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

October 21, 2014 GA2013-27

Mr. Sumeet Singh, Vice President
Pacific Gas and Electric Company
Gas Asset and Risk Management
6111 Bollinger Canyon Road, Room # 4590-D
San Ramon, CA 94583

Subject: General Order 112-E of Pacific Gas and Electric Company's Stockton Division

Dear Mr. Singh:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission (Commission), Willard Lam, Quang Pham, and Banu Acimis conducted a General Order (GO) 112-E audit of Pacific Gas and Electric Company's (PG&E) Stockton (Division) on December 2-6, 2013 and December 9, 2013.

SED staff reviewed Division's gas distribution and transmission system operations and maintenance records for the period of 2010-2012 and some maintenance records that were completed in 2013. SED also conducted field inspections in the cities located in Stockton Division such as Stockton, Lodi, Manteca, and Tracy etc.

A Summary of Audits Findings (Summary), which contains PG&E's internal review findings, probable violations and areas of concerns and recommendations identified by SED staff, is included as an attachment to this letter.

Please provide SED a written response indicating the corrective actions and preventive and mitigative measures taken by PG&E to address the probable violations, areas of concerns, and recommendations identified during the audit and any pending issues from its internal review within 30 days from the date of this letter. Pursuant to Commission Resolution ALJ-274, SED will notify PG&E of the enforcement actions it plans to take in regard to each of the violations found during the audit after it has an opportunity to review PG&E's response to the findings included in the Summary.

For any questions related to this matter, please contact Banu Acimis at (916) 928-3826 or by email at banu.acimis@cpuc.ca.gov.

Sincerely,

Kenneth Bruno, Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission

Enclosure: Summary of Audit Findings
cc: Mary Muse, PG&E
Charles Chang, PG&E
Steve Frankiewich, PG&E
John Tom Norman, PG&E
Charles Madison, PG&E

Summary of Audit Findings

PG&E Internal Audit Findings

Prior to SED's audit of PG&E's Stockton Division (Division) records and field inspection, PG&E provided SED the results of its internal review audit. During the audit, SED discussed the details of PG&E's internal findings and reviewed related records. Table 1 shows the deficiencies PG&E identified in its internal review.

Table 1. Results of Stockton Division Internal Review Summary

Item #	GO 112-E Section or Title 49 CFR Part 192	Topic	# of Violations	# of Violations Corrected	# of Pending Corrections (as of 12/09/13)
1	192.723(b)(1) 192.723(b)(2)	Distribution Leak Survey: Missing or Late Survey	79	79	0
2	192.605(a) UO Standard S4110	Distribution Leak Survey: Documentation errors	3	3	0
3	192.706	Transmission Leak Survey: Semi-annual - Late survey	36	36	0
4	192.605(a) UO Standard S4110	Distribution Leak Repairs: Missing USA info, EFV not installed as required	4	4	0
5	192.703(c)	Distribution Leak Repairs: Late repair	15	15	0
6	192.739(a) 192.605(a) UO Standard S4540	Regulator Station: Late B Inspection, Pressure chart record missing, Supervisor late review, corrective work not documented	26	23	3 (1st Q 2014 for corrective work)
7	192.605(a) WP 4430-04 192.745(b)	Valves: maintenance issues, AMC not established, corrective completed late, valve card is missing, discrepancy on valve card	11	10	1 (Recreate missing valve card)
8	192.625(f)(2) 192.13(c) TD-4350S	Missed odorant tests	61	61	0
9	192.705(b)	Transmission Patrol: Missed quarterly patrol	21	21	0
10	192.481(a)	Atmospheric Corrosion: Late exposed span inspections	26	26	0
11	192.605(a) O-16	Corrosion Control: Rectifier forms incomplete, late action plans, no pre/post rectifier reads, late supervisor review	81	81	0

Item #	GO 112-E Section or Title 49 CFR Part 192	Topic	# of Violations	# of Violations Corrected	# of Pending Corrections (as of 12/09/13)
12	192.605(a) M-53.3	Calibration: T&R reference test instrument not calibrated*	59	N/A	N/A
13	192.605(a) TD-9500P-16	Stub service not cut-off within timeframe	2	0	2
14	192.619(a)	Incomplete supporting document for pre-MAOP systems	2	0	2

*****Division informed SED that as of May 2014, there were a number of instruments that have not been calibrated; therefore, total of instruments that have been calibrated is unknown.

Areas of Violations

I- Title 49, Code of Federal Regulations (CFR), §192.605 Procedural manual for operations, maintenance, and emergencies.

§192.605 (a) states in part:

"(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response…"

I-1 PG&E's Utility Work Procedures WP4540-01 District Regulator Station Maintenance states:

"At the completion of the recording period, download, print, graph and review the pressure data and ensure that it is filed in the district regulator station file folder."

SED noted that PG&E did not file the 2010 pressure record chart for Regulator Station MAR-HP-04.

I-2 PG&E's Utility Work Procedures WP4540-01 Attachment 5: Establishing Pressure Set Points and Check state:

"Record results of monitor lockup test on [Test Gauge 2]. (yes/no)"

SED found that Division did not record the results of the monitor lockup test on the District Regulator Station Maintenance record when it conducted the annual maintenance of its Regulator Station, ST-LP-04 on 12/6/11.

I-3 PG&E's Utility Work Procedures WP4540-01 District Regulator Station Maintenance states:

"Before disassembling any equipment components, document all "as found" information, including filter differential pressure, regulator and monitor set points, and the ability of the monitor and regulator to lock-up"

SED noted that PG&E did not record as found (AF) or as left (AL) filter differential readings on the maintenance records of the following District Regulator Stations:

Table 2- Regulator Stations that were maintained without recording AF and AL filter differentials

Regulator Station	Maintenance Date
ST-LP-01	6/24/13
ST-LP-13	8/12/13
ST-LP-14	4/4/13
ST-LP-47	4/3/13
TY-HP-71*	2/16/12
TY-HP-77*	1/28/12

*Dual run system, filter differentials were not recorded for either run

I-4 PG&E Utility Work Procedure WP4540-01, District Regulator Station Maintenance, which describes work activities for district regulator stations, including inspecting, testing, maintenance, and recordkeeping, IV. Compliance and Control states:

A. Supervisors are responsible for the proper completion of all district regulator station inspection, testing, and maintenance for their areas of work responsibility.

B. Supervisors must review and approve all records for work performed at each district regulator station within 30 days of the completion of maintenance.

C. Supervisors must ensure that a recordkeeping system for their area of responsibility exists, and that it is periodically reviewed and verified to be complete and up-to-date.

