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July 6, 2023

Mr. Terence Eng, P.E.,
Program Manager, Gas Safety and Reliability Branch,
Safety and Enforcement Division,
California Public Utilities Commission,
505 Van Ness Ave, 2nd Floor
San Francisco, CA 94102

Dear Mr. Eng:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission (CPUC) conducted a **General Order (G.O) 112-F inspection of Southern California Gas Company (SoCalGas) South Desert Transmission** on March 20 through February 30 and April 3, 2023. SED staff reviewed maintenance activities records for the period of January 1, 2018 through December 31, 2022, and field inspections Blythe and Beaumont Transmission Districts and DOT-T Distribution Districts (San Bernardino, Fontana, Chino, Corona, Riverside, Palm Desert, El Centro, Yucca Valley, Beaumont, Murrieta, Ramona)

SED staff identified one (1) probable violation of G.O. 112-F, Reference Title 49 CFR, Parts 192, and noted ten (10) areas of concern. Please find SoCalGas' written responses below.

Please contact Alex Hughes at (213)671-1344 if you have any questions or need additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alex Hughes", written over a light blue grid background.

Alex Hughes
Pipeline Safety and Risk Mitigation Manager

CC:

Larry Andrews, SoCalGas
Mahmoud Intably, GSRB
Kan-Wai Tong, GSRB
Gordon Huang, GSRB
Claudia Almengor, GSRB

2023 SoCalGas South Desert Transmission Audit Response

Notice of Probable Violation(s):

Time-Dependent Threats: External Corrosion - Cathodic Protection (TD.CP)

Question Title, ID	Isolation from Other Metallic Structures, TD.CP.ELECISOLATE.O
Question	14. Are measures performed to ensure electrical isolation of each buried or submerged pipeline from other metallic structures unless they electrically interconnect and cathodically protect the pipeline and the other structures as a single unit?
References	192.467(a) (192.467(b), 192.467(c), 192.467(d), 192.467(e))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>Title 49, CFR, Part 192, Section 192.467(b) states:</p> <p style="text-align: center;"><i>"One or more insulating devices must be installed where electrical isolation of a portion of a pipeline is necessary to facilitate the application of corrosion control."</i></p> <p>During field inspections in Riverside Distribution District on March 30, 2023, SED observed SoCalGas' employee take a pipe-to-soil read at Point "B" of cathodic protection area (CPA) LOMA-35 (with -0.850 volt criterion) and found it to be -0.540 volts. After troubleshooting the CPA, SoCalGas' employee found that the read point's riser was connected to a SoCalGas portable pressure monitoring apparatus. Upon examination, the configuration did not appear to have any electrical isolation, and may have caused the deficiency (low read at Point "B"). Therefore, SED finds SoCalGas in violation of Title 49, CFR, Part 192, §192.467(b) for failure to install an insulating device to facilitate the application of corrosion control.</p>

SoCalGas Response:

While there was a temporary pressure monitoring devices installed at regulator station ID386IE, it was not found to be the root cause of the out-of-tolerance condition on CP LOMA 35. Tests taken while the temporary pressure monitoring device was installed and after it was removed continued to show an out-of-tolerance condition.

Instead, investigation revealed that recent construction at the site reconfigured piping that may have led to an interference condition occurring between isolated cathodic protection systems operated by Transmission and Distribution. To accommodate this new pipe configuration, a bond between the Transmission and Distribution was installed. The area was read in tolerance on 6/12/2023 with a read of -1.912V.

SoCalGas testing does not support the premise that a loss of electrical isolation was a cause of the out-of-tolerance condition.

Concern(s):

Design and Construction: Design of Pipe Components (DC.DPC)

1. Question Title, ID	Internal Corrosion Control: Design and Construction (192.476), DC.DPC.INTCORRODE.R
Question	53. Do records demonstrate the transmission line project has features incorporated into its design and construction to reduce the risk of internal corrosion, as required of 192.476?
References	192.476(d) (192.476(b), 192.476(c), 192.476(a))

Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>During records review of SoCalGas' Transmission projects within the inspection period, SED requested records demonstrating that design and construction features to reduce the risk of internal corrosion were incorporated for Blythe District L2001 East MLV2001-30.99-0 Replacement (Work Order Authorization (WOA) 91858) or that incorporating such features to meet §192.476(a)(1), (a)(2), or (a)(3) are impracticable or unnecessary. Should the latter be the case, written procedures supported by as-builts or other construction records addressing internal corrosion risk for WOA 91858 are also requested for review. This request was initiated on March 24, 2023 (DR-029-JEY).</p> <p>As of May 22, 2023, SoCalGas has not provided the requested records to SED. SED requests that SoCalGas provide the requested records for review as soon as possible.</p>

SoCalGas Response:

SoCalGas provided a response and data request DR-029-JEY was closed on May 23, 2023.

