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June 27, 2016

Mr. Kenneth Bruno, Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

Re: GI2015-04-SCE70-02A-05-07-09
Southern California Edison Response to CPUC General Order (G.O.) 112-E[1]
Operation and Maintenance Inspection of Southern California Edison Company's Liquid Petroleum Gas (LPG) distribution system in the City of Avalon, CA

Dear Mr. Bruno:

On May 26, 2016, you notified Southern California Edison (SCE) of the findings from the Safety and Enforcement Division (SED) of the California Public Utilities Commission's Operation and Maintenance Inspection on April 20-24 and November 23, 2015, of SCE's compliance with General Order (G.O.) 112[1], Reference Title 49, Code of Federal Regulations (49 CFR), Part 192. The inspection included a review of SCE's operation and maintenance plan, operator qualification program, public awareness program, inspection records, and field inspection of various SCE Catalina Gas facilities.

During the inspection, SED staff noted four (4) probable violations and made 23 recommendations. After the inspection, SCE took actions to correct those issues. In your May 26th letter, you advised SCE to respond with updates or corrective actions within 30 days of receipt of that letter. We write this letter to you today in response. Prior to receiving the formal SED inspection findings, SCE had already addressed and resolved all of the issues raised in the four probable violations identified by SED at the inspection. As such, SCE does not believe that any of the four probable violations raised by SED are ongoing. However, SCE has prepared a detailed response to each of the items cited by SED as "probable violations" and to the "concerns and recommendations" noted in your May 26, 2016 letter.

[1] General Order 112-F was adopted by the Commission on June 25, 2015 via Decision (D.) 15-06-044, which was after the April 20-24, 2015 audit occurred. This audit was performed under General Order 112-E.

Those responses are entitled “Inspection Report and SCE Response” and provided in Attachment A.

Sincerely,

/s/ Robert Grimm

Robert Grimm, PE
Principal Advisor

cc: Ed Antillon
Ron Hite
Russell Archer
Laura Genao
Mahmoud Intably
Dennis M. Lee
Kan Wai Tong
Matthewson Epuna
Case Administration

Attachment

ATTACHMENT A

ATTACHMENT A

Inspection Report and SCE Response

CPUC 2015 Inspection of SCE Catalina Gas System

April 20-24 and November 23, 2015

I. SED Identified Probable Violations

SED-Identified Probable Violations

1. Title 49 CFR, Part 192 §192.353 Customer meters and regulators: Location.

(a) Each meter and service regulator, whether inside or outside a building, must be installed in a readily accessible location and be protected from corrosion and other damage, including, if installed outside a building, vehicular damage that may be anticipated. However, the upstream regulator in a series may be buried.
(b) Each service regulator installed within a building must be located as near as practical to the point of service line entrance.
(c) Each meter installed within a building must be located in a ventilated place and not less than 3 feet (914 millimeters) from any source of ignition or any source of heat which might damage the meter.
(d) Where feasible, the upstream regulator in a series must be located outside the building, unless it is located in a separate metering or regulating building.

SED staff observed during the field inspection of SCE's facilities that SCE's customer meters, regulators, and aboveground facilities were exposed to vehicular traffic at the following locations:

1) 358 Descanso Ave. Avalon
2) 340 Descanso Ave. Avalon
3) Near valve #5 (3 MSAs)
4) 411 Crescent Ave., Avalon (El Galleon Restaurant)
5) Lower Olive Street, Avalon (riser exposed to vehicular traffic)
6) 800 Crescent Ave., Avalon
7) 413 Crescent Ave, Avalon

SCE failed to identify and protect the customer meters, regulators, and aboveground facilities at the aforementioned locations from vehicular traffic damage. Therefore, SCE is in violation of G.O. 112[1], Reference Title 49, Code of Federal Regulations (49 CFR), Part 192, Section 192.353(a).

SCE Response:

[1] General Order 112-F was adopted by the Commission on June 25, 2015 via Decision 15-06-044 which was after the April 20-24, 2015 audit occurred. This audit was performed under General Order 112-E.

SED staff provided the district with the location of seven areas where customer meters, regulators, and aboveground facilities may have been exposed to vehicular traffic damage and should be provided protection from potential damage.

Of the seven locations provided, there are two pairs that are essentially at the same location. As such, the remedy taken to correct potential issues are shared by these sites. The pairs with the same location are:

- Sites (4) and (7) share the same meter locations – 411 & 413 Crescent Ave
- Sites (3) and (6) are also a shared location – "Near valve 5" & 800 Crescent Ave

All areas identified by SED were reviewed and action was taken by SCE district employees or qualified vendors to further reduce or eliminate potential damage. SCE notes that all of these locations had low risk of potential damage and that none of the locations showed impact or vehicular damage prior to SCE making these changes.

