

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 12, 2015

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

GI-2015-07-PGE08-02A

SUBJECT: General Order 112 Gas Inspection of PG&E's San Jose Division

Dear Mr. Singh:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112 inspection of Pacific Gas & Electric Company's (PG&E) San Jose Division (Division) from July 13 through 17, 2015.¹ The inspection included a review of the Division's Corrosion Control records for the period of 2013 through 2014, and a field inspection of a representative sample of the Division's facilities. SED staff also reviewed the Division's operator qualification records, which included a field observation of randomly selected individuals performing covered tasks.

SED's findings are noted in the Summary of Inspection Findings (Summary) which is enclosed with this letter. The Summary reflects only those particular records and pipeline facilities that SED inspected during the inspection.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by PG&E to address the violations and observations noted in the Summary. Pursuant to Commission Resolution ALJ-274, SED staff has the authority to issue a citation for each violation found during the inspection.

If you have any questions, please contact Alula Gebremedhin at (415) 703-1816 or by email at ag5@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Kenneth A. Bruno".

Kenneth Bruno
Program Manager—Gas Safety and Reliability Branch
Safety and Enforcement Division

Enclosure: Summary of Inspection Findings
cc: Larry Berg, PG&E Gas Regulatory Support
Larry Deniston, PG&E Gas Regulatory Support
Mike Falk, PG&E

¹ General Order 112-F was adopted by the Commission on June 25, 2015 via Decision 15-06-044.

SUMMARY OF INSPECTION FINDINGS

I. Probable Violations

A. PG&E's Internal Inspection Findings

Prior to the start of the inspection, PG&E provided SED its findings from the internal review it conducted of San Jose Division. Some of PG&E's internal review findings are violations of PG&E's standards, and are therefore violations of Title 49 Code of Federal Regulations (CFR), §192.605(a). SED is aware that PG&E corrected some of its findings prior to SED's inspection. Table 1 lists all of the violations from PG&E's internal review.

Please provide SED an update on the items that were still pending corrective actions as of July 17, 2015.

Table 1: PG&E's Internal Review

Code Section	# of Non-Compliance	Finding Description	Corrective Action	Remediation Date
192.605(a) Corrosion Control	4	Corrosion monitoring conducted outside of the acceptable time limits	Re-create maintenance notification and add to plan	7/6/2015
	51	No action plan created after 30 days of discovering out of compliance	Re-create maintenance notification and add to plan	7/6/2015
	14	Casing inspections showed contact indication and/or no reads taken	Corrosion mechanic to investigate and create work tickets	7/6/2015
	22	Casing not monitored annually or missed maintenance	Scheduled casing to be monitored annually and documented	7/6/2015
	1	10%ers annual reads less than the 10% required. 2013: 7.65% 2014: 5.2%	Worked with asset strategist to clean the source data (remove or add) on monthly basis	Pending
192.805 (OQ)	1	Resurvey conducted unqualified employee	Supervisor Check OQ for all employees, and schedule needed OQ.	7/6/2015
192.605(a)	5	Multi-meter not checked (calibrated) annually	Scheduled for annual check	7/6/2015

B. SED Findings

1. Title 49 CFR §192.605(a) states in part:

“Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response.”

1.1. PG&E’s Gas Standard O-16, Section 6(A), Cathodic Protection Restoration for Distribution and Local Transmission, states in part:

“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 reviewed the Division’s corrosion records and found that the Division did not develop a “CPA Follow-up Action Plan” for the following five monitoring locations, listed in Table 2 below, within 30 calendar days from the date the CPA was found to have below an adequate level of protection. Therefore, the Division is in violation of 192.605(a).

Please provide a status update for the CP areas with inadequate protection listed below.

Table 2: Cathodic Protection Areas (CPA) having inadequate Cathodic Protection with late, incomplete, or missing “CPA Follow-up Action Plans”

CP Area	Type	Date of inadequate level of Cathodic Protection	Date of Cathodic Protection restoration	Action Plan Start
3353-13	Bi-monthly	11/2013	01/2015	Action plan created but no activity recorded b/n 03/2014 to 01/2015
3541-15 (Transmission)	Bi-monthly	01/2013	07/2014	04/2014
3414-29 (Transmission)	Bi-monthly	06/2014	Still down as confirmed on SED field visit	No Action Plan
3475-12	Bi-monthly	02/2014	05/2014	No Action Plan
3475-04 (Galvanic)	Bi-monthly	03/2013	08/2014	05/2013

1.2. PG&E’s GS&S A-93.1 Revision #07 states in part:

“Inserting Plastic Pipe Into a Casing, Bore Hole, or Bridge Structure

5. The following general requirements apply when plastic pipe is installed in any casing...

E.(3) The installation is mapped according to the provisions in UO Standard D-S0457, which require that both the casing size and casing material be identified...”

