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August 16, 2010

Ms. Banu Acimis
Utilities Safety and Reliability Branch
Consumers Protection and Safety Division
California Public Utilities Commission
505 Van Ness Avenue, 2nd Floor
San Francisco, CA. 94102-3298

Re: State of California - Public Utilities Commission

General Order 112-E Inspection - PG&E's Sacramento Division

Dear Ms. Acimis:

The Utilities Safety and Reliability Branch (USRB) of the CPUC conducted a General Order 112-E inspection of PG&E's Sacramento Division, from May 17 through 21, 2010. The documents attached provide a detailed response to each of the inspection findings listed in your June 24, 2010 letter.

If you have any questions concerning this report, please contact Larry Berg at (925) 974-4084.

Sincerety,

Glen-Carter

Senior Director, Gas Engineering

Attachments

ce: Raffy Stepanian, California Public Utilities Commission

Michael Robertson, California Public Utilities Commission

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact .	CPUC Phone #
May 17-21, 2010	NOV - 1	Banu Acimis	(916) 327-3131

INSPECTION FINDING

CPUC Finding

Title 49 Code of Federal Regulations (49 CFR) §192.13 General

§192.13(c) requires that "Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part."

A. PG&E's UO Standard S4110: Leak Survey and Repair of Gas
Transmission and Distribution Facilities - Attachment 1 shows the
allowable response time and the actions needed to be taken to repair and
recheck all gas leaks. The leaks shown in Table 1 were either repaired or
rechecked late.

Table 1 - Number of Leaks Repaired or Rechecked Late By Year and Grade

GRADING	2008 2009			
GRADING	Late Repair	Late Check	Late Repair	Late Check
1	-	<u></u>		4
2+	6	4	40	30
2	-	4	1 .	8
Total leaks	6	8	41	42

A total of 47 leaks were repaired late and 50 leaks were rechecked late from 2008 through 2009.

B. PG&E's UO Standard S4110: Leak Survey and Repair of Gas
Transmission and Distribution Facilities - Attachment 1, requires that semiannual gas leak surveys need to be conducted for transmission lines in
Class 3 locations. Semi-annual frequency is defined as twice each
calendar year and the interval between inspections shall not exceed 7-1/2
months. Tables 2 and 3 show the transmission lines with sequence
numbers which were not leak surveyed semi-annually in 2008 and 2009
respectively.

Table 2 - Transmission line leak surveys not conduced semi-annually in 2008

Domain Value	Sequence Number
1404	23
1405	53
1402	32, 33, 36, 37, 38, 43, 44,
	53, 54, 55, 68
1407	all
1410	all
1411	17, 32
1414	1, 2, 13
	1404 1405 1402 1407 1410 1411

*Not leak surveyed in 2008.

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Table 3 - Transmission line leak surveys not conduced semi-annually in 2009

Transmission Line	Domain Value	Sequence Number
L-210-Fairfield Feeders	1411	17, 32
Downtown Sacramento Feeders	1401	54
L-108- South Sacramento Feeders	1404	45
L-108- South Sacramento Feeders	1404	17*
L-119- North Sacramento Feeders	1405	30

^{*}This sequence number was not leak surveyed annually.

C. PG&E's UO Standard S4110: Leak Survey and Repair of Gas
Transmission and Distribution - Attachment 1, Approved Leak Survey and
Repair Records, Forms, and Reports, Section 5.B states that "Evidence
that all current mains and services have been surveyed is clearly indicated
by marking over main and marking each service. Where there are a
readily discernable number of distinct facilities that are scheduled for
survey, the survey of these facilities can be noted on a list referenced to
the map record where each facility is clearly noted."

Records showed that a total of 164 services were not highlighted during the 5-year leak surveys and 47 services were not highlighted during the annual leak surveys conducted from 2008 through 2009.

D. PG&E's UO Standard S4350: Odorization of Natural Gas, Section 6. A - Response to High or Low Odorant Concentration requires that in response to reports of high or low concentration levels, immediate action shall be initiated to investigate and take necessary corrective actions. Odor intensity report requires that "If the odor intensity reading is over 0.6 % gas in air (too weak), or below 0.1 % gas in air (too strong), a confirmation test with a different operator will be performed and the System Gas Control supervisor, or GT&D district supervisor, shall be notified immediately."

Records showed that odor intensity readings recorded at all locations in the Division on March 17, 2010 were higher than 0.6 % gas in air (too weak). These readings varied between 0.66-0.76 %. We found that neither the intensity readings were reviewed or approved by anyone, nor any confirmation test was conducted with a different operator. Additionally, the System Gas Control supervisor or the District Supervisor was not notified immediately as required by PG&E's UO S4350 standard.

E. PG&E's UO Standard S4350: Odorization of Natural Gas, Attachment 4 states that weekly odorization tests are required to be conducted in Sacramento Division at locations Yolo, Roseville Road, North Sacramento Holder, and Swingle Junction (V-28). There were no readings for gas odor intensity recorded at any of the locations in the last week of May in 2009.

