

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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May 26, 2016

Mr. Robert Grimm, Manager,
Gas Planning Energy Planning Energy
Supply & Management
Southern California Edison Company
2244 Walnut Grove Ave.,
GO1 OID
Rosemead, CA 91770

GI2015-04-SCE70-02A-05-07-09

Subject: General Order (G.O.) 112¹ Operation and Maintenance Inspection of Southern California Edison Company's Liquid Petroleum Gas (LPG) distribution system in the city of Avalon, CA

Dear Mr. Grimm:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted General Order (G.O.) 112¹, Reference Title 49, Code of Federal Regulations (49 CFR), Part 192 Operation and Maintenance Inspection of Southern California Edison Company's (SCE) April 20-24, and November 23, 2015. The inspection included a review of the SCE's operation and maintenance plan, operator qualification program, Public awareness program, inspection records, and field inspection of various SCE's facilities. SED staff also reviewed the Operator Qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED staff noted four (4) probable violations and some of these probable violations were noted during prior inspections and were not corrected. SED staff made 25 recommendations during the inspection. The violations and recommendations are noted in the attached "Summary of Inspection Findings".

Please provide a written response within 30 days of receipt of this letter indicating any updates or corrective actions taken by SCE.

If you have any questions, please contact Mahmoud (Steve) Intably, at (213) 576-7016.

Sincerely,

Kenneth Bruno

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

Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

CC: Mahmoud (Steve) Intably, Dennis Lee, and Kan Wai Tong of SED/GSRB
Michael Maben, SCE Manager of Compliance, Projects and Planning

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

Summary of Inspection Findings

2015 SCE Catalina

April 20-24 and November 23, 2015

I. 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. 112¹, Reference Title 49, Code of Federal Regulations (49 CFR), Part 192, Section 192.353(a).

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:

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<i>If the pipeline is located:</i>	<i>Then the frequency of inspection is:</i>
<i>Onshore</i>	<i>At least once every 3 calendar years, but with intervals not exceeding 39 months</i>
<i>Offshore</i>	<i>At least once each calendar year, but with intervals not exceeding 15 months</i>

(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 not 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.

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, Part 192 §192.747, for failure to inspect its critical valves at intervals not exceeding 15 months, but at least once each calendar year.

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

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December 2014, with manufacturing date of April 4, 2006. SCE did not provide document to SED demonstrating that the cumulative aboveground exposure of the pipe does not exceed the manufacture'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.

II. 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.
- 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 few months.
- 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 regular basis. The 49 CFR, Part 192 section 192.491(c) Corrosion Control records requires operator to maintain a record of each test, survey, or inspection in sufficient details 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 are calibrated and within tolerance at the time the pipe-to-soil readings were taken. SCE should keep records of the equipment calibration to demonstrate- and validate the accuracy of the pipe-to-soil measurements/readings.
- 4) SCE Standard Procedure SP-401 contained materials/information that was not related to SCE gas system in Catalina Island. 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.
- 5) SCE Standard Procedures SP-401D and SP-422-A did not clearly addressed the difference between "Encased" pipe versus "inserted" pipe. SED recommends that SCE review/revise its procedures to- clearly distinguish between "Inserted" vs. "Encased."
- 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

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- (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.
- 7) SCE Standard Procedure SP 405, Section 5.0 Reporting, did not include other methods of reporting to 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.
 - 8) SCE Standard Procedure SP-405 C did not include other emergency notification methods. SED recommends that SCE review/revise its procedure to include commission's website in an event of reporting an incident.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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

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to verify that they have the necessary knowledge, experience, and expertise to make a sound decision.

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

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