SED noted that Division supervisors did not review and sign-off the maintenance records of the following valves which are part of the regulator stations within 30 days:

1. ST-LP-21 Valve #1, maintenance date: 10/16/13, supervisor review date: N/A
2. ST-LP-36 Valve #1, maintenance date: 4/24/12, supervisor review date: 3/26/13
3. ST-LP-36 Valve #5, maintenance date: 4/24/12, supervisor review date: N/A
4. ST-LP-36 Valve #5, maintenance date: 3/22/13, supervisor review date: N/A

I-5 PG&E's Utility Work Procedures WP4430-04 Gas Valve Maintenance Requirements and Procedures

"Gas transmission valves classified as "emergency," gas distribution "critical" main valves, and district regulator station valves, including upstream and downstream fire valves, must be inspected, serviced/lubricated, (*where required, see the paragraph above), and operated (see Paragraph 3.A., "New Valves") at intervals not exceeding 15 months to the date, but at least once each calendar year. If*

a valve requiring lubrication (all plug valves and ball valves if a positive shutoff cannot otherwise be obtained. Gate valves do not require lubrication.) is not lubricated regularly, it may become inoperable, not shut off adequately when necessary, or develop external valve stem leakage. Each responsible operating department must identify all gas transmission "emergency" valves, gas distribution "critical" main valves, and district regulator station valves and ensure that these valves are properly maintained. …"

I.5.A Division personnel identified a greasing problem with inlet fire valve V-1, located at regulator station LO-HP-01 and created a work ticket to correct the problem in June 2010 when the crews could not grease it during regular maintenance. SED reviewed related valve maintenance records and noted that V-1 still has the same problem because Division has not taken corrective action since June 2010. Therefore, Division failed to lubricate valve V-1 in 2010, 2011, 2012, and 2013.

I.5.B SED reviewed District Regulator Station maintenance records for LOHP-100 located at 20440 Acampo Road, in Clements and noted that Division did not lubricate the plug type of inlet fire valve, V-1, during the maintenance on 6/12/13.

I-6 PG&E's Utility Work Procedure WP4430-04 Attachment 1: Valve Maintenance Record with Instructions:
"Use this portion of the "Valve Maintenance Record" to document the maintenance performed on the valve, as well as to document any required repairs and action taken."

SED found that PG&E did not perform the annual valve maintenance for Fire Valve #2 at Regulator Station ST-LP-01 in 2012. Valve maintenance record form shows that Division personnel visited the valve on 6/15/12; however, they did not document any of the required information on the maintenance record such as verification of valve number, inspection, lubrication, operation, and valve position for Valve #2.

I-7 PG&E's Utility Procedure: TD-4412P-07, Patrolling Pipelines and Mains, which describes the patrolling procedure states in part the following:

"3.3.Frequency of Patrol- Table 1 below displays the minimum Company standards for patrol frequency:

Gas transmission lines, gathering lines, and/or line segments (exposed or buried) are required to be patrolled quarterly…"

SED reviewed Division Pipeline Patrol records and noted that Division did not patrol the Transmission line L-112, Pipeline No: FM# P-20, from Compressor Station to Mixing Station in the first and fourth quarters of 2010.
Please inform SED of the preventive and mitigative (P&M) measures taken to address this deficiency.

I-8 PG& Standard O-16- Corrosion Control of Gas Facilities, 4. Impressed Current (Rectified) Cathodic Protection Systems states in part

"Maintain impressed current (rectified) cathodic protection systems according to the following procedures:

G. Casing Monitoring and Maintenance Local transmission, backbone transmission pipelines, and gas gathering pipeline cased crossings must be monitored annually (once each calendar year with intervals

not to exceed 15 months) and recorded in PLM. Adequate annual monitoring at cased crossings includes a measurement of the P/S potential of the pipeline and the casing-to-soil potential of the casing. The casing is considered to be in electrical contact with the pipeline when the casing-to-soil potential is −800 mV or more negative and/or the difference between the P/S potential and the casing-to-soil potential is less than 100 mV. If one or both of these two conditions are found, further testing as described in Utility Standard D-S0354/S4126 is required." [Emphasis added]

"Cased pipeline crossings that are found to be contacted (the casing is in electrical contact with the pipeline) shall be reported to corrosion engineering personnel within 30 days of discovery of the contact. Contacted casing reported to corrosion engineering personnel will be remediated as part of the contacted casing remediation program administered by corrosion engineering personnel." [Emphasis added]

SED reviewed Division's casing monitoring and maintenance records and noted that Division did not record casing to soil (C/S) potential readings in 2010 for the locations shown in Table 3.

SED also noted that for some lines, Division failed to take C/S readings in 2010 through 2012. SED determined that in order for Division to confirm that there are no contacted casings, Division needs to demonstrate that C/S potentials are in compliance with PG&E's Standard, O-16- Corrosion Control of Gas Facilities.

Table 3- Missing casing potential records for 2010 by line number, mile point (MP), address, and date

Line #, MP	Location	Read Date	Pipe to soil reading	Casing to soil reading
L-1601-03, MP 2.08	F02 W/S MacArthur, S/O Linne Rd @ RR	03/17/2010	-1340.00	
		03/09/2011	-1236.00	-299.00
		05/01/2012	-1222.00	-386.00
L-1601-03, MP 2.43	F02 E/S MacArthur & Linne Rd at RR	03/17/2010	-1362.00	
		03/09/2011	-1226.00	-332.00
		05/01/2012	-1203.00	-302.00
L-1601-03, MP 5.19	F02 W/S MacArthur S/O 6th St. at RR	03/17/2010	-1408.00	
		06/09/2011	-1183.00	-593.00
		05/01/2012	-1253.00	-578.00
L-1601-03, MP 5.25	F02 W/S MacArthur at 6th St. at RR	03/17/2010	-1324.00	
		03/09/2011	-1196.00	-567.00
		05/01/2012	-1223.00	-550.00

Line #, MP	Location	Read Date	Pipe to soil reading	Casing to soil reading
L-1601-03, MP 6.55	MacArthur Road Feeder, Acacia St/SP	03/17/2010	-1276.00	
		03/09/2011	-1116.00	-567.00
		05/01/2012	-1206.00	-579.00
L-1603-01, MP 1.26	Stockton Pipeline. Louise Ave E/O	03/22/2010	-899.00	
		03/21/2011	-1241.00	-290.00
		05/18/2012	-1169.00	-298.00
L-1603-03, MP 0.42	Stockton Pipeline. Louise Ave W/O U	03/22/2010	-1021.00	
		03/21/2011	-1364.00	
		05/18/2012	-1263.00	
L-1607-01. MP 1,12	F-20 Church & Orange, SPRR xing	01/12/2011	-1510.00	-310.00
		01/12/2012	-1520.00	-186.00
L-1608-01, MP 1.10	Church and Center	01/11/2010	-1005.00	
		01/12/2011	-1061.00	
		01/12/2012	-943.00	
L-1608-03, MP 0.21	Pilgrim St S/O Scott St. at RR.	01/11/2010	-924.00	
		01/12/2011	-1058.00	-523.00
		01/12/2012	-1625.00	-526.00
		02/09/2012	-1144.00	-522.00
L-1608-03, MP 0.74	60' SW of Milton St & Bieghle Aly	01/11/2010	-987.00	
		01/12/2011	-1058.00	-406.00
		01/12/2012	-1632.00	-296.00
		02/09/2012	-1144.00	-404.00
L-1609-01, MP 1.79	Hwy 99 & Miner Ave	01/12/2010	-1015.00	
		01/11/2011	-1280.00	-390.00
		01/12/2012	-1210.00	-417.00
L-1609-01, MP 2.93	Fremont St, Cardinal Ave at RR	01/12/2010	-1017.00	
		01/11/2011	-1308.00	-523.00