SCE's adjustments include:

Item 1: *358 Descanso Ave*, the riser has been relocated to eliminate exposure to intermittent and occasional traffic found in this area. Adjustment was completed on or before 07/30/2015. See figure (1a) and figure (1b).

Item 2: *340 Descanso Ave*, the riser has been relocated to eliminate exposure to intermittent and occasional traffic found in this area. Adjustment was completed on or before 07/30/2015. See figure (2a) and figure (2b).

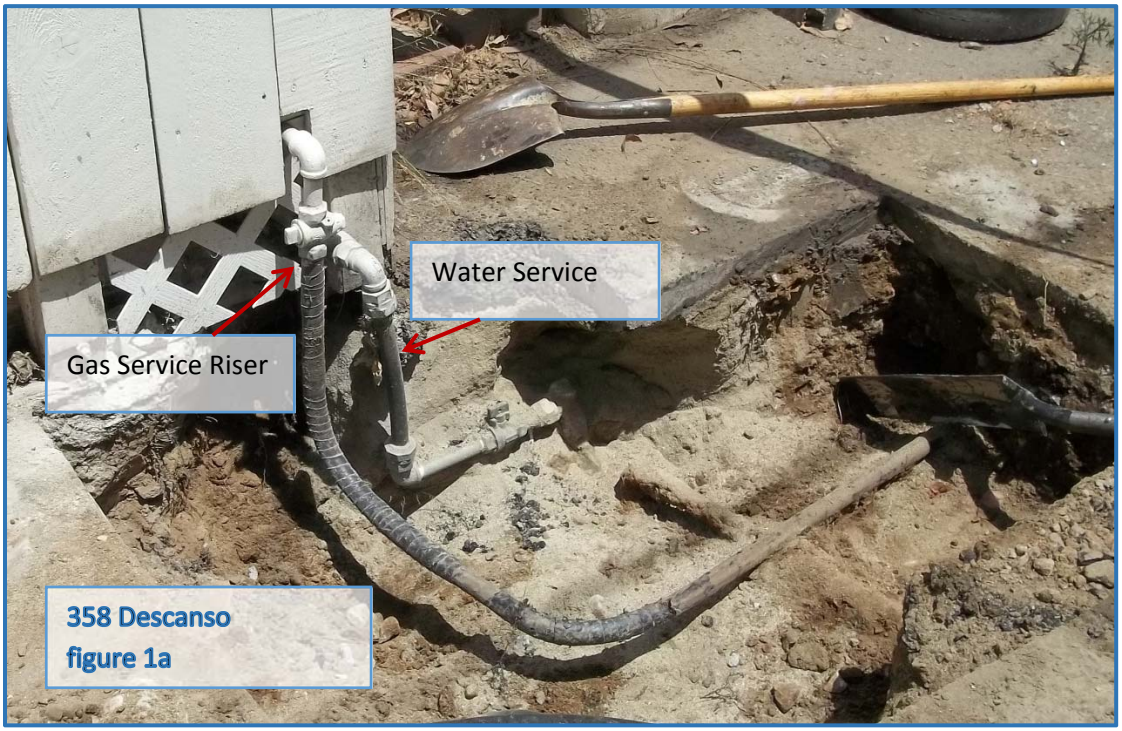
Item 3: *The 3 MSAs Near Valve #5*, a new bollard has been installed to minimize the possibility of vehicular damage. As mentioned above, this location is shared with item (6) below. Adjustment was completed on or before 07/30/2015. See figure (3).

Item 4: *411 Crescent (El Galleon Restaurant)*, a new bollard has been installed to minimize the possibility of vehicular damage. This location is shared with item 7. Adjustment was completed on or before 08/07/2015. See figure (4).

Item 5: *Lower Olive Street (exposed risers)*, the existing bollards were raised with the height increased to minimize the possibility of vehicular damage. Additional atmospheric corrosion protection and labeling added. Adjustments were completed on or before 07/30/2015. See figures (5A), (5B), (5C), (5D) and figure (5E).

Item 6: *800 Crescent Ave.*, two new bollards have been installed to minimize the possibility of vehicular damage. As mentioned previously, this location is shared with item (3) above. Adjustment was completed on or before 07/30/2015. See figure (3).

Item 7: *413 Crescent*, a new bollard has been installed to minimize the possibility of vehicular damage. This location is shared with item 4. Adjustment was completed on or before 08/07/2015. See figure (4).