PG&E's Bulletin Number 05-01 dated 4/10/2013 also states in part:

“Gas Map Correction documents:

Any of the following documents may be used to report map corrections

- *Map Correction Form*
- *“A” or “A1” Form*

Mapping Process

2.0 The assigned mapper will:

A) Update the record(s) within 60 days of receipt of the map correction document(s)...”

SED's review of recent repair work (A-Forms) shows that the repair work of inserted plastic inside a steel casing was not reflected on the requested record printout from GD GIS as of 7/13/2015 for the following two addresses:

- 559 Bamboo Court San Jose – Repair work that inserted ¾-inch steel service with ½-inch PE completed on 10/4/2013
- 986 White Drive San Jose – Repair work that inserted ¾-inch steel service with ½-inch PE completed on 7/15/2014

The Division is in violation of 49 CFR 192.605(a) for failing to update its records to reflect the repair work completed in the above addresses within the timeframe required by PG&E Bulletin Number 05-01.

2. Title 49 CFR §192.465(d) states in part:

“Each operator shall take prompt remedial action to correct any deficiencies indicated by the [external corrosion control] monitoring.”

The May 19, 1989, Federal Pipeline and Hazardous Materials Safety Administration's (PHMSA) Inspection Guideline and Interpretation #PI-89-006 for 192.465(d) states that, as a rule of thumb, PHMSA interprets “prompt” as having the “correction completed by the time of the next scheduled monitoring”. For annual monitoring, the correction should be completed within 15 months.

SED found that the Division exceeded 15 months to remediate conditions at the following three CP stations. SED recognizes that in some instances, factors outside of the operator's control may be the cause of the delay for restoring deficient CP areas (e.g. permitting, environmental, etc.). However, SED observed the cause of the delays for these CP areas to be within the control of the Division. Therefore, the Division is in violation of 192.465(d).

- CP 3474-14: The area was down from August 2011 until the end of 2014 (except on 09/2013). The area was found down during SED's field visit on 07/15/2015
- CP 3476-06: The area was down from June of 2011 to December 2013. Even though an action plan was created on time, it took more than two years to restore the CP area
- CP 3541-01-05 A-B: The area was down from July 2013 to November 2014.

3. 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:

If the pipeline is located: Onshore

Then the frequency of inspection is: At least once every 3 calendar years, but with intervals not exceeding 39 months”

SED requested the Division to verify that the atmospheric corrosion inspections of selected plat maps were completed within the required frequency after they were surveyed in 2011. In response to SED’s request, the Division compiled and analyzed leak survey records and AC Inspection Program records for the entire Division. The results of the analysis found that the Division did not meet the required atmospheric corrosion inspection frequency for the following four plat maps, listed in Table 3 below. Therefore, the Division is in violation of 192.481(a).

According to PG&E, these four plat maps are scheduled to be inspected no later than 9/9/2015. Please provide an update on the scheduled inspections.

Table 3: Plat Maps not Meeting the Required Inspection Frequency

Plat Map	Last Inspection Date	Number of Inspected Meters in the Last Inspection
3411-C7	5/31/2011	1018
3412-C8	6/2/2011	650
3412-J8	6/3/2011	376
3414-D6	6/9/2011	218

II. Areas of Concern / Observations / Recommendations

1. Title 49 CFR §192.467(a) states:

“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.”

In addition, page 8 of PG&E’s standard O-16, “Corrosion Control of Gas Facilities,” states in part:

“G. Casing Monitoring and Maintenance

...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.”

SED reviewed the Division’s casing monitoring records and found the following five locations in 2013 and ten locations in 2014, shown in Table 4 below, with casing-to-soil potential readings that, according to PG&E’s standard, indicate the presence of pipe-to-casing electrical contacts.

Table 4: Casing Monitoring Records with contact indications

Casing BarID	Value One: Pipe Potential (mV)/ Contact Type	Value Two: Casing Potential (mV)	Inspection Year
SJR307010; 3414-E3	-567	-608	2014
SJR307040; 3414-E3	-578	-530	2014
SJR307060; 3414-F3	-554	-230	2014
SJR307080; 3413-G8	-454	-421	2014
SJR307090; 3413-H6	-587	-273	2014
SJR307100; 3414-D6	-643	-534	2014
SJR157050; 3413-C3	-789	-502	2014
SJR157060; 3413-C3	-625	-518	2014
SJR077010; 3475-G8	Electrolytic Contact		2014
SJR127010; 3414-C6	Electrolytic Contact		2014
SJR307050; 3414-F3	Metallic Contact		2013
SJR267020; 3352-C1	Metallic Contact		2013
SJR137070; 3414-F3	Electrolytic Contact		2013
SJR137050; 3413-H6	Electrolytic Contact		2013
SJR237030; 3414-C2	-566	-661	2013

Please indicate the corrective actions taken to address these conditions, and any testing done to determine the pipeline condition after the discovery of the contacts.