Design and Construction: Pressure Testing (DC.PT)

1. Question Title, ID	Hydrostatic Testing - Environmental Protection, DC.PT.PRESSTESTENVIRON.R (also presented in: DC.SPT, DC.PTLOWPRESS)
Question	11. Do records indicate while conducting tests under Subpart J – Test Requirements, the test medium disposal was conducted in a manner that minimized damage to the environment?
References	192.515(b) (192.629(a), 192.629(b))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>During records review of SoCalGas' Transmission projects within the inspection period, SED requested pressure test medium disposal records for Blythe District L2001 East MLV2001-30.99-0 Replacement (Work Order Authorization 91858) on March 24, 2023 (DR-031-JEY). As of May 22, 2023, SoCalGas has not provided the requested records to SED. SED requests that SoCalGas provide the requested records for review as soon as possible.</p>

SoCalGas Response:

SoCalGas provided a response to data request DR-031-JEY and was closed May 23, 2023.

Design and Construction: Pressure Testing (DC.PT)

1. Question Title, ID	Hydrostatic Testing - Safety During Testing, DC.PT.PRESSTESTSAFETY.R (also presented in: DC.SPT, DC.PTLOWPRESS)
Question	14. Do records indicate while conducting tests under Subpart J – Test Requirements, every reasonable precaution was taken to protect its employees and the general public throughout the testing?
References	192.515(a) (192.629(a), 192.629(b))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>During records review of SoCalGas' Transmission projects within the inspection period, SED requested records demonstrating safety precautions were taken by SoCalGas to protect its employees and the public during pressure testing for Blythe District L2001 East MLV2001-30.99-0 Replacement (Work Order Authorization #91858) on March 24, 2023 (DR-034-JEY).</p> <p>As of May 22, 2023, SoCalGas has not provided the requested records to SED. SED requests that SoCalGas provide the requested records for review as soon as possible.</p>

SoCalGas Response:

SoCalGas provided a response to data request DR-034-JEY and was closed May 23, 2023.

Maintenance and Operations: Gas Pipeline Class Location (MO.GOCLASS)

2. Question Title, ID	Change in Class Location Required Study, MO.GOCLASS.CLASSLOCATESTUDY.R
Question	2. Do records indicate performance of the required study whenever the population along a pipeline increased or there was an indication that the pipe hoop stress was not commensurate with the present class location?
References	192.605(b)(1) (192.609(a), 192.609(b), 192.609(c), 192.609(d), 192.609(e), 192.609(f))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>i. During records review of Blythe Transmission District's class location survey reports, SED requested supporting documents for work orders created in response to survey findings and responses to associated inquiries. This request was made under DR-09-JEY.</p> <p>As of May 22, 2023, the requested records have not been provided in response to SED's records request. SED requests that the requested documents be provided for review.</p> <p>ii. During records review of Beaumont Transmission District's class location survey reports, SED requested the Form 2112s for the following Class Location Survey work orders: 7119659, 7120236, 8059640, 8060215. This request was made under DR-18-JNE.</p> <p>As of May 22, 2023, the requested records have not been provided in response to SED's records request.</p> <p>iii. During records review of Beaumont Transmission District's class location survey reports, SED requested supporting documentation for the following surveys:</p> <ul style="list-style-type: none"> • 2018: L5000 (3) cum 54761.33 - 54978.73 • 2019: L6900 cum 49549.1 - 50317.89 • 2020: L2001 W cum 536878.33 - 537429.09 • 2020: L2001 W cum 537429.1 - 537704.13 • 2021: L2001 W cum 366794.91 - 367542.06 • 2022: L6916 cum 462888.26 - 463764.86 <p>This request was made under DR-024-GHG.</p> <p>As of May 22, 2023, SoCalGas has not provided the requested records to SED. SED requests that SoCalGas provide the requested records for review as soon as possible.</p>

SoCalGas Response:

SoCalGas provided a response to data request DR-09-JEY and was closed June 8, 2023.

SoCalGas provided a response to data request DR-018-JNE and was closed May 23, 2023.

SoCalGas provided a response to data request DR-024-GHG and was closed May 23, 2023.

Maintenance and Operations: Gas Pipeline Maintenance (MO.GM)

1. Question Title, ID	Prevention of Accidental Ignition, MO.GM.IGNITION.R
Question	7. Do records indicate personnel followed processes for minimizing the danger of accidental ignition where the presence of gas constituted a hazard of fire or explosion?
References	192.709 (192.751(a), 192.751(b), 192.751(c))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>During records review, SED requested that a hot work permit and Job Safety Analysis for Work Order Authorization# 93328 be provided for review.</p> <p>As of May 22, 2023, SoCalGas has not provided the requested records to SED. SED requests that SoCalGas provide the requested records for review as soon as possible.</p>

SoCalGas Response:

SoCalGas provided a response to data request DR-030 and was closed May 23, 2023.