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General Order 112-E Findings CPUC Inspection Report dated June 24, 2010

Sacramento Division

- F. PG&E's UO S5351, District Regular Station Maintenance, Attachment 1, Inspection, Testing and Maintenance Requirements of District Regulator Station, 2B. Inspection Schedules requires that "District regulator stations shall be inspected according to the following schedules: Class B Inspection once in the next calendar year after initially placing the station in operation and every 8 years thereafter, except for cause."
 - i. District Regulator Station A-38 located on Field Street at Poplar Street in Sacramento showed that a Class B (internal) inspection of the regulator station was conducted on May 29, 1998. The subsequent Class B inspection was performed on May 24, 2007 which exceeded the allowed time frame of 8 years.
 - ii. District Regulator Station R06 located on Union Avenue at Highway 12 in Fairfield showed that a Class B (internal) inspection of the regulator station was conducted on April 24, 2001. Records showed the station was scheduled to be rebuilt in 2009; however, it was postponed to be done in the first quarter of 2010 which exceeded the allowed time frame of 8 years.
- UO Standard O-16 states in part: "If the CPA restoration work is (or is G. expected to be) over 60 days, the 'CPA Follow-up Action Plan' form must be used and developed within 60 calendar days from the date the CPA is found below adequate levels of protection, as defined by the current 49 CFR 192. Subpart I. Please note that action plans shall also be established and maintained for short-term remedial actions that are in place for over 60 days. The action plan shall list and document extenuating circumstance(s), to the extent known, the cause of the CPA problem, the desired solution(s), the actions needed to implement the solution, the estimated time to take those actions, and the employees who will perform those actions. The action plan shall be updated in intervals not exceeding 60 calendar days by an employee knowledgeable of the restoration work and reviewed by the operating supervisor, until the CPA restoration work is completed and the CPA shows adequate levels of protection..."

Cathodic Protection Area (CPA) S-158 located in Del Paso Heights showed that on February 2, 2010, Pipe to Soil (P/S) readings were - 0.769 volts and -0.812 volts at 576 Harris Avenue and 110 Barton Way respectively. The CPA Follow-up Action Plan, created on March 2, 2010, indicated the anode had been depleted and a new deep well anode needed to be installed. P/S readings taken on April 5, 2010 (- 0.700 and -0.796 volts) still showed inadequate levels of protection. The corrective action plan was not updated after March 2, 2010 to show the status and estimated time to complete the corrective actions.

H. Utility Procedure (UP): TD-4412P-07, Patrolling Pipelines and Mains: Table 4 shows the minimum patrol frequency requirements. According to Table 4, all gas transmission lines and distribution lines in places or on structures where anticipated physical movement or external loading could cause failure or leakage and consequent hazards to public safety that are located in business districts are required to be patrolled quarterly and the interval between patrols shall not exceed 4 -1/2 months.

The following lines were not patrolled quarterly in 2009 as required in UP

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TD-4412P-07

Table 4- Quarterly patrols that were not conducted in the last quarter of 2009

Pipeline	Location
DFM Woodland Biomass	From CR 101 and East Beamer Street to
	Woodland Biomass
DFM Sunsweet	From L-400 Tap to CR 27 at Sunsweet
DFM Yolo County Road 17	From CR 98 and CR 18 to 2 mile west of CR 17
· ·	and CR 95A
DFM West Woodland	From T-10.25 on CR 98 west of I-5 to CR 98 &
	West Main Street
DFM Vaca Dixon	From Vaca Dixon Regulator Station to Hwy 505 &
	Vaca Valley Parkway Regulator Station
DFM Pennsylvania	From Pennsylvania at V1 to Suisun Fairfield
	Regulator Station
DFM	From Lewis-Hawkins to Buck-Eldridge
DFM	From Peabody & Elmira to Peterson & L210
DFM Creed Road	From Creed Road 100' East to Cal Pine Plant
(Cal Pine)	
DFM Goosehaven Road	Corner of Creed Road to Goosehaven
(Cal Pine)	
DFM Lambie Road	From Denverton Valve Lot at Creed Road to
(Cal Pine)	Lambie Road at Cal Pine Plant
DFM Mariani	From CR 89 to L-400 Mariani Farm

UP TD-4412P-07, Patrolling Pipelines and Mains, 7.2 Corrective Action requires that "Contact the responsible supervisor or superintendent as soon as possible concerning conditions that require immediate attention but cannot be corrected during the patrol itself."

UP TD-4412P-07, Patrolling Pipelines and Mains, 8.1 Documentation for all patrol requires that "Complete a corrective notification or PLM Work Request as follows:

- i. Report conditions that require immediate attention but cannot be corrected by patrol
- ii. Submit the form to the responsible supervisor."

Gas pipeline aerial patrol reports for 2008 and 2009 showed that construction activities were observed and noted for the transmission lines listed below. However, PG&E did not document any follow up actions which required immediate attention and further ground review.

- L-172A- Vacaville, at mile point MP 56.3, June 5, 2008
- L-172A- Vacaville, at MP 52.7 and 55.3, September 19, 2008
- L-172A- Vacaville, at MP 77.1, June 16, 2009
- L-172A- Vacaville, at MP 55, September 10, 2009
- L-220- Vacaville, at MP 27.8, September 19, 2008
- L-119C- Vacaville, at MP 1.2, June 16, 2009
- L-210B- Vacaville, from MP 14.5 to 15, June 16, 2009
- L-116- Vacaville, June 16, 2009

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		Suct afficite Division
	J.	PG&E's Gas Emergency Plan Preparedness Policy, Section 2.2.3 Audit Schedule and Responsibility requires that "The plan shall be reviewed and updated at intervals not exceeding 15 months, but at least once each calendar year"
,		The annual review log for PG&E's Emergency Plan showed that the plan was reviewed on July 31, 2008 and December 12, 2009, which exceeded 15 months.

PG&E RESPONSE

PG&E agrees with this finding. Listed below is a response for each of the ten items.

A. These late leak repairs and late leak checks were shown on the Statistical Report, which was sent to the CPUC prior to this audit, and discussed during the audit. These leaks were repaired or checked late as a result of poor oversight and late work assignments by our Gas Construction Supervisors. All the leaks shown have since been repaired or checked.

