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December 18, 2019

Mr. Dennis Lee
Program & Project Supervisor
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. Lee:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a G.O. 112, Operation and Maintenance Inspection of SoCalGas' Mid-City Los Angeles Distribution Area from September 9, 2019 to September 20, 2019. SED conducted field inspections of pipeline facilities in the Belvedere, Hollywood, and Juanita Distribution districts. SED's staff also reviewed the Operator Qualification program, which included field observation of randomly selected individuals performing covered tasks.

SED staff identified six (6) probable violations and three (3) areas of concern. Attached are SoCalGas' written responses.

Please contact Nadia Hang at (714) 634-3015 if you have any questions or need additional information.

Sincerely,

Nadia Hang
Pipeline Safety & Compliance, Senior Advisor

CC: Desmond Lew, SED
Claudia Almengor, SED
Kan-Wai Tong, SED
Mahmoud Intably, SED
Troy Bauer, SoCalGas

2019 SoCalGas Mid City Los Angeles Distribution Area

9/9/2019 to 9/20/2019

Notice of Probable Violations

1. SED found CP Area HOL046-3, (Hudson Ave south of Yucca St,) using 100 mV criteria with Minimum Pipe-to-Soil (P/S) read of "-0.219 V." since 2013. When questioned, SoCalGas agreed there was an error in the -0.219V criteria and the correct Minimum P/S read should be depolarized + 100 mV + IR Drop, which should be approximately -0.543 V, according to SoCalGas Gas Standard 186.0036, 100 mV Polarization Criteria. On October 4, 2019, SoCalGas confirmed the value of -0.543V as the Minimum P/S criteria which should have been used.

   Therefore, SED found SoCalGas in violation of G.O. 112-F, Reference Title 49 CFR, Part 192, §192.463(a) for failing to determine and apply the correct minimum negative (cathodic) polarization voltage shift of 100 millivolts criterion.

   Response:

   After reviewing the data used to calculate the lower read tolerance in 2013, SoCalGas agrees that the lower read tolerance should have been -543 mV, based on the native read and IR drop measured at that time.

   Corrective Action:

   CP Area HOL046-3 has been requalified since the audit, and the updated lower read tolerance was found to be -337 mV. This is based on a native read of -124 mV, IR drop of -113 mV, and 100 mV of polarization. Based on this updated lower read tolerance, the area is currently in tolerance, and has been in tolerance since the area was qualified in 2013. Records have been updated to reflect the corrected lower read tolerance.

   System Protection field employees in the Region have been re-trained on the use of Gas Standard 186.0036 on 100mV Polarization including the formula used to determine lower read tolerance to verify that their calculations are consistent with the Gas Standard.

2. SED found CP Area LA0837-1-1, Point "C" was established to replace Point "B" due to accessibility issues in March 2018. In October 2018, as part of SoCalGas' CP monitoring activities for the CP Area, reads were taken at points "A" and "B". No read was taken at Point "C". When questioned about not taking a read at Point "C", SoCalGas stated that Point "B" was found to be accessible on the day of the inspection. There was no documentation provided to officially activate or deactivate Point "B" or Point "C". SoCalGas Gas Standard 186.0135, Section 4.3.4.2 states "... record P/S potentials at all routing monitoring locations as established...".

Therefore, SED found SoCalGas in violation of G.O. 112-F, Reference Title 49 CFR, Part 192, §192.465(a) for failing to adequately document cathodic protection monitoring tests as required.

Response:

SoCalGas acknowledges that the read point change proposed by the employee did not get updated before the next scheduled annual read. However, since Read Points B and C are monitoring the same portion of the area, the area was still being monitored by taking reads at Point B.

Corrective Action:

Since Read Point B is currently accessible, it will be kept as the active read point, and the 2018 request to replace it with Read Point C has been cancelled.

Moving forward, employees will email any read point changes to the Lead System Protection Specialist, the System Protection Supervisors, and the System Protection Clerk. The clerk will update the records. This process change will improve communication and read point documentation.

3. The May 19, 1989, Federal Pipeline and Hazardous Materials Safety Administration's (PHMSA) Inspection Guideline and Interpretation #PI-89-006 for 192.465(d) states that, as a rule of thumb, PHMSA interprets "prompt" as having the "correction completed by the time of the next scheduled monitoring".

