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

June 18, 2018

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

GI-2018-04-PGE-77

SUBJECT: General Order 112-F Gas Inspection of PG&E's Central Area

Dear Mr. Singh:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-F inspection of Pacific Gas & Electric Company's (PG&E) Central Area (Stockton Division, Yosemite Division, Rio Vista District, Tracy District, and Bethany Compressor Station) on April 2 – 13, 2018 and April 30 – May 11, 2018. The inspection included a review of Central Area's records for the period of 2015 through 2017, as well as a representative field sample of the Central Area's facilities. SED staff also reviewed the Central Area's operator qualification records, which included 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.

If you have any questions, please contact Wai Yin (Franky) Chan at (415) 703-2482 or by email at Wai-Yin.Chan@cpuc.ca.gov.

Sincerely,

Kenneth A. Bruno

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

Enclosure: Summary of Inspection Findings

cc: Mike Bradley, PG&E Compliance
Susie Richmond, PG&E Gas Regulatory Compliance
Kelly Dolcini, SED

SUMMARY OF INSPECTION FINDINGS

I. Probable Violations

A. PG&E's Internal Audit Findings

Prior to the start of the audit, PG&E provided SED its findings from the internal review it conducted of Central Area. 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), §192.13(c) or §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.

Table 1: PG&E's Internal Review

Code Section	# of Non-Compliance	Finding Description	Corrective Action	Remediation Date
192.805	1	A PG&E employee from Stockton Division performed soap test on a meter without operator qualification in 2017.	The employee obtained his operator qualification on 12/14/2017. PG&E's qualify management team observed the employee's work and did not find any deficiencies.	12/14/2017
192.605(a)	2	Two locate and mark equipment in Stockton Division missed calibration interval of 45 days in 2017.	Instruments were calibrated and no issues were identified. All locators meet monthly in the yard and verify calibration.	7/18/2017
192.805	3	A PG&E employee from Stockton Division performed three leak repairs without operator qualification in 2017.	The pipes were dug up and inspected by qualified personnel.	12/4/2017
192.481(a)	3	Three (two in Yosemite Division and one in Diablo Division) newly discovered exposed spans were not inspected for atmospheric corrosion in 2018.	The spans were added to the maintenance plan and will be inspected for atmospheric corrosion.	Pending
192.605(a)	12	12 Customer Meter Sets Regulators (8 in Eastbay Division and 4 in Yosemite Division) were not maintained in 2017.	Notifications were created to maintain the Meter Sets.	Pending
192.605(a)	2	Two paint jobs (one in Mission Division and one in Yosemite Division) for atmospheric corrosion mitigation were late.	The paint job for Mission Division was completed on 4/19/2017. Yosemite Division is scheduled to be completed by end of April 2018.	Pending
192.739(a)	1	A standby regulator (not in use) in Yosemite Division was not maintained annually since 2012.	The regulator is scheduled to be removed.	Pending

Table 2: PG&E's Internal Review (Continue)

Code Section	# of Non-Compliance	Finding Description	Corrective Action	Remediation Date
192.605(a)	1	The Two-Point Chart Accuracy Check was not performed at the start of the chart run for a regulator station in Yosemite Division in 2017.	A Gas Control Tech performed a Two-Point verification and set a chart to ensure station reliability.	12/1/2017
192.745(a)	4	4 valves in Yosemite Division missed their 2016 maintenances.	The valves were maintained and added to the maintenance plan.	10/27/2017
192.465(b)	1	A rectifier in Yosemite Division missed a bi-monthly maintenance in 2017.	The rectifier was maintained and its maintenance plan was corrected.	4/18/2017
192.805	1	A PG&E employee from Yosemite Division performed one leak repair without operator qualification for pipe inspection in 2017.	The repair was re-inspected by qualified personnel.	10/31/2017
192.805	1	A PG&E employee from Yosemite Division performed one leak repair without operator qualification for pipe replacement in 2017.	The section of pipe was replaced by qualified personnel.	11/2/2017
192.605(a)	1	One paint job in Yosemite Division for atmospheric corrosion prevention was late.	The paint job was completed on 9/13/2017.	9/13/2017
192.739(a)	1	A regulator station in Yosemite Division was not maintained annually since 2005. The capacity of its relief device was not reviewed since 2005.	The station was inspected on 4/28/2017. A work order was created to replace this High-Pressure Regulator (HPR). The capacity review will be performed by 4/20/2018.	Pending
192.743(a)	1			
192.605(a)	5	5 Meter Sets Regulators in Yosemite Division were not maintained in 2015.	All Meter Sets Regulator have been added to a maintenance plan. Three Meter Sets were maintained on 12/8/2016. One was maintained on 6/10/2016. One is scheduled for 10/1/2018.	Pending
192.739(a)	1	A regulator station and its valve in Yosemite Division were not maintained in 2014.	The station was maintained on 6/8/2015.	6/8/2015
192.745(a)	1			

