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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

SUBJECT: SoCalGas and SDG&E responses - General Order (GO) 112-F Gas Inspection of Southern California Gas Company, and San Diego Gas and Electric Company Distribution Integrity Management Program (DIMP) - Follow up and review of DIMP Projects

Dear Mr. Eng:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-F inspection of Distribution Integrity Management Program (DIMP) of SEMPRA (Southern California Gas Company, SCG and San Diego Gas and Electric Company, SDG&E). The Inspection entailed follow-up and review of DIMP projects, and took place between August 16-20 and 23-27, 2021.

SED staff identified six (6) concerns.

Attached is SoCalGas and SDG&E's written responses to the SED inspection findings.

Please contact Troy A. Bauer at (909) 376-7208 if you have any questions or need additional information.

Sincerely,

Troy A. Bauer
Pipeline Safety and Compliance Manager
CC:
Gwen Marelli, SoCalGas
Dennis Lee, SED
Sikandar Khatri, SED
Claudia Almengor, SED

Summary of Inspection Findings

Dates of Inspection: August 16-20 and 23-27, 2021

Operator: SEMPRA (Southern California Gas Company, SCG and San Diego Gas and Electric Company, SDG&E)

Operator IDs: 18484 (primary) 18112

Inspection Systems: Distribution Integrity Management Program (DIMP)

Assets (Unit IDs) with results in this report: 88391, 88390

System Type: GD

Inspection Name: SEMPRA DIMP 2021 Inspection

Lead Inspector: Sikandar Khatri

Operator Representative: Austin Walker, Sr. Pipeline Safety & Compliance Advisor

Unsatisfactory Results

No Preliminary Findings.

Concerns

Design and Construction: Construction (DC.CO)

(1) Question - 5. Do records indicate persons making joints in plastic pipelines are qualified in accordance with 192.285?

References - 192.285(d) (192.285(a), 192.285(b), 192.285(c), 192.807(a), 192.807(b))

Assets Covered - 88391, 88390 (Multi Unit)

Issue Summary - SED reviewed a sample of construction documents of DIMP distribution projects. The information on plastic joiners and type of joints was available on "General Service Order, GSO" for services, however, SEMPRA (Southern California Gas Company, SCG and San Diego Gas and Electric Company, SDG&E) mentioned that for distribution mains projects, there is no form available, and only record is the "Completion Sketch". SED did not find this information on these sketches. On an inquiry, SEMPRA provided the names of foreman and a crew member who worked on a project (Construction Planning and Design, CPD Order: 540000014889), however, it was not clear who made the joints. Complete and

accurate information is important for the integrity of the gas pipelines; therefore, SED recommends recording this information either on "Completion Sketch" or in other forms for retrieval when necessary.

SoCalGas and SDG&E Response & Actions:

Southern California Gas Company (SoCalGas) and San Diego Gas & Electric (SDG&E) maintain operator qualification records indicating the qualifications status of persons making joints in plastic pipelines. Per Gas Standard 187.0181(SoCalGas) and D7293 (SDG&E), Qualification of Pipeline Personnel - Polyethylene Pipe Joiners, the qualification procedure incorporates the requirements of *192.285-Plastic Pipe: Qualifying persons to make joints (a,b,c,d)*. Additionally, in conformance with 192.285(d), SoCalGas and SDG&E have determined that only trained and qualified company employees and contractors shall perform joining of polyethylene (PE) pipe. SoCalGas and SDG&E have adopted a 1:0 span of control for pipe joining covered tasks, meaning only the qualified person may perform plastic pipe joining.

SoCalGas and SDG&E incorporate the requirements of *192.807(a)(b)-Record Keeping in Gas Standards 167.0100 and G8113*, respectively, and the records are stored in our electronic system of record (SAP). Plastic pipe joining qualifications include (1) Identification of qualified individuals; (2) Identification of the covered tasks the individual is qualified to perform; and (3) Qualification methods. Per Gas Standard 192.807(b), records supporting an individual's current qualification are maintained while the individual is performing a covered task. Records of prior qualifications and records of individuals no longer performing covered tasks are retained beyond the required five years. SoCalGas and SDG&E appreciate SED's recommendation and we are investigating a process to document this information.

Gas Distribution Integrity Management: Records Required to be Kept (GDIM.RC)

(2) Question - 3. Has the operator maintained the required records?

References - 192.1011

Assets Covered - 88391, 88390 (Multi Unit)

Issue Summary - (1) Southern California Gas Company, SCG has "Completion Sketch" for DREAMS (Distribution Risk Evaluation and Monitoring System) projects (this also applies to other distribution projects). The completion sketch has information about 'depth of cover' in the title block. For example, for project, CPD Order 540000014889, it says 'Install main with at least 36" cover below gutterflow'. SCG explained that it means that at least a depth of cover of 36" is maintained. However, as the "Completion Sketch" serves as a final and complete record showing the final conditions, SCG's language should indicate confirming that the pipeline has been installed as planned. Therefore, 'ed' must be added at the end of "install" to read it as 'installed main with at least 36" ...' to verify that the required cover has been maintained.