To prevent recurrence, new Gas Construction Supervisors have been assigned these responsibilities as of January 2010. The new supervisors have been trained on the leak survey and repair program, including their specific responsibilities, and the importance of not exceeding time intervals to repair or check leaks as specified in Standard S4110.

B. These late transmission leak surveys were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit.

The segments have since been properly surveyed and documented in subsequent leak surveys.

To prevent recurrence, Sacramento Supervisors have been reminded of the transmission leak survey documentation requirements and will conduct tailboard briefings to ensure that employees are aware of the requirements to properly document each pipeline sequence number as being complete. The tailboard briefings are scheduled to be completed by September 1, 2010.

PG&E has developed a comprehensive program to train Gas Supervisors with gas compliance responsibilities. Gas Supervisors with employees performing maintenance and operation duties supporting corrosion control, mark and locate, leak survey, regulation, valves, and gas metering will attend both online and instructor-led training classes in the second half of 2010 that provide knowledge and skill in the compliance requirements of the associated work. Supervisors will review the knowledge aspect of their specific subject matter responsibilities through the completion of interactive web-based training modules and participate in instructor-led training classes that bridge the knowledge requirements with the practical application of associated documentation requirements.

C. These services which were not marked as being leak surveyed on the 5-year and annual leak survey maps were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit. As noted in the Internal Review Summary (Attachment A), The undocumented main and service segments will be leak surveyed by September 30, 2010.

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To prevent recurrence, PG&E will eliminate the error-prone and manual requirement of highlighting leak survey maps to document completion of leak surveying gas facilities. Bulletin TD-4100B-003 (Attachment B) describes the new procedure to be followed. The procedure noted in the bulletin was effective on August 1, 2010.

- D. This incident occurred when an employee was temporarily upgraded to provide vacation relief for his supervisor. The employee failed to recognize the importance of having an OQ qualified person obtain the odor intensity readings. The temporary supervisor and employee were both counseled following this audit on the importance and requirement to only allow OQ qualified employees performing covered tasks. Employees being considered for temporary gas supervisor positions will also be included in the training as noted in B. above.
- E. The missed odor intensity readings for the last week of May 2009 were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit.

To prevent recurrence, and as noted in the Internal Review Summary, "Supervisor to set up a follow up in Outlook to ensure that weekly readings are completed and signed." This was completed May 31, 2010.

Additionally this task will be scheduled in PG&E's SAP Preventative Maintenance (PM) program which will generate a work ticket for each weekly reading and escalating compliance reports for work not posted as complete in a timely fashion. This will also help ensure that all future readings are properly obtained in a timely manner.

F. The required "B" inspection was not conducted within 8-year intervals for two regulator stations. These were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit.

Regulator Station A-38 received a "B" inspection on May 24, 2007. The regulators at Regulator Station R-06 were replaced on June 29, 2010. Both stations are now in compliance.

To prevent recurrence and as noted in PG&E's Internal Review Summary, the "New SAP program will assist in ensuring that maintenance is performed on time as required and will generate reports for approaching maintenance dates and also past due requirements." The SAP Preventative Maintenance tool for regulator stations and valves was fully implemented in June 2010.

G. The CPA Follow-Up Action Plan for CPA S-158 has been updated based on the Corrosion Mechanic's field notes. (See Attachment C.) The Corrosion Mechanic has been counseled on the importance of updating the action plan on a monthly basis as required by Gas Standard & Specification O-16. The temporary supervisor had been reviewing action plans during the CPA's scheduled Bi-monthly maintenance; he has since changed his review process to include a monthly review of all open CPA Follow-Up Action Plans.

To prevent recurrence, and as noted in D. above, employees being considered for temporary gas

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supervisor positions will also be included in the training as noted in B. above.

H. These pipeline patrols were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit.

To prevent recurrence and as noted in PG&E's Internal Review Summary, "Supervisor is investigating the possibility of rescheduling patrols earlier in the quarter to ensure that they are completed within the calendar year." As of June 2010, these fourth quarter patrols have been rescheduled for October of each year.

I. This item was noted in PG&E's Internal Review Summary and shared with the CPUC prior to the audit.

To prevent a recurrence and as noted in the Internal Review Summary, the Supervisor has reviewed the standard and will investigate and document all future observations and dispatch employees as necessary. The Supervisor has completed tailboard briefings on August 16, 2010 to emphasize the reporting of conditions found on pipeline patrols that require follow-up actions.

J. This item was noted in PG&E's Internal Review Summary and shared with the CPUC prior to the audit.

To prevent a recurrence and as noted in the Internal Review Summary, "The responsibility to coordinate the updates has been assigned to the local distribution specialist. A follow-up process in Outlook will be set up to assist the Specialist in scheduling the review and update." This has been completed as of May 31, 2010.

ATTACHMENTS

Attachment #	Title or Subject	
A	Internal Review Summary	
В	Bulletin TD-4100B-003	
С	CPA Follow-Up Action Plan for CPA S-158	
D	Patrol WP Tailboards	

ACTION REQUIRED

Due Date	Completion Date	Responsible Dept.
January 31, 2010	January 31, 2010	Sacramento M&C
September 1,		Sacramento M&C
	January 31, 2010	January 31, January 31, 2010 September 1,