Water Service
Gas Service Riser
358 Descanso
figure 1a


Water Service
358 Descanso
figure 1b
07/30/2015


Water Service
Gas Service
340 Descanso
figure 2a
06/30/2015


Water Service
340 Descanso
figure 2b
07/30/2015


3 MSA Near Valve #5 &
800 Crescent (same location)
figure 3
07/30/2015

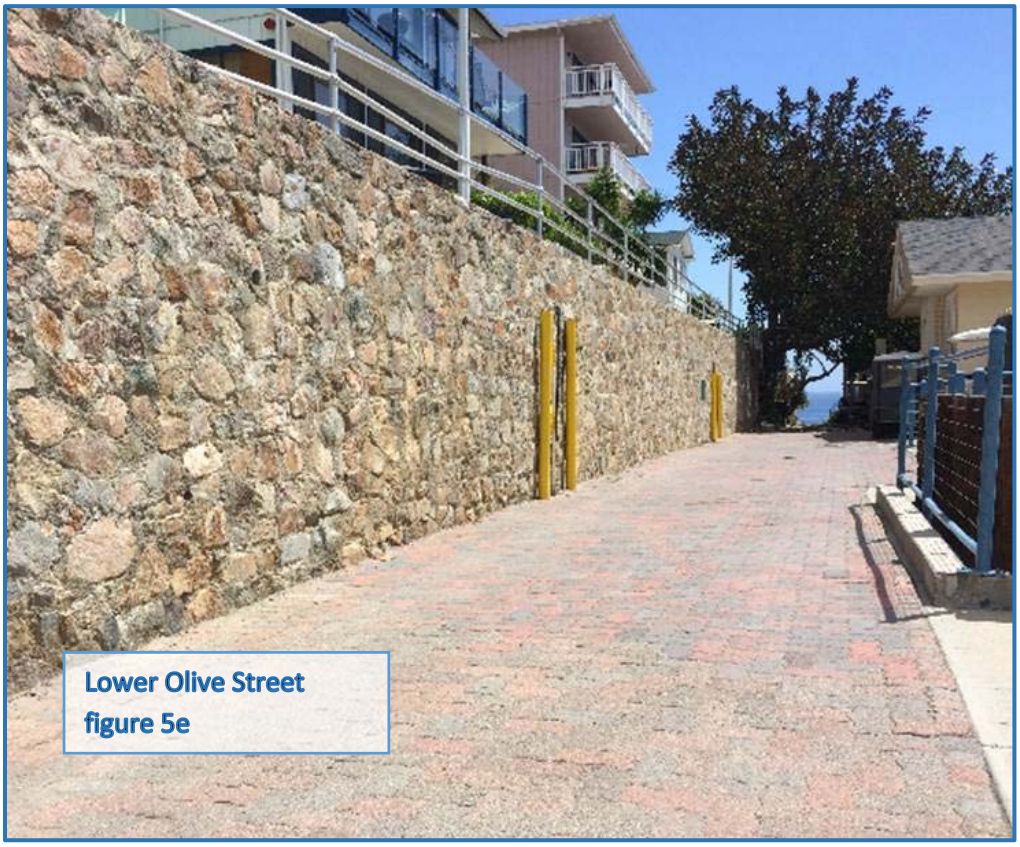

411 & 413 Crescent
Same Location
figure 4
08/07/2015
413


Lower Olive Street
figure 5a


Lower Olive Street
figure 5b
07/30/2015


PROPANE GAS
PROPANE GAS
Lower Olive Street
figure 5c
07/30/2015


Lower Olive Street
figure 5d



SED-Identified Probable Violations

2. **Title 49 CFR, Part 192 §192.481 Atmospheric Corrosion Control – Monitoring.**

"(a) 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:	*Then the frequency of inspection is:*
Onshore	*At least once every 3 calendar years, but with intervals not exceeding 39 months*
Offshore	*At least once each calendar year, but with intervals not exceeding 15 months*

(b) During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.

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

SED observed atmospheric corrosion on a section of SCE's aboveground pipeline during the field inspection of SCE's facilities, at 342 Metropole Ave in Avalon, CA. SCE was unable to provide its atmospheric corrosion inspection records to SED staff. Therefore,

SCE is in violation of Title 49 CFR, Part 192 §192.481, for failure to inspect its aboveground piping for evidence of atmospheric corrosion.

SCE Response:

All of the SCE Catalina Gas Distribution facilities are located onshore and are required to be inspected every 3 calendar years, not to exceed 39 months. SCE's Standard Procedure 403 (SP-403) outlines the requirements for performing atmospheric corrosion inspections. In October 2012, an atmospheric corrosion inspection was performed for all the gas distribution facilities located in the city of Avalon on Catalina Island. This inspection included the location noted by the SED and applied to the meter and regulator portions but not to the aboveground plastic pipe, which is not subject to atmospheric corrosion. The inspection record is provided in the attachment. Therefore, SCE is not in violation of Title 49 CFR, Part 192, §192.481.