SoCalGas and SDG&E Response & Actions:

Subject matter experts have reviewed the Sketch Template for Distribution main projects and agreed to modify the template version to include a section used by construction crews to confirm the installed depth-of-cover. In addition, Planners in the Planning Department will continue to use the existing section to indicate the requirements for depth-of-cover. The company system for sketching will be updated to include the new version of the template containing the section confirming the installed depth of cover, and company procedures will be updated to reflect the new template.

Gas Distribution Integrity Management: Records Required to be Kept (GDIM.RC)

(2) Question - 3. Has the operator maintained the required records?

References - 192.1011

Assets Covered - 88391, 88390 (Multi Unit)

Issue Summary - (2) For San Diego Gas and Electric Company, SDG&E, there is no “Completion Sketch”, and the operator mentioned that the depth of cover is indicated in the form of trench details on construction drawings (Issue for Construction, IFC designs). SED would like to emphasize that the 'trench sketch' is the guideline/instructions for the project crew. Final depth of cover should be recorded either on as-built sketch or in another appropriate document.

SoCalGas and SDG&E Response & Actions:

All existing documents for collecting as-built data for Distribution projects will be evaluated and discussed by subject matter experts to identify the most suitable way of recording a final depth of cover. The impacted documents will be updated to include a section confirming the installed depths of cover. The company procedures for preparing as-builts will be updated to reflect a new guideline for recording a final depth of cover.

Gas Distribution Integrity Management: Records Required to be Kept (GDIM.RC)

(2) Question - 3. Has the operator maintained the required records?

References - 192.1011

Assets Covered - 88391, 88390 (Multi Unit)

Issue Summary - (3) While reviewing GIPP (Gas Infrastructure Protection Project) projects (Gas Network Node numbers, GNN#1958154700, GNN# 2012150500, and GNN# 624289300), SCG was not able to provide assessment results of inspections, stating that ever changing updates to Java have made the tool glitchy. SED recommends that the DIMP team should investigate this issue as to what caused the tool to become glitchy to prevent further loss of records in the future.

SoCalGas and SDG&E Response & Actions:

Gas Infrastructure Protection Project – SAP System Implementation

Gas Infrastructure Protection Project (GIPP) is working proactively to upgrade our current GIPP online database. The current environment does not communicate with SAP Service History. The new environment will be capable of handling site assessments, issuing and managing work to contractors, keeping track of workload counts for reporting purposes, and integrating SAP service history. Information Technology (IT) has built an interface to transfer data into the new platform and tested the system to validate data quality and integrity. The database conversion from the proprietary GIPP Online Tool over to the new SAP Environment has an estimated completion date of late December 2021. The new SAP system is estimated to go online in early 2022.

Gas Distribution Integrity Management: GDIM Implementation (GDIM.IMPL)

(3) Question - 7. Are data collection forms used in conjunction with the operator's DIMP plan being fully and accurately completed?

References - 192.1007(a)

Assets Covered - 88391, 88390 (Multi Unit)

Issue Summary - The "leak Repair Form" used by the operator was discussed during the DIMP 2020 Inspection, and SED expressed concern on some issues. SEMPRA provided an update that a committee has been formed which will look into improvements to the form and this committee is and will continue to meet regularly to consider and make improvements.

During this Inspection, it was discussed and agreed that SEMPRA will send SED a quarterly summary of the meetings of this Committee held during each quarter outlining the issues discussed, solutions considered, the discussions held and actions and implementation steps and timelines, and any other relevant information. SED will request minutes of a particular meeting, as needed.

In addition, SEMPRA should provide information on actions taken addressing separately each item that was pointed out in DIMP 2020 Inspection. While improvements can be continuously made, these items should be addressed immediately. For the sake of reference, these observations are reproduced here:

- (1) There was no "Equipment Failure" category
- (2) The "Outside Force Damage Category" listed the options which should be under "Excavation Damage" such as 1st Party, 2nd Party and 3rd Party Damages. SEMPRAs should create separate category for "Excavation Damages".
- (3) The "Outside Force Damage" category should have options like Vehicular Damage, Vandalism, and others as appropriate
- (4) The "others" threat category has an option "Valve Stem Leak" which is better suited to be listed under "Equipment Failure". The threats coming from "Risk Model" under "Others" category should be closely scrutinized manually, and if they are better suited to other primary threat categories, then those be listed under appropriate category and changes should be made accordingly to the Leak Repair Form. The "Others" threat category should have least possible options possible.

