SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA-46)
Date Requested: November 3, 2016
Date Responded: November 18, 2016

PRELIMINARY STATEMENT

1. These responses and objections are made without prejudice to, and are not a waiver of, SDG&E and SoCalGas' right to rely on other facts or documents in these proceedings.
2. By making the accompanying responses and objections to these requests for data, SDG&E and SoCalGas does not waive, and hereby expressly reserves, its right to assert any and all objections as to the admissibility of such responses into evidence in this action, or in any other proceedings, on any and all grounds including, but not limited to, competency, relevancy, materiality, and privilege. Further, SDG&E and SoCalGas makes the responses and objections herein without in any way implying that it considers the requests, and responses to the requests, to be relevant or material to the subject matter of this action.
3. SDG&E and SoCalGas will produce responses only to the extent that such response is based upon personal knowledge or documents in the possession, custody, or control of SDG&E and SoCalGas. SDG&E and SoCalGas possession, custody, or control does not include any constructive possession that may be conferred by SDG&E or SoCalGas' right or power to compel the production of documents or information from third parties or to request their production from other divisions of the Commission.
4. A response stating an objection shall not be deemed or construed that there are, in fact, responsive information or documents which may be applicable to the data request, or that SDG&E and SoCalGas acquiesces in the characterization of the premise, conduct or activities contained in the data request, or definitions and/or instructions applicable to the data request.
5. SDG&E and SoCalGas objects to the production of documents or information protected by the attorney-client communication privilege or the attorney work product doctrine.
6. SDG&E and SoCalGas expressly reserve the right to supplement, clarify, revise, or correct any or all of the responses and objections herein, and to assert additional objections or privileges, in one or more subsequent supplemental response(s).
7. SDG&E and SoCalGas will make available for inspection at their offices any responsive documents. Alternatively, SDG&E and SoCalGas will produce copies of the documents. SDG&E and SoCalGas will Bates-number such documents only if SDG&E and SoCalGas deem it necessary to ensure proper identification of the source of such documents.
8. Publicly available information and documents including, but not limited to, newspaper clippings, court papers, and materials available on the Internet, will not be produced.

9. SDG&E and SoCalGas object to any assertion that the data requests are continuing in nature and will respond only upon the information and documents available after a reasonably diligent search on the date of its responses. However, SDG&E and SoCalGas will supplement its answers to include information acquired after serving its responses to the Data Requests if it obtains information upon the basis of which it learns that its response was incorrect or incomplete when made.
10. In accordance with the CPUC's Discovery: Custom And Practice Guidelines, SDG&E and SoCalGas will endeavor to respond to ORA's data requests by the identified response date or within 10 business days. If it cannot do so, it will so inform ORA.
11. SDG&E and SoCalGas object to any ORA contact of SDG&E and SoCalGas officers or employees, who are represented by counsel. ORA may seek to contact such persons only through counsel.
12. SDG&E and SoCalGas objects to ORA's instruction to send copies of responses to entities other than ORA.

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QUESTION 1:

Subject: Maximum Allowable Operating Pressure

In response to ORA DR-42, Question 9c, SoCalGas/SDG&E stated:

All remaining crack-like anomalies that were detected through in-line inspection have predicted failure pressure ratios greater than or equal to two times the MAOP.

What is the specific MAOP value that SoCalGas/SDG&E are referring to in the response to ORA DR-42, Question 9c? Is it the MAOP of 800 psig established under 49 CFR 192.619 (c)? The reduced MAOP of 640 psig that SoCalGas/SDG&E undertook in 2011? The current MAOP of 512 psig as ordered under Resolution SED-01? Or is it the proposed MAOP of 320 psig if Line 1600 is derated?

RESPONSE 1:

The MAOP referenced in response to ORA DR-42, Question 9c is the reduced MAOP of 640 psig that SDG&E and SoCalGas (Applicants) undertook in 2011.

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QUESTION 2:

In response to ORA DR-42, Question 9b, SoCalGas/SDG&E stated:

Less than 1% of pipe segments on Pipeline 1600 that were manufactured with an EFW Longitudinal seam weld that show indications of hook cracking.

a. Exactly how many feet of pipeline have shown indications of hook-like cracking?

b. In feet, what is the total length of Line 1600?

c. How much would it cost to replace only the sections of pipe that have shown indications of hook-like cracking?

d. Has SoCalGas/SDG&E conducted any analyses indicating the likelihood of Line 1600 developing hook-like cracking in areas that currently do not have hook-like cracking? If so, please provide those analyses.

e. Has SoCalGas/SDG&E observed growth in the hook-like cracking?

f. Has SoCalGas/SDG&E documented growth in the hook-like cracking?

g. If the answers to questions e or f are yes, at what pace has each hook-like crack grown?

RESPONSE 2:

a. Applicants' response to ORA DR-42, Question 9b was limited to "known" hook cracks – please refer to the Prepared Direct Testimony of Travis Sera at page 11, Line 13. Known hook cracks are indications that have been classified by the in-line inspection vendor as "crack-like" anomalies, and subsequently confirmed to be hook cracking through direct examination and analysis. The applicants did not excavate all reported crack-like anomalies, but believe any remaining crack-like anomaly is also hook cracking. The total length of crack-like anomalies that were excavated is 2.35 feet and distributed across 5 pipe segments[1] that were replaced (total segment length: ~245 feet). Approximately 1.18 feet of crack-like anomalies distributed across 8 pipe segments (total segment length: ~320 feet) were not examined and remain in service.

