SOUTHWEST GAS CORPORATION

Jerome T. Schmitz, P.E., Vice President/Engineering Staff

December 20, 2019

Via Email and U.S. Mail

Mr. Terence Eng
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
State of California Public Utilities Commission
505 Van Ness Avenue, Suite 500
San Francisco, CA 94102

SUBJECT: Southwest Gas Response – General Order (G.O.) 112-F Inspection of Southwest Gas Corporation's Southern California Division

Dear Mr. Eng:

Southwest Gas Corporation (Southwest Gas or Company) respectfully submits the enclosed response to the Safety and Enforcement Division (Staff or SED) Summary of Inspection Findings letter dated November 22, 2019 for the G.O. 112-F Inspection of Southwest Gas's Southern California Division conducted September 23, 2019 – October 4, 2019.

We appreciate Staff's consideration of the attached response to the summary findings and look forward to discussing any questions or concerns that you may have.

Sincerely,

Jerome T. Schmitz, P.E.
Vice President, Engineering Staff

cc: Brad Harris
Kevin Lang
Catherine Mazzeo
Valerie Ontiveroz
Dennis Lee, CPUC
Claudia Almengor, CPUC

SUMMARY OF INSPECTION FINDINGS
(Transmission)

Dates of Inspection: September 23-27 and September 30-October 4, 2019

Operator: SOUTHWEST GAS CORP

Operator ID: 18536 (primary)

Inspection Systems: Transmission (Southern California Division)

Assets (Unit IDs): SWG - Transmission Victorville (88674)

System Type: GT

Inspection Name: SWG - Transmission Victorville

Lead Inspector: Sikandar Khatri

Operator Representative: Laurie Brown

Unsatisfactory Results

A. Maintenance and Operations: Gas Pipeline Overpressure Protection (MO.GMOPP)

Question Text	Does the process include procedures for inspecting and testing each pressure limiting station, relief device, and pressure regulating station and their equipment?
References	192.605(b)(1) (192.739(a), 192.739(b))
Assets Covered	SWG - Transmission Victorville (88674 (91))
Issue Summary	SWG has a "Pressure Regulation Procedure", effective date of January 31, 2018, in their Operations Manual. During the field inspection on October 1, 2019, SED observed a Regulator Station located at the southerly intersection of Las Flores Street and Summit Valley Road, Hesperia, (Facility ID 12TS15007095) where the established Pressure Regulation Procedure was not being followed.

When questioned, the SWG supervisor/manager provided the following explanation: Following the established procedure may cause catastrophic results of natural gas flow being reversed due to a separate bypass for the working regulator and monitor. Therefore a non-established modified guideline is used for routine maintenance of this regulator station. SWG claims that this station is scheduled to be reconfigured into an above ground station with a filter in the near future.

Therefore, SED found SWG in violation of G.O. 112-F, Reference Title 49 CFR, Part 192, §192.605(b)(1) for failing to have a written procedure for operating, maintaining, and repairing, for this regulator station. Therefore, the written procedure must be established until the planned reconfiguration of this station is done, and thereafter appropriate procedure must also be available.

Concerns

No Concerns.

Southwest Gas Response:

As a point of clarification, the Company has a written procedure for operating, maintaining and repairing regulator stations. Further, the Company's procedure acknowledges that certain steps may not be applicable to every regulator station configuration. The regulator station at Las Flores Street and Summit Valley Road in Hesperia is one such configuration. Notwithstanding, Southwest Gas agrees to develop a site-specific procedure for this facility, which will be kept and maintained in the District, and will be made available to the affected field personnel. Southwest Gas anticipates the site-specific procedure will be effective in the first quarter of 2020, in advance of the next required inspection.

SUMMARY OF INSPECTION FINDINGS

(Distribution)

Dates of Inspection: September 23-27 and September 30-October 4, 2019

Operator: SOUTHWEST GAS CORP

Operator ID: 18536 (primary)

Inspection Systems: Distribution (Southern California Division)

Assets (Unit IDs): Dist (Barstow, Victorville, Big Bear) (89837)

System Type: GD

Inspection Name: SWG – Distribution Victorville

Lead Inspector: Sikandar Khatri

Operator Representative: Laurie Brown

Unsatisfactory Results

No Findings.

Concerns

A. Records: Operations And Maintenance (PRR.OM)

Question Text	Do records indicate distribution patrolling was conducted as required?
References	192.603(b) (192.721(a), 192.721(b))
Assets Covered	Dist (Barstow, Victorville, Big Bear) (89837 (32))
Issue Summary	The distributions patrolling records were reviewed and no issue was found, but during SED bridge and span patrolling field visit located on Bear Valley Road at Mojave River on September 30, 2019, it was observed that one of pads attached to the pipe while resting on roller type support was rotated from original location and the pad is not protecting the pipe and the coating against physical surface damage. In a follow-up provided, SWG reported that it is scheduled for remediation by end of November 2019 and a photo will be provided once completed.