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B. Gas Supervisors to receive	December 31,		Gas Engineering/
compliance training	2010		Learning
			Academy
C. Survey facilities not highlighted in	September 30,		Sacramento M&C
2008 & 2009 leak survey	2010		
C. Stop highlighting LS maps per	August 1, 2010	August 1,	Sacramento M&C
bulletin TD-4100B-003		2010	
E. Set up Outlook follow-up for odor	May 31, 2010	May 31, 2010	Sacramento Gas
intensity readings & review			T&R
E. Schedule weekly odor intensity	June 2010	June 2010	Sacramento Gas
readings in SAP PM			T&R
F. Schedule reg maintenance & fully	June 2010	June 2010	Sacramento Gas
utilize management reports in SAP PM			T&R
G. Update CPA Follow-Up Action Plan	July 2, 2010	July 2, 2010	Sacramento
for CPA S-158			Corrosion
H. Reschedule 4 th quarter patrols to	June 2010	June 2010	Sacramento Gas
October.			T&R
I. Review requirement to document	August 16,	August 16,	Sacramento Gas
corrective actions taken based on	2010	2010	T&R
pipeline patrol remarks.		***************************************	
J. Set up Outlook follow-up to log	May 31, 2010	May 31, 2010	Sacramento M&C
annual Emergency Plan review			

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV - 2	Banu Acimis	(916) 327-3131

INSPECTIO	ON FINDING
CPUC	
Finding	Title 49 CFR § 192.201 Required capacity of pressure relieving and limiting stations.
	§192.201 (a) requires that "Each pressure relief station or pressure limiting station or group of those stations installed to protect a pipeline must have enough capacity, and must be set to operate, to insure the following:
	"(2) In pipelines other than a low pressure distribution system:
To appropriate app	"(i) If the maximum allowable operating pressure is 60 p.s.i. (414 kPa) gage or more, the pressure may not exceed the maximum allowable operating pressure plus 10 percent, or the pressure that produces a hoop stress of 75 percent of SMYS, whichever is lower;"
	A. During the field check of the District Regulator Station R-TS-005 located on 2nd Street at L Street in Davis, we observed that the pressure regulator, which had a pressure setting of 195 psig, failed to lockup on May 20, 2010.
	B. During the field check of the District Regulator Station R-A41 located on Garden Highway at Bryte Avenue in Sacramento, we observed that the regulator, which had a pressure setting of 343 psig, failed to lockup on May 21, 2010.
Location(s):	

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PG&E RESPONSE

PG&E respectfully disagrees that this finding is a violation of § 192.201.

During these field visits, pressure gauges were installed and monitored on the downstream piping. Regulator Station R-A41 serves a distribution system with a MAOP of 50 psig. Regulator Station R-TS005 serves a Distribution Feeder Main system with a MAOP of 500 psig. (See Attachment D.) At no time during the site visits did the pressure exceed the MAOP of those downstream systems.

Performing a lock-up test on pressure regulators is part of PG&E's diagnostic inspection process as specified in Work Procedure WP4540-01 (attachment F). This inspection process is described in Part II, paragraph 7 of the work procedure. Also, attached is a job aid that goes into more detail on the diagnostic inspection (attachment 5). Results of the lock-up test are an indication of the integrity of the internal components of the regulator, and not an indication of a violation of § 192.201. A failed lock-up test does not mean that the station has failed to limit the downstream system pressure from exceeding the MAOP. Any system has multiple components (regulators, monitors, relief valves) which together comprise a system that is designed to prevent exceeding the MAOP.

The primary cut regulator at regulator station R-A41 (R1) did fail the lock-up test on May 21. This regulator is designed and set up to cut upstream pressure from a maximum (MAOP) of 720 psig to 344 psig as the initial pressure cut for this system. Even though the intermediate pressure is normally 344 psig, the intermediate piping is qualified for an MAOP of 720 psig. This primary cut reduces pressure for the parallel downstream regulator system (R2 and R3) which is designed and set up to reduce pressure to a 50 psig MAOP distribution system. The 50 psig MAOP is controlled by these regulators and protected by relief valves on each regulator run, which are appropriately sized to reflect a 720 psig inlet pressure. At no time was there a risk of exceeding either the 720 or 50 psig MAOPs.

The primary regulator at regulator station R-TS005 did fail the lock-up test on May 20, the upstream monitor however locked up properly at 207 psig thereby protecting the downstream 500 psig MAOP.

Inspections were performed on May 20, 2010 (R-TS005), and May 21, 2010 (R-A41). A positive lock-up test at both of these stations was performed after these inspections. See Attachment E for details.

ATTACHMENTS

Attachment #	Title or Subject
Е	R-TS005 & R-A41 Data Sheet, Maintenance, & Diagrams
F	WP 4540-01

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ACTION REQUIRED

Action To Be Taken	Due Date	Completion Date	Responsible Dept.
Perform partial internal inspection for lock-up issues	May 21, 2010	May 21, 2010	Sacramento Gas T&R

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV-3	Banu Acimis	(916) 327-3131

INSPECTION FINDING

CPUC Finding	<u>Title 49 CFR § 192.328 Additional construction requirements for steel pipe using alternative maximum allowable operating pressure.</u>
	§192.328 requires that "For a new or existing pipeline segment to be eligible for operation at the alternative maximum allowable operating pressure calculated under §192.620, a segment must meet the following additional construction requirements. Records must be maintained, for the useful life of the pipeline, demonstrating compliance with these requirements:
	During the audit, PG&E notified us that PG&E could not locate any MAOP documentation and the as-built installation records from 1961 for Zone # 196 in Colusa District. Please explain what actions PG&E is planning to take regarding this issue.
Location(s):	

PG&E RESPONSE

PG&E respectfully disagrees that this finding is a violation of §192.328, but does however agree that it is a violation of _§192.619 Maximum allowable operating pressure: Steel or plastic pipelines.

This distribution piping was incorrectly referred to as Zone #196. The correct reference is System # 178.