   SED found numerous Cathodic Protection (CP) packages to be deficient for intervals exceeding SoCalGas' routine monitoring frequency defined in Gas Standard 186.0135, and as required in 49 CFR §192.465(d). Since 2016, SoCalGas has been implementing changes to address the long-term CP Down Areas while developing a proactive approach to the CP areas. SoCalGas provided "Cathodic Protection (CP) status update to SED" since 3rd Quarter of 2016 through 2nd Quarter of 2019. It reported a total of 231 areas that were out of tolerance at system wide for various reasons for a period of longer than a year in September 2015, and then 86 areas in June 2019 (a 63% reduction). During this inspection, SoCalGas provided additional information of 18 Cathodic Protection Areas in Mid-City LA where CP were down greater than one year. SED recognizes that in some instances, factors outside of SoCalGas' control may be the cause of delay for restoring deficient CP packages (i.e. environmental, permitting, moratoriums, etc.). SED has reviewed SoCalGas' response on August 22, 2019 to the O&M Inspection of the Harbor Corridor Area which identified identical violations. SoCalGas should continue to diligently follow up and monitor these areas and maintain documentation of actions taken.

Response:

As SED noted, SoCalGas has been implementing changes to address long-term out of tolerance CP areas. One example is updating Gas Standard 186.0135 to define prompt remedial action and provide escalation and notifications for out-of-tolerance areas. SoCalGas recognizes that it still has CP areas that have been out-of-tolerance more than a year and is working diligently to bring down that number.

Corrective Action:

SoCalGas has brought eleven of the 18 areas into tolerance. The remediation for these areas and the dates they were brought into tolerance are shown in the table below.

Area	Date Read Out of Tolerance	Date Brought into Tolerance	Remediation Work Completed
BEV028-1	11/09/16	09/18/19	Installed Rectifier and Deep Well and Cleared Shorts
HOL101-8	08/03/17	09/11/19	Installed Anodes and Cleared Shorts
HOL106-7	08/04/17	09/19/19	Installed Anodes and Cleared Shorts
BEV078-5	09/19/17	08/21/19	Installed Anodes and Cleared Shorts
CEN053-A-2	12/19/17	07/17/19	Installed Anodes
BEV100-9	01/24/18	10/13/19	Installed Anodes
HOL055-6	04/09/18	07/11/19	Installed Anodes
BEV089-5	04/13/18	11/27/19	Installed Anodes and Replaced Service
BEV080-3	04/18/18	12/04/19	Installed Anodes
CEN042-C-3	06/08/18	08/05/19	Installed Anodes
HOL115-11	06/08/18	08/21/19	Installed Anodes and Cleared Shorts

For the remaining areas, SoCalGas is actively working on remediation efforts, and has summarized the status of those efforts below. SoCalGas will continue to work diligently to address all required remediation.

Area	Date Read Out of Tolerance	Status of Remediation Work
BEV110-9	04/21/17	One of three anode installation orders has been completed. The remaining orders are waiting on permits from the City of Beverly Hills.* The permits were initially requested 8/23/17 and 3/20/18.
HOL027-2	07/14/17	An anode installation order and a service replacement have been completed. An order to clear an underground short received its permit and has been scheduled for completion.
BEV007-1	09/19/17	Two of four anode installation orders have been completed and an MSA short has been cleared. The remaining orders have permits and are waiting on approval to move forward from the City of Beverly Hills inspector.*
BEV110-1	01/23/18	One of six anode installation orders has been completed. The remaining orders are waiting on permits from the City of Beverly Hills.* The permits were initially requested 10/3/18, 12/4/18, 1/2/19, 1/31/19, and 3/11/19.
HOL054-11	04/09/18	Four of five anode installation orders have been completed and shorts have been cleared. The remaining order received its permit and has been scheduled for completion.
BEV088-1	04/12/18	Two anode installation orders have been completed. An order to clear an underground short is waiting on a permit from the City of Beverly Hills.* The permit was initially requested 6/8/18.
HOL114-1	06/20/18	Metro is installing insulating wedges between their brackets and the shorted pipeline. They anticipate that work will be completed in December.

* SoCalGas is currently experiencing delays in getting permits from the City of Beverly Hills due to a new requirement from their inspectors. SoCalGas is actively working on getting the permits updated so that work can move forward.

4. SoCalGas Gas Standard 184.16, Section 4.7, Inaccessible Valves, Section 4.7.2.2, states, "If unable to inspect valve within the compliance window timeframe, District Supervision will contact Region Planning and Engineering to have a temporary alternate shutdown plan identified and documented to provide the same function as the inaccessible valve. This may include a designated squeeze point of known pressure control fitting."

