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July 27, 2017

Mr. Ken Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
320 W. Fourth Street, Suite 500
Los Angeles, CA 90013

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a G.O. 112, Operation and Maintenance Inspection of San Diego Gas and Electric Company's (SDG&E) critical valves and Meter and Regulation (M&R) system in the South Distribution Area from July 11 - 15, 2016. The inspection included a review of the Unit's M&R records for the calendar years 2013 to 2015 and random field inspections of pipeline facilities in Metro, Eastern and Beach Cities districts. SED staff also reviewed the Inspection Unit's Operator Qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED staff identified two probable violations and noted three recommendations. Attached are SDG&E's written responses.

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

Sincerely,



Troy A. Bauer

CC:
Michelle Wei, SED/GSRB
Kan Wai Tong, SED/GSRB

ATTACHMENTS

**Summary of Inspection Findings
2016 SDG&E South Distribution Inspection
July 11-15, 2016**

I. SED Identified Probable Violations

Title 49 Code of Federal Regulations (CFR), Part 192 Section 192.747(a) – Valve maintenance: Distribution systems

§192.747(a) Valve maintenance: Distribution Systems states in part:

“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.”

SED noted that the Inspection Unit did not inspect two valves as required by 192.747(a). SED staff identified the first valve during record review. The Inspection Unit had visited Valve 762 in the Eastern District on July 1, 2015 but found it to be inaccessible. There was no evidence of a follow up work order and there was a confusion about whether or not the valve had been removed from service. Thus, Valve 762 was not inspected during calendar year 2015. SED staff identified the second valve during field inspections. During record review, SED staff noticed that the status of Valve 6395 in the Metro District changed from Closed to Open and back to Closed. SED staff requested a field visit to the location and observed the inspection of the valve on July 14, 2016. While in the field, SED and the Inspection Unit personnel noted that at some point in the inspection history, a non-critical, closed valve was tagged as Valve 6395. This was the valve inspected in 2013 and 2015. However, the actual Valve 6395 was located around the corner of the same intersection and is not a normally closed valve. The Inspection Unit found the correct valve, operated it successfully, and updated its records to reflect the correct location of the valve. Thus, the Inspection Unit did not inspect Valve 6395 in 2013 or 2015 because the crews inspected a different valve at the same intersection. SDG&E did not inspect these two valves within the required time frame. Therefore, SDG&E is in violation of General Order 112-F, Reference Title 49 CFR, Part 192 §192.747(a).

RESPONSE:

Due to ongoing PSEP construction work near Valve 762, the maintenance crew mistakenly thought the valve had been removed from service at the time of their 2015 inspection visit. The actual valve was removed from service on 7/21/2016.

There are 5 maintained valves, including Valve 6395, at an intersection in the City of Chula Vista. At some point, two separate valves were tagged with the same valve number which caused a misunderstanding during subsequent annual inspections. Records show that at the 11/20/2013 inspection (the first one in the new SAP work management system), the crew reported Valve 6395 as closed and locked. The 12/19/2014 inspection indicates that the valve was tagged and we believe this was the appropriate Valve 6395. The 10/11/2015 inspection is inconclusive as to which of the 2 valves was inspected. As noted in the Probable Finding, the issue was corrected in 2016 by removal of the tag on the normally closed valve.

CORRECTIVE ACTIONS:

SDG&E employee's responsible for the inspection and maintenance of Distribution Critical Valves (Valve 762) of Gas Standard D8167(Valve Inspection and Maintenance – Distribution) will be given refresher training. This standard provides guidance when encountering inaccessible valves, when a valve that cannot be located, or cannot be accessed due to unforeseen field conditions. This would specify that inaccessible valves are reported as an 'as left' condition. If a critical valve cannot be accessed while conducting the valve inspection, the valve is reported as inaccessible. Inaccessible valves are reported immediately to the responsible supervisor. If we are unable to inspect the valve within the compliance window timeframe, supervision will contact Miramar Region Engineering to have a temporary alternate shutdown plan identified and documented to provide the same function as the inaccessible valve. When the district resolves the inaccessible condition, the district will complete a miscellaneous valve inspection and if the inspection results are satisfactory, the temporary alternate procedure is removed.