Line #, MP	Location	Read Date	Pipe to soil reading	Casing to soil reading
L-1609-01, MP 2.93	Fremont St, Cardinal Ave at RR	01/12/2012	-1075.00	-521.00
		02/09/2012	-1209.00	-490.00
L-1609-01, MP 4.71	30' SW of E Arata Rd & N White LN	01/12/2010	-990.00	
		01/11/2011	-1281.00	-301.00
		01/12/2012	-1183.00	-191.00
L-1609-01, MP 3.85	Fremont St. and White Lane	01/12/2010	-1025.00	
		01/11/2011	-1300.00	-436.00
		01/12/2012	-1070.00	-181.00
		02/09/2012	-1185.00	-285.00
L-1617-01, MP 0.61	Holly Rd, north side of Hwy 205	03/17/2010	-1162.00	
		03/07/2011	-1089.00	-489.00
		05/01/2012	-1150.00	-487.00
L-1619-01, MP 0.47	Stockton Pipeline. Roth Rd W/O Airp	03/22/2010	0.00	
		03/21/2011		-259.00
		05/18/2012		-280.00
L-1619-01, MP 1.48	SW of E Krell Ln & S Mckinley Ave	03/22/2010	-1056.00	
		03/21/2011	-1198.00	-510.00
		05/18/2012	-1163.00	-520.00
L-L162A, MP 3.67	Byron Rd. xing, at Von Sosten Rd.	03/17/2010	-1192.00	
		03/09/2011	-1217.00	0.00
		05/01/2012	-1198.00	0.00
L-L162A, MP 3.68	SPRR xing, at Byron Rd & Von Sosten	03/17/2010	-1192.00	
		03/09/2011	-1217.00	-484.00
		05/01/2012	-1198.00	-571.00
L-L162A, MP 7.11	Grant Line Rd west of MacArthur at	03/17/2010	-1036.00	
		03/09/2011	0.00	-189.00
		05/01/2012	-1000.00	-225.00

Line #, MP	Location	Read Date	Pipe to soil reading	Casing to soil reading
L-L197B, MP 4.65	N Lower Sacramento Rd N/O Mokelumne	06/02/2010	-952.00	0.00
		08/13/2012	-868.00	
L-L197C, MP 16.45	Hwy 88 east of Hwy 104 at RR	07/19/2010	-420.00	
		09/26/2011		-422.00
		08/29/2012	-902.00	-392.00
L-L197C, MP 18.03	E/O Brook Ranch Rd.	07/19/2010	-272.00	
		09/26/2011		-352.00
		08/29/2012	-856.00	-289.00
L-L197C, MP 18.81	N/S of Hwy 88, Sunnybrook Rd @ RR	07/19/2010	-570.00	
		09/26/2011		-315.00
		08/29/2012	-882.00	-352.00

Please inform SED of the corrective actions and P&M measures taken to address these deficiencies.

I-9 PG&E Standard O-16: Corrosion Control of Gas Facilities states:

"If the CPA restoration work is (or is expected to be) over 30 days, the "CPA Follow-up Action Plan" form must be used and developed within 30 calendar days from the date the CPA is found below adequate levels of protection."

SED noted that Division did not create CPA Follow-up Action Plans in 30 days for the following CPAs:

Table 4- CPAs which were restored beyond 30-days without creating follow up action plans

CPA Location	Date found below adequate levels of protection	Date Restored
3061-6	7/17/12	8/28/12
3061-7	7/17/12	8/24/12
3061-8A	7/17/12	greater than 30 days

CPA Location	Date found below adequate levels of protection	Date Restored
2870-4	8/20/12	9/28/12
2870-9	8/20/12	9/28/12
2946-3	8/21/12	10/31/12
2869-1	7/14/12	8/24/12

I-10 PG& Standard O-16- Corrosion Control of Gas Facilities, 5. Galvanic Cathodic Protection Systems states in part:

"Maintain galvanic cathodic protection systems according to the following procedures:

A. Monitor facilities protected with galvanic anodes by using P/S potentials as follows:

(1) Annual
Monitor isolated gas distribution piping segments that are over 100' long but less than or equal to 8 blocks of steel main or 1 mile of steel main at least once each calendar year, but with intervals not to exceed 15 months from the day of the previous read. Monitoring includes plastic systems using locating wire to distribute protection to steel service risers, steel pipes, steel valves, etc. Consider monitoring these sections more frequently, as conditions justify.

Any P/S potential that is found to be less negative than −850 mV must be restored within 30 calendar days from the day it was discovered. If the CPA restoration work is expected to require more than 30 days to complete, a written action plan must be created and maintained current using the "CPA Follow-Up Action Plan" form (Attachment B). Active action plans are to be kept with the annual read book…"

I-10-A SED reviewed Division's Standard Cathodic Protection Maintenance Report (CP report) and noted that Division did not take annual P/S reading in 2011 for CP System 2946-4, at location ETS S/E C/O Bridge @ Davis Road, Stockton S/O Eight Mile Road.

I-10-B SED reviewed Division's corrosion control records and noted that Division recorded -423 mV at 224 S. Elm St., Ripon, located at CPA #: 3118-1B, on 8/9/13. SED found that Division did not create a written action plan to for the deficiency identified.

Division informed SED that it took another P/S reading on 11/12/13 and recorded -686 mV; however, it did not create any action plan. On 2/3/14, Division brought the system up to the compliance level and recorded P/S reading -997 mV.

I-10-C SED also found that CP report CP System 3118-1A, P/S annual reading (galvanic system) at location 245 N. Locust St., Ripon, shows that Division personnel recorded P/S reading -711 mV on 3/19/13 and -493 mV on 9/19/13; however, it created the CPA follow-up action plan on 6/20/13, approximately 90 days after the initial discovery and did not update the plan in October 2013 to show the work progress.

Please inform SED of the corrective actions and P&M measures taken to address these deficiencies.

I-11 PG&E Standard O-16: Corrosion Control of Gas Facilities states:

"After the CPA has been restored and re-polarized, record final P/S on-potential and rectifier measurements on the "Standard Cathodic Protection Maintenance Report," Attachment D, or in PLM"

Division identified the CPA 3113-4A below adequate level of protection on 6/14/10 and restored it on 7/9/10. SED noted that PG&E did not record after the post-restoration as required by its standard until it resurveyed the area on 7/30/10.