   SoCalGas Gas Standard 184.16, Section 4.8, Inoperable Valves, Section 4.8.2.1, states, "District Supervision will contact Region Planning and Engineering for a temporary

alternate shutdown plan that provides the same functionality as the inoperable valve. This temporary alternate shutdown plan must be documented and communicated to all applicable employees. This plan may include the use of a known existing valve, pressure control fitting, or designated squeeze point."

The following valves were found either inaccessible or inoperable and did not promptly have a temporary alternate shutdown plan:

District	Valve Name	Work Order Number	Date Found Inaccessible or Inoperable	Date of Alternate Shutdown Plan	OR Date of Next Satisfactory Inspection	Inspection Cycles Missed
Hollywood	33-328	520001268660	4/11/16	4/2/19		3
Hollywood	1606-02	520001605379	8/25/17		2/27/18	1
Hollywood	1612-03	520001605380	8/24/17		5/24/18	1
Juanita	1617-16	520001788741	7/30/18	7/26/19		1
Juanita	1623-28	520001489771	4/25/17	8/9/17		1
Belvedere	30-CTA628	520001705784	2/15/18	9/9/19		2
Hollywood	43001-C5	520001540507	5/26/17		5/8/19	2
Juanita	33-248	520001843694	10/29/18	9/10/19		1
Hollywood	33-12-C-233	520001844170	10/25/18		9/14/19	1
Hollywood	43-750-03	520001314579	6/6/16		6/16/17	1
Hollywood	43-750-03	520001735617	3/15/18		9/20/18	1
Hollywood	33-231	5200015977617	8/24/17		8/27/18	1

Therefore, SED found SoCalGas in violation of G.O. 112-F, Reference Title 49 CFR, Part 192, §192.747(a) for failing to check and service each valve at intervals not exceeding 15 months and §192.747(b) for failing to have an alternate shutdown plan for valves inaccessible or inoperable.

Response:

For two of the five valves that remain inoperable or inaccessible, the dates that SED notes in the table above correspond to updated versions of the alternate shutdown plans, and not the original plans that were generated when those valves were reported inoperable. The original alternate shutdown plan for Valve 33-328 was dated 5/2/16, and the original alternate shutdown plan for Valve 30-CTA628 was dated 2/15/18, therefore, both plans were created promptly. In addition, it appears that SED did not fill in the alternate shutdown plan dates for valves that are currently satisfactory. Furthermore, Valve 43-750-03 had an alternate shutdown plan dated 6/9/16 thus the alternate shutdown plan for that valve was also created promptly.

For the remaining valves, SoCalGas acknowledges the delay in creating prompt alternate shutdown plans per Part 192, §192.747(b).

Corrective Action:

For the valves that remain inoperable or inaccessible, alternate shutdown plans have been updated. The current dates for the shutdown plans are shown in the table below.

District	Valve Name	Date Found Inaccessible or Inoperable	Date of Current Alternate Shutdown Plan
Hollywood	33-328	04/11/16	10/03/19
Juanita	1617-16	07/30/18	07/26/19
Juanita	1623-28	04/25/17	09/09/19
Belvedere	30-CTA628	02/15/18	09/09/19
Juanita	33-248	10/29/18	09/10/19

Exception reports have been run for the full region to verify that all valves currently identified as inoperable or inaccessible have current alternate shutdown plans.

In addition, Gas Standard 184.16 on Valve Inspections and Maintenance – Distribution has been reviewed with District employees. This standard requires employees to immediately report inoperable or inaccessible valves to the responsible supervisor, who then would request an alternate shutdown plan.

5. On September 19, 2019, SED observed SoCalGas performing Leak Survey. SoCalGas Gas Standard 223.0100, "Leakage Surveys", Section 4.11, addresses "Abnormal Operating Conditions". Section 4.12, states, "Issue orders for investigation and correction when any abnormal conditions...or when the following conditions, but not limited to, are encountered:". Section 4.12.8, specifies, "Exposed piping showing evidence of atmospheric corrosion, chemical corrosion and other conditions that warrant concern". During the Leak Survey inspection, SED noticed an above ground pipe with moderate atmospheric corrosion. When SED brought this to the attention of the Belvedere technician, he stated it was not his responsibility to report or record the issue. He stated that those matters were Patrolling issues.