This finding was noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit. The corrective action was yet to be determined at the time of the audit. PG&E will reestablish the MAOP documentation by September 1, 2010 by utilizing the procedures specified in TD-4125P-01, *Establishing & Maintaining Distribution MAOP Records*. (Attachment G). The Internal Review Summary has been updated to include this corrective action. (See Attachment A)

ATTACHMENTS

Attachment #	Title or Subject	
G	Work Procedure TD-4125P-01	
A	Internal Review Summary	

ACTION REQUIRED

Action To Be Taken	Due Date	Completion Date	Responsible Dept.
Re-establish MAOP documentation of distribution piping utilizing TD-4125P-	September 1, 2010	Duv	Sacramento M&C

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV-4	Banu Acimis	(916) 327-3131

INSPECTION FINDING

INDI ECTION :	
CPUC Finding	Title 49 CFR § 192.467 External corrosion control: Electrical isolation.
	§192.467 (a) requires that "Each buried or submerged pipeline must be electrically isolated from other underground metallic structures, unless the pipeline and the other structures are electrically interconnected and cathodically protected as a single unit."
	§192.467 (d) requires that "Inspection and electrical tests must be made to assure that electrical isolation is adequate."
	External corrosion records for Line-108 Florin Road to Luther Drive showed that the casing potential (C/P) and P/S recorded at MP 0.15 were -1.279 volts and -1.278 volts respectively on July 29, 2008. Subsequently, C/P and P/S readings were recorded as -1.303 volts and -1.298 volts respectively on August 24, 2009. During our field check, C/P was found to be -1.078 volts and P/S was -1.063 volts on May 20, 2010. These readings show that there is no electrical isolation of the casing from the pipe. PG&E identified the electrical isolation problem in 2008; however, did not take any remedial actions to correct the deficiency. PG&E needs to take prompt remedial action to ensure that electrical isolation is adequate.
Location(s):	

PG&E RESPONSE

PG&E agrees with this finding.

Although low casing-to-soil reads were recorded and entered into the PLM program, the casing contact was never specifically communicated and added to the casing program. The Supervisor has been counseled on the requirements of Gas Standards & Specifications O-16, and the Work Procedures associated with casings. (See Attachment H) The Supervisor has also conducted a tailboard for the Sacramento Corrosion Department on the casing program. (See Attachment I) Additionally, the casing contact referenced above has been added to the program and prioritized with others contacts throughout the system (See Attachment J). A review of all other casing contacts within the Division will be conducted by the supervisor to ensure that all contacts are indeed included in the program and have a specific action plan.

ATTACHMENTS

Attachment #	Title or Subject
H	Casing Program Work Procedures
I	July 8, 2010 Casing Program Tailboard Briefing
J	June 4, 2010 Action Plan Letter

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ACTION REQUIRED

Action To Be Taken	Due Date	Completion	Responsible Dept.
		Date	
Conduct briefing on PG&E's casing	July 8, 2010	July 8, 2010	Sacramento
program			Corrosion Dept.
Review Sacramento Division casing	September 30,		Sacramento
records for potential casing contacts	2010		Corrosion Dept.

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV-5	Banu Acimis	(916) 327-3131

INSPECTION FINDING

INSPECTION	FINDING		
CPUC Finding	Title 49 CFR § 192.503 General requirements		
	§192.503 (a) requires that "No person may operate a new segment of pipeline, or return to service a segment of pipeline that has been relocated or replaced, until -		
	"(1) It has been tested in accordance with this subpart and §192.619 to substantiate the maximum allowable operating pressure; and		
	"(2) Each potentially hazardous leak has been located and eliminated."		
	A. Division's gas dig-in incident report (Form A1) and leak repair records for gas leak (No:0953105) showed that on September 8, 2009, PG&E crews installed 1-foot of ½-inch polyethylene pipe (PE) to repair the gas leak caused by dig-in activities at 1707 Union Avenue in Fairfield. According to Form A1, the gas pipe was not pressure tested after the leak repair was completed.		
	B. Similarly, on September 11, 2009, PG&E crews installed a 1-inch coupling to make repairs of the gas leak (No:0953107) which was caused by dig-in activities at 4650 Business Center Drive in Fairfield. According to Form A1, the gas pipe was not pressure tested after the leak repair was completed.		
	PG&E needs to ensure that the pipeline segments mentioned above are tested after they were repaired as required by Title 49 CFR § 192.503 (a).		
Location(s):			

PG&E RESPONSE

PG&E agrees that the finding for Leak Number 09-53105 (A.) is a violation of §192.503, and respectfully disagrees that this finding for Leak Number 09-53107 (B.) is a violation of §192.503. PG&E believes that this finding for both leak repairs is a violation of §192.725.

These two leak repairs were noted in PG&E's Internal Review Summary and shared with the CPUC prior to the audit. The repair for Leak Number 09-53105 included the installation of one foot of ½ inch plastic pipe. The repair for Leak Number 09-53107 included the installation of one one-inch coupling. Please see Attachment K for the 2009 leak repair documentation of both leak repairs (A1 forms). The pressure test section of both A1 forms note that only a soap test was performed. Leak Number 09-53105 required a pressure test in accordance with §192.503 because a new segment of pipeline was installed. Both leak repairs required a pressure test in accordance with §192.725 because they were service lines temporarily disconnected from the

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main. To bring these service repairs into compliance, PG&E has taken the services out of service, pressure tested and documented them in accordance with Gas Standards & Specification A-34. (See Attachment L.)