Table 3: PG&E's Internal Review (Continue)

Code Section	# of Non-Compliance	Finding Description	Corrective Action	Remediation Date
192.605(a)	26	A number of assets in Tracy District's Ripon Modesto Meter Station missed their station, valve, and panel switch maintenances in 2016 and 2017.	These assets were maintained by 7/6/2017.	7/6/2017
192.605(a)	20	A number of assets in Tracy District's Tracy Station missed their chromatograph, flash suit, gas detection, and station maintenances in 2016, 2017, and 2018.	These assets were maintained by 1/6/2018.	1/6/2018
192.605(a)	8	A number of assets in Tracy District's Vernalis Reg Station missed their control valve and station maintenances in 2017.	These assets were maintained by 1/20/2018.	1/20/2018
192.605(a)	3	Station maintenance for Tracy District's Vernalis PLS was missed in 2016 and 2017.	The station was maintained by 8/3/2017.	8/3/2017
192.605(a)	8	A number of assets in Tracy District's Oak Flat PLS missed their control valve, valve, and station maintenances in 2016 and 2017.	These assets were maintained by 5/1/2017.	5/1/2017
192.745(a)	4	2 valves in Tracy District's Livermore Junction PLS missed their 2015 and 2016 maintenances.	The valves were maintained by 4/1/2016.	4/1/2016
192.736(c)	2	Gas Detector maintenance for Tracy District's Bixler was missed in 2016 and 2017.	The Gas Detector maintenance was completed by 8/23/2017.	8/23/2017
192.605(a)	4	A number of assets in Tracy District's Bethany Compressor Station missed their Gas Detector, Pressure Transmitter, and fire extinguisher maintenances in 2016 and 2017.	These assets were maintained by 9/13/2017.	9/13/2017
192.605(a)	8	A number of assets in Tracy District's Ripon Cogen Meter Lot missed their control valve and station maintenances in 2017.	These assets were maintained by 9/18/2017.	9/18/2017

Table 4: PG&E's Internal Review (Continue)

Code Section	# of Non-Compliance	Finding Description	Corrective Action	Remediation Date
192.605(a)	8	A number of valves in Tracy District's Bethany Compressor Station missed their Power-Actuator Valve maintenances in 2016 and 2017.	All valves were maintained in June 2017.	8/1/2017
192.723(a)	1	A 5-year leak survey for Mission Division was missed in 2017.	Leak survey was completed on 2/8/2018.	2/8/2018
192.805	2	A PG&E employee in Diablo Division performed soap and pressure tests with lapsed operator qualification (OQ) in 2015, 2016, and 2017.	PG&E's Distribution Integrity Management (DIMP) has performed a review of the instances and employees OQ history and does not believe this raises an integrity issue. One employee had a lapsed qualification (now tested and passed) and the other employee missed one test question (now retested and passed).	2/28/2018.
192.605(a)	34	The valve maintenance of a number of non-emergency/reliability valves in Tracy District were not documented on Gas Valve Maintenance Record Form as required by PG&E's procedure in 2017.	All information on the Gas Valve Maintenance Record Form (Service History Form) is captured. As maintenance is queued, paper valve records were created for district reliability valves as required by procedure. The Gas operations Data Cleanse Project will also ensure a consistent compliance documentation filling system across divisions and districts that promote the responsible management of the information lifecycle to further PG&E's immediate and future regulatory demands.	8/24/2017
192.605(a)	10	The valve maintenance of a number of non-emergency/reliability valves in Rio Vista District were not documented on Gas Valve Maintenance Record Form as required by PG&E's procedure in 2017.		12/12/2017
192.605(a)	8	A number of instrument calibration verifications in Tracy District did not meet the 45-day interval in 2017.	All instruments were calibrated by 10/30/2017.	10/30/2017
192.745(a)	2	Two valves in Rio Vista District were not maintained in 2017.	The valves were maintained by 3/22/2018.	3/22/2018

Table 5: PG&E's Internal Review (Continue)