As stated in Gas Standard D8167, discrepancies that are found in the field between valve tag and corresponding valve inspection orders will get escalated to the responsible supervisor for resolution. If the supervisor determines that a change in the 'as found' valve position is determined to be necessary, supervision will contact Region Engineering prior to directing a crew to change the position of a valve. Region Engineering will evaluate any valve position change prior to the valve being moved.

II. SDG&E Identified Probable Violation

Title 49 CFR, Part 192 Section 192.747(b) – Valve maintenance: Distribution systems

§192.747(b) Valve maintenance: Distribution systems states in part:

“Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve.”

SDG&E discovered and notified SED that they did not take prompt action to correct 24 inoperable valves as required by 192.747(b). The valves were initially found to be inoperable from September 2015 to April 2016. SDG&E became aware of this issue on May 6, 2016 and conducted field visits of the inoperable valves on May 9 and 10, 2016. At that point, eight of the valves were able to be moved after flushing and lubricating and their status became “hard to operate.” These were placed on a quarterly inspection schedule. One of the valves was found satisfactory. It had mistakenly been designated as inoperable due to an earlier clerical error. This has since been corrected. Of the remaining 15 valves, SDG&E engineering determined that seven were able to be removed from the critical valve program and created alternative control plans for the other eight. See Attachment 2 for the full list of valves.

SDG&E informed SED that they were looking into using valve operator handles that provide more leverage and also re-evaluating current valve maintenance practices. SED instructed SDG&E to provide SED with an update on progress made in this area since the inspection. SDG&E failed to promptly address the inoperable valves. Therefore, SDG&E is in violation of General Order 112-F, Reference Title 49 CFR, Part 192 §192.747(b).

RESPONSE:

As indicated, once discovered and valve statuses were confirmed in the field, SDG&E notified SED of our findings. Of the 24 valves recorded as inoperable during field inspections, 15 remained in an inoperable status after our immediate follow-up inspections. Of these 15, the 8 that are required to remain in the Critical Valve program have documented alternate control plans in place and are currently in process to be replaced. As of 7/1/17, one replacement (6605) has been completed, 6 more are expected to be replaced by year end, and the last replacement will occur in the 1st quarter of 2018.

CORRECTIVE ACTIONS:

SDG&E employee’s responsible for the inspection and maintenance of Distribution Critical Valves (Valve 762) of Gas Standard D8167 (Valve Inspection and Maintenance – Distribution) will be given refresher training. This standard provides guidance on reporting inoperable valves immediately to the responsible supervisor if they cannot be made operable within the same day. This standard provides additional guidance for supervision to work with Miramar Region Engineering to develop a temporary alternate shutdown plan that provides the same functionality as the inoperable valve. Also, the temporary alternate plan is 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. A temporary alternate shutdown plan shall not be considered a permanent substitute for designating a control valve, or repairing/replacing the existing inoperable valve. The temporary alternate plan is evaluated every six months until the repair or replacement is complete.

Finally, under direction from local management, Gas Operations clerical personnel are providing weekly reports that include valve inspection results which show any valve inspection that may have resulted in an inoperable or hard to operate inspection status. These weekly reports are being monitored by front line supervision.

SDG&E valve maintenance practices have been modified to include adding appropriate flush and lubrication materials to storeroom stock at the Miramar facility. Additionally, SDG&E has gone to a valve operator that can accommodate a third handle/person during exercising activities. The new valve operators have been distributed to all 3 permanent SDG&E valve maintenance crews.

SED Recommendations

1. SED noted that SDG&E has no specific guidance in its procedure on what makes a valve hard to operate and what kind of mitigation would take place in case a valve were found hard to operate. When this issue was discussed in the field with employees from this Inspection Unit they indicated that their usual process would be to lube or flush a valve and then come back to work on it again in a few days to see if it's condition was now satisfactory. However, it was not clear whether this process was one followed by all SDG&E employees or not. Therefore, SED recommends that SDG&E expand their procedure to define hard to operate valves and explain what the mitigation process would be so that all SDG&E employees can use the same approach.