To prevent recurrence, and as noted in the Internal Review Summary, "Additional A-Form training was conducted in October 2009". Please see the October 23, 2009 and October 30, 2009 tailboard briefing attendance lists. (Attachment M)

ATTACHMENTS

Attachment #	Title or Subject	
K	2009 Leak Repair A1 Forms	
L	August 2010 Leak Repair A Forms	
M	October 2009 A/A-1 Form Training	

ACTION REQUIRED

ACTION REQUIRED			
Action To Be Taken	Due Date	Completion	Responsible Dept.
*	•	Date	
Pressure Test 2 services in accordance	August 13,	August 13,	Sacramento M&C
with GS&S A-34	2010	2010	
Conduct briefing on Leak Repair forms,	October 30,	October 30,	Sacramento M&C
"A" and "A-1"	2009	2009	

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV-6	Banu Acimis	(916) 327-3131

INSPECTION FINDING

CPUC
Finding

<u>Title 49 CFR § 192.619 Maximum allowable operating pressure: Steel or plastic pipelines.</u>

§192.619 requires that " (a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure determined under paragraph (c) or (d) of this section, or the lowest of the following:

(1) The design pressure of the weakest element in the segment, determined in accordance with subparts C and D of this part."

<u>Title 49 CFR § 192.621 Maximum allowable operating pressure: High-pressure distribution systems.</u>

§192.621 requires that "(a) No person may operate a segment of a 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, determined in accordance with subparts C and D of this part."
 - A. District Regulator Data Sheet for Regulator Station WO-17 located on Armfield Street at East Street, showed that maximum working pressure for Valve # 7 & 9 is 175 psig whereas the inlet MAOP is 215 psig.
 - B. Similarly, District Regulator Data Sheet for Regulator Station R-R10 located on Airbase Parkway, east of Peabody Road, showed that maximum working pressure for Valve # 9 is 200 psig whereas the inlet MAOP is 400 psig.

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PG&E RESPONSE

PG&E agrees with this finding for A) valves #7 and #9 at regulator station WO-17. PG&E respectfully disagrees with this finding for B) valve #9 at regulator station R-10.

These issues were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit: "Projects will be initiated to replace the identified valves."

- A) The issue of identifying downstream block valves at district regulator stations with monitor-regulator design has been addressed with Mr. Dennis Lee of the Utilities Safety and Reliability Branch. Please see the attached May 25, 2010 letter and attachments to Mr. Lee. (Attachment N) Regulator Station WO-17 has now been included with the 103 other stations system-wide which have outlet valve pressure ratings less than the MAOP of the station. Valves #7 and #9 at regulator station WO-17 are scheduled to be replaced by December 31, 2010.
- B) After further research, it was determined that valve #9 at regulator station R-10 is installed on the distribution system downstream of the downstream block valve for the station and therefore does not need to be rated for the station inlet MAOP. (See Attachment O.)

ATTACHMENTS

Attachment #	Title or Subject
N	May 25, 2010 Letter to Dennis Lee
О	Reg Station R-10 Data Sheet & Diagram

ACTION REQUIRED

ACTION REQUIRED			
Action To Be Taken	Due Date	Completion	Responsible Dept.
		Date	
Replace valves #7 & #9 at WO-17	December 31,		Sacramento Gas
	2010		T&R

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV-7	Banu Acimis	(916) 327-3131

INSPECTION FINDING

INSPECTION	
CPUC Finding	Title 49 CFR §192.723 Distribution systems: Leakage surveys.
	A. §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."
	Leak survey stamps are printed on the maps to indicate the survey date and they show total pipeline length and number of services surveyed. Stamps were not filled out on maps 2467-G7, 2467-G8, and 2467-H8 to show that annual leak surveys were conducted in 2008.
	B. §192.723 (b)(2) requires that "A leakage survey with leak detector equipment must be conducted outside business districts as frequently as necessary, but at least once every 5 calendar years at intervals not exceeding 63 months. However, for cathodically unprotected distribution lines subject to §192.465(e) on which electrical surveys for corrosion are impractical, a leakage survey must be conducted at least once every 3 calendar years at intervals not exceeding 39 months."
	A leak survey stamp appeared on the 5-year leak survey record for plat map number 2915-I3; however the stamp was not filled out to show that the 5-year leak survey was conducted in 2008.
Location(s):	

PG&E RESPONSE

PG&E agrees with this finding.

A. Gas facilities within Birdcage Mall requiring an annual leak survey fall within the three gas plats maps, 2467-G7, G8, and H8. Several businesses in the Birdcage mall had closed, and our Mapping Department incorrectly removed the services and main from the annual survey. The main and services within the Birdcage Mall are now scheduled to be leak surveyed by September 30, 2010.

To prevent recurrence, the Mapping and Construction Department have been reminded not to revise any leak survey without consultation with the local gas engineering group.

B. This item was noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit. A segment of main on leak survey map 2915-I3 was not highlighted as being leak surveyed as specified in Standard S4110. The undocumented main and service segments will be leak surveyed by September 30, 2010.

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To help prevent this oversight in the future, the Mapping and Construction Supervisors will conduct tailboard briefings with their work groups on the necessary attention to detail when conducting and reviewing leak survey plat sheets for completion. These tailboard briefings will be completed by September 1, 2010.