In addition to the above, maintenance records for the casing at L-100 MP 144 showed an indication of electrical contact since 1999. In response to SED’s request regarding the remediation plan, PG&E responded, *“Currently there is no plan to remove this casing, we*

have established a non-corrosive environment in the annular space through the project to gel fill this casing in 1999. This was not previously identified as a contacted casing, and has now been added to the contacted casing list on July 15th, 2015 and will continue to monitor with increased frequency due to the short and the casing being gelled.”

Please provide PG&E’s procedure which addresses the increased monitoring frequency of such a casing.

- The 2014 annual rectifier evaluation maintenance record for the rectifiers listed in Table 5 showed the DC voltage output exceeded the manufacturer DC voltage rating of the equipment.

Universal CP rectifiers’ manual states in part:

“Do not exceed AC or DC ratings of the rectifiers. Operating the rectifier at higher than the nameplate rating will result in eventual failure of the rectifier.”

Table 5: Rectifier DC Volts readings and ratings

Rectifier	Inspection Date	DC Volts rating (V)	DC Volts recorded (V)
372	12/11/2014	20	24.5
669	11/13/2014	20	23.4
667	11/14/2014	40	46.5

Please provide an update on corrective measures to address this concern.

- The 2013 atmospheric corrosion monitoring record for the following three exposed spans noted some defects as shown in Table 6 below. SED’s field visit on 07/16/2015 also confirmed the listed defects.

Table 6: Atmospheric Corrosion Inspections of Exposed Spans

Span Location	ID No	Inspection Date	PG&E’s Inspection Notes
Sylvia Ave & Penetincia Creek	8	07/26/2013	Needs Re-Painting
Berryessa Rd & Coyote Creek	13	07/29/2013	Wrap on pipe unravelling
Benton St & Saratoga Creek	28	07/26/2013	Pipe Wrap Peeling, Re-Wrap Needed

Please provide an update on corrective measures to address these defects.

- During SED’s field visit, the Division recorded the following low pipe-to-soil readings, as listed below in Table 7.

Table 7: Low pipe-to-soil reads

Inspection Cycle	CPA	Address	City/Area	Reading (mV)
Bi-Monthly	3414-29	Tully Rd & Montrey St	San Jose	-448
Bi-Monthly	3476-04/18	201 Bendorf Dr	San Jose	-604
Bi Monthly	3476-05	5703 Snell Rd	San Jose	-741

Bi Monthly	3475-15	4700 Sherbourne Dr	San Jose	-839
Bi Monthly	3474-13	1832 Andrews Ave	San Jose	-781
Bi Monthly	3474-14	115 Anne Way	Los Gatos	-733
Bi Monthly	3475-03	6698 Mt. Forest Dr	San Jose	-632
Bi Monthly	3475-04	6090 Guadalupe Mines Dr	San Jose	-583
10%er	3350-16-10	2941 Corvin Dr	Santa Clara	-785
10%er	3351-06-10	2601 Cortez Dr, Bldg 5	Santa Clara	-675

Please provide an update on corrective measure to address the out of compliance pipe-to-soil reads.

5. SED requested the Division to provide a remediation update for meter sets from 2014 AC meter inspections that were categorized as Grades 5 & 6. In a discussion during the audit, PG&E explained that Grades 5 & 6 categories are expected to be remediated at a higher priority. In response to SED's request, PG&E provided a list of meter sets, listed in Table 8 below, which noted "*PG&E plans to remediate via construction crew before next inspection cycle*".

Please provide PG&E's procedure, which addresses the categorization criteria and the corresponding remediation action timeframe.

Table 8: AC inspections for Meter Sets categorized Grades 5 & 6

SP_ID	ADDRESS	CITY	COMMENT
8644110810	3121 CHILLUM CT	SAN JOSE	PG&E plans to remediate via construction crew before next inspection cycle
8644099310	3162 CHILLUM CT	SAN JOSE	"
8535271010	1498 DOUGLAS ST	SAN JOSE	"
8633941310	3125 PERIVALE CT	SAN JOSE	"
8611271810	1198 QUAIL CREEK CIR	SAN JOSE	"
8682517010	751 S 2ND ST APT 8	SAN JOSE	"
8221189310	3557 SAN FELIPE RD APT 1	SAN JOSE	"
7875496710	5696 SAN LORENZO DR	SAN JOSE	"
8539587310	3209 TERRA COTTA DR	SAN JOSE	"
8539592510	3249 TERRA COTTA DR	SAN JOSE	"
8529328110	3211 URZI DR	SAN JOSE	"
8644216110	3111 WHITBY CT	SAN JOSE	"
8897374310	652 HUDSON DR	SANTA CLARA	"
8240900110	2867 KEARNEY AVE	SANTA CLARA	"
8004465510	2147 PASETTA DR	SANTA CLARA	"
7994089510	2237 PASETTA DR APT 3	SANTA CLARA	"
7988734110	4701 PATRICK HENRY DR STE 2101	SANTA CLARA	"
8306100210	1400 RICHARD AVE	SANTA CLARA	"
8910598610	3765 TAMARACK LN APT 75	SANTA CLARA	"
8879610410	996 HELEN AVE	SUNNYVALE	"