RESPONSE:

As mentioned in response to Probable Violation II, SDG&E Gas Standard D8167 "Valve Inspection and Maintenance – Distribution," is currently being revised. In addition to documenting the requirement to notify supervision when any valve is found to be inoperable, the revised standard provides guidance on how a valve is determined to be hard to operate and what actions are taken when it is. Documented actions include notifying supervision and placing the valve on a quarterly follow-up cycle to continue to flush and exercise the valve to restore normal operations. The standard also requires notification to Region Engineering for evaluation and possible valve replacement if after 3 quarterly follow-ups the valve remains hard to operate.

2. SED noted that SDG&E has many normally closed valves in their system which they inspect as "critical" valves. In an inspection report to Southern California Gas Company earlier this year, SED recommended that any valve listed as critical should be operated as part of its inspection process. Please reference the San Fernando Valley Distribution Inspection Unit Inspection Report (GI2016-06-SCG66-02B), Recommendation #1. Therefore, SED recommends that SDG&E review its valve list and their functions and update its critical valve list as soon as possible.

RESPONSE:

Another update to standard D8167 includes clarifying that valves that are in a normally closed position are classified as "Non-Critical" valves. These valves will continue to receive an annual inspection work order but will not be part of the CFR 192.747(a) valve service and reporting requirements. All normally closed valves that were part of the critical valve program have been updated in the SAP work management system to reflect this change.

3. SED noted during record review that the Inspection Unit had many valves that were listed with "unsatisfactory" conditions. However, upon further investigation, SED discovered that they were not listed as such because of the valve condition itself, but the condition of the valve cans. The Inspection Unit explained to SED that because of a high ground water table in the area, the valve cans have a tendency to deteriorate more quickly and often need to be replaced. However, the current SDG&E valve records do not articulate the reason for the unsatisfactory condition, which may hinder proper prioritization of resource allocation. Therefore, SED recommends that SDG&E somehow make a distinction in their records

between valves that may be in an unsatisfactory condition because of the operation of the valve or due to the valve's cans to ensure that any unsatisfactory valve will be remediated promptly.

RESPONSE:

The issue here dates to earlier versions of our valve inspection reports that did not differentiate between an unsatisfactory valve condition versus an unsatisfactory vault (or valve can) condition. The current version of the report clearly identifies conditions found for both the valve and the vault.

Attachment 2

District	Valve #	Equipment #	Date Found Inoperable	Action Taken
Beach Cities	6605	600613557	10/1/2015	Alternative control plan created
Beach Cities	6615	600613567	10/13/2015	Alternative control plan created
Beach Cities	6618	600613570	10/2/2015	Removed from annual maintenance schedule
Construction Metro	1175	600612107	11/11/2015	Hard to operate
Construction Metro	1097	600612064	11/18/2015	Removed from annual maintenance schedule
Construction Metro	6197	600613175	11/16/2015	Removed from annual maintenance schedule
Construction Metro	6322	600613291	10/21/2015	Removed from annual maintenance schedule
Construction Metro	6323	600613292	10/21/2015	Removed from annual maintenance schedule
Construction Metro	6334	600613303	11/18/2015	Removed from annual maintenance schedule
Construction Metro	6371	600613337	9/9/2015	Alternative control plan created
Construction Metro	6396	600613356	11/13/2015	Alternative control plan created
Construction Metro	6518	600613471	10/26/2015	Alternative control plan created
Construction Metro	731	600614155	11/18/2015	Alternative control plan created
Construction Metro	733	600614157	10/15/2015	Alternative control plan created
North Coast	2743	600612505	4/11/2016	Alternative control plan created
North Coast	6851	600613797	3/22/2016	Hard to operate
North Coast	6879	600613824	3/15/2016	Hard to operate
North East	6097	600613075	4/12/2016	Removed from annual maintenance schedule
North East	2319	600612366	3/15/2016	Found satisfactory
North East	6986	600613934	2/23/2016	Hard to operate
North East	6987	600613935	2/23/2016	Hard to operate
North East	6988	600613936	2/23/2016	Hard to operate
North East	7037	600613987	1/28/2016	Hard to operate
North East	7099	600614050	1/25/2016	Hard to operate