Maintenance and Operations: Gas Pipeline Operations (MO.GO)

1. Question Title, ID	Continuing Surveillance, MO.GO.CONTSURVEILLANCE.R (also presented in: MO.GOCLASS)
Question	2. Do records indicate performance of continuing surveillance of facilities as required, and also the reconditioning, phasing out, or MAOP reduction in any pipeline segment that was determined to be in unsatisfactory condition but on which no immediate hazard existed?
References	192.709(c) (192.613(a), 192.613(b), 192.703(b), 192.703(c))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>During records review of SoCalGas' Transmission projects within the inspection period, SED requested leak repair records for several Beaumont District leaks. This request was initiated on March 24, 2023 (DR-025-JEY).</p> <p>As of May 22, 2023, SoCalGas has not provided the requested records to SED. SED requests that SoCalGas provide the requested records for review as soon as possible.</p>

SoCalGas Response:

SoCalGas provided a response to data request DR-025-JEY and was closed June 7, 2023.

Time-Dependent Threats : Atmospheric Corrosion (TD.ATM)

1. Question Title, ID	Atmospheric Corrosion Monitoring, TD.ATM.ATMCORRODEINSP.O
Question	5. Is pipe that is exposed to atmospheric corrosion protected?
References	192.481(b) (192.481(c), 192.479(a), 192.479(b), 192.479(c), 192.481(d))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>Title 49, CFR Part 192, Section 192.481(b) states: <i>" During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbanded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water."</i></p> <p>SoCalGas Gas Standard (GS) 184.12 "Inspection of Pipelines on Bridge and Spans", §4.1.5 Pipe supports states in part: <i>"Is there evidence of improper insulation between the support and the pipe? Supports and insulators must be made of durable, noncombustible materials, such as Micarta or fiberglass reinforced plastic (FRP) pads. Woods is not approved material and shall not be used as a support or insulator."</i></p> <p>During field inspections in Cactus City on March 27, 2023, SED observed span 2000-85.52 had its Micarta shifted, leading to improper insulation between the pipe and the support. On March 30, 2023, SoCalGas provided Work Order (WO) #8245458 to address the micarta remediation. SED requests that SoCalGas take corrective action to install the Micarta or FRP pads between the pipe and the support to prevent pipe-support contact and provide SED with a copy of WO #8245458 upon completion.</p>

SoCalGas Response:

SoCalGas will continue to review and attempt repairs to the span within the next two weeks. If those repairs are unsuccessful, SCG will initiate a project to complete the repairs.

Time-Dependent Threats : External Corrosion - CP Monitoring (TD.CPMONITOR)

3. Question Title, ID	Correction of Corrosion Control Deficiencies, TD.CPMONITOR.DEFICIENCY.R
Question	13. Do records adequately document actions taken to correct any identified deficiencies in corrosion control?
References	192.491(c) (192.465(d))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>Title 49, CFR Part 192, Section 192.465(d) states:</p> <p><i>"Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring."</i></p> <p>SoCalGas GS 185.0135 "Operation and Maintenance of Cathodic Protection Facilities", Section 1.4.4.3.1 states:</p> <p><i>"Once an area has been out of tolerance for over 12 months (365 days), a quarterly update shall go to the supervisor, manager, and director for review and comments. This update is an ongoing requirement until the issue is corrected and the supervisor, manager, and director have been notified."</i></p> <p>Notes: <i>If permits are delaying corrective actions, contact Pipeline Safety and Compliance for California Public utilities Commission (CPUC) assistance to obtain permits from applicable agency"</i></p> <p>1) SED found that for DOT-T El Centro Distribution District cathodic protection area (CPA) 6001 8, records showed deficient readings were taken on November 22, 2019. SoCalGas' maintenance sheet troubleshooting remarks pointed to depleted anode beds in the area. The deficiency was corrected by February 17, 2022, with a new anode bed installation. This Cathodic Protection area was thus deficient for intervals exceeding SoCalGas' routine monitoring frequency defined in Gas Standard (GS) 186.0135, and as required in 49 CFR §192.465(d).</p> <p>SED requests that SoCalGas provide SED copies of any communications sent to SED regarding assistance in the permitting process for the remediation of CPA 6001 8. If a request was not made, please explain why the CPA deficiency was not corrected promptly and SED was not contacted.</p> <p>2) SED found that for DOT-T Yucca Valley Distribution District CPA 29 P REC 1A, records showed deficient readings were taken on October 24, 2022. SoCalGas' maintenance sheet remarks mention rectifiers and bonds being down due to Transmission work at Morongo Station.</p> <p>SED recommends SoCalGas to take the necessary steps without delay to address the cathodic protection deficiencies and bring CPA 29 REC 1A in compliance with Title 49, CFR, Part 192, Subpart I.</p>

SoCalGas Response:

As an agreed upon practice, SoCalGas provides SED a summary of all CP areas which are out-of-tolerance for more than a year. While specific areas aren't called out, SED is informed of the system statuses.