Attachment: SP-403 and atmospheric corrosion report (See page 13 for Metropole Ave.)

SED-Identified Probable Violations

3. Title 49 CFR, Part §192.747 Valve maintenance: Distribution system.

"(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."

SED noted that SCE was unable to provide inspection records for several critical valves at its Avalon plant. Therefore, SCE is in violation of Title 49 CFR, Part192 §192.747, for failure to inspect its critical valves at intervals not exceeding 15 months, but at least once each calendar year.

SCE's Response:

Subsequent to receiving these findings, John Long from SCE contacted (Steve) from SED to seek clarification regarding whether SED's concern was in regard to station valve maintenance or whether it related to distribution valve maintenance. Based on the verbal information provided by Mahmoud (Steve) Intably, SCE understands that Finding #3 relates to distribution valves. As a result, SCE's response relates only to the distribution valves.

During the inspection, SCE believed that it provided all of the valve maintenance records requested by SED. However, SED believes that some gaps exist in the records provided. Accordingly, SCE is providing the information again in this response, and SCE does not believe there are any gaps in the recordkeeping of critical valves. Attached to this response are the complete valve maintenance records for 2012, 2013, and 2014.

In some instances, as noted on the valve maintenance records, some valves have been removed so a valve in sequence may appear to have been missed when in fact the valve had been removed from service. In another instance, Valve 89 was a convenience valve that was installed to isolate an unused pipe section reserved for future use.

SCE has a valve inspection program as part of its Gas Distribution System Standard Procedures (SPs). SP-421 provides for performing the inspection of each critical valve in SCE's distribution system each calendar year, not to exceed fifteen (15) months. This procedure is reviewed annually as part of our continuous improvement process and changes are made to the procedure as appropriate.

Should there be a reason that a valve cannot be inspected, or that it fails to operate during an inspection, other valves are identified as alternative valves for use as isolation points. Reasons a valve could not be inspected or operated may typically include contractor or third party paving over the valve box, valve stuck, stiff or slow to operate, etc. In all cases, the crews are notified of the valve's condition, and follow-up maintenance to correct the problem is scheduled and performed when resources are available.

Attachments: 2012 Valve inspection Records, 2013 Valve inspection Records, 2014 Valve inspection Records, SCE SP-421

SED-Identified Probable Violations

4. Title 49 CFR, Part §192.321(g) Installation of plastic pipe.

> *"(1) The operator must be able to demonstrate that the cumulative aboveground exposure of the pipe does not exceed the manufacturer's recommended maximum period of exposure or 2 years, whichever is less.*
> *(2) The pipe either is located where damage by external forces is unlikely or is otherwise protected against such damage.*
> *(3) The pipe adequately resists exposure to ultraviolet light and high and low temperatures.*"

SED observed that SCE temporarily installed uncased polyethylene (PE) service line aboveground level at 340 Metropole Ave., Avalon. The PE pipe was installed in December 2014, with manufacturing date of April 4, 2006. SCE did not provide documentation to SED demonstrating that the cumulative aboveground exposure of the pipe does not exceed the manufacturer's recommended maximum period of exposure or 2 years, whichever is less. In addition, the PE pipe was installed in an area that was susceptible to outside force threat without support to prevent stress or strain on the PE pipe. SCE is in violation of Title 49 CFR, Part 192 §192.231(g), for failure to demonstrate that the cumulative aboveground exposure of the pipe does not exceed the manufacturer's recommended maximum period of exposure or 2 years, whichever is less, and its failure to take measures to protect the PE pipe from damage by external force.

SCE's Response:

SCE believes that the SED description of Finding #4 is more consistent with the condition of 310 Whittley than it is with the conditions at 340-342 Metropole. For completeness, SCE's response addresses the findings at both locations.

The gas service at 340-342 Metropole was previously discussed in Finding #2. At this location, an abandoned section of plastic pipe was in the vicinity of 340-342 Metropole but the plastic pipe was not in service or even connected to the distribution system. That address was served by a permanent steel service that was installed in June, 2013. Since Finding #4 is specifically

related to plastic pipe manufacturing date and the service at 340-342 Metropole is a steel service, SCE does not believe that the address mentioned in Finding #4 is correct.

However, at 310 Whittley, in response to a gas leak identified on 12/10/14, SCE installed a temporary aboveground plastic service. That temporary service was in use during the SED review. SCE replaced the temporary service line with buried plastic pipe on 06/24/15.