Code Section	# of Non-Compliance	Finding Description	Corrective Action	Remediation Date
192.605(a)	16	A number of instrument calibration verifications in Rio Vista District did not meet the 45-day interval in 2015, 2016, and 2017.	All instruments were calibrated by 11/9/2017.	11/9/2017
192.605(a)	1	A riser valve in Rio Vista District was not lubricated in 2017.	The valve was lubricated on 1/5/2018.	1/5/2018
192.805	13	A PG&E employee from Stockton Division performed leak repairs without operator qualification for pipe inspection in 2017.	12 out of 13 leak repairs were re-inspected by qualified personnel. A corrective was created to track the remaining job.	Pending
192.605(a)	2	Two actuators at Rio Vista District's Las Vinas Station do not have legacy date information for the maintenance of changing the hydraulic fluid (scheduled to be done every 10 years).	The actuators have been replaced and maintenance was completed by 2/26/2016.	2/26/2016
192.605(a)	1	A drip in Rio Vista District missed its two month frequency maintenance by one day in 2017.	Maintenance was completed on 7/20/2017.	7/20/2017
192.605(a)	15	A number of assets in Rio Vista District missed their chromatograph, odorizer, gas sampler, and tank maintenance in 2015, 2016, and 2017.	These assets were maintained by 6/26/2017.	6/26/2017
192.605(a)	3	Two assets in Rio Vista District's Eight Mile Rd PLS and Las Vinas Station missed their control valve maintenances in 2016.	These assets were maintained by 2/9/2016.	2/9/2016

Please provide SED a status update on the internal findings that were not remediated as of May 11, 2018 or shown as pending in Table 1.

B. SED Findings

1. Title 49 CFR §192.739(a) states:
"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 mechanical condition;
(2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;
(3) Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a); and
(4) Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation."

SED reviewed Stockton Division's regulator station maintenance records and found that the following two relief valves were not maintained at least once each calendar year.

- DSS Primary Station's relief valve was not maintained in 2016
- Granite Construction Primary Station's relief valve was not maintained in 2016 and 2017

These two relief valves were not designed for overpressure protection (OPP) and their primary function is to signal the surrounding of any potential overpressure event by creating a noise. Although these relief valves were not designed and installed for protection against accidental over pressuring as required by §192.195, a PHMSA Interpretation (10/4/1976) suggested that all relief devices are subject to maintenance requirements of §§192.739 and 192.743. As a result, GSRB staff believes these reliefs should be maintained annually to ensure their proper functioning (creating a noise when an overpressure occurs).

2. Title 49 CFR §192.739(a) states:
"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 mechanical condition;
(2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;
(3) Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a); and
(4) Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation."

During the field inspection of Yosemite Division's regulator station at Olam West in Modesto, SED observed a smaller high-pressure regulator (HPR) station, identified as DR-RC-15 near the Olam West station. SED requested PG&E determine the party who maintained DR-RC-15. Yosemite Division was found to be responsible for the maintenance, but the records show that the HPR had not been maintained since 2005. PG&E informed SED that one of their gas control technicians would be maintaining DR-RC-15 immediately, on 05/11/2018. According to PG&E, this station feeds a single customer and was initially classified as a farm tap regulator set. However, it was later

determined that the downstream piping should be considered as a distribution main. The station should have been classified as a district regulator station and must be maintained at least once each calendar year but not to exceed 15 months. Please provide SED the 5/11/2018 maintenance record for DR-RC-15.

3. Title 49 CFR §192.745(a) states:
"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."

SED reviewed Yosemite Division's valve maintenance records and found that Yosemite Division did not perform the required valve maintenance in 2015 for valve V-1 located at 15th St & M in Merced.

4. 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."

Utility Procedure TD-4186S, Section 3.2, Routine Maintenance, states in part:
"Routine maintenance activities must be performed to minimize the potential for corrosive conditions within the pipeline system. These activities must be performed in addition to corrosion mitigation activities and in locations where active corrosion has not been identified.
1. Drips
Drip maintenance is vital to maintaining the integrity of drips. Routine drip blowing must be performed to remove liquids that have accumulated in drips.
a. Frequency.
- *Drips must be blown annually, at a minimum.*
  - *IF 500 ml or more of liquid is present,*
    THEN drips must be blown bi-monthly, not to exceed 2-1/2 months to the date, unless indicated otherwise by corrosion services.
  - *IF a drip is found dry (less than 500 ml of liquid) for 6 consecutive inspections,*
    THEN the drip can be blown once each calendar year, not to exceed 15 month intervals.
- *A damaged or malfunctioning drip tube must be repaired or removed within 3 years, not to exceed 39 months to the date unless exempted by corrosion services.*

b. Sampling.
Samples must be collected if liquids are present when drips are blown. Samples must be collected, tested, and results interpreted according to Section 1.1.2 and Gas Utility Procedure TD-4186P-100, 'Internal Corrosion - Liquid and Solid Sampling.'