ATTACHMENTS

Attachment #	Title or Subject

ACTION REQUIRED

ACTION REQUIRED		C 1.1	D 111 D
Action To Be Taken	Due Date	Completion	Responsible Dept.
ь	r	Date	
A. & B. Conduct leak survey of gas	September 30,		Sacramento M&C
facilities with missing leak survey	2010		
documentation.			
B. Conduct tailboard briefings with	September 1,		Sacramento Division
Mapping and Construction departments	2010		Mapping and
on the need for accuracy of leak survey			Construction
documentation			

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV-8	Banu Acimis	(916) 327-3131

INSPECTION FINDING

INSPECTION 1	FINDING		
CPUC Finding	Title 49 CFR §	192.739 Pressure limiting and regulating stations: d testing	
	§192.739 (a) requires that "Each pressure limiting station, relief device (except rupture discs), and pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is -		
	"(1) In good me	echanical condition;	
***		from the standpoint of capacity and reliability of operation for the h it is employed;"	
	A.	District regulator station maintenance records showed that Regulator Station A23 located at Sunset & Fairoaks was inspected on June 19, 2007. The next inspection of this regulator station was performed on October 13, 2008, which exceeded the allowed time frame of 15 months.	
	B.	District regulator station maintenance records showed that District Station No. R-B36 located at Big Horn Boulevard & Franklin Boulevard was not inspected in the calendar of 2009.	
	C.	Maintenance records for Regulator Station R-D20 located at 17 th Street and J Street were not available for the years 2006, 2005, 2004, and 2003.	

PG&E RESPONSE

PG&E agrees with this finding.

These items were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit. All "DR Station maintenance schedules are now in compliance." Since the maintenance records for station R-D20 cannot be located for years 2003 – 2006, an internal "B" inspection of the station was performed on July 13, 2010. (See Attachment P)

To prevent a recurrence of this issue the T&R Supervisor has reviewed and confirmed the maintenance schedule for all District Regulator stations. This information was then used to build the maintenance plan in PG&E's new SAP Preventative Maintenance program. As noted in PG&E's Internal Review Summary, the "new SAP program will assist in ensuring that maintenance is preformed on time as required and will generate reports for approaching maintenance dates and also past due requirements." The program will also provide an electronic means to validate the completion of the scheduled maintenance. To help ensure that maintenance documents are returned to the Gas T&R office files, the Sacramento Gas T&R

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Supervisor conducted a tail board briefing on August 5, 2010 with employees responsible for regulator station maintenance. (See Attachment Q)

ATTACHMENTS

Attachment #	Title or Subject
P	7-13-10 R-D20 Reg Station Maintenance
Q	Gas T&R Maintenance Documentation Tailboard

ACTION REQUIRED

Action To Be Taken	Due Date	Completion Date	Responsible Dept.
Fully utilize SAP PM and management reports to ensure regulator station maintenance is completed on time.	June 2010	June 2010	Sacramento Gas T&R
Conduct tail board to emphasize the importance of returning all maintenance documents to the T&R files	August 5, 2010	August 5, 2010	Sacramento Gas T&R

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	NOV-9	Banu Acimis	(916) 327-3131

INSPECTION FINDING

HULECHON	
CPUC Finding	<u>Title 49 CFR §192.747 Valve maintenance: Distribution systems.</u>
	§192.747(a) requires that "Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year."
	Distribution emergency valves X-130, X-131, X-132, X-133, X-134, and X-135 were installed in 2008 in Sacramento Division. The maintenance of these valves was performed on February 22, 2010 for the first time after the installation. No maintenance was performed on these valves in the calendar year 2009.
Location(s):	

PG&E RESPONSE

PG&E agrees with this finding.

These valves were noted in PG&E's Internal Review Summary and shared with the CPUC prior to this audit. To correct the missed maintenance, the "valves were entered into the SAP Maintenance program and maintained on 2/22/10."

To prevent recurrence and as noted in the Internal Review Summary, the "New SAP program will assist in ensuring that maintenance is performed on time as required and will generate reports for approaching maintenance dates and also past due requirements."

To ensure that newly-installed valves are properly entered into the program going forward, the Gas T&R Supervisor conducted a tail board briefing to reinforce the importance of the process to get new assets into the maintenance program. The tail board briefing was completed on August 10, 2010 (See Attachment R).

ATTACHMENTS

Attachment #	Title or Subject
R	August 10 Tail board Briefing-New Assets into SAP PM

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ACTION REQUIRED

Action To Be Taken	Due Date	Completion Date	Responsible Dept.
6 Newly-installed valves placed into	February 22,	February 22,	Sacramento Gas
SAP PM program	2010	2010	T&R
Fully utilize SAP PM and management reports to ensure emergency valve maintenance is completed on time.	June 2010	June 2010	Sacramento Gas T&R
Conduct tailboard briefing to enforce importance of getting newly-installed assets in maintenance program	August 10,	August 10,	Sacramento Gas
	2010	2010	T&R

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INSPECTION INFORMATION

Inspection Dates	spection Dates Finding		CPUC Phone #
May 17-21, 2010	NOV-10	Banu Acimis	(916) 327-3131

INSPECTION FINDING

INDIECTION	
CPUC Finding	Title 49 CFR §192.805 Qualification program.
	§192.805 (b) requires that "Ensure through evaluation that individuals performing covered tasks are qualified."
	We found that the odorant intensity tests conducted on March 17, 2010 was performed by James Thompson. Operator qualification records of Mr. Thompson showed that he was not qualified to perform this covered task.
Location(s):	

PG&E RESPONSE

PG&E agrees with this finding.

The assignment of the odor intensity tests to a non-OQ-qualified person occurred when an employee was temporarily upgraded to provide vacation relief for the T&R Supervisor. The employee failed to recognize the importance of having an OQ-qualified person obtain the odor intensity readings. The temporary supervisor and employee were both counseled on the importance of only allowing properly qualified employees perform OQ-covered tasks.

To prevent recurrence as mentioned in NOV-1 G above, employees being considered for temporary gas supervisor positions will also be included in the supervisory training.

