u>
		(4) Steps to be taken for public safety in the event of a gas pipeline release; and	X			
		(5) Procedures to report such an event (to the operator).	X-			L
	.616(e)	The operator's program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.	S			
•.	.616(f)	The operator's program and the media used must be comprehensive enough to reach all areas in which the operator transports gas.	x			
	.616(g)	The program must be conducted in English and any other languages commonly understood by a significant number of the population in the operator's area?	X		 	
	.616(j)	Operators of a master meter or petroleum gas systems (unless the operator transports gas as a primary activity) must develop/implement a written procedure to provide its customers public awareness rnessages twice annually that includes. (1) A description of the purpose and reliability of the pipeline: (2) An overview of the hazards of the pipeline and prevention measures used: (3) Information about damage prevention: (4) How to recognize and respond to a leak; and (5) How to get additional information.			X	
		(See this subpart for requirements for master meter or petroleum gas system operators not located on property controlled by the operators.)				

Comments:

PG&E's submitted its PAP into the USDOT Clearinghouse. The USRB received the results of the Clearinghouse's review and has worked with PG&E to resolve the issues noted by the Clearinghouse. Safety, Health, and Claims 103 addresses PO&E's PAP. Mastermeter section (616(j) is not applicable to PG&E since it does not opearte master-meter systems.

.617		FAILURE INVESTIGATION PROCEDURES	S	ับ	N/A	N/C
	617	Analyzing accidents and failures including laboratory analysis where appropriate to determine cause and prevention of recurrence	×			
Commen				al an		

WP 1465-02 Gas Event and Near Hit Reporting issued 5/2008.

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.605(a)	MAOP PROCEDURES		· · · · · · · · · · · · · · · · · · ·	S	U	N/A	N/C
	.619 Establishing MAOP so that it is commensurate with the cla	ss location		X		1	
.605(a)	MAOP cannot exceed the lowest of the following						
	(a)(1) Design pressure of the weakest element	·····		X			
	(a)(2) Test pressure divided by applicable factor	· · · · · · · · · · · · · · · ·	······	X			
	(a)(3) The highest actual operating pressure to which the surgers preceding the applicable date in second column, unluked to be applicable date in the third column or to K.	ss the segment was les	ted according to				
	Pipeline segment	Pressure date	Test date				
	• Onshore transmission line that was a gathering line not subject to this before March 15, 2006.	2006, or date line becomes subject to this part, whichever is later.	S years preceding applicable date in second column.	X			
	All other pipelines.	July 1, 1970,	July 1, 1965.	1			
	(a)(4) Maximum safe pressure determined by operator.			X	1		
	(b) Overpressure protective devices must be installed if .619	(a)(4) is applicable		X	Γ		
	(c) The requirements on pressure restrictions in this section operator may operate a segment of pipeline found to operating and maintenance history, at the highest octual of subjected during the 5 years preceding the applicable date if (a)(3) of this section. An operator must still comply with §	perating pressure to v n the second column u	idition, considering its which the segment was				
	.621 MAOP - High Pressure Distribution Systems Note: New PA-11 design criterin is incorporated into 192 2008)		ule Pub. 24 December.	x			
	.623 Max/Min. Allowable Operating Pressure - Low Pressure I	istribution Systems	· · · · · · · · · · · · · · · · · · ·	X			

Comments:

DCS Standard D-S0430, GTS Std S4125, GS&S A-34,

For low pressure distribution systems installed prior to July 1, 1970 MAOP is established as 150% of Standard Delivery Pressure of 7 inches w.c., the MAOP is 10-1/2 inches w.c.

The form, "Establishing MAOP; exhibit A"; and its use needs to be referenced in DCS/GTS Standard D-S0430

,13(c)	PRESSURE TEST PROCEDURES	S	U	N/A	N/C
	SO3 Pressure testing	x			

Comments:

GS&S A-34 Piping Design and Test Requirements, Attachment A - Test Requirements, Table A-1.

 .605(a)
 ODORIZATION of GAS PROCEDURES
 S
 U
 N/AN/C

 .625(a)
 Distribution lines must contain odorized gas. - must be readily detectable by person with normal sense x
 x
 x

 .625(b)
 Odorized gas in Class 3 of 4 locations (if applicable).
 x
 x
 x

 .625(f)
 Periodic gas sampling, using an instrument capable of determining the percentage of gas in air at which x
 x
 x

Comments:

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Comments:

UO Std S4350, Gas odor detection at 0.6% gas in air or less.

Periodic sampling is done monthly and recorded on Monthly Odorization Report (Form 62-4650).

.605(a)		TAPPING PIPELINES UNDER PRESSURE PROCEDURES	8	U N/AN/C
	.627	Hot taps must be made by a qualified crow	1.0	
		NDT testing is suggested prior to tapping the pipe. Reference API RP 2201 for Best Practices.		

Comments:

GS&S C-38 Plastic Lateral Connection, Hot Tap Procedure. **PG&E has not examined API RP 2201 for possible use in its practices.**

.605(a)	I	PIPELINE PURGING PROCEDURES	S	U	NIANC
,005(R)	.629	Purging of pipelines must be done to prevent entrapment of an explosive mixture in the pipeline		¥	
		(a) Lines containing air must be properly purged.	×]
	:	(b) Lines containing gas must be properly purged	<u> </u>		

Comments

GS&S A-38 Procedure for Purging Gas Facilities, Attachment A and B. Work Practice (WP 4100-01), Hot and Cold Work Methods for Natural Gas Transmission Pipeline Shutdown and Tie-in) replaces S4131, August 2008.

.605(a)		MAINTENANCE PROCEDURES	S	U.	N/A	N/C
10.20741		Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from-	×			
		service	-			├──┤
•	(¢)	Hazardous leaks must be repaired promptly	X	L		ليسا

Comments:

192.703(b). UO Standard S4430 CGT Gas Facility Requirements (This standard is under review (last review done 10/01/2001); UO Std S4134 Selection of Steel Gas Pipeline Repair Methods; UO Std S4129 Deactivation of Gas Facilities:

192.703(c) + UO Std S4110-/S0350 addresses repair of hazardous leaks; UO Policy 3-7 Gas and Electric Operations, Maintenance and Construction; CT&CS-S0205 Replacement of Deteriorated or Damaged Facilities; GS&S A-66 Repair of Cast Iron; GS&S A-67 Repair of Copper and Gas Bulletin 246. Also, S4100-11.

.605(h)	T	RANSMISSION LINES	- PATROLLING & LEAKAGE SURV	EY PROCEDURES	S	U	N/A	N/C
	.705(a)	Patrolling ROW conditio	and the second		x			[
	(b)	Maximum interval betwe	en patrols of lines:				T	T.
		Class Location	At Highway and Railroad Crossings	At All Other Places				
		i and 2	2/yr (7% months)	I/yr (15 months)	x			
	l.	3	4/yr (4% months)	2/yr (7% months)				
		4	4/yr (4½ months)	4/yr (4½ months)			1	
	.706	Leakage surveys - 1 yea	r/15 months		x			
			at survey requirements for lines transporting un	•odoriz¢d gas	X			
		(a) Class J locations +	71/2 months but at least twice each calendar ye	ar			X	
			41/2 months but at least 4 times each calendar				X	

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S - Sailsfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Checked Holess otherwise noted, all code references are to 49CFR Part 192. If an item is marked U, N/A, or N/C, an explanation must be included in this report.

Comments: UO Std S4111, Attachment I, Procedure for Patrolling Pipelines and Mains. UO Std S4111, Table 1, Minimum Patrol Frequencies; All transmission and gathering lines are patrolled quarterly. UO Std S4110, Table 1, Frequency of Periodic Required Oas Leak Surveys.

,605(b)	DIST	RIBUTION SYSTEM PATROLLING & LEAKAGE SURVEY PROCEDURES	S	JU,	N/A	N/C
	.721(a)	Frequency of patrolling mains must be determined by the severity of the conditions which could cause failure or leakage (i.e. consider cast from weather conditions, known slip areas, etc.)	X	·		
	.721(b)	Mains in places or on structures where anticipated physical movement or external loading could cause		.	·	
	(b)(1)	In business districts at intervals not exceeding 4% months, but at least four times each calendar year;	x	L		
	(b)(2)	Outside business districts at intervals not exceeding 71/2 months, but at least twice each calendar year	X		ļ	
	.723(a) & (b)	Periodic leak surveys determined by the nature of the operations and conditions.	X	[<u> </u>	Ļ
	(b)(1)	In business districts as specified, 1/yr (15 months)	X	<u> </u>	<u> </u>	Ļ
	(6)(2)	Outside of business districts as specified, once every 5 calendar years/63 most for unprotected lines subject to .465(c) where electrical surveys are impractical, once every 3 years/39 most.	x			

Comments:

UO Std S4111, Attachment 1, Procedure for Patrolling Pipelines and Mains; (5) Frequency, Table 1 - Minimum Patrol Frequencies. UO Std S4110 Leak Survey and Repair of Gas Transmission and Distribution Facilities, Table 1 - Frequency of Periodic Required Gas Leak Surveys.

New Work Procedure (WP 4110-01), Leak Survey and Repair Procedures for .723(a) & (b), (b)(1), and (b)(2).

ſ	,605(b)	LINE MARKER PROCEDURES	S	U N/A	N/C
		.707 Line markers installed and labeled as required	X		المنصب

Cumments:

GS&S L-10 Pipeline Markers Posts.

UO Sid S4122, Attachment - Detailed Procedures, Table 1 - Pipeline Marking Requirements Appondix A - Pipeline Marker Posts and Signs in GS&S Section L.

.605(b)		TRANSMISSION RECORD KEEPING PROCEDURES	5	U	NIA	N/C
	.709	Records must be maintained	X			
		(a) Repairs to the pipe - life of system	X	<u> </u>	<u> </u>	
		(b) Repairs to "other than pipe" - 5 years	_	X	╞	╞──┤
		(c) Operation (Sub L) and Maintenance (Sub M) patrols, surveys, tests - 5 years or until next one		L	<u> </u>	

Comments:

UO Std S4110, Attachment 1 Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report (Form "A"), Gas Dig-In Incident Report (Form "A I") shall be retained for the life of any gas facility, plus I year.

PG&E needs to add the correct language to answer .709(b), no set procedure defined for repairs to "other than pipe"

.605(b)	TRANSMISSION FIELD REPAIR PROCEDURES		S	UN	/AN/	q
	Imperfections and Damages					
	713(a) Repairs of imperfections and damages on pipelines operating above 40% SMYS					_
	(1) Cut out a cylindrical piece of pipe and replace with pipe of 3 design strength		X			
L		-				

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	TRANSMISSION FIELD REPAIR PROCEDURES	S	Ų	N/A	N/
	(2) Use of a reliable engineering method	X			
.713(6)	Reduce operating pressure to a safe level during the repair	X			
	Permanent Field Repair of Welds	•			
.715	Welds found to be unacceptable under § 192.241(c) must be repaired by:]			
	(a) Taking the line out of service and repairing in accordance with §192.245:	X			
	 Cracks longer than 8% of the weld length (except offshore) must be removed 	X			
	 For each weld that is repaired, the defect must be removed down to clean metal and the pipe preheated if conditions demand it 	X			
	 Repairs must be inspected to ensure acceptability 	x	·		
·	 Crack repairs or defect repairs in previously repaired areas must be done in accordance with qualified written welding procedures 	x			
•	(b) If the line remains in service, the weld may be repaired in accordance with §192.245 if	X			
	(1) The weld is not leaking	X			ŀ
	(2) The pressure is reduced to produce a stress that is 20% of SMYS or less	X	<u>.</u>		
	(3) Grinding is limited so that 1/ inch of pipe weld remains	X			
	(c) If the weld cannot be repaired in accordance with (a) or (b) above, a full encirclement welded split sleeve must be installed	. x ;			
·	Permanent Field Repairs of Leaks				
,717	Field repairs of leaks must be made as follows:				
	(a) Replace by cutting out a cylinder and replace with pipe similar or of greater design	X /		<u> </u>	ŀ
	(b)(1) Install a full encirclement wolded split sleeve of an appropriate design unless the pipe is joined by methanical couplings and operates at less than 40% SMVS	X.			ľ
	(b)(2) A leak due to a corrosion pit may be repaired by installing a bolt on leak clamp	X			ľ
	(b)(3) For a currosion pit leak, if a pipe is not more than 40,000 psI SMYS, the pits may be repaired by fillet welding a steel plats. The plate must have rounded corners and the same thickness or greater than the pipe, and not more than 14D of the pipe size.	x			
	(b)(4) Submerged offshore pipe or pipe in inland navigable waterways may be repaired with a mechanically applied full encirclement split sleeve of appropriate design	x			
	(b)(5) Apply reliable engineering method	X			L
Testing of Repairs.					
.719(a)	Replacement pipe must be pressure tested to meet the requirements of a new pipeline	·	1	., .	
(b)	For lines of 6-inch diameter or larger and that operate at 20% of more of SMYS, the repair must be nondestructively tested in accordance with \$192.2410	X			

Comments:

Transmission field repair procedures are addressed in GS&S A-60, A-60.2, A-64, D-22, A-34, and UO Std S4134:

.605(b)		TEST REQUIREMENTS FOR REINSTATING SERVICE LINES	S	U	N/A	N/C
	,725(a)	Except for .725(b), disconnected service lines must be tested the same as a new service line,	X			
	(b)	Service lines that are temporarily disconnected must be tested from the point of disconnection, the same as a new service line, before reconnect. See code for exception to this.	X			

Comments: GS&S A-34 and A-93.1

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.605(b)		ABANDONMENT or DEACTIVATION of FACILITIES PROCEDURES	S	U	N/A	N/C
::	.727(b)	Operator must disconnect both ends, purge, and seal each end before abandonment or a period of deactivation where the pipeline is not being maintained. Offshore abandoned pipelines must be filled with water or an inert material, with the ends sealed	x			
	(c)	Except for service lines, each inactive pipeline that is not being maintained under Part 192 must be disconnected from all gas sources/supplies, purged, and sealed at each end.	x			
	(d)	Whenever service to a customer is discontinued, do the procedures indicate one of the following:				
		(1) The value that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the value by persons other than those authorized by the operator	X		. ~	
		(2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly	x			
		(3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed	x			
• .	(e)	If air is used for purging, the operator shall ensure that a combustible mixture is not present after - purging	X			
	.727(g)	Operator must file reports upon abandoning underwater facilities crossing navigable waterways, including offshore facilities.	x			

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Comments

WP 4100-11 Deactivation of Gas & Electric Facilities issued 10/2008 GS&S A-38 Procedures for Purging Gas Facilities

WP6435-04 Procedures for Discontinuing Gas Service.

.605(b)		PRESSURE LIMITING and RI	EGULATING STATION PROCEDURES	S	U	N/A	N/C	
	.739(a)	Inspection and testing procedures for pr stations and equipment (1 per. yr/15 mc	essure limiting stations, relief devices, pressure regulating onths)	X				
		(1) In good mechanical condition		X				
	(2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed							
		(3) Set to control or relieve at correct	pressures consistent with .201(a), except for .739(b).	X				
	oper.	(4) Properly installed and protected from dirt, liquids, and other conditions that may prevent proper						
(.6U3(D)	.739(b)	For steel lines if MAOP is determined	per .619(c) and the MAOP is 60 psi (414 kPa) gage or more as		1	<u> </u>		
		If MAOP produces hoop stress that	Then the pressure limit is:					
		Is greater than 72 percent of SMYS	MAOP plus 4 percent	X				
		Is unknown as a percent of SMYS	A pressure that will prevent unsafe operation of the pipeline considering its operating and maintenance history and MAOP			4		
	.741	Telemetering or Recording Gauges				<u> </u>		
	[(a) In place to indicate gas pressure in	the district that is supplied by more than one regulating station	X				
	(b) Determine the need in a distribution system supplied by only one district station						Γ	
		 (c) Inspect equipment and take correct pressure 	tive measures when indications of abnormally high or low	x				
	.743	Testing of Relief Devices	• .					
	.743	(a) Capacity must be consistent with .2	Ul(a) except for 739(b), and be determined 1 per yr/15 mo.	X				
		 (b) If calculated, capacities must be co required. 	impared; annual review and documentation are	х				
		(c) If insufficient capacity, new or ad	ditional devices must be installed to provide required capacity.	X			ľ	

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Comments: Stanadrd S4430 (with WPs under that) will address what is currently addressed by Standard S5351, CES Standard C-T&CS-S0351 District Regulator Station Maintenance; and DCS Standard D-S0456, Recording Pressures in Distribution Systems, (this is found in DM - Tab H),

For transmission, CGT Standard 4432, CGT 54433 Gas Pressure Relief Devices - Responsibility For Annual Inspection and Verification of Capacity, GS&S H-70 Pressure Relief Devices. CCIT Standard 4431, Major Gas Facilitios: (Note: Inspector should ask transmission district to identify its major gas facilities considered per this standard, during the audit.)

.605(b)	<u> </u>	VALVE AND VAULT MAINTENANCE PROCEDURES	S	U	N/A	N/C
	 	Transmission Valves				
	.745	 (a) Inspect and partially operate each transmission valve that might be required during an emergency (1 per yr/15 months) 	X			
	.745	(b) Prompt remedial action required, or designate alternative valve.	X	Ľ_	<u> </u>	
		Distribution Valves	1			.
	.747	(a) Check and service each valve that may be necessary for the safe operation of a distribution system (1 per yr/15 months)	x			
		(b) Prompt remedial action required, or designate alternative valve	X			<u> </u>
		Vaults	┶┷			
	.749	Inspection of vaults greater than 200 cubic feet (1 per yr/15 months)	<u>X</u>	L		
.605(b)	1	PREVENTION OF ACCIDENTAL IGNITION PROCEDURES	s	Τü	NIA	N/C

.605(b)		PREVENTION OF ACCIDENTAL IGNITION PROCEDURES		Uliver	<u> </u>
	.751	Reduce the hazard of fire or explosion by:			
		(a) Removal of ignition sources in presence of gas and providing for a fire extinguisher	X		
		(b) Prevent welding or cutling on a pipeline containing a combustible mixture	X		
		(c) Post warning signs	x		<u> </u>

192.751 - Prevention of accidental ignition procedures are contained in DM -Tab K and in GS&S D-20 and D-23; Rules 1305, 1308, 1309; UO Std S4832; UO Std S4461; GS&S A-93.1; Code of Safe Practices Section 13.