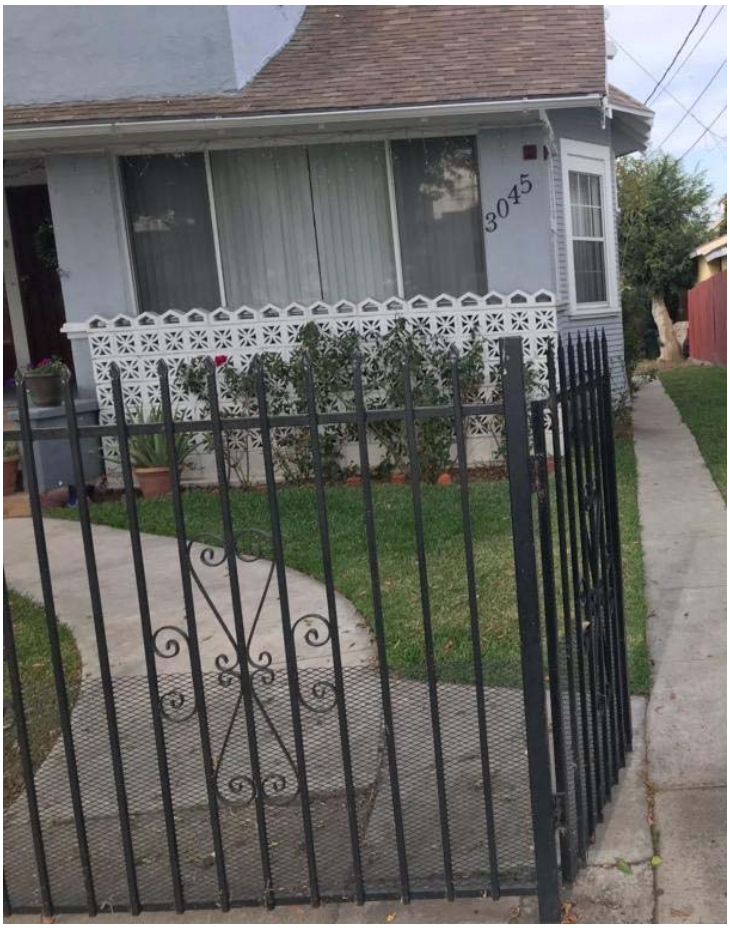
   Therefore, SED found SoCalGas in violation of G.O. 112-F, Reference Title 49 CFR, Part 192, §192.801(a) for failing to train its technician to address an Abnormal Operating Condition according to SoCalGas Gas Standard.

   Response:

   SoCalGas agrees with SED that it is the responsibility of the employee performing leak surveys to look for abnormal operating conditions, including corrosion. However, SoCalGas disagrees with SED's statement that the above ground pipe had moderate atmospheric corrosion. The MSA was found to have surface rust that was addressed by painting the MSA.

Corrective Action:

The rust on the MSA in question has been addressed and the MSA has been painted. Pictures of the painted MSA are below.



In addition, Gas Standard 223.0100 on Leakage Surveys was reviewed with District employees. This standard requires employees to perform visual examinations of above ground facilities and issue follow-up orders for abnormal operating conditions, including corrosion.

6. SoCalGas Gas Standard 184.16, Section 4.6.4, states, " 'Hard to operate' valves are placed on a quarterly inspection schedule".

   The following valves were found "Hard to operate", and should have been inspected quarterly:

District	Valve Name	Work Order Number	Inspection Date	Inspection Cycles Missed
Hollywood	33-276	520001721062	4/20/18	4
Belvedere	3011-14	520001730033	3/20/18	4
Belvedere	3009-06	520001720377	3/6/18	4
Belvedere	30-CTA241	520001720430	2/21/18	4
Belvedere	30-02-06	520001720373	2/16/18	4
Belvedere	30-IMP572	520001513021	5/18/17	4
Belvedere	30-IMP628	520001513046	5/22/17	4

   Therefore, SED found SoCalGas in violation of G.O. 112-F, Reference Title 49 CFR, Part 192, §192.605(a) for failing to follow their written procedure to inspect "Hard to operate" valves quarterly.

Response:

SoCalGas acknowledges that these valves were not placed on quarterly inspection cycles as they should have been when they were identified as hard to operate. There are exception reports in place to monitor for hard to operate valves, but these reports were not being properly monitored.

Corrective Action:

Gas Standard 184.16 on Valve Inspection and Maintenance – Distribution was reviewed with the System Protection Clerks. The clerks have been counseled on their responsibility to run exception reports monthly to look for hard to operate valves, and to place those valves on a quarterly inspection schedule.