I-12 As required by PG&E's several Utility Procedures and Standards such as DCS Standard D-S0456, Recording Pressures in Distribution Systems, effective 4/99, Utility Procedure: TD-4125P-05, Recording Pressures in Distribution Gas Systems, Publication Date: 03/31/2010, UO Standard S5351, District Regulator Station Maintenance, effective date 8/01, Utility Work Procedure WP4540-01, District Regulator Station Maintenance, effective Aug, 2009, all permanent and portable mechanical and electronic recorders are required to be calibrated on an annual basis.

SED reviewed Division's equipment calibration records and noted that Division did not calibrate the following instruments according to its calibration standards.

Table 5- Equipment which were not calibrated annually by missed calibration year

Equipment Type	FM #	Serial #	Model	Previous Calibration Date	Year Calibration Missed
3D GAUGE	G-0025	8704592N	0-150	6/8/2012	2013
PERMA-CAL GAUGE	G-0061	09558-01	0-100	1/13/2011	2012 & 2013
PERMA-CAL GAUGE*	G-0063	112884-8	0-30	7/19/2010	2011, 2012, & 2013
MERICAL	M-0006	917503	DP-2000C	11/17/2012	2013
MERICAL*	M-0008	D1209J16	DP-2000C	10/22/2010	2011, 2012, & 2013

*Division identified these two instruments as part of its Internal Audit Findings and reported to SED that both corrective actions and preventive measures have been taken; however, SED found that as of May 2014, they still have not been calibrated since 2010.

In May 2014, Division updated its records and provided the information given in Table 5 and informed SED that it would calibrate all instruments that were missing calibration by June 2014.

Please inform SED of the corrective actions and P&M measures taken to address this deficiency.

I-13 SED also noted that Division did not have any calibration records of the following instruments which Division currently uses shown in Table 6.

Table 6- Instruments with unknown calibration dates

Equipment Type	FM #	Serial #	Model	Previous Calibration Date
Fluke 289	F-100	10010110	289	N/A
Fluke 289	F-101	22750162	289	N/A
Meriam	U/K	133400006R	M201	N/A
Fluke	E-0008	4215198		N/A
Fluke	E-0007	4310163		N/A
Fluke	E-0006	4240107		N/A
Fluke	E-0009	68872123		N/A
Fluke	E-0005	63552689		N/A
Fluke	E-0004	49852138		N/A

N/A: Not available

Please inform SED of the corrective actions and P&M measures taken to address this deficiency

I-14 On 10/20/10, during the regulator station maintenance of MAHP44, located Airport Way and Lathrop in Lathrop, Division discovered a leak at Inlet Fire Valve 1 and created a corrective work ticket on 10/25/10. However, Division neither graded the leak nor did it generate a leak number. Therefore, Division failed to follow PG&E's Utility Procedure: TD-4110P-09, for Leak grading and response. On 5/20/11, Division rechecked the leak but could not find it.

Please inform SED of the P&M measure taken to address this deficiency.

II- Title 49 CFR §192.465 (a) states:

"Each pipeline that is under cathodic protection must be tested once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of §192.463."

SED found that PG&E did not record the pipe-to-soil potential of CPA 3005-C at 3278 McAllen Road, Stockton in 2012.

III- Title 49 CFR §192.465 (a) states in part:

"…However, if tests at those intervals are impractical for separately protected short sections of mains or transmission line, not in excess of 100 feet (30 meters), or separately protected service line, these

pipelines may be surveyed on a sampling basis. At least 10 percent of these protected structures, distributed over the entire system must be surveyed each calendar year, with a different 10 percent checked each subsequent year, so that the entire system is tested in each 10-year period."

SED reviewed Division's 2010, 2011, and 2012 10%ers records and requested to obtain a similar list to verify the compliance of test locations which were checked in the last 10 years. However, Division was unable to provide the previous records to show the compliance of corrosion checks conducted in the last 10 years.

Division explained that it could not locate records for some of the isolated mains and services due to the migration of paper records into PG&E's FM system. Division also stated that the user transferring this information into the FM system was only allowed one space to enter for both the pipe-to-soil readings and the read date; the user opted to enter only the read date. SED also noted that Division did not keep the original paper records in Stockton Division. As a result, pipe-to-soil records for 10 percenters before the implementation of the SAP system are unknown.

SED determined that in order to verify the compliance of the locations which were checked from 2010 through 2012, Division must provide complete records showing all readings recorded in the last 10 years.

SED found that Division could not demonstrate that it achieved adequate levels of protection on isolated services and short sections of pipeline located in Stockton Division.

Please provide details of an action plan to address the missing pipe-to-soil readings of isolated services and short sections of pipeline and also inform SED of the P&M actions to address this deficiency.

IV- Title 49 CFR §192.465(d) states:

"Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring."

Division recorded inadequate P/S readings at the following isolated services:

Table 7- Inadequate P/S readings recorded by location and date

Location	Date	P/S Readings
821-19 Golden Gate Ave, Stockton	12/9/2010	-360mV
2101 E Church St, Stockton	12/9/2010	-634mV
83 Dennis St, Sutter Creek	5/17/2012	-778mV

Although Division indicated that it addressed the low readings, it did not have any records of post restoration P/S readings to confirm that it took necessary corrective actions and achieve the adequate levels of protection.

Therefore, SED noted that Division failed to demonstrate that it remediated the identified deficiencies by monitoring these isolated services.

V- Title 49, CFR, §192.475 Internal corrosion control: General states in part:

"(b) Whenever any pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of corrosion.
If internal corrosion is found–
(1) The adjacent pipe must be investigated to determine the extent of internal corrosion:
(2) Replacement must be made to the extent required by the applicable paragraphs of §§ 192.485, 192.487, or 192,489; and,
(3) Steps must be taken to minimize the internal corrosion."

V-1 SED reviewed Division's Leak Repair, Inspection and Gas Quarterly Incident Reports (Form A), and noted that Division personnel marked the "Internal Corrosion" box on the forms to indicate the leak cause. Table 8 shows the leak numbers and whether or not Division personnel replaced any pipe during the leak repair. SED found that even though Division recorded that the leak cause was internal corrosion (IC), Division did not conduct any investigation for the adjacent pipe to determine the extent of IC, any replacements, and necessary steps to minimize IC as required by §192.475 (b).