Southwest Gas Response:

Distribution patrolling is conducted as required, currently twice annually. The observed pad attached to the pipe, an adhered Fiberglass Reinforced Plastic (FRP) shield, did not rotate from its

original installation location as initially suspected and therefore, Southwest Gas no longer believes remediation is necessary. The shield, used to ensure integrity of the pipe wrap against potential metal contact, was originally installed on that section of the pipe in the observed orientation due to the pipe touching the metal hoop containment bar in that location. For the span of the bridge, the pipe rests on non-conductive rollers and is not locked down to the support brackets but is contained within metal hoop bars to keep the pipe generally located within the bracket support system.

Southwest Gas notes that at some of the other pipe support bracket locations, the FRP shields are oriented off the 180-degree position to accommodate the pipe meeting the metal hoop bar and maintain integrity of the pipe wrap. At the location in question, Southwest Gas confirmed the pipe wrap is intact and verified satisfactory cathodic protection (CP) reads for the pipe span segment.

Southwest Gas will increase patrolling of the span to four times per year to monitor pipe wrap integrity, pipe orientation at each support bracket, and CP reads to ensure the integrity of the pipe.

B. Pipeline Field Inspection : Pipeline Inspection (Field) (FR.FIELDPIPE)

Question Text	Are meters and service regulators being located consistent with the requirements of 192.353?
References	192.351 (192.353(a), 192.353(b), 192.353(c), 192.353(d))
Assets Covered	Dist (Barstow, Victorville, Big Bear) (89837 (32))
Issue Summary	During the field inspection on September 25, 2019, SED observed a meter set assembly located at 152 Maple Lane, Big Bear, (Facility ID 13DOL0000003) in direct contact with natural earth/debris. SED recommended that SWG take corrective action to clear the debris. SWG took corrective action by removing rock and dirt revealing the meter set assembly is set on a cement block. SWG provided a photo on September 26, 2019, documenting this corrective action. During the field inspection on September 30, 2019, SED observed a meter set assembly located at 13238 Sandia Circle, Victorville, (Leak Survey ID 12L3Y0001060) not protected from vehicular damage. SED recommended that SWG take corrective measures to protect the meter set assembly from vehicular damage. SWG provided a follow-up that it has been remediated. During the field inspection on September 30, 2019, SED observed a meter set assembly located at 13228 Sandia Circle, Victorville, (Leak Survey ID 12L3Y0001060) not protected from vehicular damage. SED recommended

that SWG take corrective measures to protect the meter set assembly from vehicular damage. SWG provided a follow-up that it has been remediated.

During the field inspection on September 30, 2019, SED observed a meter set assembly located at 13235 Eastview Lane, Victorville, (Leak Survey ID 12L3Y0001060) not protected from vehicular damage. SED recommended that SWG take corrective measures to protect the meter set assembly from vehicular damage. SWG provided a follow-up that it has been remediated.

During the field inspection on September 30, 2019, SED observed a meter set assembly located at 13225 Eastview Lane, Victorville, (Leak Survey ID 12L3Y0001060) not protected from vehicular damage. SED recommended that SWG take corrective measures to protect the meter set assembly from vehicular damage. SWG reassessed it and determined that a meter guard is not required due to inadequate space for a vehicle to attempt entry.

Southwest Gas Response:

Southwest Gas confirms the remedial actions taken, and the reassessment of the meter set assembly at 13225 Eastview Lane, Victorville, as described by SED above.

Question Text	Are meters and service regulators being protected from damage consistent with the requirements of 192.355?
References	192.351 (192.355(a), 192.355(b), 192.355(c))
Assets Covered	Dist (Barstow, Victorville, Big Bear) (89837 (32))
Issue Summary	During the field inspection on September 30, 2019, SED observed a service regulator located at 13245 Eastview Lane, Victorville, (Leak Survey ID 12L3Y0001060) with a missing vent screen. SED recommended that SWG take corrective measures to address the issue. In a follow-up SWG confirmed that it has been remediated. During the field inspection on September 30, 2019, SED observed a service regulator located at 13225 Eastview Lane, Victorville, (Leak Survey ID 12L3Y0001060) with a regulator vent very close to the building vent. SED recommended that SWG take corrective measures to ensure the regulator vent be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building. SWG took corrective action by directing the regulator vent away from the building vent.

SWG provided a photo on October 4, 2019, documenting this corrective action.

Southwest Gas Response:

Southwest Gas confirms the remedial actions, as described by SED above.

Question Text	Are meters and service regulators being installed consistent with the requirements of 192.357?
References	192.351 (192.357(a), 192.357(b), 192.357(c), 192.357(d))
Assets Covered	Dist (Barstow, Victorville, Big Bear) (89837 (32))
Issue Summary	During the field inspection on September 30, 2019, SED observed a meter set assembly located at 13238 Sandia Circle, Victorville, (Leak Survey ID 12L3Y0001060) with a bent riser increasing anticipated stresses on the connecting piping and meter. SED recommended that SWG take corrective measures to minimize the stresses on the connecting piping and meter. In a follow-up SWG reported that it was assessed and determined not to be bent, it was concreted in a slightly leaning position. No further follow up action is required.