c. Documentation.
Drip blowing information must be recorded on Gas Utility Form TD-4186P-100-F01,'Liquid Sampling Log' A copy of each record must be sent to corrosion services annually."

SED reviewed Rio Vista District's liquid sampling log for the Line 131#2 Drip at State Park (in box) and found that Rio Vista District documented the 2018 drip blowing

information on a pilot form (TD-4186P-600-F01) instead of the Gas Utility Form TD-4186P-100-F01 as required in PG&E's Utility Procedure TD-4186S. According to PG&E, the supervisor had been notified and future documentation of liquids sampling will use TD-4186P-100-F01.

In addition, Rio Vista District did not conduct the field tests (temperature measurement, presence of water test, etc.) and laboratory analysis as required in PG&E's Utility Procedure TD-4186S when adequate liquid samples were collected at the drip in 2018. According to PG&E, its corrosion engineering is working to better align TD-4186P-100 with collection and testing activities.

5. 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."

Utility Procedure TD-4188P-02, Section 2.1, Inspecting Exposed Piping, states in part:
"d. IF any areas cannot be completely visually inspected (e.g., portion of span is beyond binocular range)
THEN perform the following steps:
(1) Check the "Cannot Inspect" box on Form TD-4188P-02-F01,
(2) Note the locations of those areas in the "Additional Comments or Observations" field.
(3) Notify Corrosion Services personnel."

SED reviewed Yosemite Division's exposed span inspections records and found that Yosemite Division checked the box "cannot inspect" on Form TD-4188P-02-F01 during the 9/29/16 inspection for the exposed span with equipment #43229710 but did not provide any detail in the additional comments section as required in PG&E's Utility Procedure TD-4188P-02.

6. 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."

TD-4001P-07-F01, "Request for a Waiver of Compliance from Gas Guidance Documents", dated 12/26/2016 states in part:
"TD-4125S was published on August 3, 2016 and included a revised definition for transmission lines. The standard also acknowledges Large Volume Customers. TD-4540S indicates that regulators sets feeding large volume customers, formally called 'Large Volume Customer Regulators Sets' must be maintained like all other regulator stations as the outlet of the stations is deemed transmission. LVCR sets require annual maintenance and an 8 year B inspection. As part of the rollout in support of the new definition for transmission lines, a comprehensive effort to collect data and locate all LVCRs was completed with all LVCR sets being added to SAP. However, when the LVCRs were added to SAP in late October, it created an unintended consequence triggering standard maintenance plans requiring all Divisions to perform B inspections for these sets in the last few months of 2016 with no implementation time frame. The effective date of the TD-4125 is 01/01/2018. Since some of these stations have never been inspected before, it has been determined several will need to be modified so the inspections can be conducted. I

am proposing this waiver to postpone any remaining LVCR inspections until 2017 to provide time to properly schedule this work and allocate resources as well as to allow for all necessary rebuilds to take place. However, as a condition of this wavier, all LVCR sets that have not received B inspections in 2016 will be expected to have B inspections performed in 2017. Note that a B inspection includes an A inspection, see TD4540P-01 for reference. The only exception to performing a B inspection on a LVCR set in 2017 is the complete rebuild of an LVCR set which would trigger the normal inspection schedules per TD-4540S thereafter."

SED reviewed Yosemite Division's regulator station maintenance records and found that Yosemite Division did not conduct the Large Volume Customer Regulators Sets (LVCR) inspections on two LVCRs (Hilmar Cheese and Rizo Lopez Foods) by end of 2017. PG&E internally requested and approved a waiver for extending the 2016 maintenance due date for LVCRs to end of 2017. These 2016 LVCR maintenance plans were unintentionally triggered in SAP when all the LVCRs were added to the new maintenance plans due to PG&E's revised definition for transmission lines (TD-4125S effective 01/01/2018). The maintenance for Hilmar Cheese and Rizo Lopez Foods stations were not completed by end of 2017 as required by the waiver. Rizo Lopez Foods station was maintained during SED's field inspection at the site on 5/9/2018. Please provide SED an update on the maintenance for Hilmar Cheese station.