PG&E Standard O-16: Corrosion Control of Gas Facilities states:

"9. Internal Corrosion
A. General Requirements
Whenever corrosive substances are present in a pipeline, or whenever internal pipeline corrosion is discovered, steps shall be taken to mitigate/minimize internal corrosion. The effectiveness of the internal corrosion mitigation shall be monitored at least 2 times per calendar year, but not to exceed 7.5-month intervals. Typical monitoring/mitigation strategies include, but are not limited to, use of coupons, corrosion probes, application of inhibitor and/or biocide, liquid removal, line section retirement, etc. All findings and the mitigation plan shall be documented on the "Evaluation and Mitigation Plan for Internal Corrosion Assessment," Form FO-16-G." [Emphasis added]

"Whenever steel pipe is removed from a pipeline, it and the adjacent pipe must be inspected and evaluated to determine the presence and extent of any internal corrosion. This inspection is recorded as outlined in Utility Standard S4110, using Form F4110-7, 'CGT Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report'." [Emphasis added]

SED also reviewed PG&E's O-16 Corrosion Standard and related forms and noted that O-16 does not have any clear direction or guidance for employees on how to perform IC inspections and investigations. According to O-16, Section 9, Internal Corrosion requirement, PG&E is required to record IC inspection and evaluation which is performed to determine the presence and extent of any internal corrosion on PG&E's form F4110-7, 'CGT Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report' referenced in the standard. SED reviewed the form and determined that it does not have any place to record investigation of internal inspection of adjacent pipe if IC is found on the removed pipe section. PG&E must provide specific direction to its employees for IC investigations of removed and adjacent pipe and provide necessary forms to record IC findings as a result of investigations.

SED determined that PG&E must have provisions in its procedures on inspecting adjacent piping to determine the extent of IC when IC indications are found. SED reviewed PG&E's Evaluation and Mitigation Plan for Internal Corrosion Assessment, form GT&D 08/2008 FO-16-G; however, SED could not find any guidance in PG&E's procedures to specify when PG&E personnel need to fill out the form and how to process it in order to comply with §192.475 (b).

Table 8 shows the leaks by cause, external, and internal inspection indications

Leak Number	Leak Cause	Replacement	External Inspection Rust / Pitting	Internal Inspection Rust / Pitting
96-02-20801-1*	Internal Corrosion	Yes	N/A	N/A/Heavy
96-03-20801-1	Internal Corrosion	No	None/None	N/A/N/A
96-09-19601-1	Internal Corrosion	Yes	None/None	None/None
96-12-23002-1*	Internal Corrosion	No	None/None	None/Heavy

*****Grade 1 leaks

V-2 SED reviewed Form As and found that Division identified IC indications during the repair of the following leaks shown in Table 9. SED noted that Division personnel indicated “rust and/or pitting” as a result of internal inspections of the pipe segment during repair process of these leaks; however, SED did not find any follow up actions that Division took in order to inspect the adjacent piping to determine the extent of IC, any replacements, and necessary steps to minimize IC as required by §192.475 (b).

Table 9 shows the leaks by cause, external, and internal inspection indications

Leak Number	Leak Cause	Pipe Replacement	External Inspection Rust / Pitting	Internal Inspection Rust / Pitting
95-09-03005-1	External Corrosion	Yes	Heavy/Heavy	Heavy/None
93-09-06027-1	Digin	Yes	Heavy/Light	Light/Light
93-09-06237-1	Atmospheric Corrosion	No	Heavy/Heavy	Heavy/Heavy
93-07-02071-1	Cast Iron fracture	No	Heavy/Heavy	Heavy/Heavy
93-08-02457-1	External Corrosion	Yes	Heavy/Heavy	Light/Heavy
93-12-06118-1	External Corrosion	Yes	Heavy/Heavy	Heavy/None
93-11-06125-1	Digin	Yes	Heavy/Heavy	Light/Light
93-10-06036-1*	External Corrosion	Yes	Heavy/Heavy	Light/Heavy
93-10-06305-1	External Corrosion	Yes	Heavy/Heavy	Heavy/Light
93-10-06102-1	External Corrosion	No	Heavy/Heavy	Light/Heavy

Leak Number	Leak Cause	Pipe Replacement	External Inspection Rust / Pitting	Internal Inspection Rust / Pitting
93-09-06207-1	Atmospheric Corrosion	No	Heavy/Heavy	Heavy/Heavy
95-09-02001-1	Unknown	No	Heavy/None	Heavy/None
93-10-06035-1	External Corrosion	No	Heavy/Heavy	Light/Heavy

* This leak was repaired by inserting PE into steel pipe

VI- Title 49 CFR §192.481(a) states:

"Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows: Onshore, at least once every 3 calendar years, but within intervals not exceeding 39 months."

Division inspected the exposed span X-31 located at E/S of Jacktone Road and north of Patty Creek for evidence of atmospheric corrosion in March 2010. During the audit, SED noted that Division has not inspected the span from March 2010 until December 2013 which exceeded the 39 month required inspection interval. On 12/5/13, SED and PG&E visited the site approximately 45 months after the previous inspection.

VII- Title 49, CFR, §192.481 Atmospheric corrosion control:

Monitoring (c) states:
"(c) If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by §192.479."

VII-1 SED reviewed Division's atmospheric corrosion (AC) records and noted that as a result of the last AC survey conducted in 2011, Division identified a total of 1,890 meters set locations with AC inspection matters and completed the corrective actions at 1,885 locations. At the time of SED audit, there were a total of five locations with pending work that are listed in Table 10.

Table 10- Pending AC corrective actions by address identified during Division's 2011 AC survey

Address	AC survey date	Corrective Action Date
679 W Sonoma Ave., Stockton 95204	7/5/11	Still pending
1830 S Argonaut St., Stockton 95206*	7/21/11	1/3/14
240 Doak Blvd., Ripon 95366	3/14/11	Still pending

Address	AC survey date	Corrective Action Date
1331 S Ham Ln., Lodi 95242	3/15/11	Still pending
7500 W Linne Rd., Tracy 95304*	3/14/11	12/17/13

*After the audit, Division informed SED that it took remedial actions for the AC issues for these two locations

Please inform SED of the corrective actions taken for the AC issues at the above addresses.

VII-2 SED also reviewed Division's 2011 AC survey maps and requested to obtain the remedial actions for 25 locations in the City of Stockton that SED randomly selected from the maps which were identified by Division personnel and PG&E's contractors during the surveys. SED found that out of the 25 locations, Division has not completed remedial actions for 17 locations shown in Table 11.

Table 11- Locations with AC issues identified on the 2011 AC survey maps that have not been remediated

Plat #	Address
2947D5	10217 Mission/Hwy 99 Frontage
2947D6	10329 Hisbiscus Rd.
2947F1	9429 Tuscany Circle
2947F1	8819 Cardiff Pl.
2947F2	9208 Kirby Ln
2947F3	3537 Garofalo Ct
2947G1	2038 Pyrenees Ave.
2947G1	2007 Le Mans Pl.
2947G1	8336 Cherbourg Ct
2947G3	3360 Rutherford Dr.
2947G3	8426 Clifford Dr.
2947G3	3620 Griffith Dr.