SoCalGas and SDG&E Response & Actions:

On October 11th, 2021, SoCalGas and SDG&E submitted to CPUC their quarterly update of the Leak Repair Order (LRO) Committee. The update consists of meeting summaries conducted in the prior quarter, a list of proposed LRO changes recommended by the committee, and a tentative project timeline to enhance the LRO form. The LRO Committee will continue to meet and SoCalGas and SDG&E will send SED quarterly summaries from the meetings held.

As stated in the 2020 DIMP Audit response: *“The data entry options on the Leak Repair Form were created to obtain the most accurate data possible from the field technician. The DIMP team aggregates all the leak records and performs a detailed review of the data to appropriately categorize the leaks for DOT reporting.”*

Though SoCalGas and SDG&E do agree that alignment of LRO cause categories with the PHMSA reporting leak causes provides additional clarity, the existing process does properly report leak repair causes as required by PHMSA. The followings items mentioned by SED will be implemented with the LRO update:

- (1) “Equipment Failure” will be listed as one of the cause categories. The causes currently reported as “Equipment Failure” will be listed under this cause category.
- (2) “Outside Force Damage” will no longer consist of leak causes relating to excavation damage. “Excavation Damage” will be a separate cause category. The causes currently reported as Excavation Damage will appear under this Excavation Damage category.
- (3) “Outside Force Damage” cause category will consist of options like Vehicle, and Vandalism/Theft.
- (4) “Valve Stem Leak” will be listed under “Equipment Failure”. This cause has historically been reported as “Equipment Failure” and will continue to be. The “Other” leak cause category

will be removed and will be replaced with “New Leak Cause Identified”. When “New Leak Cause Identified” is selected, an investigation will be initiated with the field supervisors.

In addition, SoCalGas and SDG&E are continuing to conduct a manual review of LRO records, where the leak cause “Other” is selected, to determine if more appropriate leak causes can be determined. SoCalGas and SDG&E will also continue to evaluate changing the leak cause categorization identifiers on LRO to better align with Gas Distribution Annual Reporting, PHMSA 7100.1-1 Part C.

Training and Qualification: OQ Protocol 9 (TQ.PROT9)

(4) Question - 3. Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks.

References - 192.801(a) (192.809(a))

Assets Covered - 88391, 88390 (Multi Unit)

Issue Summary - Operator Qualification (OQ) records for personnel were available and those provided were checked. However, two programs i.e., DRIP (Distribution Riser Inspection Project) and GIPP (Gas Infrastructure Protection Project) employ Inspectors who perform the inspections required for these projects. DRIP is a SCG project and GIPP is currently for SCG only, and SDG&E part has already been completed. SED inquired about qualification and competency of the inspectors who perform the inspections and provide input and recommendation for mitigation. The operator was not able to provide any process or set standard procedure for competency of inspector for the tasks performed. The goals of these programs are to determine the unsatisfactory conditions and pipeline integrity related risk that could cause hazard to persons, property, or the environment. The operator also stated that these programs reference or follow the operation's procedures; DRIP (Procedure 184.0121) and GIPP (Procedures, 185.0001, 185.0002 and 185.0008).

Since, the DRIP and GIPP inspectors are using above mentioned procedures and these projects are pipeline integrity related, therefore the inspectors should be evaluated and trained for their competency to perform these tasks. SCG should ensure that these inspectors have the required qualifications by developing the detailed training/guidance manual encompassing all functions they perform and train the current and future inspectors accordingly. This should be accomplished within three months from the date of this letter. All training material and proof of imparting the training should be formally documented and retained.

SoCalGas and SDG&E Response & Actions:

Distribution Riser Inspection Project (DRIP) & Gas Infrastructure Protection Project (GIPP) – Training

In response to training record requests during the CPUC Audit, the DRIP & GIPP projects have developed training materials for both groups encompassing all functions they perform, including documenting future and current inspectors. The DRIP project will create a training matrix that includes a checklist of training materials necessary for DRIP Inspectors. The DRIP Inspectors would then be required to review and demonstrate sufficient knowledge to observe work performed by DRIP technicians in the field. Appropriate training records will be created and retained in order to certify the training status of DRIP Inspectors.

In addition, the GIPP project will maintain and manage onboarding training on a dedicated Microsoft SharePoint site specifically for their department. The GIPP training will also track completed sessions encompassing all functions they perform, including documenting future and current inspectors. When training sessions are complete, an electronic form of acknowledgment shall be provided to each participant by the training support coordinator. The electronic form can be completed and submitted on the employee's laptop or mobile device. Training records are collected in a Microsoft SharePoint database by employee name, which will allow for training reports for review. Various training methods will be used, including but not limited to: Microsoft Teams, in-person classroom, infield, policy reviews, and systems updates.

Lastly, all GIPP personnel will attend and complete GIPP Training in the new SAP environment. The new SAP tool will have reference documentation to support the new system and training sessions.