ATTACHMENTS

Attachment #	Title or Subject		

ACTION REOUIRED

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Action To Be Taken	Due Date	Completion	Responsible Dept.
		Date	•
Counseled relief supervisor and	May 28, 2010	May 28, 2010	Sacramento Gas
employee of only OQ-qualified			T&R
employee assigned to OQ-covered task			

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	AOC-1	Banu Acimis	(916) 327-3131

INSPECTION FINDING

CPUC Finding

49 CFR §192.463 External corrosion control: Cathodic protection.

§192.463(a) requires that "Each cathodic protection system required by this subpart must provide a level of cathodic protection that compiles with one or more of the applicable criteria contained in appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of the criteria."

During our field check, P/S readings at the locations given in Table 5 were found to be below the -0.85 volts criteria. PG&E needs to take prompt remedial action to bring the CP levels into compliance.

Table 5 - Field P/S readings found below adequate level of protection

Location	CP System No	P/S Reading (Volts)	Date
406 A Street, Davis	Y019	-0.820	May 20, 2010
1065 Olive Drive, Davis	Y019	-0.833	May 20, 2010
6749 Arabella Way, Sacramento	S-059	-0.824	May 20, 2010
3938 Bartley Drive, Sacramento	S-064	-0.754	May 20, 2010

PG&E RESPONSE

PG&E agrees with this concern.

Upon discovery of these low Pipe-to-soil readings during this audit, PG&E promptly troubleshot these Cathodic Protection Areas and have restored adequate levels of cathodic protection for CPA Y-019 and S-064. See Attachment S for the CP Area Maintenance Reports. CPA S-059 was reread on June 8, 2010 and a reading of -0.987 V was obtained, therefore no additional troubleshooting was necessary.

Location	CPA No	P/S Reading (Volts)	Date	Restored
406 A Street, Davis	Y-019	-0.820	May 20, 2010	6/2/2010 -0.854V
1065 Olive Drive,	Y-019	-0.833	May 20, 2010	6/2/2010 -0.858V
Davis				
6749 Arabella Way,	S-059	-0.824	May 20, 2010	6/8/2010 -0.987V
Sacramento				

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3938 Bartley Drive,	S-064	-0.754	May 20, 2010	6/3/2010 -0.863V	
Sacramento					
					_

ATTACHMENTS

Attachment #	Title or Subject
S	CP Area Maintenance Reports

ACTION REQUIRED

Action To Be Taken	Due Date	Completion Date	Responsible Dept.

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	AOC-2	Banu Acimis	(916) 327-3131

INSPECTION FINDING

CPUC Finding	The Sacramento Division welder qualification records indicated that Michael Burns, Gas Crew Leader, failed Oxyacetylene Weld Tests on January 13, 2010 and March 31, 2010. Mr. Burns also failed plastic connection qualification on January 6, 2010. We did not find any documentation verifying that Mr. Burns was no longer qualified to perform these covered tasks for the period that he was tested. PG&E's welding and plastic fusion test reports have a memo field that need to be filled out to provide a justification of an expired qualification. When an employee is disqualified to perform a covered task or the qualification status of an employee changes, employee's name should be removed from the qualified personnel list and this information should be provided to the supervisors. We did not find a list of individuals who are currently qualified to perform welding and plastic fusion in Sacramento Division.
Location(s):	Tudion in Oddianiona Birliona

PG&E RESPONSE

PG&E respectfully disagrees with the observation pertaining to Mr. Burns as well as the need to maintain a current list.

Mr. Burns was disqualified January 31, 2009, as stated on the Oxyacetylene Weld Test Report (form FD-30B, part of PG&E's Gas Standards & Specifications D-30, Welder Qualification for Under 20% of SMYS). The "Memo to File" section of the report was filled out documenting his disqualification and the appropriate notice to his supervisor. Mr. Burns has remained disqualified ever since. Therefore there is no need to continually document his disqualification.

Sacramento Division does not maintain a current joiner list for reference. If there is a question regarding an employee's qualification, the Supervisors refers to the actual forms in the appropriate binders as a reference.

ATTACHMENTS

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Attachment #	Title or Subject

ACTION REOUIRED

Action To Be Taken	Due Date	Completion Date	Responsible Dept.

Definitions: NOV – Notice of Violation

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
May 17-21, 2010	AOC-3	Banu Acimis	(916) 327-3131

INSPECTION FINDING

CPUC Finding	PG&E Pole Mount/Pedestal Mount Rectifier Test and Site Evaluation Form requires that rectifier fuses should be rated at 10% above the maximum amperage (Amps) rating of the rectifier or the next highest size. Records for Rectifier # 210 in CPA # S-99, Rectifier # 211 in CPA # S-99, and Rectifier # 338 in CPA # S-062 showed that the rectifiers were rated at 5 Amps but fuses were rated at 8 Amps instead of 5.5 Amps. PG&E made the changes to the fuse size from 8 Amps to 6.25 Amps which is the next highest fuse size. Additionally, we found that the rectifier DC Amps rating was greater than the fuse size for Rectifier # 206 in CPA # T-210. The rectifier rating was 10 Amps whereas the fuse size was 6.25 Amps. The fuse size should have been rated at 11 Amps not 6.25 Amps as written on the form.
Location(s):	·

PG&E RESPONSE

PG&E respectfully disagrees with this concern.

The Universal pedestal mount rectifier has a maximum input AC rating of 5 amps. The 5 amp AC breaker is designed to trip at 6.25 amps. Therefore the breaker for this rectifier is appropriately designed and does not present a safety and or a compliance issue. The rectifier rating reference above at 10 amps is the DC output of the rectifier.

ATTACHMENTS

Attachment #	Title or Subject

ACTION REQUIRED

Action To Be Taken	Due Date	Completion Date	Responsible Dept.

Definitions: NOV – Notice of Violation