Plat #	Address
2947G4	4332 Christian Life Way
2947G4	4032 Victory Ln
2947G5	8366 Treasure Ave.
2948J2	2851 Bozzano Rd.
3004C6	1244 Country Club Blvd.

Since SED chose only 25 locations from the AC maps, there may be more locations with AC problems identified on the 2011 survey maps that have not been incorporated in PG&E's databases; therefore, they have not been remediated.

Division personnel explained that identified locations as a result of AC surveys are first recorded in AMP system and then transferred to Field dispatching (FAS) program so that PG&E's Gas Service Representatives (GSR) take remedial actions.

SED is concerned about how Division tracks these locations in its system to be remediated since even a small sample of these locations showed that more than half of these locations do not appear to be in PG&E's system for remediation. Additionally, Division initially reported that there were a total of five locations where the AC deficiencies were not remediated as of December 2013, see Table 10. However, when SED randomly picked locations to confirm the AC remedial actions, out of the 25 locations, SED located 17 metersets which have not been remediated.

SED determined that Division failed to properly record findings from the AC surveys and it failed to take corrective actions for AC problems.

SED noted that this may be a system wide issue in PG&E's system to properly record AC survey findings and take timely AC corrective actions

According to §192.481 Atmospheric corrosion control: Monitoring (a), operators must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months. §192.481 (c) requires that operators must provide protection against the corrosion as required by §192.479 if AC is found.

Although neither §192.481 nor §192.479 specify any timeframe to complete remedial actions for AC findings, SED would like to point out that code sections should not be interpreted that operators should take up to 39 months to complete corrective actions. For example, Division identified the AC issues at locations 240 Doak Blvd., Ripon 95366 and 1331 S Ham Ln., Lodi 95242 in March 2011. After 38 months after the discovery of the conditions, Division has not taken the corrective actions. SED is concerned that the conditions which were identified more than three years ago might get worse until Division completes remedial actions if not done in a timely manner.

Please inform SED of the corrective actions and P&M measures taken to address the deficiencies related AC related issues.

VIII- Title 49, CFR, §192.615 Emergency Plans

(b)(2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.

(b)(3) Review employee activities to determine whether the procedures were effectively followed in each emergency.

SED reviewed PG&E's training emergency response training records and found to be complete based on PG&E's standard EMER-6010S, published on 12/19/11, Rev:1. However, PG&E did not provide SED with any records to verify that the following trainings were effective.

- *GAS-9006, GAS-9007, GAS-9008, and TECH-0038*

Please provide SED with these records for 2011, 2012, and 2013 related to verification that training was effective.

In addition, the EMER-6010S, section 5.2, number 2 & 4, states the following:

> 2. Each of PG&E's 18 divisions that provide gas service to customers must conduct an annual exercise involving PG&E first responders, gas control or gas dispatch, and relevant agency first responders.
>
> 4. For each exercise, an after action report (AAR) must be completed. The AAR must evaluate if the exercise objectives were met, what worked well, what needs improvement, and assign follow-up actions where appropriate.

Based on records provided to SED related to these annual exercises, SED did not find any records to date for 2011. Please provide copies to SED as soon as records are located. Based on records provided for 2010, 2012 and 2013, SED is satisfied that PG&E has successfully taken the appropriate corrective actions based on centralizing emergency response records in 2012, revision of Emergency Response Standards in 2011, and revisions included in Version 3.0 of the Gas Emergency Response Plan dated August 30, 2013 (i.e. Training and Exercises Evaluation Program) to ensure records are provided to SED more timely.

SED understands that PG&E writes after action reports for each annual emergency response training exercise to satisfy this section of the code. SED is satisfied with these records for 2010, 2012 & 2013; however, SED noted that the 2010 & 2012 exercises included internal PG&E field crews only. SED encourages PG&E to include external first responders in every annual emergency response exercise per the PG&E Standard EMER-6010S, section 5.2, and number 2 as stated above.

IX- Title 49 CFR §192.743(a) states:

"Pressure relief devices at pressure limiting stations and pressure regulating stations must have sufficient capacity to protect the facilities to which they are connected. Except as provided in §192.739(b), the capacity must be consistent with the pressure limits of §192.201(a). This capacity must be determined at intervals not exceeding 15 months, but at least once each calendar year, by testing the devices in place or by review and calculations"

SED noted that Division did not perform the capacity review for the relief valve at Regulator Station IO-HP-04 in 2012.

X- Title 49 CFR §192.745, Valve maintenance: Transmission lines.

(a) Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15 months, but at least once each calendar year.

(b) Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve.

49 CFR §192.747, Valve maintenance: Distribution systems.

(a) 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.

(b) Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve.

Division conducted regulator maintenance of District Regulator Station, TY-HP-01, located at Grantline & Alameda Co. Line in Tracy on 4/7/11 and identified the following issues:

- 1st stage: Inlet fire valve, V-1, is located two feet from vault, email was sent to engineering on 4/6/10 regarding V-1,
- 1st stage: 2-man crew could not operate V-1, 3-man crew was able to turn it,
- 2nd stage: V-3 is listed as a fire valve but it is too close to station for a fire valve,
- 2nd stage: No valve maintenance form created for V-3.

Division created a valve maintenance card for the outlet fire valve V-3 on 12/28/2011. SED reviewed the regulator station records for TY-HP-01 and noted that Division observed the same deficiencies regarding the locations of both fire valves and hard to turn fire valve V-1 during the annual maintenances conducted on 4/11/12 and 4/15/13 for both stages.

SED and PG&E visited the regulator station on 12/6/13 and observed the following:

- Inlet fire valve V-1 was very close to the vault, less than 1 ft.,
- 2-man crew operated V-1 with a cheater bar,
- Outlet fire valve V-2 was inside station fencing.

SED determined that Division failed to record the maintenance of outlet fire valve V-3 in 2010 because it created the valve card in 2011.

SED also noted that Division must relocate both inlet and outlet station fire valves shown in Photos 1 & 2, according to its design requirement of minimum spacing of 20 feet from the Station equipment which is required by H: Regulator and Relief Valves, Gas Regulator Stations:

"6. Piping
A. Use a minimum of standard wall piping within and between vaults, and for all pipe above ground. Heavier wall piping can be used in larger diameter, higher pressure applications, as well as to provide additional noise attenuation. Unless higher yield strength pipe is required to meet design pressure limitations, Grade B seamless pipe must be used for 12" and smaller diameter piping and for larger diameters when available. For diameters larger than 12" and higher pressure applications, DSAW pipe is an acceptable alternative. ERW pipe must never be used in a station. Standard wall or heavier station piping shall be extended 3' or 10 pipe diameters (whichever is greater):

(1) below ground from above ground piping, and
(2) out through vault walls.