II. Areas of Concern and Observations

1. SED reviewed Stockton Division's leak repair records and found that a PG&E employee took a pipe-to-soil read during the leak repair for leak #112755412 on 4/11/17 but this employee's operator qualification for conducting pipe-to-soil testing expired on 5/11/15. According to PG&E, its system requires a pipe-to-soil read to be entered when the coating type of a pipe is indicated as "Bare/None" or "coating removed" was checked as "Yes" in the A-form. This leak was found at a painted pressure regulating station in a vault but the employee checked "Base/None" as the coating type. An incorrect coating selection was made in the A-form. Therefore, a pipe-to-soil read should not be required for this leak. On 4/11/18, PG&E conducted a tailboard with the personnel addressing A-form documentation. This note serves as a record of the observation.

2. SED reviewed Stockton Division's regulator station maintenance record and found that the relief valve in DSS primary station was removed. According to PG&E, the relief valve was removed under the direction of PG&E's engineer due to lack of as-built diagram or engineering calculation. However, PG&E could not provide records showing the detail (e.g., removal date, engineering approval or justification, etc.) for the removal. Please provide SED any engineering analysis and an update on any corrective action(s) taken by PG&E.

3. SED reviewed Stockton Division's regulator station maintenance and construction records and found that the records did not clearly identify whether relief valves were installed as secondary overpressure protections (OPP) or token reliefs. The maintenance of a relief valve depends on whether it is a secondary OPP or token relief (e.g., annual capacity review is required for a secondary OPP relief valve but not token relief); the type of the relief valve should be clearly identified. Please provide SED an update on any corrective action(s) taken by PG&E.

4. SED reviewed Stockton Division's exposed span inspections records and found that two exposed spans (X59 and X34) were not inspected at the air-to-soil interface during the 2015 inspections due to extensive weed coverage. SED believes PG&E should do maintenance at the air-to-soil interfaces (i.e., a weed wacker) to facilitate inspection of the interfaces as necessary. Please provide SED an update on any corrective action(s) taken by PG&E.

5. SED reviewed Yosemite Division's corrosion control records and found that two possible shorted casings (equipment #41419633 and #41402273) were not added to the contacted casing master list due to an error with SAP. According to PG&E, SAP should automatically create a notification when a casing reading indicates a possible short. SED recommends PG&E investigate this SAP error and ensure all possible shorted casings are captured in the contacted casing master list. Please provide SED an update on any corrective action(s) taken by PG&E. In addition, please provide SED a list of other possible shorted casings which were not added to the contacted casing master list due to this SAP error.

6. During its Rio Vista District field inspection, SED observed a leak on Valve-E at Las Vinas Station. This leak was previously reported and documented prior to the field verification. Please provide SED an update on action(s) taken by PG&E to repair the leak.

7. During its Rio Vista District field inspection, SED found that L-114's MLV-106 was hard to operate. PG&E's engineer has approved the deactivation of the valve and provided SED the documentation. This note serves as a record of the observation. In addition, please verify that the main line valve (MLV) spacing meets code requirements per 192.179 (Transmission Line Valves) after deactivation of the valve.

8. During its Stockton Division field inspection, SED observed that the cathodic protection monitoring location at 6th Street E/O School St BW had pipe-to-soil reads of -2890 mV "on" and -1265 mV "instant off". A troubleshoot is required when the instant off read is more negative than -1200mV. According to PG&E's response dated 5/7/2018, Tracy rectifier was adjusted down to 0.35 Amps and 3.9 Volts and the pipe-to-soil reads dropped to -1550 mV "on" and -1173 mV "instant off". Two other monitoring locations below also showed the instant off reads in the cathodic protection area within the -1200 mV limit:
    - Linne Rd: -1505 mV "on" and -1175 mV "instant off"
    - MacArthur and 6th: -1530 mV "on" and -1155 mV "instant off"

    This note serves as a record of the observation.

9. During its Stockton Division field inspection, SED observed that the Coupon Test Station (CTS) adjacent to a rectifier in Clements (Equipment #44369283) had pipe-to-soil reads of -4730 mV "on" and -1389 mV "instant off". A troubleshoot is required when the instant off read is more negative than -1200mV. Please provide SED an update on any corrective action(s) taken by PG&E.