CP Area 6001-8 was included in the summary reports sent which were sent as follows:

- Q4 2020 – Sent on 1/29/2021
- Q1 2021 – Sent on 4/30/2021

- Q2 2021 – Sent on 7/30/2021
- Q3 2021 – Sent on 10/28/2021
- Q4 2021 – Sent on 2/1/2022

Typically, SoCalGas practice is to exhaust all internal avenues before elevating permitting issues to SED. In this case, to remediate the out-of-tolerance condition on 6001-8 we felt existing avenues were sufficient. Ultimately, two deep wells were required to be replaced and a third rectifier and well was moved due to a pipeline modification which caused the rectifier to be too close to the pipeline. This project also encountered permitting issues that included, but were not limited to: changes in property ownership which was required to be recorded before permits were granted, questions on the jurisdiction between permit municipalities and a unique definition of anode bed well and non-standard permitting requirements for Imperial County that made SoCalGas redesign their installation to obtain permits.

CP Area 29P REC 1A was discovered out-of-tolerance on 10/24/2022 and was read in tolerance on 4/10/2023. Investigation revealed that its power source which was operated by Transmission had been turned off due to construction.

Time-Dependent Threats: External Corrosion - Cathodic Protection (TD.CP)

4. Question Title, ID	Corrosion Control Records, TD.CP.RECORDS.R (also presented in: TD.CPMONITOR, TD.CPEXPOSED)
Question	24. Do records indicate the location of all corrosion control items listed in §192.491(a)?
References	192.491(a) (192.491(b), 192.491(c))
Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>During records review of DOT-T Distribution cathodic protection areas (CPA) on March 28-29, 2023, SED noted that electrical current source (ECS) points were not marked on the associated CPA maps. While the Basic Information Record (BIR) states the location of ECS points, SED believes that a visual marking of SoCalGas' ECS points (similar to how electrical testing stations (ETs) are currently marked) would be beneficial for locating assets in the field.</p> <p>As such, SED recommends marking ECS points per their stated BIR locations on associated CPA maps for the following CPAs:</p> <ul style="list-style-type: none"> • Chino - 055 • San Bernardino - SL 34-88"

SoCalGas Response:

Please refer to maps on Chino-055 (Map 1 and 2) and SBD-SL34-88 which were scanned and provided in the Sharepoint site for the audit. This information was communicated to the SED on April 3, 2023.

Time-Dependent Threats: External Corrosion - Exposed Pipe (TD.CPEXPOSED)

1. Question Title, ID	Examination of Exposed Portions of Buried Pipe, TD.CPEXPOSED.EXPOSEINSPECT.R
Question	2. Do records adequately document that exposed buried piping was examined for corrosion and deteriorated coating?
References	192.491(c) (192.459)

Assets Covered	T: South Desert (87056 (50))
Issue Summary	<p>Title 49, CFR Part 192, Section 192.491(c) states:</p> <p>"Each operator shall maintain a record of each test, survey, or inspection required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that a corrosive condition does not exist. These records must be retained for at least 5 years, except that records related to §§192.465(a) and (e) and 192.475(b) must be retained for as long as the pipeline remains in service."</p> <p>SoCalGas Gas Standard 186.02 "Inspection of Exposed Pipe", Section 7.5 states:</p> <p>"The pipe condition shall be described on Form 677-1, Pipeline Condition and Maintenance Report (transmission, Storage, and Distribution Operations) and Click Mobile Excavation Form 4300 for Medium Pressure Distribution pipelines using the pipeline coating and conditions codes illustrated in Appendix A. If a Form 677-1 is completed a copy should be forwarded to Gas Engineering-Pipeline Integrity".</p> <p>During field inspections in Blythe Transmission District on March 22, 2023, SED observed Line (L) 1030 Milepost (MP) 54.47 & L2000 MP 54.47 were unintentionally exposed through acts of nature (erosion/washout). SED requests SoCalGas to provide a copy of the Pipe Condition and Maintenance Report (Form 677-1) including measures taken by SoCalGas to address any issues threatening pipeline integrity to prevent failures, releases, or other events that may endanger public safety.</p>

SoCalGas Response:

SoCalGas is in the process of evaluating and planning the most effective mitigation measures for these segments. The planning process is lengthy due to the fact that these segments are in an environmentally sensitive location and mitigation methods will require prior approval from various environmental regulatory agencies. The segments are in a Class 1 and remote location. There is little possibility for endangering the public due to the location of the segments. SoCalGas will provide an update once permitting has been received and the remediation has started.