Regarding the manufacture date of the pipe in service during the audit, SCE has no basis to disagree with SED's findings that the manufacture date was beyond the manufacturer's recommended storage life of the pipe. This SED finding prompted SCE to revise how it manages the storage, use, and installation of its plastic pipe. As a result, SCE has revised Standard Procedure 414 (SP-414) to address PE storage to ensure that plastic pipe is installed within manufacturer recommendations, and not to exceed 3 years after its manufactured date.

In addition SCE has revised its SP-414 to address temporary aboveground installations of PE pipe. Temporary aboveground installations of PE pipe should not exceed 1 year (see attached, SP-414, Section 4.0). Below is the specific language from SP-414, Section 4.0 that address these issues.

- "PE pipe shall not be used as a gas carrier if it is more than 3 years past the printed date as per (Plexco) manufacturer recommendations."
- "A PE gas service line provided to a customer above grade to accommodate a special request for a limited duration of time to accommodate a special need or request or circumstances of the customer. A permanent service line will typically replace the temporary service line within one year. "

Attachment: SCE SP-414

II. SED Concerns and Recommendations

SED-Concerns and Recommendations

1. SCE procedures did not have a process and form to include employee feedback on the effectiveness of the procedures/training programs. SED recommends that SCE review/revise its procedures to include employee feedback and participation in the evaluation to help determine the effectiveness of the procedures/training programs, including identifying how to improve them.

SCE Response:

SCE acknowledges that there is an opportunity for improving feedback and participation from SCE employees in the evaluation of procedures and training. This is an important step as part of our continuous improvement process. We have created an employee Feedback Change Form for capturing feedback on SCE's Standard Procedures, Public Awareness Program, DIMP, Gas Safety Plan and Emergency Response Plan. A copy of this form will be part of our next Standard Procedures annual review training, scheduled in July 2016. (Feedback Change form is attached.)

SED-Concerns and Recommendations

2. SCE Standard Procedure SP-401 did not define "prompt" action and time frame to complete the correction of the CP deficiencies. SCE standard procedure SP-401 indicated that the CP deficiencies should be corrected before the next reading. SED recommends that SCE review/revise its standard procedure to define "prompt" action and time frame to complete the correction of the CP deficiencies. Under normal conditions, SCE should have the evaluations and decisions made, and correction completed, within a few months.

SCE Response:
SCE agrees that there should be clarity around the actions and timeframe needed to remedy any noted deficiencies on the cathodic protection system. The cathodic protection system is an integral part of our corrosion control program. Standard Procedure 401 (SP-401) has been modified to clarify this point. Forms included in this procedure now contain notes that require management and supervision be notified of deficiencies and a separate work request for corrections be initiated. (A copy of SP-401 is attached.)

SED-Concerns and Recommendations

3. SCE did not provide calibration records showing that the equipment (voltmeters and copper/copper Sulfate half-cell) used to take pipe-to-soil readings were calibrated on a regular basis. The 49 CFR, Part 192 section 192.491(c) Corrosion Control records requires operators to maintain a record of each test, survey, or inspection in sufficient detail to demonstrate the adequacy of corrosion control measures. Even though the regulation does not specifically state that the instruments must be accurate, it is clear that the intention of the regulation is that all test data be accurate, repeatable and verifiable. SED recommends that SCE establish procedures to ensure its equipment is calibrated and within tolerance at the time the pipe-to-soil readings are taken. SCE should keep records of the equipment calibration to demonstrate and validate the accuracy of the pipe-to-soil measurements/readings.

SCE Response:
SCE has implemented the following to ensure alignment with this recommendation: A separate maintenance activity has been set up to perform calibrations and functional tests of the voltmeter on a regular and scheduled basis. Additionally, SP-401 attachment 401-F now provides a step-by-step calibration instruction for the half-cell prior to its use. This will ensure that the half-cell is calibrated prior to each use. The voltmeter that was in service at the time of the SED's site visit was sent out for calibration following that visit. The as-found condition was "in-tolerance". (Copy of SP-401 attached. Copy of calibration record attached.)

SED-Concerns and Recommendations

4. SCE Standard Procedure SP-401 contained materials/information that were not related to SCE's Catalina Gas system. SED recommends that SCE review/revise its procedure to include only the materials/information that is related to the operation and maintenance of its system.

SCE Response:
SCE has removed the references to half-cell types that are not in use on Catalina. These changes will be communicated to SCE's crews during the next training cycle, which begins in 2016.

SED-Concerns and Recommendations

5. SCE Standard Procedures SP-401D and SP-422-A did not clearly address the difference between "Encased" pipe versus "inserted" pipe. SED recommends that SCE review/revise its procedures to clearly distinguish between "Inserted" vs. "Encased" pipes.