In addition, exception reports were completed for the entire region to verify that all valves currently identified as hard to operate have been placed on quarterly inspection cycles.

SoCalGas plans to automate the hard to operate valve follow up order via SAP which will eliminate creating the orders manually.

All valves identified above as hard to operate are currently operating satisfactory and are on an annual inspection cycle. The dates of the satisfactory valve inspections are listed below.

District	Valve Name	Date Found Hard to Operate	First Satisfactory Inspection	Second Satisfactory Inspection
Hollywood	33-276	04/20/18	04/08/19	08/21/19
Belvedere	3011-14	03/20/18	03/05/19	08/27/19
Belvedere	3009-06	03/06/18	02/08/19	08/27/19
Belvedere	30-CTA241	02/21/18	02/08/19	08/26/19
Belvedere	30-02-06	02/16/18	02/07/19	08/27/19
Belvedere	30-IMP572	05/18/17	05/18/18	04/09/19
Belvedere	30-IMP628	05/22/17	06/20/19	09/30/19

Areas of Concern/Recommendation

1. (1) On September 18, 2019, SED observed a regulator station located at 5071 Coldwater Canyon Drive, Beverly Hills, approximately six feet away from the sidewalk curb face, with no protection from vehicular damage. SED recommends that this regulator station be protected from vehicular damage.

SoCalGas completed Work Order Number 520002258898 which installed bollards to protect the station from vehicular damage. On October 18, 2019, SoCalGas provided a photo showing the station with newly installed bollards. This concern is closed. No follow up response is required.

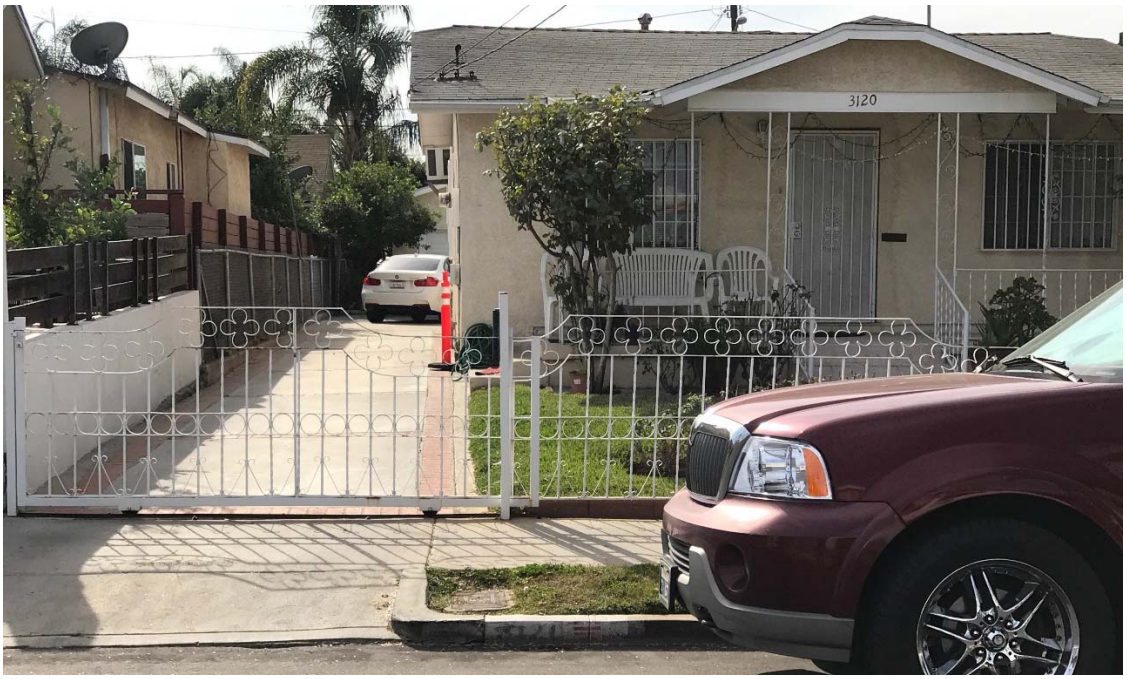
(2) On September 19, 2019, SED observed a Meter Set Assembly (MSA) located in the driveway at 3120 East Second Street, Los Angeles, with no protection from vehicular damage.