192.745-749 - UO Std S4220 and WP 4430-04 for valves; and S4446 for vaults; Vault Inspection Procedure applies to distribution and transmission (found in DM - Tab K); UO.Std S4220, Gas Valve Maintenance Requirements, applies to distribution and transmission (found in DM - Tab F).

.605(b)		CAULKED BELL AND SPIGOT JOINTS PROCEDURES	S	U	N/A	N/C
	.753	Cast-iron caulked bell and spigot joint repair:		<u> </u>		
		 (a) When subject to more than 25 psig, sealed with mechanical clamp, or scaled with material/device which does not reduce flexibility, permanently bonds, and seals and bonds as prescribed in §192.753(a)(2)(iii) 	×			
			X.			

.605 <u>(</u> 5)		PROTECTING CAST-IRON PIPELINE PROCEDURES	S	¹ .U:	N/A	N/C
	.755	Operator has knowledge that the support for a segment of a buried cast-iron pipeline is disturbed must provide protection.				
	-	(a) Vibrations from heavy construction equipment, trains, trucks, buses or blasting?	X	<u> </u>	<u> </u>	<u> </u>
	[(b) Impact forces by vehicles?	×	<u> </u>	_	╞┷
		(c) Earth movement?	X		Ļ	
	}	(d) Other foreseeable outside forces which might subject the segment of pipeline to a bending stress	X	<u> </u>	<u> </u>	

a S Brinderd Invention Damest with Car Directingtons Consector/Day, (1979) (Stronglob Stand Day), -437 (1997), 39 (300)

Unless otherwise noted, all code references are to 49 CFR Part 192. S-Satisfactory U-Unsatisfactory NA - Not Applicable N/C - Not Checked If an item is marked U, N/A. or N/C, an explanation must be included in this report.

		(c) Provide permanent protection for the disturbed section as snon as feasible	X			
,13(c)		WELDING AND WELD DEFECT REPAIR/REMOVAL PROCEDURES	S	.U	N/A	N/C
	.225	(a) Welding procedures must be qualified under Section 5 of API 1104 (19 th ed. 1999, 10/31/01 errata) or Section IX of ASME Boller and Pressure Code (2004 cd. Including addenda through July 1, 2005) by destructive test.	X	3		
		(b) Retention of welding procedure - details and test	X			
	.227	 (a) Welders must be qualified by Section 6 of API 1104 (19[%] ed. 1999, 10/31/01 errata) or Section (X of ASME Boller and Pressure Code (2004 ed. Including addenda through July 1, 2005) Sec exception in .227(b). 	X			
		SMYS.			x	
	.229	 (a) To weld on compressor station piping and components, a welder must successfully complete a destructive test 	x			
		(b) Welder must have used welding process within the preceding 6 months	X			
		(c) A welder qualified under .227(a)-	—			
* -	.229(c)	(1) May not weld on pipe that operates at ≥ 20% SMYS unless within the preceding 6 calendar months the welder has had one weld tested and found acceptable under the sections 6 or 9 of API Standard 1104; may maintain an ongoing qualification status by performing welds tested and found acceptable at least twice per year, not exceeding 7% months; may not requalify under an earlier referenced edition.	x			
е.		(2) May not weld on pipe that operates at < 20% SMYS unless is tested in accordance with .229(c)(1) or regualifies under .229(d)(1) or (d)(2).	X	:		
		(d) Welders qualified under .227(b) may not weld unless:	<u> </u>	- -		
		(1) Requalified within 1 year/15 months, or	X			
1		(2) Within 7% months but at least twice per year had a production weld pass a qualifying test.	X	Γ	1	
	.231	Welding operation must be protected from weather	X			
	.233	Miter joints (consider pipe alignment)	X	1.	1	11
	235	Welding preparation and joint alignment	x	1	1	1
	.241	 (a) Visual inspection must be conducted by an individual qualified by appropriate training and experience to ensure: 	X	<u> </u>		
		(1) Compliance with the welding procedure	X		1	
			X	1	1	
		(b) Welds on pipelines to be operated at 20% or more of SMYS must be nondestructively tested in accordance with 192.243 except welds that are visually inspected and approved by a qualified welding inspector if:	x			
ŀ		(1) The nominal pipe diameter is less than 6 inches, or	X .			
		(2) The pipeline is to operate at a pressure that produces a hoop stress of less than 40% of SMYS and the welds are so limited in number that nondestructive testing is impractical	X		1.1.1	
	,241	(c) Acceptability based on visual inspection or NDT is determined according to Section 9 of API 1104, If a girth weld is unacceptable under Section 9 for a reason other than a crack, and if Appendix A to API 1104 applies to the weld, the acceptability of the weld may be further determined under that appendix.	×			
		Repair and Removal of Weld Defects				
-	.245	(a) Each weld that is unacceptable must be removed or repaired. Except for offshore pipelines, a weld must be removed if it has a crack that is more than 8% of the weld length	x			
		to be repaired must be preheated if conditions exist which would adversely affect the quality of the weld repair. After repair, the weld must be inspected and found acceptable.	X;			
ļ		(c) Repair of a crack or any other defect in a previously repaired area must be in accordance with a written weld repair procedure, qualified under §192.225	X			
	•	Note: Sleeve Repairs - use low hydrogen rod (Best Practices -ref. API 1104 App. D. In Service Welding)				
			ng procedures must be qualified under Section 5 of API 1104 (19 th ed.1999, 10/31/01 or Section IX of ASME Boiler and Pressure Code (2004 cd. Including addenda through 1, 2005) by distructive test. tion of welding procedure - details and test rs must be qualified by Section 6 of API 1104 (19 th ed.1999, 10/31/01 errsta) or Section ASME Boiler and Pressure Code (2004 cd. Including addenda through July 1, 2005) See X stion in .227(b). res muy be qualified under section 1 of Appendix C to weld on lines that operate at < 20 ²⁴ S. did on compressor station piping and components, a welder must successfully complete a citive test re must have used welding process within the preceding 6 months. X der qualified under .227(a)- Asy not weld on pipe that operates at 2, 20 ²⁶ SMYS unless within the preceding 6 alendar months the welder has had one weld tested and found acceptable inder the sections 6 or 9 of API Standard 1104; may maintain an ongoing qualification status by X performing welds tested and found acceptable in direct weld on pipe that operates at < 20 ²⁹ SMYS unless is tested in accordance with 22 ² 20(Y) (1) or requalifies under .227(b) may not weld unless: Requalified under .227(b) may not weld unless: Requalified within 1 year/15 months, or Within 7½ months but at least twice per year had a production weld pass a qualifying tost. X eration must be protected from weather (consider pipe alignment) Inspection must be conducted by an individual qualified by appropriate training and ience to ensure: Weld is acceptable in accordance with Section 9 of API 1104 X o on pipelines to be operated at 20 ²⁰ or more of SMYS must be nondestructively in a cordance with 192.432 corest welds that are visually inspected and approved by X lifted welding inspector if. The nominal pipe diameter is less than 6 inches, or The pipeline is to operate at a pressure that roduces a hoop stress of less than 40% of SMYS and the welds are so limited in number that nondestructively in accordance with 92.424 cores or repaired. Except f			

Comments:

From J. Standard Insocction Report of a Cast Distribution Operator (Rev. 03773:009 iluonoh Final Rule of 16 January 2009)

N/C-Not Checked Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable If an item is marked U, N/A, or N/C, an explanation must be included in this report.

Comments:

192,753 - Caulked Bell and Spigot Joints Procedures. The code requirements are addressed in GS&S A-39, B-51.2, and B-50.1 192.755 - Protecting Cast Iron Pipelines Procedures. The code requirements are addressed in GS&S A-39 and UO Std S4412. 192.225 - GS&S D-20 Oxyacetylene Weld Procedure; GS&S D-22 Arc Welding Procedure Requirement All Stress Levels. 192:231, 192:235 - GS&S D-20 P.2

192.233 - GS&S A-36 P.6

192.241 - Welding; Addressed in GS&S D-31, D-30, D-40 (Inspection).

192,245 - Repair and Removal of Weld Defects is addressed in UO Std S4134 - this is the governing documents that tabulates methods of repair for different conditions. GS&S D-31 Repair or Removal of Defects (for Production Welds).

GS&S D-30 Welder Qualification For Under 20% of SMYS

GS&S D-30.2 Are Welder Qualification For Working on Pipelines That Operate At Over 20% SMYS

GS&S A-36 Design and Construction Requirements

.13(e)		NONDESTRUCTIVE TESTING PROCEDURES	S	U	N/A	N/C
	.243	(a) Nondestructive testing of welds must be performed by any process, other than trepanding, that clearly indicates defeats that may affect the integrity of the weld	x			
		(b) Nondestructive testing of welds must be performed:		÷ P	· · ·	*
	-	(1) In accordance with a written procedure, and	x		<u> </u>	<u> </u>
		(2) By persons trained and qualified in the established procedures and with the test equipment used	X			
	-	(c) Procedures established for proper interpretation of each nondestructive test of a weld to ensure acceptability of the weld under 192.2410	×	-		
		(d) When nondestructive testing is required under § 192.241(b), the following percentage of each day's field butt welds, selected at random by the operator, must be nondestructively tested over the entire circumference		ء ب	्	
		(1) In Class I locations at least 10%	X			
		(2) In Class 2 locations at least 15%	X			
		(3) In Class 3 and 4 locations, at crossings of a major navigable river, offshore, and within railroad or public highway rights-of-way, including tunnels, bridges, and overhead road crossings, 100% unless impractical, then 90%. Nondestructive testing must be impractical for each girth weld not tested.	×	,		
	·····	(4) At pipeline ile-fris, 100%	. X			
	29	(c) Except for a welder whose work is isolated from the principal welding activity, a sample of each welder's work for each day must be nondestructively tested, when nondestructive testing is required under \$192.241(b)	x			
		(f) Nondestructive testing – the operator must retain; for the life of the pipeline, a record showing by mile post, engineering station, or by geographic feature; the number of welds nondestructively tested, the number of welds rejected, and the disposition of the rejected welds.	X		 -	

Comments:

GS&S D-40 Weld Inspection GS&S D-31 Standard of Acceptability for Welding: Non-destructive and Destructive Testing

Per D-40: 192.243(d)(1) - PG&E tests a minimum of 10%; and 192.243(d)(2) - PG&E tests a minimum of 15%

.273(b)	1	JOINING OF PIPELINE MATERIALS	S	U	N/A	N/C
	-281	(a) A plastic pipe joint that is joined by solvent cement, adhesive, or heat fusion may not be disturbed until it has properly set. Plastic pipe may not be joined by a threaded joint or miter joint.	×			
		(b) Each solvent cement joint on plastic pipe must comply with the following:				
		(1) The mating surfaces of the joint must be clean, dry, and free of material which might be detrimental to the joint.			. X.	<u> </u>
		(2) The solvent cement must conform to ASTM Designation: D 2513.			X	
		(3) The joint may not be heated to accelerate the setting of the cement.			X.	<u> </u>
		(c) Each heat-fusion joint on plastic pipe must comply with the following:				

eine Reard of a Gat Distribution Operator (Rev. (3123309 Ibinuth Final Rule of 16 Jonanni 2004)

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR. Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U - Unsatisfactury N/A - Not Applicable. N/C - Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

ann an the state of a state of the	JOINING OF PIPELINE MATERIALS	S	U	N/A	N/
	A but heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper alignment while the plastic hardens.	X .			
	A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature.	X.			
(3)	An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testing joints to the requirements of § 192.283(a)(1)((iii), to be at least equivalent to those of the fittings manufacturer.	Ń			
	Heat may not be applied with a toreit or other open flame.	X			L
(d) Ea	ch adhesive joint on plastic pipe must comply with the following:				
	The adhesive must conform to ASTM Designation: D 2517.			X	
	The materials and adhesive must be compatible with each other.			X	
	ich compression type mechanical joint on plastic pipe must comply with the following:				
) The gasket material in the coupling must be compatible with the plastic.	X	Γ		Τ
(2	A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling.	x			Ι
in	conduction with the cooperate of the state o		2:		
<u>su</u>) The burst test requirements of-				
() Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513	x			
	 Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or amoreanh 8.9 (Sustained Static Pressure Test) of ASTM U2517; or 			X	
	iii) Electrofusion fittings for polyethylenc pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strangth Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055.	x			
	2) For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure insulfactor use: and.	x			
	3) For procedures intended for non-lateral pipe connections, follow the tensile test requirements of ASTM D638, except that the test may be conducted at ambient temperature: and humidity if the specimen elongates no less than 25 percent or failure initiates outside the joint area the procedure qualifies for use.	x			
p b	Icfore any written procedure established under §192.273(b) is used for making mechanical lastic pipe joints that are designed to withstand tensile forces, the procedure must be qualified usualized for specimen joints made according to the procedure to the following tensile test:				
(Use an apparatus for the test as specified in ASTM D 638 (except for conditioning). 	X			_
	2) The specimen must be of such length that the distance between the grips of the apparatus and the end of the stiffener does not affect the joint strength.	×	_	_	_
	3) The speed of testing is 0.20 in. (5.0 mm) per minute, plus or minus 25 percent.	<u>×</u>			_
(4) Pipe specimens less than 4 inches (102 mm) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area.		-		
	5) Pipe specimens 4 inches (102 mm) and larger in diameter shall be pulled until the pipe is subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the pipe is pulled from the fitting. If the pipe pulls from the fitting, the lowest value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculations for stress.				į
	(6) Each specimen that fails at the grips must be retested using new pipe	X	Τ	\top	
	(7) Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with.			>	< {
1	a lessor wall thickness. A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints.	x	:		_
Ed)	Pipe or fittings manufactured before July 1, 1980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe.			,	K
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Form 2 Standard Inspection Report of a Gas Distribution Operator (Rev. D3/23/09 through Final Rule of 16, busary 2019)

Untess otherwise nuited, all code references are to 49CFit Part 192. S + Satisfactory U- Unsatisfactory N/A - Not Applicable N/C = Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

[JOINING OF PIPELINE MATERIALS	S	U	N/A	N/
.285 (a)	No person may make a plastic pipe joint unless that person has been qualified under the applicable tofning procedure by:				
	(1) Appropriate training or experience in the use of the procedure; and	X			
	(2) Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section.	x			L
(6)	The specimen joint must be:	<u> </u>			_
<u> </u>	(1) Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and	x			L
	(2) In the case of a heat fusion, solvent cement, or adhesive joint:	X			
	(i) Tested under any one of the test methods listed under \$192.283(a) applicable to the type of light and material being tested:	x			
	(ii) Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or	Ţ		X	Ľ
· · · · · · · · · · · · · · · · · · ·	(iii) Cut into at least three longitudinal straps, each of which is:				
	(A) Visually examined and found not to contain voids or discontinuities on the cut surfaces of	x		·	
	(B) Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint	X			
(c	A person must be requalified under an applicable procedure. If during any 12-month period that person:	ļ.			-
· · · · · · · · · · · · · · · · · · ·	(1) Dues not make any joints under that procedure: or	X			
	(2) Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by lasting under \$192.513.	x			
	i) Each operator shall establish a method to determine that each person making joints in plastic electrons in the upprator's system is qualified in accordance with this section.	×	Ļ		
	population in an early out the inspection of joints in plastic pipes required by §§192.273(c) and 92.283(b) unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure.	×			

Commentst

192.281 PG&E Standards and Specs D-21 (pg 2-4/17):

192.283 (a)(1)(i) (PO&E 10/02/89 TES);

192,283 (a)(1)(ii) not used by PG&E; 192.283(a)(1)(iii) (PG&E 03/87 TES);

192:283 (a)(2) and (3) (PG&E 10/02/89 TES);PG&E does not use thermosetting plastic pipe.