SCE Response:
Form 401-D has been removed from Standard Procedure 401 and will now be covered as part of Form 431-C and referenced in Standard Procedure 414. This eliminates a redundant form.

There are two procedures where references to "encased" and "inserted" pipes are made. These are SP-414 and SP-422. SCE has adjusted the language in these two SPs to update the descriptions. Procedures for inserting gas PE pipe into a steel carrier are now part of SP 414. SCE believes this adds the clarity recommended by SED. (See Attached SP-414 and SP-422)

SED-Concerns and Recommendations

6. SCE Standard Procedure SP 404-Examination of Exposed Pipe did not require documentation of the anomalies and its location during the examination of the pipe (anomalies' orientation on the pipe). SED recommends that SCE review/revise its gas standard to require documentation of the orientation of the anomalies on the pipe.

SCE Response:
Following SED's recommendation, SCE has revised its Responders Leakage and Inspection Form (Form 431-C) to include a diagram for indicating orientation of damage or anomalies on the pipe. (Form 431-C is attached)

SED-Concerns and Recommendations

7. SCE Standard Procedure SP 405, Section 5.0 Reporting, did not include other methods of reporting to the CPUC and did not require submission of Form 7100.1. SED recommends that SCE review/revise its procedures to include General Order 112-F, Section 122.2 requirements for reporting to the CPUC. For website reporting, please review CPUC resolution E-4184.

SCE Response:
SCE agrees with the recommendation. SP-405, Section 5.0 Reporting has been updated to include GO 112F, Section 122.2 requirements for reporting Form 7100.1 to the CPUC. We are continuing to review GO 112-F and making the required adjustments to our reporting procedures to be compliant by 2017. (SP-405 is attached)

SED-Concerns and Recommendations

8. SCE Standard Procedure SP-405 C did not include other emergency notification methods. SED recommends that SCE review/revise its procedure to include the CPUC's website in an event of reporting an incident.

SCE Response:

As recommended by SED, SP-405 C has been updated to include the CPUC's website for reporting and will be communicated during our next Standard Procedures annual review training in July 2016. (SP-405 is attached)

SED-Concern and Recommendations

9. SCE Standard Procedure SP 405, Technical Instruction 404.12 did not require using email for the Quarterly Summary Report to SED. SED recommends that SCE review/revise its procedure to include SED management email list: kenneth.bruno@cpuc.ca.gov , kanwai.tong@cpuc.ca.gov, and matthewson.epuna@cpuc.ca.gov.

SCE Response:

As recommended by SED, SP-405 Technical Instruction (TI) 405 M (previously TI 405.12) has been updated to include the SED email list for submitting the Quarterly Summary Report. The details will be communicated during our next Standard Procedures annual review training in July 2016. (SP-405 is attached)

SED-Concerns and Recommendations

10. SCE Standard Procedure SP 411 C Safety Related Condition flow chart contained information that was not related to SCE Gas System. SED recommends that SCE review/revise its procedure to include only the relevant information to its system.

SCE Response:

SED's recommendation references SP-411 C; however, SCE believes the intent was to modify SP-411 B. SCE has applied the recommendations to SP-411 B by removing all references to the term "transmission" as it does not apply to the Catalina Gas System. The details will be communicated during our next Standards and Procedures annual review training in July 2016. (SP-411 is attached).

SED-Concerns and Recommendations

11. SCE Standard Procedure SP-406 did not have sufficient detail on "damage from other" external threats. SED recommends that SCE review/revise its procedure to include more details in the description to the following sentence "damage from other; (golf carts, dumpsters, bicycles, etc.) to expand on "other" external threats.

SCE Response:
SCE has modified SP-406 to adopt this recommendation. Details were adjusted to align with Title 49 CFR 192.615. The details will be communicated during SCE's next Standards and Procedures annual review training in July 2016. (SP-406 is attached).

SED-Concerns and Recommendations

12. SCE Standard Procedures SP-418C, SP-418E, SP-419, Section 3.2, and SP-422, Section 3.3 contained information that was not applicable to SCE's gas system. SED recommends that SCE review/revise its procedure to include information pertinent to its system.