10. During its Tracy District field inspection, SED found three casings with casing reads more negative than -800 mV. Per PG&E's Utility Procedure TD-4181P-601, if a casing reading is below -800 mV, it needs to be investigated as a potential short.
    - Equipment #41416770 (maintained by Diablo Division): -1394 mV on pipe and -924 mV on casing
    - Equipment #41405873 (maintained by Diablo Division): The rectifier was interrupted. Therefore, "on" and "instant off" readings were obtained. Readings at both ends of the casing were also taken.
        i. End 1: (pipe) -1375 mV "on" and -1134 mV "instant off" and (casing) -822 mV "on" and -792mV "instant off"
        ii. End 2: (pipe) -1357 mV "on" and -1045 mV "instant off" and (casing) -760 mV "on" and -744 mV "instant off"
    - Equipment #41405624 (maintained by Mission Division): -1478 mV on pipe and -812 mV on casing

    As of 5/11/2018, all these casings were added to the contacted casing master list. This note serves as a record of the observation.

11. During its Tracy District field inspection, SED observed coating damage on an exposed span at mile point (MP) 20.09 of L-114 (maintained by Diablo Division). This coating damage was previously reported and documented prior to the field verification. Please provide SED an update on action(s) taken by PG&E to remediate the coating damage.

12. During its Yosemite Division field inspection, SED observed a leak on Valve 8.21E of Line 7228-16. Yosemite Division personnel stopped the leak by tightening, lubrication, and adjustment (TLA). According to PG&E, its pipeline engineer is creating a project to remove multiple valves along Line 7228-16, which will include the removal of Valve V-8.21E. Please provide SED an update once it is available.

13. During its Yosemite Division field inspection, SED visited a regulator station at Rizo Lopez Foods in Modesto, located underground in 2 vaults. One of the welded catches on the underside of the vault lid had become detached, and the lid could not be secured after it had been closed. PG&E created a notification with #114595401 for the corrective works. Please provide SED a status update on the repair.

14. During its Yosemite Division field inspection, SED visited regulator station TUR HP-21 at West Ave & South Ave in Turlock. Surface rust and damage with the paints of the station's exposed piping were observed. PG&E created a notification with #114595406 for the corrective works. Please provide SED a status update on the remediation.

15. During its Yosemite Division field inspection, SED observed excavation activities (the work crew was using an auger) in close proximity to a transmission line at 17870 Ave 18 in Madera. The work crew was advised to contact USA. SED recommends PG&E conduct a follow up and verify if the contractor called USA. Please provide SED a status update.

16. During its Yosemite Division field inspection, SED visited an exposed span along MP 3.23-3.25 of Line 7226-01. The rock guard tape on one side of the span was coming loose, potentially allowing water to come in contact with the pipeline for extended periods of time. SED recommends that PG&E repair the wrap. Please provide SED an update on any corrective action(s) taken by PG&E.

17. During its Yosemite Division field inspection, SED observed PG&E's remediation work to clear a short between the casing and the pipe at MP 3.90 of L118B. However, the contractor was unsuccessful in clearing the short. Please provide SED an update on PG&E's plan regarding the short.

18. During its Yosemite Division field inspection, SED observed that the casing wire was missing at MP 11.72 of L134A. The corrosion mechanic indicated that he had installed a casing wire earlier, but the wire may have been buried or disconnected due to the installation of a new coupon test station (CTS). Please provide SED an update on any corrective action(s) taken by PG&E.

III. Recommendation

1. During its Stockton Division field inspection, SED visited an exposed span along MP 0.22-0.23 of Line 1614-04 in Woodbridge. This span was submerged in water for a period of time. On 4/13/2018, SED reminded PG&E to ensure that the air-to-soil interface of the exposed pipe (including the underside) will always be examined during inspection. On 5/7/2018, the Stockton Corrosion supervisor conducted a tailboard with the personnel reviewing the procedure and requirement of inspecting the underneath portion of the pipe and air-to-soil transition. This note serves as a record of the observation.

2. SED reviewed PG&E's corrosion control records and found that the "Cathodic Protection Station Reports" (CP Station Reports) documented the locations of cathodically protected piping, cathodic protection facilities, and galvanic anodes. These CP Station Reports also show the number of anodes and their spacing. However, the hand-drawn CP Station Reports are located at the field offices and the information is not available in GIS. SED recommends PG&E making the information on CP Station Reports available on its GIS as they are more useful if they can be accessed offsite by corrosion control personnel and engineering.