192,2833 (bX1-4) (PG&E 01/17/06 Southwest High Density and 05/21/90 Medium density;

192.283(b)(5) PG&E doesn't perform mechanical joints for diameters greater than 4-inch;

192.283(b)(7) (PG&E tested same wall as size being used);

192.283(c) (PG&E D-21); 192.283(d) (PG&E does not have anything of that vintage);

192.285(b)(2)(i) (PG&E D-34);

192.285(b)(2)(ii) (PG&E does not utilize ultrasonic on plastic);

192.285(b)(III)--192.287 (addressed by PG&E D-34). Standards reviewed and confirmed as applicable during 03/2009 audit ** 192.283 (a) and ((b) -- PG&E does not have a procedure requiring that joining procedures be qualified. **

,605(b)	<u>r</u>	CORROSION CONTROL PROCEDURES	S	U	N/AN/C
	.453	Are corrosion procedures established and carried out by or under the direction of a qualified person for:			
		• Design	X		
		Operations	X		
		Installation	X		
. •	}	Maintenance	X		
	.455	(a) For pipelines installed after July 31, 1971, buried segments must be externally coated and (b) extendically prototed within one year after construction (see exceptions in code)	x		
		(c) California (c) is a stalled in a buried or submerged pipeline if exposed to an environment (c) Aluminum may not be installed in a buried or submerged pipeline if exposed to an environment with a natural pH in excess of 8 (see exceptions in code).	Į		×

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Form 2 Standard Inspectives Report of a Gas Distribution Operator (Key: 0.023/09 through Final Rule of 14 January 2009)

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise mited, all code references are to 490FR Part 192. S - Satisfactory U - Unaatisfactory N/A - Not Applicable N/C - Not Ch If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

	CORROSION CONTROL PROCEDURES	S	ប	N/A	N/
.457	(a) All effectively coated steel transmission pipelines installed prior to August 1, 1971, must be enhodically protected.	x	- - -		
	(b) If installed before August 1, 1971, cathodic protection must be provided in areas of active corrosion for: bare or ineffectively coated transmission lines, and bare or coated c/s, regulator sta, meter sta, piping, and (except for cast iron or ductile iron) bare or coated distribution lines.	x			
.459	Examination of buried pipeline when exposed: if corrosion is found, further investigation is required	X	<u> </u>		
.461	Procedures must address the protective coating requirements of the regulations. External coating, on the steel pipe must meet the requirements of this part.	×		-	
463	Cathodic protection level according to Appendix D criteria	X			
.465	(a) Pipe-to-soil monitoring (1 per yr/15 months) or short sections (10% per year, all in 10 years)	X	<u> </u>	L	L
	(b) Rectifier monitoring (6 per yr/21/2 months)	X			L
	(c) Interference band monitoring (as required)	X			L
	(d) Prompt remedial action to correct any deficiencies indicated by the monitoring	X.	ľ		
.465	(c) Electrical surveys (closely spaced pipe to soil) on bare/unprotected lines, cathodically protect active corrosion areas (1 per 3 years/39 months)	x			
467	Electrical isolation (include casings)	X			
.469	Sufficient test stations to determine CP adequacy	X			
.471	Test lead maintenance	X		Τ	Γ
.473	Interference currents	X	1	Γ	Т
.475	(a) Proper procedures for transporting corrosive gas?		1	X	T
	(b) Removed pipe must be inspected for internal corrosion. If found, the adjacent pipe must be inspected to determine extent. Certain pipe must be replaced. Steps must be taken to minimize internal corrosion.	x			
.476	Systems designed to reduce internal corrosion Amdt 192-(no number) Pub. 4/23/07, eff. 5/23/07 (a) New construction	x			
	(b) Exceptions - offshore pipeline and systems replaced before 5/23/07	X			
	(c) Evaluate impact of configuration changes to existing systems	X			ľ
,477	Internal corrosion control coupon (or other suit. Means) monitoring (2 per yr/71/2 months)	X			Ι
:479	(a) Each exposed pipe must be cleaned and coaled (see exceptions under .479(c))	X			ŀ
	Offshore splash zones and soil-to-air interfaces must be chated	X			
	(b) Coating material must be suitable	X	1	1	Т
<u></u>	Coating is not required where operator has proven that corrosion will;	1	÷		· ·
	(c) (1) Only be a light surface oxide, or	X	1	1	T
	(2) Not affect safe operation before next scheduled inspection	X	T	Τ	T
.481	(a) Atmospheric corrosion control monitoring (1 per 3 yrs/39 months onshore; 1 per yr/15 months offshore)	x			1
.481	(b) Special attention required at soil/air interfaces, thermal insulation, under disbonded coaling, pipe supports, splash zones, deck penetrations, spans over water	x			
.481	(c) Protection must be provided if atmospheric corrosion is found (per §192:479)	X	1	_	
.483	Replacement and required pipe must be coated and cathodically protected (see code for exceptions)	<u> </u>			1
.485	(a) Procedures to replace pipe or reduce the MAOP if general corrosion has reduced the wall thickness?	x		<u></u>	
	(b) Procedures to replace/repair pipe or reduce MAOP if localized corrosion has reduced wall thickness (unless reliable engineering repair method exists)?	x	 	ļ.	ļ
	(c) Procedures to use Rstreng or B-31G to determine remaining wall strength?	4	[
.487	Remedial measures (distribution lines other than cast iron or ductile iron)	×	1		
.489	Remedial measures (cast iron and ductile iron pipelines)			 	
.491	Corrosion control maps and record retention (pipeline service life or 5 yrs)	X	1		

Comments:

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Fram 2 Standard Inspection Report of a Gas Distribution Operator (Res. 03/23/69) through Final Rule of 16 January 2009):

N/A - Not Applicable Unless otherwise noted, all code references are to 49CFH Part 192. 5 - Satisfactory U - Unsatisfactory N/C= Not Cherked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

Comments:

Overall corrosion control program is contained in GS&S O-16. GS&S E-27, UO Std. S4134, UO Std S4133, and UO Std S4126 S5467 contains CPA assessment and reassessment procedures. Cased pipelines are contained in O-16. Measurment for corrosive gas is described in S4300. See also WP4330-02. Note: For 192.465(a), monitoring is done 6 times per year. For 192.465(b), monitoring is performed annually per CPUC Resoluton RU-39, for distribution and local transmission piping.

,801- ,809	Subpart N Qualification of Pipeline Personnel Procedures	S U N/AN/C
	Refer to Operator Qualification Inspection Forms and Protocols (OPS web site)	

.901- .951	Subpart O — Pipeline Integrity Management	S U N/AN/C	
	This form does not cover Gas Pipeline Integrity Management Programs	11 - 11 - 11 - 11 - 11 - 11 - 11 - 11	L

Subparts A - C	PART 199 - DRUG and ALCOHOL TESTING REGULATIONS and PROCEDURES	S UNA
A-4	Drug & Alcohol Testing & Alcohol Misuse Provention Program – Use PHMSA Form # 13, PHMSA 2008 Drug and Alcohol Program Check.	子下的这种

Comments:

From 7 Standard Incommon Report of a Cisc Distribution Constation (Res. 03/03/04 Hitsuich Final Rule of 14 Incomm 30/04

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Linless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Ch If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Nat Checked

	PIPELINE INSPECTION (Field)	S	U	NIA	N/C
.119	Valve Protection from Tampering or Damage			×	•
.463	Cathodic Protection				
.465	Recilfiers			Ш	
476	Systems designed to reduce internal corrosion		L	1	
.479	Pipeline Components Exposed to the Atmosphere.	 <u> </u>	<u> </u>	Lì	
.605	Knowledge of Operating Personnel				
.707	ROW Markers, Road and Railroad Crossings			Ľ.	
.719	Pre-pressure Tested Pipe (Markings and Inventory)				
741	Telemetering, Recording gauges				
.739/.743	Pressure Limiting and Regulating Devices (spot-check field installed equipment vs. inspection records)				
.745	Valve Maintenance		L		
.751	Warning Signs		L		
.80]809	Operator Qualification - Use PHMSA Form 15 Operator Qualification Field Inspection Protocol Form	 Γ.		1.1	1

Comments:

	REGULATORY REPORTING PERFORMANCE AND RECORDS	S	U	N/A	N/C
191.5	Telephonic reports to NRC			4	
191.15	Written incident reports; supplemental incident reports (Form R 7100.2)			11	
191	Annual Reports (Forms 7100.1-1, 7100.2-1)			Π	
191.23	Safety related condition reports	1		\Box	
192.16	Customer Notification (Verification - 90 days - and Elements)				
192.727 (g	Abandoned facilities offshore, ensiore crossing commercially navigable waterways reports			ŀ₽	1

	CONSTRUCTION PERFORMANCE AND RECORDS	S	U	N/A	N/C
.225	Test Results to Qualify Welding Procedures			$\left \right\rangle$	
.227	Welder Qualification				
241 (a)	Visual Weld Inspector Training/Experience				
.243 (6)(2)	Nondestructive Technician Qualification				
(c)	NDT procedures	,			
(1)	Total Number of Ointh Welds				
(1)	Number of Welds Inspected by ND1		}		
(1)	Number of Welds Rejected				
(1)	Disposition of each Weld Rejected				
273/.283	Qualified Joining Procedures Including Test Results				
285	Personnel Joining Qualifications				
287	Joining Inspection Qualifications				ŀ
.303	Construction Specifications				,
.325	Underground Clearance			1.7	1

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From 7 Schedard Internation Quart of a flar New Burlow Marster (Pau Atris 10 Struck Winst U.d. at 16 Second 1000)

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all code references are to 49CPR Part 192. S - Satisfactory U = Disatisfactory N/A = Not Applicable N/C = Not Ch If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Cheeked

<u></u>	CONSTRUCTION PERFORM		\$	10	× 1	4 <u>N/(</u>
.32.7	Amount, Location, Cover of each Size of Pipe Installed	u 		 —	+÷	+
383(c)	EFV customer notification			ļ	₩	
455	Cathodic Protection		<u> </u>		V	
;~	OPERATIONS and MAINTENANCE PI	ERFORMANCE AND RECORDS	S	U.	N/	
517 (a)	Pressure Testing (operates at or abuve 1	00 psig) - useful life of pipeline		1	X	1
.517 (b)		sig. service lines, plastic lines) - 5 years		1	Π	Τ
.603(b)		s and Maintenance (1 per yr/15 months)		1	\square	T
		ps, operating history to operating personnel		t-	Ħ	1
1 C		ectiveness of normal O&M procedures	,	<u> </u>	11	T
					Ħ	1
.709	.605(c)(4) Periodic review of personnel work – effectiveness of abnormal operation procedures .614 Damage Prevention (Miscellaneous)					1
	.609 Class Location Study (If Applicable)			1	Ħ	\top
.603(b)	.615(b)(1) Location Specific Emergency Plan	······································		1	<u>†</u> †	+-
	.615(b)(2) Emergency Procedure training, verify c	fectiveness of training	-	\vdash	\mathbf{H}	+
				1.7	++	╋
		accritinic is proceeding war tonower.	{·	+	+t	╧
	.615(c) Liaison Program with Public Officials	<u> </u>		1	1	_I
	.616 Public Awareness Program .616(c & f) Documentation properly and adequately	y reflects implementation of operator's Public Awareness		1	<u>.</u>	- <u>†</u> -
	API RP 1162 Baseline* B	school superintendents, program avaluations, etc.). See tal				
	Stakeholder Audience (Natural Gas Transmission Line Operators)	Haselina Message Frequency (starting effective date of Plan)				
	Residents Along Right-of-Way and Places of Congregation	2 years:				
	Emergency Officials	Annual				
	Public Officials Excavator and Contractors	3 years Annual		12		
	One-Call Centers	As required of One-Call Center				
	Stakeholder Audience (Gathering Line Operators)	Baseline Message Frequency (starting from effective date of Plan)				
	Residents and Places of Congregation	Annual				
	Emergency Officials	Annual 3 years				
	Public Officials Excavators and Contractors	3 years				
	One-Call Centers	As required of One-Call Center				
	Stakeholder Audience (LDCs)	Baseline Message Frequency (starting from effective date of Plan)				
	Residents Along Local Distribution System	Annual				
	LDC Customers	Twice annually				
	Emergency Officials	J years				
	Public Officials Excavator and Contractors	· Amual				
	One-Call Centers	As required of One-Call Center	1			
	* Refer to API RP 1162 for additional requirement	ents, including general program recommendations.				
	supplemental requirements, recordicecting, prog	ram evaluation, etc.				77-
	.616(g) The program must be conducted in Eng	lish and any other languages commonly understood by a	1		17	

The last A-grades (Days AT 37 The decay of Days Drift at \$5 January BADA

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory. U-Unsatisfactory N/A - Not Applicable N/C - Not Ch If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

	OPE	RATIONS and MAINTI	ENANCE PERFORMANCE AND RECO	ORDS	S	U	N/A	N/0
	.616(j)	 16(j) Operators of a master meter or petroleum gas systems - public awareness messages 2 times annually: (1) A description of the purpose and reliability of the pipeline; (2) An overview of the hazards of the pipeline and prevention measures used; (3) Information about damage prevention; (4) How to recognize and respond to a leak; and (5) How to get additional information. 					×	
517		Pressure Testing						1
709	Note: New		rating Pressure (MAOP) rporated into 192.121 & .123. (Final Rule Pub.	24 December, 2008)		۰ ۰		
	.625	Odorization of Gas						L
	.705	Patrolling (Refer to Tabl	e Belów)				1	Ļ
		······································	<u></u>	2 	- 9.			
		Class Location	At Highway and Railroad Crossings	At All Other Places	4			
		1 and 2	2/yr (7½ months)	1/yr (15 months)	4			
		<u> </u>	4/yr (4½ months) 4/yr (4½ months)	2/yr (7½ months) 4/yr (4½ months)				
709	.706	Leak Surveys (Refer to T	able Below)	· · · · · · · · · · · · · · · · · · ·			K	
		Class Location	Required	Not Exceed	1			
	ļ	1 and 2	1/yr	15 months	-{			
		3	2/yr*	7½ months	-			
		4		4½ months	1			
603(b)	.721(b)(1)	delector equipment survey Patrolling Business Distri	y required for lines transporting un-odorized gas	i e :	1	1		1
	.721(b)(2)	an a	as District (2 per yr/7% months)				ΗÈ	
	.723(0)(2)	Tauloutine Conside Desuite	wa washing (when her and a distributed		1	L	45	+
	272/hV/11	1 antrana Survey _ husing	a District (1 non wells months)		-			1
	.723(b)(1)		ss District (I per yr/15 months)		-	ļ		
	.723(b)(1) .723(b)(2)	Leakage Survey				ļ r—-		т
	·····	Leakage Survey • Outside Business Di	strict (5 years)			 		
	.723(b)(2)	Leakage Survey Outside Business Di Cathodically unprote	strict (5 years) acted distribution lines (3 years)				I¥ I¥	
(0))/ 2)]-	.723(b)(2) .725	Leakage Survey Outside Business Di Cathodically unprote Tests for reinstating servi	strict (5 years) icted distribution lines (3 years) ce lines					
	.723(b)(2) .725 .727	Leakage Survey Outside Business Di Cathodically unprote Teats for reinstating servi Abandoned Pipelines; Un	strict (5 years) ected distribution lines (3 years) ce lines derwater Facility Reports					
	.723(b)(2) .725 .727 .739	Leakage Survey Outside Business Di Cathodically unprote Tests for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re	strict (5 years) ected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months)					
	.723(b)(2) .725 .727 .739 .743	Leakage Survey Outside Business DI Cathodically unprote Tests for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Rc Pressure Limiting and Re	strict (5 years) ected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacity (1 per yr/15 month	5):				
709	.723(b)(2) .725 .727 .739 .743 .743	Leakage Survey Outside Business Di Cathodically unprote Tests for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans	strict (5 years) seted distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) mission Lines (1 per yr/15 months)	5):				
709 .603(Ь)	.723(b)(2) .725 .727 .739 .743	Leakage Survey • Outside Business Di • Cathodically unprote Teats for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valve Maintenance Distri	strict (5 years) ected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacity (1 per yr/15 month	3):				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .745 .747	Leakage Survey Outside Business Di Cathodically unprote Teats for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valvé Maintenance Distri Vault Maintenance (3200)	strict (5 years) ected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacity (1 per yr/15 months) imission Lines (1 per yr/15 months) ibution Lines (4 per yr/15 months).	3)				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .745 .747 .749	Leakage Survey Outside Business Di Cathodically unprote Teats for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valvé Maintenance Distri Vault Maintenance (3200)	strict (5 years) ected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacity (1 per yr/15 month imission Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) I cubic feet)(1 per yr/15 months) Ignition (hot work permits)	5)				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .745 .745 .747 .749 751	Leakage Survey Outside Business DI Cathodically unprote Tests for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valvé Maintenance Distri Vault Maintenance (3200 Prevention of Accidental	strict (5 years) ected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacity (1 per yr/15 month imission Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) I cubic feet)(1 per yr/15 months) Ignition (hot work permits)	5)				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .745 .745 .747 .749 .751 .755	Leakage Survey Outside Business Di Cathodically unprote Teats for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valve Maintenance Distri Vault Maintenance (3200 Prevention of Accidental Caulked Bell and Spigot.	strict (5 years) seted distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) ibution Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) icubic feet)(1 per yr/15 months) Ignition (hot work permits) Joint Repair	a):				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .745 .747 .745 .747 .749 .751 .755 .225(b)	Leakage Survey Outside Business Di Cathodically unprote Tests for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valvé Maintenance Distri Vault Maintenance (3200 Prevention of Accidental Caulked Bell and Spigot Welding – Procedure	strict (5 years) sected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) imission Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) i cubic feet)(1 per yr/15 months) 1 guliton (hot work permits) Joint Repair leation	3):				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .745 .747 .749 .751 .755 .225(b) .227/.229	Leakage Survey Outside Business Di Cathodically unprote Teats for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valvé Maintenance Distri Vault Maintenance (3200 Prevention of Accidental Caulked Bell and Spigot Welding – Procedure Welding – Welder Qualif	strict (5 years) sected distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) imission Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) i cubic feet)(1 per yr/15 months) 1 guliton (hot work permits) Joint Repair leation	5)				
.6031/ 727g .709 .603(b) .709 .603(b)	.723(b)(2) .725 .727 .739 .743 .745 .747 .745 .747 .749 .751 .755 .225(b) .227/.229 .243(b)(2)	Leakage Survey Outside Business Di Cathodically unprote Teats for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valve Maintenance Distri Vault Maintenance (3200 Prevention of Accidental Caulked Bell and Spigot Welding – Procedure Welding – Welder Qualif NDT – NDT Personnel Q	strict (5 years) seted distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) ibution Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) icubic feet)(1 per yr/15 months) Ignition (hot work permits) Joint Repair leation walification	5)				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .745 .747 .745 .747 .749 .751 .755 .225(b) .227/.229 .243(b)(2) .283	Leakage Survey Outside Business Di Cathodically unprote Tests for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valve Maintenance Distri Vault Maintenance (3200 Prevention of Accidental Caulked Bell and Spigot Welding – Procedure Welding – Welder Qualif NDT – NDT Personnel Q Joining - Procedures	strict (5 years) acted distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) ibution Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) ibution Lines (1 per yr/15 months) cubic feet)(1 per yr/15 months) Ignition (hot work permits) Joint Repair leation bualification	5 }				
709 603(b) 709	.723(b)(2) .725 .727 .739 .743 .743 .745 .747 .749 .751 .755 .225(b) .227/.229 .243(b)(2) .283 .285	Leakage Survey Outside Business Di Cathodically unprote Tests for reinstating servi Abandoned Pipelines; Un Pressure Limiting and Re Pressure Limiting and Re Valve Maintenance Trans Valve Maintenance Distri Vault Maintenance (3200 Prevention of Accidental Caulked Bell and Spigot Welding – Procedure Welding – Wetder Qualif NDT – NDT Personnel Q Joining - Procedures Joining - Personnel Quali	strict (5 years) inceed distribution lines (3 years) ce lines derwater Facility Reports gulating Stations (1 per yr/15 months) gulator Stations - Capacily (1 per yr/15 months) index (1 per yr/	5):				