SCE Response:
Following SED's recommendations SCE has made the following revisions: On SP-418C under Type of Gas, SCE removed reference to "natural gas and other"; under pipe designation SCE removed "transmission, gathering and other"; under pressure SCE removed "intermediate low"; under leak indication SCE removed "drip" and removed the CGI test information. On SP-418E, SCE removed references to "building inspections" and updated the "Leak Indication Classification", classifying all leaks as either a Grade 1 or Grade 2. On SP-422, SCE removed references related to Customer Meter Installation Operating Pressure because it did not apply to the Catalina system. SCE also removed a paragraph pertaining to excess flow valves per 192.383 (1: "The service line does not operate at a pressure of 10 Psig or greater throughout the year". (SP-418, SP-419, and SP-422 are attached)

SED-Concerns and Recommendations

13. SCE Standard Procedure SP-406, under "Emergency Call List" a 911 telephone number was listed to contact Los Angeles County Fire Department (LACFD). SED recommends that SCE review/revise its procedure to include a direct telephone number for non-emergency phone calls to LACFD.

SCE Response:
As recommended, SCE has revised the Emergency Call List to include non-emergency, local contact information for First Responders. The details will be communicated during SCE's next Standards and Procedures annual review training in July 2016. (See attachment SP-406).

SED-Concerns and Recommendations

14. SCE Standard Procedures SP-424 Public Awareness Program did not include program evaluation. SED recommends that SCE comply with requirements of 49 CFR Part 192 Sections 192.616, 192.614(c)1, 192.615(c)2, 192.615(c)3, and review the program

annually to ensure that it meets the objectives described in 49 CFR Part 192 Section 192.616.

SCE Response:
SCE agrees with the recommendations and will adopt the requirements outlined in 49 CFR Part 192 Sections 192.616, 192.614(c)1, 192.615(c)2, 192.615(c)3 during SCE's annual review cycle of the PAP.

SED-Concerns and Recommendations

15. SCE's Distribution Integrity Management Program (DIMP) did not include measure performance, monitor results, and evaluate effectiveness, and periodic evaluation and improvement. SED recommends that SCE review/revise its procedure to ensure compliance with Part 192 Section 192.1007 particularly Sections 192.1007(e) & (f) and review of O&M activities that will affect the DIMP.

SCE Response:
Following the recommendations of the SED, SCE will review 431 C – Responder Leakage Inspection Reports for trending analysis. As changes or trends are identified, they will be updated in the SHRIMP software tool and will be reflected in the DIMP with the next run of the report.

SED-Concerns and Recommendations

16. SCE's DIMP did not include the use of Subject Matter Experts (SMEs) knowledge and/or experience (skill sets) supplemental information input into the DIMP plan. SED recommends that SCE to generate job description/duties for SMEs to ensure compliance with 49CFR Part 192 Section 192.1007(a). A copy of their resume should be kept on file to verify that they have the necessary knowledge, experience, and expertise to make a sound decision.

SCE Response:
A written integrity management plan requires gas operators to demonstrate an understanding of its gas distribution system developed from reasonably-available information. In the development of SCE's Distribution Integrity Management Plan (DIMP), information from numerous operations and maintenance records was utilized in addition to the judgement and knowledge of employees. SCE used the best information available to make decisions about and assess applicable threats and risks to the gas distribution system. During the site visit by the SED in April, 2015, a suggestion was made to more utilize operations data when rating risks instead of relying solely on a mathematical ranking model. This suggestion was appreciated by SCE and supports the concept of using the best information available.

Recognizing the need for additional support, over the last 18 months Catalina has established an entirely new organization managing Catalina's Compliance, Projects, and Planning. This group is dedicated to the sustainable compliance of Catalina's operations and maintenance programs. The development of this group is a prime example of SCE's commitment to continuous improvement.

SED-Concerns and Recommendations

17. SCE's Standard Procedure SP-414 failed to address outdoor storage and temporary above ground installation of Polyethylene Pipe (PE). SED recommends that SCE review/revise its standard to address outdoor storage and temporary aboveground installation of PE pipe CFR Part 192.121(e)(2) "Design of Plastic Pipe" and General Order 112-F, Section 142.1 "Plastic Pipe Storage".

SCE Response:

SCE has reviewed and revised SP-414 to address CFR 192.121(e)(2) as recommended, which now reads as follows: (See attached SP-414)

- PE pipe shall not be used as a gas carrier if it is more than 3 years past the printed date as per (Plexco) manufacturer recommendations.
- A PE gas service line provided to a customer above grade to accommodate a special request for a limited duration of time to accommodate a special need or request or circumstances of the customer. A permanent service line will typically replace the temporary service line within one year.

SED-Concerns and Recommendations

18. SCE's Standard Procedures SP-414 and SP-430 did not address the length of a tapping tee attached to a main pipe as well as how far from the main a service should be abandoned. SED recommends that SCE review/revise its standard procedures to include guidelines for the length of the nipples on retired service lines or method of abandonment. If SCE decides to have nipple length greater than 12 inches, then the nipple length should be reflected on the SCE gas map.