Extend steel piping a minimum of 20' downstream of the station or to the downstream steel fire valve. For stations supplied from plastic distribution systems, extend steel piping a minimum of 20' upstream of the station or to the upstream steel fire valve. Measure from the vault opening or from the regulator if above ground." [Emphasis added]

Additionally, PG&E must take corrective action for inlet fire valve V-1 since it is still very hard to turn.

Please inform SED with the corrective actions taken for this station.

Photo 1- Location of the inlet fire valve located at the first stage

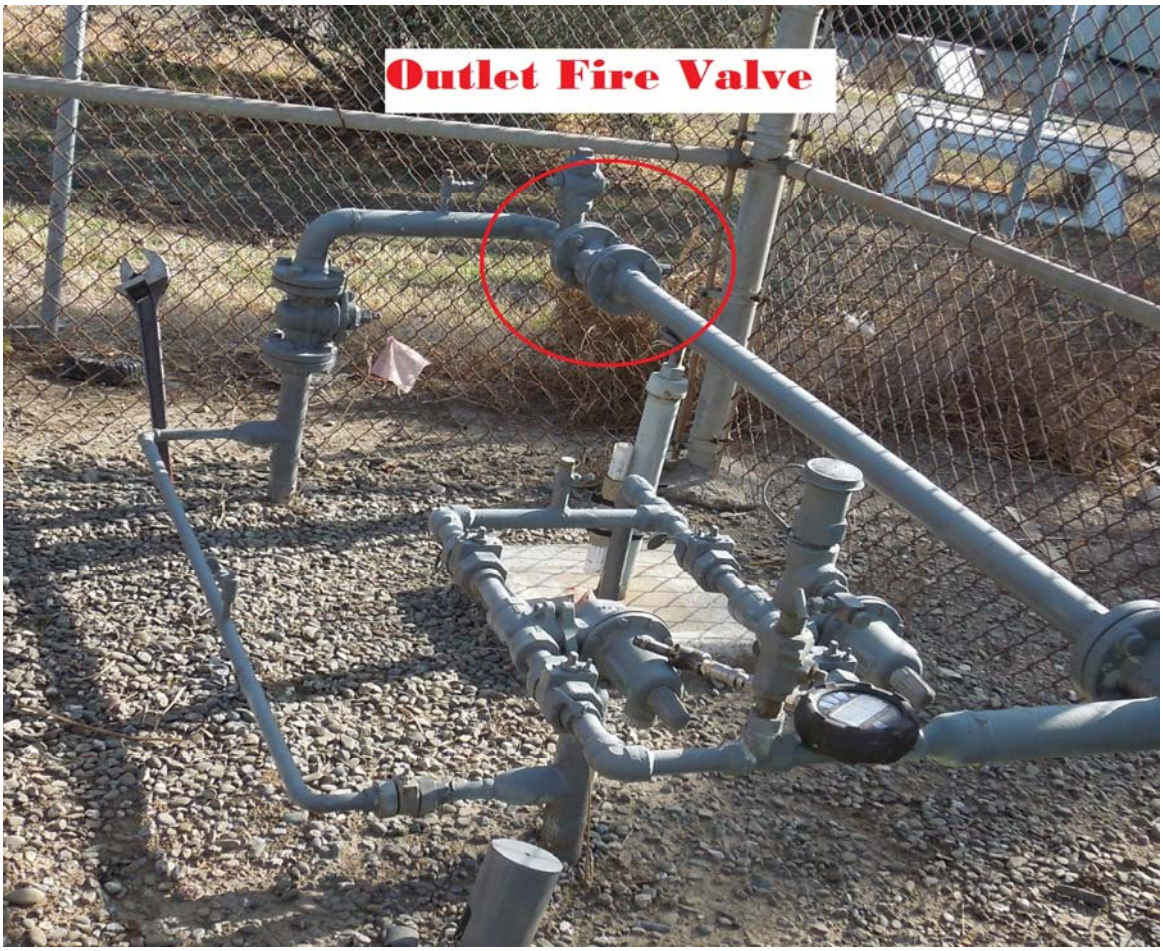

Photo 2- Location of the exit fire valve located at the second stage

XI- Title 49, CFR, §192.805 Qualification program.

(b) Ensure through evaluation that individuals performing covered tasks are qualified;

XI-1 SED reviewed Division's Odor Intensity Reports and found that Roger Morshead, Division supervisor, took multiple odor intensity readings in 2009 and 2010; however, Mr. Morshead was not qualified to perform the covered task, OQ19-02 to conduct sampling of odorant.

PG&E must ensure that only qualified personnel perform covered tasks. Please inform SED of the P&M measures taken to address this deficiency.

XI-2 SED reviewed operator qualification (OQ) records for Jerry Anderson, pilot, who conducted aerial patrols for PG&E's transmission lines and noted that PG&E accepted Niska Gas Storage's evaluations documented by Niska's February 13, 2007 letter for Mr. Anderson to be a qualified person to perform the patrolling covered task.

SED reviewed Niska Gas Storage OQ records which indicated that Mr. Anderson was qualified on 2/13/2007 and the qualification was valid for three years. Mr. Anderson obtained the subsequent qualification from PG&E on 4/5/2010. Since the first qualification was valid for 3 years, there was a gap

between February and April 2010. PG&E did not identify any OQ records showing that Mr. Anderson was qualified for aerial patrols between February 2010 and April 2010.

As a result of SED's transmission pipeline patrol records, SED found that Mr. Anderson conducted patrols in Vacaville for L-108, L-148, L-197 A&B, and L-197C on March 2, 2010 when his qualification for pipeline patrol expired.

Please inform SED of the P&M measures taken to address this deficiency.

Field Observations, Concerns, and Recommendations

I- Title 49 CFR §192.745(b) states:
"Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve."

SED reviewed valve maintenance records and noted that Division found multiple valves as hard-to-turn during the annual maintenance.

For example, Division crews identified Valve K-15 on transmission line L-197 to be inoperable since 6/11/2010, requiring 2 men to operate the valve. The valve has not been remediated as of this audit. If Division found this valve inoperable, it must take remedial action timely manner. If the problem is only hard to turn, then the work ticket must clarify the deficiency and Division must take remedial action accordingly.

SED noted that the use of the terms "inoperable" and "hard-to-turn" can be subjective depending on the maintenance personnel. The difference between an inoperable valve and the limitations of forced used to exercise a valve must be clearly defined. SED also noted that PG&E must differentiate inoperable valves from hard to turn valves and also must provide guidance to its employees on how to create and take corrective action accordingly.

PG&E should consider creating a system-wide guidance regarding the use of these terms and the remedial actions necessary for each type of deficiency.

II- SED reviewed District Regulator Station Maintenance records for District Station No: LOHP-102 located at UPRR & Davis Road in Lodi which was installed in October 2012 and noted that Division did not record pressure set points of regulator and monitor on the data sheet after the station was installed. After SED identified this issue, Division conducted regular maintenance of the station on 12/9/13 and recorded all pressure set points along with other essential information on the data sheet for the first time after it was installed.