Finds & Standard Interestion Research of a first Distribution Consists (Rev. 0373309 (Assessible Find Bush of 14 togs and 0000)

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STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless atherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U= Unsatisfactory NA - Not Applicable N/C - Not Ch If no Item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

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Comments:

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		CORROSION CONTROL PERFORMANCE AND RECORDS	S	U	N/A	N/C
491	.491(a)	Maps of Records			×	
.491	.459	Examination of Buried Pipe when Exposed	I			
491	.465(a)	Annual Pipe-to-soil Monitoring (1 per yr/15 months) for short sections (10% per years all in 10 years)				
.491	.465(b)	Rectifier Monitoring (6 per yr/2% months)				
.491	.465(c)	Interference Bond Monitoring - Critical (6 per yr/2% months)				
491	.465(c)	Interference Bond Monitoring - Non-critical (1 per yr/15 months)			\Box	
.491	.465(d)	Prompt Remedial Actions			Ľ	
.491	.465(e)	Unprotected Pipeline Surveys, CP active corrosion areas (1 per 3 cal yr/39 months)				
.491	.467	Electrical Isolation (Including Casings)				
.491	.469	Test Stations Sufficient Number				
.491	.47.1	Test Lead Maintenance				
.491	.473	Interference Currents				
.491	.475(a)	Internal Corrosion; Corrosive Gas Investigation				1
491	.475(b)	Internal Corrosion; Internal Surface Inspection; Pipe Replacement:				
491	.476 (d)	Internal Corrosion: New system design; Evaluation of impact of configuration changes to existing systems				
.491	.477	Internal Corrosion Control Coupon Monitoring (2 per yr/71/2 months)				
491	.481	Atmospheric Corrosion Control Monitoring (1 per 3 cal yr/39 months anshare; 1 per yr/15 manths allshare)				
.491	.483/.485	Remedial: Replaced or Repaired Pipe; coated and protected; corrosion evaluation and actions			ĽΨ	

Comments:

+ Are Presidentian Charmone (Res. A2/13709 shownah Final Rule of 16 Innumer 2009). Fam & General Incorners

Attachment 1

Distribution Operator Compressor Station Inspection Unless otherwise noted, all code references are to 49CFR Part 192, S-Satisfactory U-Unsatisfactory N/A - Not Applicable If an item is marked U, N/A, or N/C, an explanation must be included in this report.

	1	COMPRESSOR STATION PROCEDURES	S	U	N/A	N/C
	.605(b)(6)	Maintenance procedures, including provisions for isolating units or sections of pipe and for purging			×	
	.6115(b)(7)	Starting, operating, and shutdown procedures for gas compressor units.		L	Ľ	<u></u>
· .	.731	Inspection and testing procedures for remote control shutdowns and pressure relieving devices		_		<u> </u>
	735	(a) Storage of excess flammable or combustible materials at a sate distance from the compressor buildings	-			- -
		(h) Tank must be protected according to NFPA #30		 	4	
	.736	Compressor buildings in a compressor station must have fixed gas detection and alarm systems (must be performance tested), unless:		L		
		 50% of the upright side areas are permanently open, or 	1	1	11	
	<u> </u>	It is an unattended field compressor station of 1000 hp or less		L	<u> </u>	

Comments:

		COMPRESSOR STATIONS INSPECTION (Field) (Note: Focilities may be "Grandfathered")	S	U	N/A	N/(
163	(c)	Main operating floor must have (at least) (no (2) separate and unobstructed exits			×	 _
4.4 F.	- <u>329/1</u>	Door latch must open from inside without a key		<u></u>		_
	ŀ	Doors must swing outward			┝╌┠╌	╞
	(6)	Each fence around a compressor station must have (at least) 2 gates or other facilities for emergency exit	ļ		ļļ_	<u> </u>
		Each gate focuted within 200 A of any compressor plant building must open outward	 		╞╌┝╾	₋
	. [titles accurated the door must be opened from the inside without a key	<u> </u>			Ļ
	(c)	Does the equipment and wiring within compressor stations conform to the National Electric Cone,		ļ		_
165	(a)	If applicable, are there liquid separator(s) on the intake to the compressors?				┦╧
•	(b)	De the figured constraints have a manual means of removing liquids?	 	ļ	┼┽	╀
		Do the figuid separators have a inducer to the compressors, are there automatic dumps on the separators, If slugs of liquid could be carried into the compressors, are there automatic dumps on the separators, Automatic compressor shutdown devices, or high liquid level alarms?			14	1
167	(A)	ESD system must:	┢	, in the second		T
		Discharge blowdown gas to a safe location	<u> </u>	+	+-	╋
		- Block and blowdown the gas in the station			┿╋╴	╉
		 Block and blowdown me gas in me station Shut down gas compressing equipment, gas fires, electrical facilities in compressor building and near gas headers 	<u> </u>		┥╋	╞
		Maintain necessary electrical circuits for emergency lighting and circuits needed to protect country damage	<u> </u>			1
		ESD system must be operable from at least two locations, each of which is:	<u>. </u>	1	X	-
. 1		Outside the gas area of the station	+		+	╉
		· Not more than 500 fect from the limits of the station	4-		+	+
		0-01-01-01-01-01-01-01-01-01-01-01-01-01	╇			+
	(b)	For stations supplying gas directly to distribution systems, is the ESD system conligured so that the LDC with not de shut down if the ESD is activated?	_		N	1
	(c)	the second second is achieved automatically by	-			
		- For unattended compressor stations, when:	+	<u> </u>		त
		+ The gas pressure equals MAOP plus 15%?		1	1	-1

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Form 2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/23/09) through First Rule of 16 January 2009)

N/C - Not Checked

Attachment 1

Distribution Operator Compressor Station Inspection

Unless otherwise noted, all code references are to 49CFR Part 192. S-Satisfactory U.- Unsatisfactory N/A- Not Applicable If an item is marked U, N/A, or N/C, an explanation must be included in this report.

COMPRESSOR STATIONS INSPECTION (Field) S U N/AN (Note: Facilities may be "Grandfathered"). a. · An uncontrolled fire occurs on the platform? + For compressor station in a building, when · An uncontrolled fire occurs in the building? · Gas in air reaches 50% or more of LEL in a building with a source of ignition (facility conforming to NEC Class 1, Group D is not a source of ignition)? Does the compressor station have adequate fire protection facilities? If fire pumps are used, they must not be .171 (a) affected by the ESD system. Do the compressor station prime movers (other than electrical movers) have over-speed shutdown? (6) Do the compressor units atarm or shutdown in the event of inzdequate cooling or lubrication of the unit(s)? (¢) Are the gas compressor units equipped to automatically stop fuel flow and vent the engine if the engine is stopped (d) for any reason? Are the mufflers equipped with vents to vent any trapped gas? (e) Is each compressor station building adequately ventilated? .173 fs all buried piping cathodically protected? .457 481 Atmospheric corrosion of aboveground facilities Does the operator have procedures for the start-up and shut-down of the station and/or compressor units? .603 Are facility maps current/up-to-date? 615 Emergency Plan for the station on site? Review pressure recording charts and/or SCADA 619 707 Markers 731 Overpressure protection - reliefs or shutdowns Are combustible materials in quantitles exceeding normal daily usage, stored a safe distance from the compressor ,735) building? ŝ Are aboveground oil or gasoline storage tanks protected in accordance with NFPA standard No. 30? .736 Gas detection -- location

Comments

 COMPRESSOR STATION O&M PERFORMANCE AND RECORDS
 S
 U
 N/A
 N/C

 .709.
 .731(a)
 Compressor Station Relief Devices (1 per yr/15 months)
 7
 7

 .709.
 .731(c)
 Compressor Station Emergency Shutdown (1 per yr/15 months)
 7
 1

 .736(c)
 Compressor Stations – Detection and Alarms (Performance Test)
 7
 1

Commentar

Form 2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/23/09 through First Rule of 16 January 2009)

N/C - Not Checked

Recent PHMSA Advisory Bulletins (Last 2 years)

Leave this list with the operator.

Number	Date	Subject
ADB-07-01.	April 27, 2007	Pipeline Safety: Senior Executive Signature and Certification of Integrity Management Program Performance Reports
ADB-07-02	September 6, 2007	Pipeline Safety: Updated Notification of the Susceptibility to Premature Brittle-Like Cracking of Older Plastic Pipe
ADB-07-02	February 29, 2008	Correction - Pipeline Safety: Updated Notification of the Susceptibility to Premature Brittle-Like Cracking of Older Plastic Pipe
ADB-08-01	May 13, 2008	Pipeline Safety - Notice to Operators of Gas Transmission Pipelines on the Regulatory Status of Direct Sales Pipelines
ADB-08-02	March 4, 2008	Pipeline Safety - Issues Related to Mechanical Couplings Used in Natural Gas Distribution Systems
ADB-08-03	March 10, 2008	Pipeline Safety - Dangers of Abnormal Snow and Ice Build-Up on Gas Distribution Systems
ADB-08-04	June 5, 2008	Pipeline Safety - Installation of Excess Flow Valves into Gas Service Lines
ADB-08-05	June 25, 2008	Pipeline Safety - Notice to Hazardous Liquid Pipeline Operators of Request for Voluntary Adv Notification of Intent To Transport Biofuels
ADB-08-06	July 2, 2008	Pipeline Safety - Dynamic Riser Inspection, Maintenance, and Monitoring Records on Offshore Floating Facilities

Even 3 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/23/09) histoigh Final Rule of 16 January 2009).

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CHAPTER 4

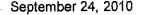
APPENDIX B

EXCERPT FROM 2010 AUDIT OF PG&E'S PENINSULA DIVISION

ARNOLD SCHWARZENEGGER, Governor

STATE OF CALIFORNIA

PUBLIC UTILITIES COMMISSION 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



Mr. Glen Carter, Senior Director Gas Engineering Pacific Gas and Electric Company 375 North Wiget Lane Walnut Creek, CA 94598

SUBJECT: General Order 112-E Audit of PG&E's Peninsula Division

Dear Mr. Carter:

On behalf of the Utilities Safety and Reliability Branch of the California Public Utilities Commission, Aimee Cauguiran, Terence Eng, and I conducted a General Order (GO) 112-E Inspection of PG&E's Peninsula Division from August 9 through 13, 2010. The audit included a review of Peninsula Division records for the period 2008 and 2009.

During the audit, we identified one or more violations of GO 112-E. These violations are itemized within the Audit Summary enclosed with this letter. Please note that the violations included within the Audit Summary may differ from the potential violations discussed with PG&E's representatives during the exit meeting of our audit. Any differences are generally attributed to research, conducted subsequent to the audit, which can result in some potential violations being excluded and other violations, not discussed during the exit meeting, being included in the Audit Summary.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by PG&E to address the violations noted in the Audit Summary.

If you have any questions, please contact me at (415) 703-2214.

Sincerely,

Dennis Lee, P.E. Utilities Engineer Utilities Safety and Reliability Branch Consumer Protection and Safety Division

- Enclosure: Audit Summary
- Copy: Larry Deniston Pacific Gas and Electric Company Larry Berg – Pacific Gas and Electric Company

AUDIT SUMMARY

AREAS OF VIOLATIONS

1. Title 49 CFR §192.723 Distribution systems: Leakage surveys.

§192.723 (b)(1) requires that "A leakage survey with leak detector equipment must be conducted in business districts, including tests of the atmosphere in gas, electric, telephone, sewer, and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at intervals not exceeding 15 months, but at least once each calendar year."

During the review of the annual leak survey records, we noted that some of the areas indicated on map 3348-C1 were not leak surveyed in 2008 as required by §192.723 (b)(1). The entire area on map 3348-C1 was leak surveyed in 2009.

2. Title 49 CFR §192.621 Maximum allowable operating pressure: High-pressure distribution systems.

§192.621 requires that "No person may operate a segment of high pressure distribution system at a pressure that exceeds the lowest of the following pressures, as applicable: (1) The design pressure of the weakest element in the segment..."

Title 49 CFR §192.619 Maximum allowable operating pressure: Steel or plastic pipelines.

§192.619 requires that "No person may operate a segment of steel or plastic pipeline at a pressure that exceeds the lowest of the following: (1) The design pressure of the weakest element in the segment..."

During the review of the regulator station records, we noted that the pressure ratings on the downstream valves at regulator / relief stations, C-28, A-59, and A-15, were less than the maximum allowable operating pressure (MAOP) of the regulator / relief station for which the valves were employed. Regulator / relief station C-28's downstream valve pressure rating is 175 psi, which is less than the inlet station MAOP of 375 psi. Regulator / relief station A-59's downstream valve pressure rating is 125 psi, which is less than the inlet station A-15's downstream valve pressure rating is 200 psi, which is less than the inlet station A-15's downstream valve pressure rating is 200 psi, which is less than the inlet station MAOP of 375 psi.

PG&E performed Operational Lockup at these stations in 2008 and 2009 as part of its normal Regulator Station Maintenance. If the regulators at these stations do not properly lockup during testing or normal operations, the pressure ratings on the valves could be exceeded, which is a violation of §192.621 and §192.619.

Please ensure that PG&E's entire system regulator / relief stations have the appropriate station pressure ratings so that the pressure ratings will not be exceeded.

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.

Т

Insp	ection Report	P	ost Inspe	ction Memorandum
		Inspector/Submit D	ate:	n/a
Inspector/Submit Date:	Dennis Lee / 9-24-2010	Peer Review/Date:		n/a
-		Director Approval/	Date:	n/a
		N MEMORANDUM	(PIM)	
Name of Operator: Pacif	ic Gas and Electric Company			OPID #: 15007
Name of Unit(s): Pacific	Gas and Electric - Distribution			Unit #(s):
Records Location: San F	rancisco, CA			Activity #
Unit Type & Commodity				· · ·
Inspection Type: GO 1	12-E of PG&E Peninsula	Division	Inspectio	on Date(s): 8/9/10-8/13/10
PHMSA Representative(s):Dennis Lee, Aimee Cauguiran, &	Terence Eng	<u></u>	AFO Days:
Company System Maps	(copies for Region Files):n/a			
Validate SMART Data (components, miles, etc): Acc	quisition(s), Sale or N	lew Const	truction (submit SMART update):
Validate Additional Req	uirements Resulting From Waiver(s) or Special Permit(s):n/a	
			·	
Emergency Plans. This a	d audit of documents that form Pacific udit examined gas transmission and di e PHMSA Form-1 for transmission-re	istribution standards; h	npany's (F nowever, o	PG&E) Operations, Maintenance, and only distribution-related findings are
	-	•		
	•			

Findings:

The findings for each subpart are noted in each individual section. A written report noting the findings will be sent to the operator.

Name of Operator: Par	cific Gas and Electric Company	·····	
Name of Operator: Pac OP ID No. ⁽¹⁾	ente das and blocate company	Unit ID No. (1)	
HQ Address;	······································	System/Unit Name & Ado	lress: (1)
77 Beale		ajutonii enii finine et ite	
San Francisco, CA			
bart funoised, cry	•	· ·	
Co. Official:	n/a	Activity Record ID No.:	n/a
Phone No.:	n/a	Phone No.:	n/a
Fax No.:	n/a	Fax No.:	n/a
Emergency Phone No.:	<u>n/a</u>	Emergency Phone No.:	n/a
Persons Intervie		itle	Phone No.
See Sign In She	eet See Sig	n In Sheet	See Sign In Sheet
		······································	,
			·
		· · · N. · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
	· · · · · · · · · · · · · · · · · · ·		·
		···	
PHMSA Representative	(s) ⁽¹⁾	·	Inspection Date(s) ⁽¹⁾
Company System Maps	(Copies for Region Files): No maps obtain	ned from the audit	
Unit Description			
See Statistics Report.			<i>.</i>
- -			
······································		· · · · · · · · · · · · · · · · · · ·	
Portion of Unit Inspected	d: ⁽¹⁾		
See inspection report.			
1			
(
For gas transmission an	d distribution pipeline inspections, the a	ttached evaluation form she	ould be used in conjunction with
49CFR Parts 191 and 19			

¹ Information not required if included on page 1.