SED recommends that SoCalGas takes the appropriate corrective measure to protect the MSA from vehicular damage.

Response:

(1) As stated by SED above, the regulator station at 5071 Coldwater Canyon Dr., Beverly Hills has already been addressed.

(2) The area around the MSA at 3120 E. Second St. Los Angeles, does not have adequate space for a meter guard, therefore the service will be relocated to the opposite side of the house. The service replacement job has been planned and is currently waiting on permits. In the interim, a temporary delineator post and base has been placed in front of the existing MSA as a visual reminder for the customer. Pictures have been included below.



2. During field inspection, SED observed the following cathodic potential readings and found deficiencies in the cathodic protection systems:

    - HOL099-7 (100 mV polarization criteria with Minimum P/S read -726 mV)
      -609 mV @ read point E
    - ADA099-6 (100 mV polarization criteria with Minimum P/S read -479 mV)
      -430 mV @ read point A
    - TSIL051-1 (-850 mV criteria)
      -799 mV @ read point B
    - HOL054-11 (-850 mV criteria)
      -691 mV @ read point A
    - HOL088-5 (100 mV polarization criteria with Minimum P/S read -525 mV)
      -391 mV @ read point A
    - HOL102-9 (-850 mV criteria)
      -565 mV @ read point Q
    - CEN027-1 (100 mV polarization criteria with Minimum P/S read -632 mV)
      -617 mV @ read point E
    - LA0837-1-1 537 D Montebello Blvd (100 mV polarization criteria with Minimum P/S read -743 mV)
      -702 mV @ read point A
    - SL 130/140 is currently down

SED recommends that SoCalGas takes the appropriate corrective measure to ensure each Cathodic Protection System meets the appropriate monitoring criteria

Response:

The table below has the current status and actions taken to address the above readings.

Area	Read Point	Read During Audit (mV)	Date Point Was Read Up	Up Read (mV)	Remediation
HOL099-7	E	-609	10/27/19	-740	Cleared above ground short.
ADA009-6	A	-430	10/07/19	-623	Area was found in tolerance by employee-initiated troubleshooting. It is possible that there was a temporary short, such as something leaning against a meter during the audit reads.
TSIL051-1	B	-799			Area remains out of tolerance. Anode installation order has been scheduled for completion.
HOL054-11	A	-691			Area remains out of tolerance. Four of five anode installation orders have been completed and shorts have been cleared. The remaining order received its permit and has been scheduled for completion.
HOL088-5	A	-391	11/25/19	-851	Cleared above ground shorts.
HOL102-9	Q	-565			Area remains out of tolerance. Service replacement to clear underground short has been planned and permits have been received. It is now being issued for completion.
CEN027-1	E	-617			Area remains out of tolerance. One possible short has been identified, and additional troubleshooting is in progress.
LA0837-1-1	A	-702	10/29/19	-816	Area was found in tolerance by employee-initiated troubleshooting. It is possible that there was a temporary short, such as something leaning against a meter during the audit reads.
SL-130/L-140	N/A	N/A	10/22/19	-900 – -1420	Replaced rectifier fuse. A specific read point was not noted, but the reads taken when the area was brought into tolerance ranged from -900 mV to -1,420 mV.

3. On September 18, 2019, SED observed SL 130/140 as part of the bridge and span field inspection. The bridge (B20) had previously been reported exhibiting coating damage according to inspection records in 2017 and 2019. While in the field, the coating damage was confirmed to be present. SoCalGas personnel stated they were aware of the condition and were looking into remediation action for the bridge.

   SED recommends that SoCalGas takes the appropriate corrective measure to repair the coating damage on its pipeline.

   Response:

   SoCalGas is actively working on a plan to re-wrap the pipe. The plan is taking some time due to complications such as the number of agencies that need to approve the plan, environmental concerns, the age of the bridge, and the fact that SoCalGas is not permitted to drill into the bridge to perform the work. SoCalGas has established monthly meetings to monitor progress and verify that ongoing efforts continue until the exposed pipe is fully addressed.

   Below is a list of the various agencies that may need to approve the plan before work can start:

   - Army Corp of Engineers – Los Angeles River water permitting
   - Union Pacific Railroad – Right of way access under the bridge
   - South Coast AQMD – If over 100 square feet of asbestos wrap is removed
   - Metropolitan Transportation Authority (MTA) – Landowner
   - Amtrak Railroad – May be subleasing from MTA
   - California High Speed Light Rail – Possible jurisdiction