SED recommends that PG&E record the actual set points for pressure limiting devices and other information about brand new regulator stations to show what is actually set and recorded in the field after installation of regulator stations in order to verify the proper set points for pressure limiting devices to ensure the regulator and monitor devices work properly for overpressure protection and can lock up when necessary.

III- PG&E reported a Safety Related Condition (SRC) report to the CPUC on 1/9/13 when the distribution pressure reached a peak of 81 psig with an MAOP of 60 psig in a small distribution system fed by pressure regulating station LO-HP-97, at the intersection of Turner Road and WID Canal in Lodi.

As a result of PG&E's investigation of the condition that was discovered on 1/2/13 and PG&E took remedial actions by removing the pressure regulating station from service and purging gas to bring the pressure below 60 psig. After PG&E had conducted an internal inspection of the regulator station and determined the cause of the problem was water in both regulators and their pilots, it drained the remaining water from the upstream pipeline and returned the regulating station to normal service. As part of the corrective actions, PG&E also conducted a special leak survey which included one service and a portion of the main line on 1/3/13 and did not find any leaks.

During the audit, SED reviewed the details of the gas leak survey with maps and found that the regulating station LO-HP-97 actually serves a total of three customers.

Division conducted a gas leak survey of all three customers on 12/4/13 after SED asked Division to conduct the gas leak survey for all services which are directly served by this regulating station.

SED noted that Division must ensure that special leak surveys include services that are located in the close proximity and may be affected by over-pressurization events.

Please inform SED of the P&M measures taken to address this deficiency.

IV- SED reviewed Division's Form As and noted that Division personnel marked "Internal Corrosion" as the leak cause for leaks 09-00023-1, 06-01133, 93-11-06102-1, 0201112; however, SED believes that the actual leak cause should have been "External Corrosion"; therefore, Division personnel incorrectly recorded the leak causes on the forms.

SED noted that Division personnel may require additional training on how to identify leak causes and fill out PG&E forms properly.

Please inform SED of the P&M measures taken to address this deficiency.

V- SED reviewed gas leak repair records that Division personnel performed and noted that one of the approved repair methods is "Soap tape" which is performed by applying binding tape on cast iron and steel pipe. SED reviewed the OQ codes for this covered task but did not find it under any repair method categories under the OQ program. PG&E must list this covered task under metallic pipe repair methods and train its personnel for this covered task accordingly.

VI- Corrosion Control of Gas Facilities-O-16, Section 4: Impressed Current (Rectified) Cathodic Protection Systems, Part E. Rectifier Monitoring and Maintenance states in part:

"A "Rectifier Test and Site Evaluation" form (Attachment A of Numbered Document O-11.1, Form FO-11.1-A) shall be completed to ensure that rectifiers are functioning correctly and that there are no safety violations. Forms must be filed in the CPA file or equivalent, each calendar year and retained for 5 years, with intervals not to exceed the day of the previous read on the 15th month."

SED reviewed Division's Pole Mount/Pedestal Mount Rectifier Test and Site Evaluation Forms and noted that, Division did not record the ground resistance for the following rectifiers due to missing ground rods:

- CPA #: 3005-18b, Rectifier # 16-294, located at California S/O 9th St., Stockton

  Division did not record the ground resistance on 12/17/12 and it created work order to replace the stolen ground wire on 11/20/13.

  Please inform SED of the corrective action taken for this deficiency.

- CPA #: 2806-1, Rectifier # 16-59, located at Cameron Rd. N/O Thornton Rd., Thornton, Division identified the broken ground wire in 12/12/12.

  Division created a work order to replace the stolen ground rod and it also requested to install a new deep well anode. Division informed SED that it installed the new deep well anode on 2/26/14 and recorded the ground resistance 9 ohms. Rectifier readings were recorded as current 0.5 amps, voltage 3 volts. P/S reading was -1092 mVolts at a location in the same CPA after the installation of the deep well anode.

VII- SED reviewed Division's rectifier maintenance records and noted that Division found several rectifiers with the ground resistance readings higher than 25 ohms. O-16 standards requires that if the ground resistance is above 25 ohms, 2nd ground rod should be installed 6' apart.

Division informed SED that it has created work tickets for the corrective actions for the following rectifiers:

- CPA #: L-108D, Rectifier # 16-52, located at S/E Hazelton & Stanislaus, Stockton. High resistance was recorded on 10/2/2012 and 8/19/2013. Division created a work ticket to install a second ground rod on 12/18/13.

- CPA #: 2870-8, Rectifier # 16-445, located at 707 Golden St., Lodi. Division recorded a high ground resistance read on 12/13/12 and created a work ticket to install a second ground rod on 11/20/13.

- CPA #: 3117-5, Rectifier # 16-446, located at 457 Austin Road, Manteca. Division recorded a high ground resistance on 12/18/12. Division created a work ticket to install a second ground rod on 11/20/13.

- CPA #: F-01, Rectifier # 16-65, located at 5581 W. Ripon Road, Ripon. Division recorded a high ground resistance on 2/20/13. Division created a work ticket to install a second ground rod on 12/20/13.

Please inform SED when the corrective actions are completed for the deficiencies identified above.

VIII- On 12/6/13, SED and PG&E visited District Regulator Station, MAHP-02, located Yosemite and Pacific Avenues in Manteca and observed that the regulator did not lock up. After Division personnel replaced the stem in pilot, it achieved lock up at 118 psig. SED also noted that there was a leak discovered on pilot filter which Division personnel repaired on site.

IX- 4. According to PG&E's Utility Procedure: TD-4110P-09, Publication Date: 01/06/2012 Rev: 2, states in part:

"6.3 Downgrading Grade 2+ Leaks

When the Grade 2+ status no longer applies to a leak, downgrade it to the appropriate grade as defined in this section. ***Note the reasoning behind the downgrade on the leak record.***

7.3 Downgrading Grade 2 Leaks
When Grade 2 status no longer applies to a leak, downgrade the leak to the appropriate classification as defined in this section. ***Note the reasoning behind the downgrade on the leak record****..."* [Emphasis added]

SED reviewed Division Form As and noted that Division did not record the reasoning behind the downgrade for the leaks shown in Table 12 when the Division personnel downgraded them from Grade 2+ to Grade 3, and from Grade 2 to Grade 3 leaks.

Table 12- Leaks that were downgraded without any reason

Leak Number	Initial Leak Grading	Subsequent Leak Grading	Date of downgrade
93-12-77084-1	2+	3	5/23/12
93-09-94157-1	2	3	11/3/10
93-12-02127-1	2	3	10/18/12
93-11-02275-1	2	3	8/27/12
93-12-02221-1	2	3	12/13/12

Please inform SED of the P&M measures taken to address this deficiency.