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				GAS SYSTE	EM OPERATIO	ONS				
Gas Supp	lier	п/а			Date:	n/a				
Unaccounted for gas:					Services:	Reside	ntial	Commercial	Industrial	Other
		п/а .			. Services:		2	n/a	n/a	n/a
Operating Pressure(s):			MAOP (V	(Within last year) Actual Operating Pressure (At time of Inspection)			ure			
Feeder:	n/a	. <u> </u>	п/а		· · ·		n/a		-	
Town:	n/a		n/a				n/a	-		**
Other:	n/a	· ·	n/a				n/a			
Does the	operator have	any transmission p	pelines?	n/a						
For comp	ressor station	inspections, use At	achment 4.	n/a						

49CFR PART 191

1.1.4.17

	•	REPORTING PROCEDURES					
.605(b)(4)	Procedures	for gathering data for incident reporting			38 P		
	191.5	Telephonically reporting incidents to NRC (800) 424-8802	X			_	
	191.15(a)	30-day follow-up written report (Form 7100-2)	x				•
	191.15(b)	Supplemental report (to 30-day follow-up)	• X				-
,605(a)	191.23	Reporting safety-related condition (SRCR)	X				
	191.25	Filing the SRCR within 5 days of determination, but not later than 10 days after discovery	x				
.605(d)	Instructions	to enable operation and maintenance personnel to recognize potential Safety Related Conditions	x				1

Comments:

191.15(b), 191.23, 191.25, 192.605(d): S4413 Reporting requirements

191.5, 191.15(a): Gas Asset Strategy On-Call Manual-Reporting Procedures (including contact numbers, forms, etc.) Other: Emergency Plan, WP4000-02 (Leading document)

49CFR PART 192

.13(c)		CUSTOMER AND EFV INSTALLATION NOTIFICATION PROCEDURES		ŝ.	讈
	.16	Procedures for notifying new customers, within 90 days, of their responsibility for those selections of service lines not maintained by the operator.	x		
	.381	If EFVs are installed, they must meet the performance requirements of §192.381	X		
-	.383	If the operator has a voluntary installation program for excess flow valves, the program must meet the requirements outlined in §192.383.	x		
	.383	If the operator does not have a voluntary program for EFV installations, customers must be notified in accordance with §192.383.	x		

.605(a)		NORMAL OPERATING and MAINTENANCE PROCEDURES	MAR	ц.	NA	N/C
·	.605(a)	O&M Plan review and update procedure (1 per year/15 months)	X			
	.605(b)(3)	Making construction records, maps, and operating history available to appropriate operating personnel	X			
	.605(b)(5)	Start up and shut down of the pipeline to assure operation within MAOP plus allowable buildup	x			
	.,605(b)(8)	Periodically reviewing the work done by operator's personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedures when deficiencies are found	x			
	.605(b)(9)	Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapors or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and a rescue harness and line	x			

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/19/10 through Amdi. 192-112)

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.605(a)		NORMAL OPERATING and MAINTENANCE PROCEDURES	ŝ	1 P	y A	Sic N/C
	.605(b)(10)	Routine inspection and testing of pipe-type or bottle-type holders	X		Ī	THE P
	.605(b)(11)	Responding promptly to a report of a gas odor inside or near a building, unless the operator's emergency proced. under [192.615(a)(3) specifically apply to these reports.	x			

Comments:

Procedures for 192.16 are in WP5449-02, which provides 192.16 notice to customers when work takes place; superceded by WP5449-02. GS&S A-93.3 disallows EFVs for 1/4" CTS because no EFV available for 1/4" (email provided noting this fact).

192.605(a): WP4000-02 established in 09/2008

192.605(b)(3): UO Std S0470

192.605(b)(5): UO Std S4125, D-S0430

192.605(b)(8): IQI and PG&E's Quality Assurance Program

192.605(b)(9): WP4414-04, UO Std S4415

192.605(b)(10): UO Std S4411, WP4430-02, WP4540-01

192.605(b)(11): Addressed in company's Gas Emergency Procedures (CGEP) Part 1, Section 5.8 and WP6434-01 (Gas Leak & Odor Investigation); UO Std S6434

S0470 (Design & Construction Standards)

GS&S A93.3 Excess Flow Valves voluntary installation program

.605(a)		CHANGE in CLASS LOCATION PROCEDURES			N/A	6
	.609	Class location study	3	(100000
	.611	Confirmation or revision of MAOP	3	:	1	

Comments:

UO Std S4127 and D-S0430/S4125

· ·

.613	}	CONTINUING SURVEILLANCE PROCEDURES	S	MAN/C
	.613(a)	Procedures for surveillance and required actions relating to change in class location, failures, leakage history, corrosion, substantial changes in CP requirements, and unusual operating and maintenance conditions	X	*****
	.613(b)	Procedures requiring MAOP to be reduced, or other actions to be taken, if a segment of pipeline is in unsatisfactory condition	x	

Comments:

192.613(a): UO Std S4127; TD4412P-07 Patrolling of Pipelines and Mains; UO Std s0350/S4110 Leak Survey and Repair; GS&S O-16 and UO Std S4133 Corrosion Control of Distribution and Transmission Pipelines; UO Std S2333 Material Problem Reporting; UO Std S4413 CPUC Curtailments; UO Std S0353 Physical Inspection of Mains and Pipeline Services; GS&S A93.1 Plastic Gas Distribution System Construction and Maintenance. 192.613(b): UO Std S4134 (DM Tab A) and TD4412.07. 54127

192.613(b): UO Std S4134 (DM-Tab A) and TD4412-07, S4127

.605(a)		DAMAGE PREVENTION PROGRAM PROCEDURES	SU	VANIC
	.614(c)	Participation in a qualified one-call program, or if available, a company program that complies with the following:	7.280-2041	
		(1) Identify persons who engage in excavating		÷
		(2) Provide notification to the public in the One Call area	x	
		(3) Provide means for receiving and recording notifications of pending excavations	x	
				<u>L</u>

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/19/10 through Amd), 192-112)

N/C ~ Not Checked

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DAMAGE PREVENTION PROGRAM PROCEDURES х Provide notification of pending excavations to the members (4) х (5) Provide means of temporary marking for the pipeline in the vicinity of the excavations Provides for follow-up inspection of the pipeline where there is reason to believe the (6) х pipeline could be damaged х Inspection must be done to verify integrity of the pipeline (i) х (ii) After blasting, a leak survey must be conducted as part of the inspection by the operator

Comments:

UO Std S4412 Protection of Underground Infrastructure PG&E Manual titled "Protection of Underground Infrastructure" UO Std S4412 (TS); WP4412-05(c) and S4110 Attachment 1 (Leak survey requirements following blasting)

192.614(c)(6): Gas Information Bulletin 151 - Rev. 2

.615 EMERGENCY PROCEDURES .615(a)(1) Receiving, identifying, and classifying notices of events which require immediate response х by the operator Establish and maintain communication with appropriate public officials regarding possible emergency х .615(a)(2) Prompt response to each of the following emergencies: .615(a)(3) х Gas detected inside a building (i) х (ii) Fire located near a pipeline х (iii) Explosion near a pipeline х (iv) Natural disaster Availability of personnel, equipment, instruments, tools, and material required at the scene of an .615(a)(4) х emergency Actions directed towards protecting people first, then property х .615(a)(5) Emergency shutdown or pressure reduction to minimize hazards to life or property х .615(a)(6) х .615(a)(7) Making safe any actual or potential hazard to life or property .615(a)(8) Notifying appropriate public officials required at the emergency scene and coordinating planned and х actual responses with these officials х Instructions for restoring service outages after the emergency has been rendered safe .615(a)(9) Investigating accidents and failures as soon as possible after the emergency х .615(a)(10) Furnishing applicable portions of the emergency plan to supervisory personnel who are responsible .615(b)(1) х for emergency action Training appropriate employees as to the requirements of the emergency plan and verifying .615(b)(2) Х effectiveness of training X Reviewing activities following emergencies to determine if the procedures were effective .615(b)(3) Establish and maintain liaison with appropriate public officials, such that both the operator and public .615(c) х officials are aware of each other's resources and capabilities in dealing with gas emergencies

Comments:

PG&E's Emergency Plan consists of 2 parts: (1) Basic Plan (company-wide), and (2) Appendix (contains District/Division-specific information). Each PG&E division is responsible for updating their own binders (Appendix) including any changes received on the Basic plan. The Basic Plan is reviewed by PG&E's SME by 8/21 of each year.

Division personnel who are possible first responders (including managers, supervisors, mechanics, etc.) are required to take an annual web-based training and evaluation.

S6434 and WP6434-01: Gas Leak & Odor Response contains Field Services procedures for responding to customer calls of gas leaks or

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Comments: odor complaints.	ununi +−- (padpapiokkkinikk-konsongong <u>a+- avyyyyyyyy</u> ar	

		PUBLIC AWARENESS PROGRAM PROCEDURES			
		(Also in accordance with API RP 1162)			
.605(a)	.616	Public Awareness Program also in accordance with API RP 1162 (Amdt 192-99 pub. 5/19/05 eff. 06/20/05 and Amdt 192-not numbered pub 12/13/07 eff. 12/13/07).			
	.616(d)	The operator's program must specifically include provisions to educate the public, appropriate government organizations, and persons engaged in excavation related activities on:			
		(1) Use of a one-call notification system prior to excavation and other damage prevention activities;	x		
		(2) Possible hazards associated with unintended releases from a gas pipeline facility;	x		
		(3) Physical indications of a possible release;	x		
		(4) Steps to be taken for public safety in the event of a gas pipeline release; and	x		
		(5) Procedures to report such an event (to the operator).		T	
	.616(e)	The operator's program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.	x		
	.616(f)	The operator's program and the media used must be comprehensive enough to reach all areas in which the operator transports gas.	x		
	.616(g)	The program must be conducted in English and any other languages commonly understood by a significant number of the population in the operator's area?	x		
	.616(h)	IAW API RP 1162, the operator's program should be reviewed for effectiveness within four years of the date the operator's program was first completed. For operators in existence on June 20, 2005, who must have completed their written programs no later than June 20, 2006, the first evaluation is due no later than June 20, 2010.			
	.616(j)	Operators of a master meter or petroleum gas systems (unless the operator transports gas as a primary activity) must develop/implement a written procedure to provide its customers public awareness messages twice annually that includes: (1) A description of the purpose and reliability of the pipeline; (2) An overview of the hazards of the pipeline and prevention measures used; (3) Information about damage prevention; (4) How to recognize and respond to a leak; and (5) How to get additional information.		x	
		(See this subpart for requirements for master meter or petroleum gas system operators not located on property controlled by the operator.)			

Comments:

PG&E submitted its PAP into the USDOT Clearinghouse. The USRB received the results of the Clearinghouse's review and has worked with PG&E to resolve the issues noted by the Clearinghouse. Safety Health and Claims 103 addresses PG&E's PAP. PG&E's RMP-12 addresses PG&E's PAP.

Master-meter section 192.616(j) is not applicable to PG&E since it does not operate master-meter systems.

.617		FAILURE INVESTIGATION PROCEDURES	S	ųκ	/AN/C
[.617	Analyzing accidents and failures including laboratory analysis where appropriate to determine cause and prevention of recurrence	x		

Comments:

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N/C - Not Checked

Comments:
WP1465-02: Gas Event and Near Hit Reporting
S2333: Material Problem Reporting

.605(a)	MAOP PROCEDURES			8		N/A	Sic C
	.619 Establishing MAOP so that it is commensurate with the class location						
	MAOP cannot exceed the lowest of the following:			藗			
	(a)(1) Design pressure of the weakest element			X			
	(a)(2) Test pressure divided by applicable factor			X			
	 (a)(3) The highest actual operating pressure to which the segment of line was subjected during the 5 years preceding the applicable date in second column, unless the segment was tested according to .619(a)(2) after the applicable date in the third column or the segment was uprated according to subpart K. 						
	Pipeline segment	Pressure date	Test date		İ		
	- Onshore transmission line that was a gathering line not subject to this part before March 15, 2006.	March 15, 2006, or date line becomes subject to	5 years preceding applicable date in second column.	x			
		this part, whichever is later.					
j –	All other pipelines.	July 1, 1970.	July 1, 1965.				
]	(a)(4) Maximum safe pressure determined by operator.						1
1	(b) Overpressure protective devices must be installed if .619(a)(4) is applicable						
	(c) The requirements on pressure restrictions in this section do not apply in the following instance. An operator may operate a segment of pipeline found to be in satisfactory condition, considering its operating and maintenance history, at the highest actual operating pressure to which the segment was subjected during the 5 years preceding the applicable date in the second column of the table in paragraph (a)(3) of this section. An operator must still comply with § 192.611						
	.621 MAOP - High Pressure Distribution Systems Note: New PA-11 design criteria is incorporated into 192.121 & .123, (Final Rule Pub. 24 December, 2008)						
	.623 Max Min. Allowable Operating Pressure - Low Pressure Distrib	oution Systems		X			

Comments:

DCS Std D-S0430, GTS Std S4125, GS&S A-34

For low pressure distribution systems installed prior to July 1, 1970, MAOP is established as 150% of Standard Delivery Pressure or 7inches w.c., the MAOP is 10-1/2 inches w.c.

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Bulletin 302 addresses, "Establishing MAOP, Exhibit A"

.13(c)	PRESSURE TEST PROCEDURES	U NANC
	.503 Pressure testing X	
Commer GS&S A DCS Sto	nts: A-34 Piping Design and Test Requirements, Attachment A Test Requirements td D-S0430 and GTS Std S4125	

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/19/10 through Amdr. 192-112)

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.605(a)	1	ODORIZATION of GAS PROCEDURES	S .	U	N/AN/C
	.625(a)	Distribution lines must contain odorized gas. – must be readily detectable by person with normal sense of smell at $\frac{1}{5}$ of the LEL	x		
	.625(b)	Odorized gas in Class 3 or 4 locations (if applicable).	х		
	.625(f)	Periodic gas sampling, using an instrument capable of determining the percentage of gas in air at which the odor becomes readily detectable.	x		

Comments:

UO Std S4350 Gas Odor Detection at 0.6% gas in air or less

Periodic sampling is done monthly and recorded on Monthly Odorization Report (Form 62-4650)

.605(a)		TAPPING PIPELINES UNDER PRESSURE PROCEDURES	S	٦.	N/A	N/C
	,627	Hot taps must be made by a qualified crew				
		NDT testing is suggested prior to tapping the pipe. Reference API RP 2201 for Best Practices.	×			

Comments:

GS&S C-38 Plastic Lateral Connection, Hot Tap Procedure GS&S A-52 Hot Tap Branch Connection Requirements GS&S D-40 Weld Inspection

.605(a)	PIPELINE PURGING PROCEDURES		S	a),	N/A	NG
	.629	Purging of pipelines must be done to prevent entrapment of an explosive mixture in the pipeline		an a'	で読	嬼
		(a) Lines containing air must be properly purged.	x			
		(b) Lines containing gas must be properly purged	. X			

Comments:

GS&S A-38 Procedure for Purging Gas Facilities, Attachment A and B

WP4100-01 Hot and Cold Work Methods for Natural Gas Transmission Pipeline Shutdown and Tie-in, which replaces S4131, August 2008

.605(a)		MAINTENANCE PROCEDURES	S	U	Ŋ/A	ŇČ
	.703(b)	Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from service	x			
	(c)	Hazardous leaks must be repaired promptly	x			

Comments:

192.703(b): US Std S4430 CGT Gs Facility Requirements; UO Std S4134 Selection of Steel Gas Pipeline Repair Methods; UO Std S4129 Deactivation of Gas Facilities

192.703(c): UO Std S4110/S0350 addresses repairs of hazardous leaks; UO Policy 3-7 Gas and Electric Operations, Maintenance and Construction; CT&CS S0205 Replacement of Deteriorated or Damaged Facilities; GS&S A-66 Repair of Cast Iron; GS&S A-67 Repair of Copper and Gas Bulletin 246; S4100-11

WP4100-11 Deactivation and/or Retirement of Underground Gas Facilities

.605(b)	Т	RANSMISSION LINES - PATROLLING & LEAKAGE SURVEY PROCEDURES	. S .	U	N/Å	N/Ĉ
	.705(a)	Patrolling ROW conditions	X			
	.(b)	Maximum interval between patrols of lines:		+ 1975 - 945 - 3 - 17		

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U-Unsatisfactory N/A - Not Applicable

If an item is marked U, N/A, or N/C, an explanation must be included in this report.