SCE Response:

As per SED's recommendation, SP-420, Section 3.3 – Deactivating Gas Service Lines has been added to include the following statement:

- Gas service lines shall be cut within one foot of the service tee, purged of gas, and capped at both ends and the service riser is cut below grade and removed for the purposes of permanently terminating the service line. A gas distribution line, under pressure that extends more than one foot beyond the service tee shall be mapped. (SP-420 is attached)

SED-Concerns and Recommendations

19. SED observed that SCE has Aldyl A polyethylene (PE) pipes in its distribution system. SCE did not have a program to identify, monitor and replace as necessary the Aldyl A PE pipe. In addition, SCE's standard procedure did not include a process on how to handle pinching of the Aldyl A PE pipe during repair. SED recommends that SCE review/revise its DIMP program and standard procedure(s) to address PHMSA Advisory Bulletins

ADB-99-01, ADB-99-02, and ADB-02-07/ADB-02-07a (Aldyl A PE pipe). SED recommends that SCE evaluate and mitigate threats related to Aldyl A PE pipe as part of its comprehensive DIMP program.

SCE Response:
Following SED's recommendation, SCE has added details for squeezing off of PE pipe, including Aldyl-A, during repairs.

- "When any type of PE is squeezed off using a mechanical squeezer, which includes Aldyl-A pipe, a full encirclement band clamp will be placed at the location where it was squeezed off. Squeeze off can only be done once at each location"

Unlike larger gas utilities, the SCE Catalina Gas Distribution System contains less than ½ mile of Aldyl-A pipe. This system has a MAOP of 10psi with an operating pressure 6.5 psi. Testing performed on samples of Aldyl-A pipe removed from SCE's system does not indicate the material in use is of the type with low-ductile inner wall (LDIW) characteristics (Aldyl-A) and prone to failure due to brittle-like cracking. During repair, a minimum of 24 inches of Aldyl-A must be submitted for testing. Details have been added to SP-414 outlining evaluating, sampling, and maintenance. (SP-414 is attached)

SED-Concerns and Recommendations

20. SED observed a plastic water main was resting and exerting stress or strain on SCE's gas main at 117 Vieudelou Ave., Avalon. SED recommends that SCE provide the proper separation between the two facilities.

SCE Response:
The water main that was observed resting on our gas main at 117 Vieudelou was replaced on 8/15/12 to alleviate any potential stress or strain. This work was completed during our Water Main Replacement Phase II. The scope of this project included replacing the main and installing 2 new water valves. (See attached supporting documents and photos)

SED-Concerns and Recommendations

21. Review of SCE's DOT Form PHMSA F7100.1-1 for year 2014, Part B-System Description, 1.General, indicated that the total miles of cathodically-protected bare steel gas main was 8.94 miles. However, SED's records review showed that SCE does not have bare gas main in its system. SED recommends that SCE revise the PHMSA form to reflect accurate material information.

SCE Response:
Per SED's recommendations, this process was revised and included in the March, 14, 2016 report. (See attachment – DOT Annual Gas Report – 2015)

SED-Concerns and Recommendations

22. SCE's work order WO#202936546, indicated that SCE's gas main at Monkey Town was hit and damaged during sewer line replacement. The records indicated a dig alert notice was issued, but SCE failed to locate and marked its underground pipeline facilities. SED recommends that SCE investigate this incident and take a corrective action to prevent reoccurrence of such event.

SCE Response:

SP-430 Dig Alert – has been updated to add clarity to the expectations and was communicated to the crews during SCE's Standards Procedures annual review training in July 2015. The investigation revealed that the Foreman normally assigned to distribute Dig Alert activities was unavailable when this request came in. The Dig Alert request for 202936546 had been misdirected and not received by the upgrade Foreman. Dig Alert administration has been adjusted to expand distribution of notification requests (SP-430 is attached).

SED-Concerns and Recommendations

23. Field inspection of valves numbered 4, 5, 6, 17, and 22, indicated that SCE Standard Procedure SP- 421 lacked the clarity and did not include the necessary steps needed to ensure a safe and proper inspection of the valves. The SCE form did not include valve information; valve type, size, number of turns and etc. needed to exercise the valve. The standard procedure did not include the type of tools and the steps needed to lubricate the valves. SED recommends that SCE review/revise its procedure to provide adequate detail on how to inspect/lubricate the valves.

SCE Response:

Per SED's recommendation, SCE has reviewed SP-421 and added a new Section, Attachment 421-C – "Valve Inspection Maintenance Guide". This guide provides details needed to ensure a safe and proper inspection of the valves. (SP-421 is attached)