Southwest Gas Response:

Southwest Gas confirms the remedial actions, as described by SED above.

Question Text	Is sampling of combustible gases adequate using an instrument capable of determining the percentage of gas in air at which it becomes readily detectable?
References	192.625(a) (192.625(c), 192.625(d), 192.625(e), 192.625(f))
Assets Covered	Dist (Barstow, Victorville, Big Bear) (89837 (32))
Issue Summary	SWG has an "Odorization Tools and Equipment" Procedure, effective date of July 31, 2018, in their Operations Manual. During the field inspection on September 25, 2019, SED observed an odorant test conducted at 152 Maple Lane, Victorville, (Facility ID 13DOL0000003) and a second test on October 3, 2019, conducted at 2700 Barstow Road, Barstow, (Facility ID 11DOL0000001).

"Odorization Tools and Equipment" Procedure, Section 3.3 is for the Heath Odorator Odorometer purchased after 2004 (used in these odorant tests). Section 3.3.2 requires the modification of values to reflect the change in air density due to increased elevation. Step 6 of Section 3.3.2 provides a table entitled, "Actual % Natural Gas (Methane) Correction Chart for Increased Elevation". Actual % gas values must be interpolated from the table. There is an example of interpolation following the tabIe. In both cases, the technician did not interpolate actual % gas values correctly. It should be noted that the other steps (Step 1, 2, 3, 4, and 5) were performed correctly.

SED recommends that SWG take corrective measures to retrain employees in the use of "Odorization Tools and Equipment" Procedure, with specific attention to interpolating values in Section 3.3.2, Step 6.

Southwest Gas Response:

Southwest Gas agrees with SED's recommendation and will complete refresher training on the use of the odorization test procedure, with attention to interpolating values, for the Southern California Division technicians by December 31, 2019. In addition, the table of values in section 3.3.2, utilized in Step 6, will be visually enhanced to improve the ease of use based on feedback received from the technician. The update will be published as part of the next manual release, currently scheduled for June 2020.

Question Text	Are line markers placed and maintained as required?
References	192.707(a) (192.707(b), 192.707(d), CGA Best Practices, v4.0, Practice 2-5, CGA Best Practices, v4.0, Practice 4-20)
Assets Covered	Dist (Barstow, Victorville, Big Bear) (89837 (32))
Issue Summary	During the field inspection on September 24, 2019, SED observed a line marker located at the east intersection of First Street and Holcomb Valley Road, north of California Highway 18, North Shore Drive, San Bernardino County, (Facility ID 13DCP0000073) with wording which was not legible. SED recommended that SWG take corrective action to replace the marker. SWG took corrective action by creating Maintenance Work Order WR#3923141, to replace the line marker. SWG provided a photo on September 26, 2019, documenting the replaced line marker.

During the field inspection on September 30, 2019, SED observed a line marker located on the northwesterly side of Sixth Street between D Street and E Street, behind the building at 16838 D Street, Victorville, (Facility ID 12DCP0000086) with wording which was not legible. SED recommends that SWG take corrective action to replace the marker. SWG took corrective action by replacing the line marker. SWG provided a photo on October 4, 2019, documenting the replaced line marker.

Southwest Gas Response:

Southwest Gas confirms the remedial actions, as described by SED above.

Question Text	Are field or bench tests or inspections of regulating stations, pressure limiting stations or relief devices adequate?
References	192.739(a) (192.739(b))
Assets Covered	Dist (Barstow, Victorville, Big Bear) (89837 (32))
Issue Summary	The field tests of regulating stations and pressure limiting stations are done according to Southwest Gas (SWG) procedures. However, it was observed that the inlet and outlet fire valves are not exercised before doing the regulator maintenance. This applies to both Transmission and Distribution regulator stations. It is a safety concern since if some Abnormal Operating Conditions (AOCs) occur during the regulator maintenance and the need arises to turn off gas at the inlet/outlet valves, there is possibility that these may not be operable. SED understands that these valves are maintained by different crew, however, the schedule of exercising the valves may be different from that for the regulating stations. This will create a safety hazard for the SWG employees and public. SWG should take appropriate action to address this. Two possible solutions are either allowing crew who does regulator station maintenance to exercise fire valves also at the same station (SED understands that they hold OQs for emergency maintenance of the fire valves), and another option is that if two different crews are used, the schedule of maintenance of fire valves and regulator stations be aligned so that these are done at the same time.

Southwest Gas Response:

Southwest Gas' Measurement & Control (M&C) technicians are qualified to operate regulator station and inlet and outlet valves (fire valves). They are also qualified in emergency response and can cycle the valves if called upon to do so in an emergency. M&C Technicians do not exercise

inlet and outlet block valves during regulator station maintenance as valve maintenance is performed by the Company's Construction Technicians. Southwest Gas structures its annual valve maintenance activities under the Construction Department for all underground valves, essential valves (including regulator station inlet and outlet block valves) and service line shut-off valves.