N/C - Not Checked

, î	RANSMISSION LINES	- PATROLLING & LEAKAGE SURV	EY PROCEDURES		<u>498</u>
	Class Location	At Highway and Railroad Crossings	At All Other Places		
•	1 and 2	2/yr (7½ months)	1/yr (15 months)		
	3	4/yr (4½ months)	2/yr (7½ months)	X	ł
	4	4/yr (4½ months)	4/yr (4½ months)		
	· · · · · · · · · · · · · · · · · · ·				 _
.706	Leakage surveys - 1 yea	nr/15 months		x	
	Leak detector equipme	nt survey requirements for lines transporting un	n-odorized gas	x	
	(a) Class 3 locations -	71/2 months but at least twice each calendar ye	ear	X	
	(b) Class 4 locations -	41/2 months but at least 4 times each calendar	r year	x	

Comments:

192.705(a): WP4412-07

192.705(b): UO Std S4111, Attachment 1 Procedure for Patrolling Pipelines and Mains

192.706(a) and (b): WP4110-05, UO Std S4110 Leak Survey and Repair of Gas Transmission and Distribution Facilities, Attachment +, Table 1 Frequency of Periodic Required Gas Leak Surveys, CGT Transmission Class 3 and 4, Semi-annual

.605(b)	DIST	TRIBUTION SYSTEM PATROLLING & LEAKAGE SURVEY PROCEDURES			ŇÅ	Sic
	.721(a)	Frequency of patrolling mains must be determined by the severity of the conditions which could cause failure or leakage (i.e., consider cast iron, weather conditions, known slip areas, etc.)	x			
	.721(b)	Mains in places or on structures where anticipated physical movement or external loading could cause failure or leakage must be patrolled				
	(b)(1)	In business districts at intervals not exceeding 4½ months, but at least four times each calendar year; and	x			
	(b)(2)	Outside business districts at intervals not exceeding 71/2 months, but at least twice each calendar year	X	ļ		
	.723(a) & (b)	Periodic leak surveys determined by the nature of the operations and conditions.	X			
	(b)(1)	In business districts as specified, 1/yr (15 months)	X			
	(b)(2)	Outside of business districts as specified, once every 5 calendar years/63 mos.; for unprotected lines subject to .465(e) where electrical surveys are impractical, once every 3 years/39 mos.	x			

Comments:

192.721(a): WP4412-07 replaces UO Std S4111 192.721(b)(1): WP4412-07; UO Std S4412 192.721(b)(2): WP4412-07, US Std S 4111 192,723(a) and (b)(1) and (b)(2): UO Std S4110

.605(b)	LINE MARKER PROCEDURES	S.	jan (N/A	N/C
	.707 Line markers installed and labeled as required	X			

Comments:

GS&S L-10 Pipeline Marker Posts

UO Std S4122, Attachment - Detailed Procedures, Table 1-Pipeline Marking Requirements Appendix A-Pipeline Marker Posts and Signs in GS&S Section L

.605(b)	,	TRANSMISSION RECORD KEEPING PROCEDURES	65	ţŪ,	VA.	貘
	.709	Records must be maintained	x			
		(a) Repairs to the pipe - life of system	X			
		(b) Repairs to "other than pipe" - 5 years	x			

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/19/10 through Amdi, 192-112)

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TRANSMISSION RECORD KEEPING PROCEDURES	S	D	N/A	ŇĢ
(c) Operation (Sub L) and Maintenance (Sub M) patrols, surveys, tests - 5 years or until next one	X			

Comments:

192.709(a) and (c): UO Std S4110, Attachment 1 Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report (Form "A"), Gas Dig-In Incident Report (Form "A1") shall be retained for the life on any gas facility plus 1 year. 192.709(b): Bulletin 319

605(b)		TRANSMISSION FIELD REPAIR PROCEDURES	S.		
		Imperfections and Damages			
	.713(a)	Repairs of imperfections and damages on pipelines operating above 40% SMYS			
		(1) Cut out a cylindrical piece of pipe and replace with pipe of 3 design strength	X		
		(2) Use of a reliable engineering method	x		
	.713(b)	Reduce operating pressure to a safe level during the repair	X		
		Permanent Field Repair of Welds			
	.715	Welds found to be unacceptable under §192.241(c) must be repaired by:			
	····	(a) Taking the line out of service and repairing in accordance with §192.245:	x		
		Cracks longer than 8% of the weld length (except offshore) must be removed	X		
	· · · · · · · · · · · · · · · · · · ·	 For each weld that is repaired, the defect must be removed down to clean metal and the pipe preheated if conditions demand it 	x		
		 Repairs must be inspected to ensure acceptability 	x		
		 Crack repairs or defect repairs in previously repaired areas must be done in accordance with qualified written welding procedures 	x		
		(b) If the line remains in service, the weld may be repaired in accordance with §192.245 if:	X		
		(1) The weld is not leaking	X		
		(2) The pressure is reduced to produce a stress that is 20% of SMYS or less	X		
	•	(3) Grinding is limited so that ¼ inch of pipe weld remains	x		
		(c) If the weld cannot be repaired in accordance with (a) or (b) above, a full encirclement welded split sleeve must be installed	x		
		Permanent Field Repairs of Leaks			
	.717	Field repairs of leaks must be made as follows:			王武道
		(a) Replace by cutting out a cylinder and replace with pipe similar or of greater design	X		
		(b)(1) Install a full encirclement welded split sleeve of an appropriate design unless the pipe is joined by mechanical couplings and operates at less than 40% SMYS	x		
		(b)(2) A leak due to a corrosion pit may be repaired by installing a bolt on leak clamp	X		
		(b)(3) For a corrosion pit leak, if a pipe is not more than 40,000 psi SMYS, the pits may be repaired by fillet welding a steel plate. The plate must have rounded corners and the same thickness or greater than the pipe, and not more than ½D of the pipe size	x		
		(b)(4) Submerged offshore pipe or pipe in inland navigable waterways may be repaired with a mechanically applied full encirclement split sleeve of appropriate design	x		
		(b)(5) Apply reliable engineering method	X		
		Testing of Repairs	:	$\delta_{2} :=$	+-===
	.719(a)	Replacement pipe must be pressure tested to meet the requirements of a new pipeline		•	
	(b)	For lines of 6-inch diameter or larger and that operate at 20% of more of SMYS, the repair must be nondestructively tested in accordance with §192.241©	x		

Comments:

Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev 03/19/16 through Amdr 192-112)

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Comments:

Transmission field repair procedures are addressed in GS&S A-60, A-60.2, A-64, D-22, A-34, UO Std S4131, and Transmission standards S4110

.605(b)	2	TEST REQUIREMENTS FOR REINSTATING SERVICE LINES	S	Ψ.A	ŇČ
	.725(a)	Except for .725(b), disconnected service lines must be tested the same as a new service line.	X		
	(b)	Service lines that are temporarily disconnected must be tested from the point of disconnection, the same as a new service line, before reconnect. See code for exception to this.	x		

Comments:

GS&S A-34 Piping Design & Test Requirements under General Information Section, Item #6 GS&S A-93.1 Plastic Gas Distribution System Construction and Maintenance references GS&S A-34 under its "Test Requirements" section on page 9 of 13

.605(b)		ABANDONMENT or DEACTIVATION of FACILITIES PROCEDURES		P P		
	.727(b)	Operator must disconnect both ends, purge, and seal each end before abandonment or a period of deactivation where the pipeline is not being maintained. Offshore abandoned pipelines must be filled with water or an inert material, with the ends sealed	x			
	(c)	Except for service lines, each inactive pipeline that is not being maintained under Part 192 must be disconnected from all gas sources/supplies, purged, and sealed at each end.	x			
	(d)	Whenever service to a customer is discontinued, do the procedures indicate one of the following:			穀	١.
		(1) The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator	x			
		(2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly	x			
		(3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed	x			
	(e)	If air is used for purging, the operator shall ensure that a combustible mixture is not present after purging	×			
	.727(g)	Operator must file reports upon abandoning underwater facilities crossing navigable waterways, including offshore facilities.	×			

Comments:

WP4100-11 Deactivation and/or Retirement of Underground Gas Facilities GS&S A-38 Procedures for Purging Gas Facilities GS&S A-93.2 Deactivation of Plastic Services GS&S A-38.2 Pre-purging Procedure for 2" Plastic Pipe WP6435-04 Procedures for Discontinuing Gas Service

.605(b)		PRESSURE LIMITING and REGULATING STATION PROCEDURES	S	U N	N/¢
	.739(a)	Inspection and testing procedures for pressure limiting stations, relief devices, pressure regulating stations and equipment (1 per yr/15 months)	x		
		(1) In good mechanical condition	X		
		 Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed 	x		
		(3) Set to control or relieve at correct pressures consistent with .201(a), except for .739(b).	X		
		(4) Properly installed and protected from dirt, liquids, and other conditions that may prevent proper	x		
	oper.		2011-2		
	.739(b)	For steel lines if MAOP is determined per .619(c) and the MAOP is 60 psi (414 kPa) gage or more	- 1918	\$ * \$	汉影中

	PRESSURE LIMITING and R	EGULATING STATION PROCEDURES	S	Ш.	NA	NX
	If MAOP produces hoop stress that	Then the pressure limit is:				Ì
	Is greater than 72 percent of SMYS	MAOP plus 4 percent	x	ĺ		
	Is unknown as a percent of SMYS	A pressure that will prevent unsafe operation of the pipeline considering its operating and maintenance history and MAOP				
.741	Telemetering or Recording Gauges	· · · · · · · · · · · · · · · · · · ·				
	(a) In place to indicate gas pressure is	n the district that is supplied by more than one regulating station	X	Γ		<u> </u>
	(b) Determine the need in a distributi	on system supplied by only one district station	x			
	(c) Inspect equipment and take correct pressure	ctive measures when indications of abnormally high or low	x			
.743	Testing of Relief Devices					
.743	(a) Capacity must be consistent with .2	201(a) except for .739(b), and be determined 1 per yr/15 mo.	X			
	(b) If calculated, capacities must be required.	compared; annual review and documentation are	x			ſ
	(c) If insufficient capacity, new or ad	Iditional devices must be installed to provide required capacity.	x			

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Comments:

TD4430P-02, UO Std S4540, WP4540-01, and WP4540-04 CES Standard CT&CS-S0351 District Regulator Station Maintenance and DCS Standard D-S0456, Recording Pressures in Distribution Systems (this is found in DM-Tab H).

For transmission, CGT Standard TD4430-02, CGT S4433 Gas Pressure Relief Devices – Responsibility For Annual Inspection and Verification of Capacity, GS&S H-70 Pressure Relief Devices. CGT Standard 4431, Major Gas Facilities.

Note: Inspector should ask transmission districts to identify its major gas facilities considered per this standard, during the audit.

.605(b)		VALVE AND VAULT MAINTENANCE PROCEDURES	S		NA.	NC
		Transmission Yalves	万薄	潮	题	蓊
	.745	 (a) Inspect and partially operate each transmission valve that might be required during an emergency (1 per yr/15 months) 	x			
	.745	(b) Prompt remedial action required, or designate alternative valve.	X			
		Distribution Valves		潮道	1	
	.747	 (a) Check and service each value that may be necessary for the safe operation of a distribution system (1 per yr/15 months) 	X			
		(b) Prompt remedial action required, or designate alternative valve.	X			
		Yaults	~	前得		
	.749	Inspection of vaults greater than 200 cubic feet (1 per yr/15 months)	X			

.605(b)		PREVENTION of ACCIDENTAL IGNITION PROCEDURES	in St	U: N/Á	ŊÇ
	.751	Reduce the hazard of fire or explosion by:	94 5 4	A BUREAU	50
		(a) Removal of ignition sources in presence of gas and providing for a fire extinguisher	x		
	_	(b) Prevent welding or cutting on a pipeline containing a combustible mixture	x		
		(c) Post warning signs	x		_

Comments:

192.745-.749: WP4430-04 for valves, and S4446 for vaults. Vault Inspection Procedure applies to distribution and transmission (found in DM-Tab K)

192.751: Code of Safe Practices, Utility Standard Practice 22, WP4414-04, G-14832, Gs Distribution and Maintenance Manual Section K, SG&C 236 (Tab A-38 Procedures for Purging Gas Facilities), GS&S A-93.1

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all code references are to 49CFR Part 192. S-Satisfactory U-Unsatisfactory N/A-Not Applicable N/C-Not Ch If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

.605(b)		CAULKED BELL AND SPIGOT JOINTS PROCEDURES		8.9	
	.753	Cast-iron caulked bell and spigot joint repair:			
		(a) When subject to more than 25 psig, sealed with mechanical clamp, or sealed with material/device which does not reduce flexibility, permanently bonds, and seals and bonds as prescribed in §192.753(a)(2)(iii)	x		
		(b) When subject to 25 psig or less, joints, when exposed for any reason, must be sealed by means other than caulking	x		

.605(b)		PROTECTING CAST-IRON PIPELINE PROCEDURES			
	.755	Operator has knowledge that the support for a segment of a buried cast-iron pipeline is disturbed must provide protection.			
		(a) Vibrations from heavy construction equipment, trains, trucks, buses or blasting?	X		
		(b) Impact forces by vehicles?	x		
		(c) Earth movement?	x		
į		(d) Other foreseeable outside forces which might subject the segment of pipeline to a bending stress	X		
		(e) Provide permanent protection for the disturbed section as soon as feasible	x		

)	WELDING AND WELD DEFECT REPAIR/REMOVAL PROCEDURES			NE
.225	(a) Welding procedures must be qualified under Section 5 of API 1104	x		
	or Section IX of ASME Boiler and Pressure Code by destructive test.			
	(b) Retention of welding procedure details and test	X	L	
.227	 (a) Welders must be qualified by Section 6 of API 1104 (19th Ed., 1999, including errata October31, 2001; and 20th edition 2007, including errata 2008) or Section IX of ASME Boiler and Pressure Code (2004 ed. Including addenda through July 1, 2005) See exception in .227(b). 	x		
	(b) Welders may be qualified under section I of Appendix C to weld on lines that operate at < 20% SMYS.	x		
.229	 (a) To weld on compressor station piping and components, a welder must successfully complete a destructive test 	x		
· · ·	(b) Welder must have used welding process within the preceding 6 months	X		
	(c) A welder qualified under .227(a)-			教務
.229(c)	(1) May not weld on pipe that operates at ≥ 20% SMYS unless within the preceding 6 calendar months the welder has had one weld tested and found acceptable under the sections 6 or 9 of API Standard 1104; may maintain an ongoing qualification status by performing welds tested and found acceptable at least twice per year, not exceeding 7½ months; may not requalify under an earlier referenced edition.	x		
	(2) May not weld on pipe that operates at < 20% SMYS unless is tested in accordance with .229(c)(1) or requalifies under .229(d)(1) or (d)(2).	x		
,	(d) Welders qualified under .227(b) may not weld unless:	瀫		
	(1) Requalified within J year/15 months, or	X		
-	(2) Within 71/2 months but at least twice per year had a production weld pass a qualifying test	X		
.231	Welding operation must be protected from weather	x		
.233	Miter joints (consider pipe alignment)	x		
.235	Welding preparation and joint alignment	x		
.241	 (a) Visual inspection must be conducted by an individual qualified by appropriate training and experience to ensure: 	x		
	(1) Compliance with the welding procedure	x		
	(2) Weld is acceptable in accordance with Section 9 of API 1104	x		
	(b) Welds on pipelines to be operated at 20% or more of SMYS must be nondestructively tested in accordance with 192.243 except welds that are visually inspected and approved by a qualified welding inspector if:	x		
	(1) The nominal pipe diameter is less than 6 inches, or	x		 · · · · · · · - ·
	(2) The pipeline is to operate at a pressure that produces a hoop stress of less than 40% of SMYS and the welds are so limited in number that nondestructive testing is impractical	x		

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.13(c)	T	WELDING AND WELD DEFECT REPAIR/REMOVAL PROCEDURES	NS.	Ť.	NHA	NC
	.241	(c) Acceptability based on visual inspection or NDT is determined according to Section 9 of API 1104. If a girth weld is unacceptable under Section 9 for a reason other than a crack, and if Appendix A to API 1104 applies to the weld, the acceptability of the weld may be further determined under that appendix.	x	•		
		Repair and Removal of Weld Defects				
	.245	(a) Each weld that is unacceptable must be removed or repaired. Except for offshore pipelines, a weld must be removed if it has a crack that is more than 8% of the weld length	. x			
		(b) Each weld that is repaired must have the defect removed down to sound metal, and the segment to be repaired must be preheated if conditions exist which would adversely affect the quality of the weld repair. After repair, the weld must be inspected and found acceptable.	x			
		(c) Repair of a crack or any other defect in a previously repaired area must be in accordance with a written weld repair procedure, qualified under §192.225	x			
		Note: Sleeve Repairs - use low hydrogen rod (Best Practices -ref. API 1104 App. B, In Service Welding)				

Comments:

92.753 GS&S A 39.

192,755 GS&S A-39

192.225 (a) and (b) GS&S D-20 Oxyacetylene Weld Procedure; GS&S D-22 Arc Welding Procedure Requirement All Stress Levels 192.227 (a) GS&S D-22 (b) GS&S D-30, Form FD-30-A, Welder Qualification for Under 20% SMYS

192.229 (a)(b) and (c) D-30

192.231: GS&S D-20 Oxyacetylene Weld Procedure, Page 2 of 4 Item #5

192.233; GS&S A-36 Design and Construction Requirements Gas Lines and Related Facilities

(Note: PG&E uses 20% SMYS as the upper threshold for miter joints)

192.235: GS&S D-22 Arc Welding Procedure Requirement All Stress Levels, Page 3 of 15 Item #4

192.241(a), 192.241(b): GS&S D-40 Weld Inspections

192.241(c): GS&S D-31 Acceptability Criteria for all welds

129.245: Production Welds: GS&S D-31 #22-25. In-Service Welds: GS&S D-23 #3-4, GS&S D-23.1 #10-18. Repair Criteria: S4134

.13(c)		NONDESTRUCTIVE TESTING PROCEDURES				S/C
	.243	(a) Nondestructive testing of welds must be performed by any process, other than clearly indicates defects that may affect the integrity of the weld	trepanning, that	x		 11111000
		(b) Nondestructive testing of welds must be performed:		あり	都的	
		(1) In accordance with a written procedure, and		x		
		(2) By persons trained and qualified in the established procedures and with th used	he test equipment	x		
		(c) Procedures established for proper interpretation of each nondestructive test of acceptability of the weld under 192,241 ^(C)	a weld to ensure	x		
		(d) When nondestructive testing is required under §192.241(b), the following perod day's field butt welds, selected at random by the operator, must be nondestruc the entire circumference		が非常語		
		(1) In Class 1 locations at least 10%		X		
		(2) In Class 2 locations at least 15%	.	x		
		(3) In Class 3 and 4 locations, at crossings of a major navigable river, offsho railroad or public highway rights-of-way, including tunnels, bridges, and crossings, 100% unless impractical, then 90%. Nondestructive testing m for each girth weld not tested.	overhead road	x		
		(4) At pipeline tie-ins, 100%		X		
		(e) Except for a welder whose work is isolated from the principal welding activity each welder's work for each day must be nondestructively tested, when nonde required under §192.241(b)		x		
		(f) Nondestructive testing - the operator must retain, for the life of the pipeline, a mile post, engineering station, or by geographic feature, the number of welds a tested, the number of welds rejected, and the disposition of the rejected welds.	nondestructively	x		

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N/C - Not Checked

STANC

Comments: GS&S D-40, Weld Inspection

GS&S D31 Standard of Acceptability for Welding: non-destructive and Destructive testing.

,273(b)

JOINING of PIPELINE MATERIALS

			新聞	短續		語道
281	(a) A pla distu joint.	stic pipe joint that is joined by solvent cement, adhesive, or heat fusion may not be the until it has properly set. Plastic pipe may not be joined by a threaded joint or miter	x			
		solvent cement joint on plastic pipe must comply with the following:	新			
		The mating surfaces of the joint must be clean, dry, and free of material which might be detrimental to the joint.			x	
<u></u>	(2)	The solvent cement must conform to ASTM Designation: D 2513.			х	
	(3)	The joint may not be heated to accelerate the setting of the cement.	•		х	
	(c) Eacl	heat-fusion joint on plastic pipe must comply with the following:			新建	
		A butt heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper alignment while the plastic hardens.	x			7.2
	(2)	A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature.	x			•
	(3)	An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testing joints to the requirements of $\frac{9192.283(a)(1)(iii)}{1000}$, to be at least equivalent to those of the fittings manufacturer.	x			
	(4)	Heat may not be applied with a torch or other open flame.	x			
	(d) Eacl	adhesive joint on plastic pipe must comply with the following:		識	WS.	國治
	(1)	The adhesive must conform to ASTM Designation: D 2517.			x	
	(2)	The materials and adhesive must be compatible with each other.			x	
	(c) Eac	h compression type mechanical joint on plastic pipe must comply with the following:				
-	(1)	The gasket material in the coupling must be compatible with the plastic.	X			
~		A rigid internal tubular stiffener, other than a split tubular stiffener, must be used in conjunction with the coupling.	x			
.283	inin	fore any written procedure established under §192.273(b) is used for making plastic pipe ts by a heat fusion, solvent cement, or adhesive method, the procedure must be qualified by jecting specimen joints made according to the procedure to the following tests:				
	(1)	The burst test requirements of-		觐	對管	14
		Thermoplastic pipe: paragraph 6.6 (sustained pressure test) or paragraph 6.7 (Minimum Hydrostatic Burst Test) or paragraph 8.9 (Sustained Static pressure Test) of ASTM D2513	x			
) Thermosetting plastic pipe: paragraph 8.5 (Minimum Hydrostatic Burst Pressure) or paragraph 8.9 (Sustained Static Pressure Test) of ASTM D2517; or			x	
		i) Electrofusion fittings for polyethylene pipe and tubing: paragraph 9.1 (Minimum Hydraulic Burst Pressure Test), paragraph 9.2 (Sustained Pressure Test), paragraph 9.3 (Tensile Strength Test), or paragraph 9.4 (Joint Integrity Tests) of ASTM Designation F1055.	x			
,		For procedures intended for lateral pipe connections, subject a specimen joint made from pipe sections joined at right angles according to the procedure to a force on the lateral pipe until failure occurs in the specimen. If failure initiates outside the joint area, the procedure qualifies for use; and,	×			-
	.,	For procedures intended for non-lateral pipe connections, follow the tensile test requirements of ASTM D638, except that the test may be conducted at ambient temperature and humidity If the specimen elongates no less than 25 percent or failure initiates outside the joint area, the procedure qualifies for use.	x			
	niz	fore any written procedure established under §192.273(b) is used for making mechanical subjecting joints that are designed to withstand tensile forces, the procedure must be qualified subjecting five specimen joints made according to the procedure to the following tensile test:	がある			

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.273(b)			JOINING of PIPELINE MATERIALS	isi.		N/A	N/G
•			(1) Use an apparatus for the test as specified in ASTM D 638 (except for conditioning).	X	<u>*7</u> %N	340142	रत्नम्
			(2) The specimen must be of such length that the distance between the grips of the apparatus and the end of the stiffener does not affect the joint strength.	x			
			(3) The speed of testing is 0.20 in. (5.0 mm) per minute, plus or minus 25 percent.	x			
			(4) Pipe specimens less than 4 inches (102 mm) in diameter are qualified if the pipe yields to an elongation of no less than 25 percent or failure initiates outside the joint area.	x			
·			(5) Pipe specimens 4 inches (102 mm) and larger in diameter shall be pulled until the pipe is subjected to a tensile stress equal to or greater than the maximum thermal stress that would be produced by a temperature change of 100° F (38° C) or until the pipe is pulled from the fitting. If the pipe pulls from the fitting, the lowest value of the five test results or the manufacturer's rating, whichever is lower must be used in the design calculations for stress.			x	
			(6) Each specimen that fails at the grips must be retested using new pipe.	X			
			(7) Results pertain only to the specific outside diameter, and material of the pipe tested, except that testing of a heavier wall pipe may be used to qualify pipe of the same material but with a lesser wall thickness.			x	
,		(c)	A copy of each written procedure being used for joining plastic pipe must be available to the persons making and inspecting joints.	x			
		(d)	Pipe or fittings manufactured before July 1, 1980, may be used in accordance with procedures that the manufacturer certifies will produce a joint as strong as the pipe.			x	
	.285	(a)	No person may make a plastic pipe joint unless that person has been qualified under the applicable joining procedure by:				の連連
			(1) Appropriate training or experience in the use of the procedure; and	X			
			(2) Making a specimen joint from pipe sections joined according to the procedure that passes the inspection and test set forth in paragraph (b) of this section.	x			
		(b)	The specimen joint must be:	翻	例的	翻	識
			(1) Visually examined during and after assembly or joining and found to have the same appearance as a joint or photographs of a joint that is acceptable under the procedure; and	x			
			(2) In the case of a heat fusion, solvent cement, or adhesive joint;	X	L.		
			 (i) Tested under any one of the test methods listed under §192.283(a) applicable to the type of joint and material being tested; 	x		ļ	
			•			X	
	·		(ii) Examined by ultrasonic inspection and found not to contain flaws that may cause failure; or			ĝi u	(ieA)
		r	(A) Visually examined and found not to contain voids or discontinuities on the cut surfaces of the joint area; and	x			
			(B) Deformed by bending, torque, or impact, and if failure occurs, it must not initiate in the joint area.	x			<u> </u>
		(c)	A person must be requalified under an applicable procedure, if during any 12-month period that person:	<u> </u>	·.		- <u>1</u>
			(1) Does not make any joints under that procedure; or	X	<u> </u>	<u> </u>	<u> </u>
			(2) Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513.	x			
			Each operator shall establish a method to determine that each person making joints in plastic pipelines in the operator's system is qualified in accordance with this section.	x		<u> </u>	
	.287	192	person may carry out the inspection of joints in plastic pipes required by §§192.273(c) and 2.285(b) unless that person has been qualified by appropriate training or experience in evaluating acceptability of plastic pipe joints made under the applicable joining procedure.	x			

Comments:

192.281 PG&E Standards and Specs D-21 (pg 2-4/17); and S4170 (with specification #4750)

192.283 (a)(1)(i) (PG&E 10/02/89 TES);

192.283 (a)(1)(ii) not used by PG&E;

192.283(a)(1)(iii) (PG&E 03/87 TES);

192.283 (a)(2) and (3) (PG&E 10/02/89 TES);PG&E does not use thermosetting plastic pipe.

192.2833 (b)(1-4) (PG&E 01/17/06 Southwest High Density and 05/21/90 Medium density;

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Comments:

192.283(b)(5) PG&E doesn't perform mechanical joints for diameters greater than 4-inch; 192.283(b)(7) (PG&E tested same wall as size being used); 192.283(c) (PG&E D-21); 192.283(d) (PG&E does not have anything of that vintage);

192.285 (a)(b)(c) GS&S D34. S4170 (Leading Document). PG&E does not perform ultrasonic inspection on their plastic.

.605(b)	1	CORROSION CONTROL PROCEDURES		a N	
	.453	Are corrosion procedures established and carried out by or under the direction of a qualified person for:			
		 Design 	x		
		Operations	X		
		• Installation	X		
•		- Maintenance	X		
	.455	 (a) For pipelines installed after July 31, 1971, buried segments must be externally coated and (b) cathodically protected within one year after construction (see exceptions in code) 	x		
		(c) Aluminum may not be installed in a buried or submerged pipeline if exposed to an environment with a natural pH in excess of 8 (see exceptions in code)		<u> </u>	:
	.457	(a) All effectively coated steel transmission pipelines installed prior to August 1, 1971, must be cathodically protected	x		
		(b) If installed before August 1, 1971, cathodic protection must be provided in areas of active corrosion for: bare or ineffectively coated transmission lines, and bare or coated c/s, regulator sta., meter sta. piping, and (except for cast iron or ductile iron) bare or coated distribution lines.	x		
	.459	Examination of buried pipeline when exposed: if corrosion is found, further investigation is required	X		
	.461	Procedures must address the protective coating requirements of the regulations. External coating on the steel pipe must meet the requirements of this part.	x		
	.463	Cathodic protection level according to Appendix D criteria	X		
	.465	(a) Pipe-to-soil monitoring (1 per yr/15 months) or short sections (10% per year, all in 10 years)	х		
		(b) Rectifier monitoring (6 per yr/2 ¹ / ₂ months)	X		
		(c) Interference bond monitoring (as required)	X		
		(d) Prompt remedial action to correct any deficiencies indicated by the monitoring	X		
	.465	 (e) Electrical surveys (closely spaced pipe to soil) on bare/unprotected lines, cathodically protect active corrosion areas (1 per 3 years/39 months) 	x		
:	.467	Electrical isolation (include casings)	X		
	.469	Sufficient test stations to determine CP adequacy	x		
	.471	Test lead maintenance	X		
	.473	Interference currents	x		
	.475	(a) Proper procedures for transporting corrosive gas?	_	:	x I
		(b) Removed pipe must be inspected for internal corrosion. If found, the adjacent pipe must be inspected to determine extent. Certain pipe must be replaced. Steps must be taken to minimize internal corrosion.	x		
	.476	Systems designed to reduce internal corrosion Amdt 192-(no number) Pub. 4/23/07, eff. 5/23/07 (a) New construction	X		
		(b) Exceptions – offshore pipeline and systems replaced before 5/23/07	X		
		(c) Evaluate impact of configuration changes to existing systems	x		
	.477	Internal corrosion control coupon (or other suit. Means) monitoring (2 per yr/71/2 months)	x		
	.479 ·	(a) Each exposed pipe must be cleaned and coated (see exceptions under .479(c))	X		
		Offshore splash zones and soil-to-air interfaces must be coated	X		
		(b) Coating material must be suitable	X		
		Coating is not required where operator has proven that corrosion will:		7	
		(c) (1) Only be a light surface oxide, or	X		

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev 03/19/10 through Amdt 192-112)

Unless otherwise noted, all code references are to 49CFR Part 192. S- Satisfactory U-Unsatisfactory N/A - Not Applicable N/C - Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

.605(b)		CORROSION CONTROL PROCEDURES	S₹	UN/	AN/C
		(2) Not affect safe operation before next scheduled inspection	x		
	.481	 (a) Atmospheric corrosion control monitoring (1 per 3 yrs/39 months onshore; 1 per yr/15 months offshore) 	x		
	.481	(b) Special attention required at soil/air interfaces, thermal insulation, under disbonded coaling, pipe supports, splash zones, deck penetrations, spans over water	x		
	.481	(c) Protection must be provided if atmospheric corrosion is found (per §192.479)	X		
	.483	Replacement and required pipe must be coated and cathodically protected (see code for exceptions)	X		
	.485	(a) Procedures to replace pipe or reduce the MAOP if general corrosion has reduced the wall thickness?	x		
		(b) Procedures to replace/repair pipe or reduce MAOP if localized corrosion has reduced wall thickness (unless reliable engineering repair method exists)?	x		
		(c) Procedures to use Rstreng or B-31G to determine remaining wall strength?			
	.487	Remedial measures (distribution lines other than cast iron or ductile iron)	X		
	.489	Remedial measures (cast iron and ductile iron pipelines)			
	.491	Corrosion control maps and record retention (pipeline service life or 5 yrs)	X		

Comments:

Corrosion requirements are found in the new PG&E Gas Transmission & Distribution Manuel: Corrosion Control Volume.

.801-	Subpart N Qualification of Pipeline Personnel Procedures	S U NANC
.809	Refer to Operator Qualification Inspection Forms and Protocols (OPS web site)	
L		-

,901-	Subpart O — Pipeline Integrity Management	S D NAME
.951	This form does not cover Gas Pipeline Integrity Management Programs	

Subparts	PART 199 - DRUG and ALCOHOL TESTING REGULATIONS and PROCEDURES	SIDNANC
A-C	Drug & Alcohol Testing & Alcohol Misuse Prevention Program – Use PHMSA Form # 13, PHMSA 2008 Drug and Alcohol Program Check.	

Comments:

Conducted as general office audit of PG&E

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all code references are to 49CFR Part 192. S-Satisfactory U-Unsatisfactory N/A-Not Applicable N/C-Not Ch If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C -- Not Checked

	PIPELINE INSPECTION (Field)	S	T.N.	
.179	Valve Protection from Tampering or Damage	_ X		
.463	Cathodic Protection	x		
.465	Rectifiers	x		
.476	Systems designed to reduce internal corrosion	x		
.479	Pipeline Components Exposed to the Atmosphere	x		
.605	Knowledge of Operating Personnel	x		
.707	ROW Markers, Road and Railroad Crossings	x		
.719	Pre-pressure Tested Pipe (Markings and Inventory)	x		
.741	Telemetering, Recording gauges	x		
.739/.743	Pressure Limiting and Regulating Devices (spot-check field installed equipment vs. inspection records)	x		
.745	Valve Maintenance	x		·
.751	Warning Signs	X		ŕ
,801809	Operator Qualification - Use PHMSA Form 15 Operator Qualification Field Inspection Protocol Form	X		·

Comments:

	REGULATORY REPORTING PERFORMANCE AND RECORDS			SZ.	SIG
191.5	Telephonic reports to NRC	x			
191.15	Written incident reports; supplemental incident reports (Form F 7100.2)	x			
191	Annual Reports (Forms 7100.1-1, 7100.2-1)	x			
191.23	Safety related condition reports	x			
192.16	Customer Notification (Verification – 90 days – and Elements)	x			
192.727(g)	Abandoned facilities offshore, onshore crossing commercially navigable waterways reports	x			

	CONSTRUCTION PERFORMANCE AND RECORDS	8		N/Ç
.225	Test Results to Qualify Welding Procedures	X		
.227	Welder Qualification	X		
.241 (a)	Visual Weld Inspector Training/Experience	Х		
.243 (b)(2)	Nondestructive Technician Qualification	X		
(c)	NDT procedures	X		
(ſ)	Total Number of Girth Welds	X		
(f)	Number of Welds Inspected by NDT	X		
(f)	Number of Welds Rejected	x	-	
(f)	Disposition of each Weld Rejected	X		
.273/.283	Qualified Joining Procedures Including Test Results	X		
.285	Personnel Joining Qualifications	X		
287	Joining Inspection Qualifications	X		\square
.303	Construction Specifications	X		
.325	Underground Clearance	x		

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/19/10 through Andt. 192-112)

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all code references are to 49CFR Part 192. S-Satisfactory U-Unsatisfactory N/A-Not Applicable N/C-Not Ch

N/C - Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

CONSTRUCTION PERFORMANCE AND RECORDS			D	N/A	NIC
.327	Amount, Location, Cover of each Size of Pipe Installed	· X			
.383(e)	EFV customer notification	x			
.455	Launodic Protection	x			

- <u></u>	OPERATIONS and MAINTENANCE PERFORM	NCE AND RECORDS	s I	f (s	(AN)		
.517 (a)	Pressure Testing (operates at or above 100 psig) - us	efu) life of pipeline	x				
.517 (b)	Pressure Testing (operates below 100 psig, service li		x				
.603(b)	,605(a) Procedural Manual Review - Operations and Mainte		x				
	.605(b)(3) Availability of construction records, maps, operating		x				
	.605(b)(8) Periodic review of personnel work - effectiveness of		x	-+			
		605(c)(4) Periodic review of personnel work – effectiveness of abnormal operation procedures					
.709	.614 Damage Prevention (Miscellaneous)		X X				
	.609 Class Location Study (If Applicable)	x	+	+-			
.603(b)		-	x		-+-		
.005(0)		of training	x		+		
	.615(b)(2) Emergency Procedure training, verify effectiveness		^ X	\rightarrow			
,	.615(b)(3) Employee Emergency activity review, determine if 1	brocedures were followed.			-+-		
. •	.615(c) Liaison Program with Public Officials		X	1822	<u>सिंध प्रश्नेल</u>		
	.616 Public Awareness Program .616(e & f) Documentation properly and adequately reflects imp		39.SQ	<u>SR</u>			
	.616(e & f) Documentation properly and adequately reflects imp Program requirements - Stakeholder Audience iden method and frequency, supplemental enhancement mailing rosters, postage receipts, return receipts, an emergency responder, public officials, school supe below:	ntification, message type and content, delivery s, program evaluations, etc. (i.e. contact or idience contact documentation, etc. for	x	-			
	API RP 1162 Baseline* Recommende	ed Message Deliveries		Sales			
	Stakeholder Audience (Natural Gas	Baseline Message Frequency	教養				
	Transmission Line Operators)	(starting effective date of Plan)					
	Residents Along Right-of-Way and Places of 2 years	3	新建				
	Congregation Emergency Officials Annua	1					
	Public Officials 3 year						
	Excavator and Contractors Annua						
		uired of One-Call Center	2007 18 18 18				
	Stakeholder Audience (Gathering Line	Baseline Message Frequency (starting from effective date of Plan)		新			
	Operators) Residents and Places of Congregation Annua		部發	中的			
	Emergency Officials Annua				新新		
	Public Officials 3 year	S	影響				
	Excavators and Contractors Annua				12		
	One-Call Centers As rec	uired of One-Call Center			AC AR		
	Stakeholder Audience (LDCs)	Baseline Message Frequency (starting from effective date of Plan)	於 權	和学	影響		
	Residents Along Local Distribution System Annia						
	LDC Customers Twice	annually		۲۷	1977 - 13 A		
	Emergency Officials Annua		旅游	感激	事物		
	Public Officials 3 year	s	5				
	Excavator and Contractors Annua		12	堂堂			
		puired of One-Call Center	Sec. 2		影响		
	* Refer to API RP 1162 for additional requirements, includir	ng general program recommendations,			P 1992		
	supplemental requirements, recordkeeping, program evaluati 616(g) The program must be conducted in English and any	other languages commonly understood by a	×		•		
	significant number of the population in the operator	s arca.	_	$\left \right $	┝──╉		
· ·	.616(h) Effectiveness Review of operator's program.		X				

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/19/10 through Amdi 192-112)

STANDARD INSPECTION REPORT OF A GAS DISTRIBUTION OPERATOR Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable N/C - Not Ct If an item is marked U, N/A, or N/C, an explanation must be included in this report. N/C - Not Checked

			ENANCE PERFORMANCE AND RECO				N/A	No.
	.616(j)	 A description o An overview of Information about 14 (3) Information about 14 (4) How to recognition 	r or petroleum gas systems - public awareness m f the purpose and reliability of the pipeline; The hazards of the pipeline and prevention meas out damage prevention; ze and respond to a leak; and itional information.		x			
517		Pressure Testing	· · ·		X			
709		3 Maximum Allowable Op	erating Pressure (MAOP)			x	1	
			orporated into 192.121 & .123. (Final Rule Pub.	24 December, 2008)	<u> </u>	Ļ		-
· .]	.625	Odorization of Gas			X		<u> </u>	
	.705	Patrolling (Refer to Tab	le Below)		X		<u> </u>	I
	ſ	Class Location	At Highway and Railroad Crossings	At All Other Places				
		1 and 2	2/yr (7½ months)	1/yr (15 months)				
		3	4/yr (4½ months)	2/yr (7½ months)	-{			
		4	4/yr (4½ months)	4/yr (4½ months)]			
709	.706	Leak Surveys (Refer to	Table Below)			x	Τ	Т
				· · · ·	L _	1		. I
		Class Location	Required	Not Exceed				
	-	1 and 2	l/yr	15 months	_			
		3	2/yr*	7½ months				
		4	4/yr*	4½ months				
	• Leal	c detector equipment surv	ey required for lines transporting un-odorized gas	5.				
.603(b)	.721(b)(1)	Patrolling Business Dist	rict (4 per yr/4½ months)		X	Τ	Τ	
	.721(b)(2)	Patrolling Outside Busin	ness District (2 per yr/7½ months)	· · · · · · · · · · · · · · · · · · ·	X			
	.723(b)(1)	Leakage Survey – busin	ess District (1 per yr/15 months)			X		
	.723(b)(2)	Leakage Survey				翻		影響
		 Outside Business I 	District (5 years)		x			
		 Cathodically unpre 	tected distribution lines (3 years)	· ·	X			
•	.725	Tests for reinstating ser	vice lines					
		Lests Int ternstamile set		· ···	X		.	
.603b/.727g	.727		Inderwater Facility Reports	· · · · · · · · · · · · · · · · · · ·	X X			
	.727 .739	Abandoned Pipelines; L		· · · · · · · · · · · · · · · · · · ·	x x			Ŧ
		Abandoned Pipelines; L Pressure Limiting and R	Inderwater Facility Reports	15)	X X X			
	.739	Abandoned Pipelines; L Pressure Limiting and F Pressure Limiting and F	Inderwater Facility Reports egulating Stations (1 per yr/15 months)	5)	x x			+
	.739 .743	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra	Inderwater Facility Reports egulating Stations (1 per yr/15 months) egulator Stations – Capacity (1 per yr/15 month	(5)	X X X			
.709	.739 .743 .745	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis	Inderwater Facility Reports egulating Stations (1 per yr/15 months) egulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months)	is)	X X X X X			
.709 .603(b) .709	.739 .743 .745 .747	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (32)	Inderwater Facility Reports Regulating Stations (1 per yr/15 months) Regulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months) tribution Lines (1 per yr/15 months)	is)	X X X X X X			
.709 .603(b) .709	.739 .743 .745 .747 .749	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (32)	Inderwater Facility Reports acgulating Stations (1 per yr/15 months) acgulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months) tribution Lines (1 per yr/15 months) O cubic feet)(1 per yr/15 months) al Ignition (hot work permits)	is)	x x x x x x x x x x x			
.709 .603(b)	.739 .743 .745 .747 .747 .749 .751	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (32) Prevention of Accidente	Inderwater Facility Reports acgulating Stations (1 per yr/15 months) acgulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months) tribution Lines (1 per yr/15 months) O cubic feet)(1 per yr/15 months) al Ignition (hot work permits)	is)	X X X X X X X X X			
.709 .603(b) .709	.739 .743 .745 .747 .747 .749 .751 .755	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (320 Prevention of Accidenta Caulked Bell and Spigo	Inderwater Facility Reports egulating Stations (1 per yr/15 months) egulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months) tribution Lines (1 per yr/15 months) 00 cubic feet)(1 per yr/15 months) al Ignition (hot work permits) t Joint Repair	5)	X X X X X X X X X X X			
.709 .603(b) .709	.739 .743 .745 .747 .749 .751 .755 .225(b)	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (320 Prevention of Accidente Caulked Bell and Spigo Welding – Procedure	Inderwater Facility Reports Regulating Stations (1 per yr/15 months) Regulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months) tribution Lines (1 per yr/15 months) 20 cubic feet)(1 per yr/15 months) al Ignition (hot work permits) t Joint Repair iffication	is)	X X			
.709 .603(b) .709	.739 .743 .745 .747 .747 .749 .751 .755 .225(b) .227/.229	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (32) Prevention of Accidenta Caulked Bell and Spigo Welding – Procedure Welding – Welder Qual	Inderwater Facility Reports Regulating Stations (1 per yr/15 months) Regulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months) tribution Lines (1 per yr/15 months) 20 cubic feet)(1 per yr/15 months) al Ignition (hot work permits) t Joint Repair iffication	() () () () () () () () () () () () () (X X			
.709	.739 .743 .745 .747 .749 .751 .755 .225(b) .227/.229 .243(b)(2)	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (320 Prevention of Accidente Caulked Bell and Spigo Welding – Procedure Welding – Welder Qual NDT – NDT Personnel	Inderwater Facility Reports segulating Stations (1 per yr/15 months) regulator Stations – Capacity (1 per yr/15 month nsmission Lines (1 per yr/15 months) tribution Lines (1 per yr/15 months) O cubic feet)(1 per yr/15 months) al Ignition (hot work permits) t Joint Repair ification Qualification	5)	X X X X X X X X X X X X X X X			
.709 .603(b) .709	.739 .743 .745 .747 .749 .751 .755 .225(b) .227/.229 .243(b)(2) .283	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (320 Prevention of Accidents Caulked Bell and Spigo Welding – Procedure Welding – Welder Qual NDT – NDT Personnel Joining – Procedures	Inderwater Facility Reports Regulating Stations (1 per yr/15 months) Regulator Stations – Capacity (1 per yr/15 months) Insmission Lines (1 per yr/15 months) Intibution Lines (1 per yr/15 months) Of cubic feet)(1 per yr/15 months) al Ignition (hot work permits) It Joint Repair iffication Qualification Allifications	is)	x x			
.709 .603(b) .709	.739 .743 .745 .747 .747 .749 .751 .755 .225(b) .227/.229 .243(b)(2) .283 .285	Abandoned Pipelines; L Pressure Limiting and R Pressure Limiting and R Valve Maintenance Tra Valve Maintenance Dis Vault Maintenance (32) Prevention of Accidenta Caulked Bell and Spigo Welding – Procedure Welding – Welder Qual NDT – NDT Personnel Joining – Procedures Joining – Personnel Qua	Inderwater Facility Reports Regulating Stations (1 per yr/15 months) Regulator Stations – Capacity (1 per yr/15 months) tribution Lines (1 per yr/15 months) De cubic feet)(1 per yr/15 months) al Ignition (hot work permits) t Joint Repair ification Qualification alifications lifications	IS)	x x			

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Form-2 Standard Inspection Report of a Gas Distribution Operator (Rev. 03/19/10 through Andt. 192-112)

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Unless otherwise noted, all code references are to 49CFR Part 192. S-Satisfactory U-Unsatisfactory N/A-Not Applicable N/C-Not Checked If an item is marked U, N/A, or N/C, an explanation must be included in this report.

Comments: See inspection report dated September 24, 2010.

		CORROSION CONTROL PERFORMANCE AND RECORDS			SV.	
.491	.491(a)	Maps or Records	X			
.491	.459	Examination of Buried Pipe when Exposed	x			
.491	.465(a)	Annual Pipe-to-soil Monitoring (1 per yr/15 months) for short sections (10% per year; all in 10 years)	1	х		
.491	.465(b)	Rectifier Monitoring (6 per yr/21/2 months)	x			
.491	.465(c)	Interference Bond Monitoring – Critical (6 per yr/2½ months)	X			
.491	.465(c)	Interference Bond Monitoring – Non-critical (1 per yr/15 months)	X			
.491	.465(d)	Prompt Remedial Actions	X			
.491	.465(e)	Unprotected Pipeline Surveys, CP active corrosion areas (1 per 3 cal yr/39 months)	X			
.491	.467	Electrical Isolation (Including Casings)	X			
.491	.469	Test Stations - Sufficient Number	x	}		
.491	.471	Test Lead Maintenance	X			ŀ
.491	.473	Interference Currents	X			
.491	.475(a)	Internal Corrosion; Corrosive Gas Investigation	X			
.491	.475(b)	Internal Corrosion; Internal Surface Inspection; Pipe Replacement	x		-	
.491	.476 (d)	Internal Corrosion; New system design; Evaluation of impact of configuration changes to existing systems	x			
.491	.477	Internal Corrosion Control Coupon Monitoring (2 per yr/7% months)	X			
.491	.48]	Atmospheric Corrosion Control Monitoring (1 per 3 cal yr/39 months onshore; 1 per yr/15 months offshore)		x		
.491	.483/.485	Remedial: Replaced or Repaired Pipe; coated and protected; corrosion evaluation and actions	x			

Comments:

See inspection report dated September 24, 2010.

Attachment 1

Distribution Operator Compressor Station Inspection

Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable If an item is marked U, N/A, or N/C, an explanation must be included in this report.

N/C - Not Checked

.605(b)		COMPRESSOR STATION PROCEDURES	S.	ic NA	N/C
	.605(b)(6)	Maintenance procedures, including provisions for isolating units or sections of pipe and for purging before returning to service		x	
•	.603(b)(7)	Starting, operating, and shutdown procedures for gas compressor units		x	
	.731	Inspection and testing procedures for remote control shutdowns and pressure relieving devices (1 per yr/15 months), prompt repair or replacement		x	
	.735	(a) Storage of excess flammable or combustible materials at a safe distance from the compressor buildings		x	
		(b) Tank must be protected according to NFPA #30		x	
[.736	Compressor buildings in a compressor station must have fixed gas detection and alarm systems (must be performance tested), unless:		x	
		 50% of the upright side areas are permanently open, or 		X	
		* It is an unattended field compressor station of 1000 hp or less	-	x	

Comments:

COMPRESSOR STATIONS INSPECTION (Field) (Note: Facilities may be "Grandfathered") .163 Main operating floor must have (at least) two (2) separate and unobstructed exits х (c) Door latch must open from inside without a key х Doors must swing outward х (d) Each fence around a compressor station must have (at least) 2 gates or other facilities for emergency exit Х Each gate located within 200 ft of any compressor plant building must open outward х When occupied, the door must be opened from the inside without a key х Does the equipment and wiring within compressor stations conform to the National Electric Code, (e) х ANSI/NFPA 70? If applicable, are there liquid separator(s) on the intake to the compressors? х .165 (a) (b) Do the liquid separators have a manual means of removing liquids? х If slugs of liquid could be carried into the compressors, are there automatic dumps on the separators, х Automatic compressor shutdown devices, or high liquid level alarms? .167 (a) ESD system must: 13. a.y. p 品品 - Discharge blowdown gas to a safe location х - Block and blowdown the gas in the station х - Shut down gas compressing equipment, gas fires, electrical facilities in compressor building and near х gas headers - Maintain necessary electrical circuits for emergency lighting and circuits needed to protect х equipment from damage ESD system must be operable from at least two locations, each of which is: 1933 - Outside the gas area of the station х - Not more than 500 feet from the limits of the station х - ESD switches near emergency exits? х For stations supplying gas directly to distribution systems, is the ESD system configured so that the LDC will not be (b) х shut down if the ESD is activated? Are ESDs on platforms designed to actuate automatically by ... (c) e 36 en saiderte - For unattended compressor stations, when:

Attachment 1

Distribution Operator Compressor Station Inspection Unless otherwise noted, all code references are to 49CFR Part 192. S - Satisfactory U - Unsatisfactory N/A - Not Applicable If an item is marked U, N/A, or N/C, an explanation must be included in this report.

N/C -- Not Checked

		COMPRESSOR STATIONS INSPECTION (Field) (Note: Facilities may be "Grandfathered")			14 14
		The gas pressure equals MAOP plus 15%?	W .2		
			<u> </u>	+ +	X
		An uncontrolled fire occurs on the platform?	100-507	1	X
		- For compressor station in a building, when			
		An uncontrolled fire occurs in the building?	<u> </u>		<u>x</u>
		 Gas in air reaches 50% or more of LEL in a building with a source of ignition (facility conforming to NEC Class 1, Group D is not a source of ignition)? 			x
.171	(a)	Does the compressor station have adequate fire protection facilities? If fire pumps are used, they must not be affected by the ESD system.	. •		x
	(b)	Do the compressor station prime movers (other than electrical movers) have over-speed shutdown?			x
	(۵)	Do the compressor units alarm or shutdown in the event of inadequate cooling or lubrication of the unit(s)?			x
	(d)	Are the gas compressor units equipped to automatically stop fuel flow and vent the engine if the engine is stopped for any reason?			x
	(e)	Are the mufflers equipped with vents to vent any trapped gas?	1		x
.173		Is each compressor station building adequately ventilated?			x
.457		Is all buried piping cathodically protected?	1	T T	x
.481		Atmospheric corrosion of aboveground facilities		† <u> </u> †	x
.603		Does the operator have procedures for the start-up and shut-down of the station and/or compressor units?		<u> </u>	x
		Are facility maps current/up-to-date?	\top		x
,615		Emergency Plan for the station on site?		1	x
.619		Review pressure recording charts and/or SCADA	1	<u>†</u> †	x
.707		Markers			x
,731		Overpressure protection – reliefs or shutdowns	+		x
.735		Are combustible materials in quantities exceeding normal daily usage, stored a safe distance from the compressor building?	+		x
		Are aboveground oil or gasoline storage tanks protected in accordance with NFPA standard No. 30?	1		x
.736		Gas detection location		1	x

Comments:

	C	OMPRESSOR STATION O&M PERFORMANCE AND RECORDS	ŝ	<u>n</u>	N/A	N/C
.709	.731(a)	Compressor Station Relief Devices (1 per yr/15 manths)			x	1
•	.731(c)	Compressor Station Emergency Shutdown (1 per yr/15 months)		-	x	
	.736(c)	Compressor Stations - Detection and Alarms (Performance Test)	•		x	

Comments:

Recent PHMSA Advisory Bulletins (Last 2 years)

Leave this list with the operator.

Recent PHMSA Advisory Bulletins (Last 2 years)

Number	Date	<u>Subject</u>
ADB-07-02	February 29, 2008	Correction - Pipeline Safety: Updated Notification of the Susceptibility to
·		Premature Brittle-Like Cracking of Older Plastic Pipe
ADB-08-01	. May 13, 2008	Pipeline Safety - Notice to Operators of Gas Transmission Pipelines on the
	•	Regulatory Status of Direct Sales Pipelines
ADB-08-02	March 4, 2008	Pipeline Safety - Issues Related to Mechanical Couplings Used in Natural Gas
		Distribution Systems
ADB-08-03	March 10, 2008	Pipeline Safety - Dangers of Abnormal Snow and Ice Build-Up on Gas
		Distribution Systems
ADB-08-04	June 5, 2008	Pipeline Safety - Installation of Excess Flow Valves into Gas Service Lines
ADB-08-05	June 25, 2008	Pipeline Safety - Notice to Hazardous Liquid Pipeline Operators of Request for
		Voluntary Adv Notification of Intent To Transport Biofuels
ADB-08-06	July 2, 2008	Pipeline Safety - Dynamic Riser Inspection, Maintenance, and Monitoring
	•	Records on Offshore Floating Facilities
ADB-09-01	May 21, 2009	Potential Low and Variable Yield and Tensile Strength and Chemical
	•	Composition Properties in High Strength Line Pipe
ADB-09-02	Sept 30, 2009	Weldable Compression Coupling Installation
ADB-09-03	Dec 7, 2009	Operator Qualification Program Modifications
ADB-09-04	Jan 14, 2010	Reporting Drug and Alcohol Test Results for Contractors and Multiple
	,	Operator Identification Numbers
ADB-10-01	Jan 26, 2010	Pipeline Safety: Leak Detection on Hazardous Liquid Pipelines
ADB-10-02	Feb 3, 2010	Implementation of Revised Incident/Accident Report Forms for Distribution
		Systems, Gas Transmission and Gathering Systems, and Hazardous Liquid
		Systems
ADB-10-03	March 24, 2010	Girth Weld Quality Issues Due to Improper Transitioning, Misalignment, and
	······································	Welding Practices of Large Diameter Line Pipe
	· ·	

For more PHMSA Advisory Bulletins, go to http://ops.dot.gov/regs/advise.htm

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