[1] Pipe segment length is the distance between the nearest upstream and downstream girth weld from an anomaly and determined using the ILI data.

Additionally, there are 691 anomalies[2] distributed across 528 pipe segments (total segment length: ~20,488.17 feet) were reported as containing either long seam, manufacturing or metal loss anomalies located on the EFW longitudinal seam where the presence of hook cracking cannot be ruled out. The total length for these anomalies cannot be calculated because the length of 443 anomalies could not be determined by the ILI vendor.

It should be noted that the values provided above are limited to anomalies reported by the in-line inspection vendor, and that the potential for undetected anomalies must be considered as part of this Application (please see discussion in Mr. Sera's testimony at page 20, lines 3-13).

b. Approximately 263,300 feet.

c. Applicants object to Question 2(c) on the grounds that it requires Applicants to conduct an investigation and perform calculations that are unduly burdensome. Subject to and without waiving these objections, Applicants respond as follows.

Applicants have not completed a study that would be necessary to determine this value, and the time, effort and resource requirements to do so are overly burdensome. As discussed in the response to Question 2(a) above, the exact number and location of all hook cracks is not definitively known as there are a significant number of potential hook cracks that may or may not have to be replaced. The total cumulative length of individual pipe segments, that based on the in-line-inspection data where the presence of hook cracking cannot be eliminated, is approximately 20,800 feet. Generating an estimate is overly burdensome due to the number of locations that would need to be evaluated and estimated and the fact that the specific work and ultimately the cost for each location can vary greatly due to the differing circumstances associated with each section needing to be replaced. The cost for replacing a section can vary from a few hundred thousand dollars to several million dollars depending on the technical complexity, ability to shut down the line without impacting customers, location of replacement work, accessibility, permitting, environmental constraints, traffic considerations, work time and work space restrictions, etc. In certain locations where constraints limit the ability to perform the work, it may be necessary to relocate the line which could cost in the millions of dollars.

d.-f. No.

g. Not Applicable.

[2] An unexamined pipe feature which is classified as a potential deviation from sound pipe material, welds, or coatings. All engineering materials contain anomalies which may or may not be detrimental to material performance.

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QUESTION 3:

Do all valves, fittings, flanges, and other appurtenances on Line 1600 have a maximum allowable operating pressure equal to or greater than 800 psig?

a. If not, please identify all valves, fittings, flanges and other appurtenances on Line 1600 that have a maximum allowable operating pressure (MAOP) of less than 800 psig.

b. For each such appurtenance provided in response to question 3a, please identify the MAOP, the installation date, the specifications that show the SMYS value, the current class location, and the beginning and ending mileposts.

c. How many valves are there on Line 1600 that have an MAOP of equal to or greater than 800 psig?

d. How many flanges are there on Line 1600 that have an MAOP of equal to or greater than 800 psig?

e. How many other appurtenances are there on Line 1600 that have an MAOP of equal to or greater than 800 psig?

RESPONSE 3:

Yes, all valves, fittings, flanges, and other appurtenances on Line 1600 have a MAOP equal to or greater than 800 psig.

a. N/A.

b. N/A.

c. 17 main line valves.

d. 7 main line flanges.

e. N/A, see above.

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QUESTION 4:

Subject: Engineering Assumptions

For how many years has SoCalGas/SDG&E been operating Line 1600 using assumed data for the section of pipe that was ordered to be replaced under Resolution SED-01?

RESPONSE 4:

Applicants object to this Question on the ground that it assumes facts not in evidence. Subject to and without waiving their objection, Applicants respond as follows.

On an annual basis, operators are required to submit a Transmission Annual report to the Pipeline and Hazardous Materials Safety Administration (PHMSA) (Form F71002-1). In 2012, PHMSA required operators to provide an MAOP Determination (Part Q) to categorize the method per 49 CFR 192.619 used to establish MAOP for transmission pipelines. During this process Applicants identified that the segment that was ordered to be replaced under Resolution SED-01 had limited information regarding the wall thickness and grade as part of the installation work order. However, using this limited information combined with Applicants' engineering design standards, materials and standards catalogs, material requisitions and purchase orders, Applicants were able to establish conservative minimum values for wall thickness and grade and prefixed them "DT" to indicate additional data research or nondestructive testing should be completed. Confirming these values, Applicants performed a physical inspection of this segment of pipe and found that the physically measured wall thickness was consistent with wall tolerances published for .250 inch 16" pipe in API 5L. In fact, the physical measurements on average across multiple points was .270-inch. Thus providing further validation of the minimum "DT" values employed for the pipe segment. It should be noted that the MAOP of the segment replaced under Resolution SED-01 is established per 49 CFR 192.619(c) and therefore the segment had demonstrated it could operate safely 800 psig.

QUESTION 5:

Please provide the basis for each of the engineering assumptions used for the segment of pipe that will be replaced under Resolution SED-01?

RESPONSE 5:

See response to Question 4 above.

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QUESTION 6:

Did the segment of Line 1600 that used assumed data also assumed SMYS values based upon tensile testing consistent with 49 CFR 192.107? Please explain and provide all supporting documentation, including beginning and ending mile posts of each SMYS value based upon a tensile test.

RESPONSE 6:

Not applicable since values are not assumed, see response to Question 4 above.

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QUESTION 7:

a. For those areas of the segment of Line 1600 that assumed data, and assumed SMYS values without tensile testing, was each SMYS value assumed to be 24,000 psig?

b. If the answer to question 6a is no, please identify each portion of the segment containing a SMYS value of greater than 24,000 psi.

c. Please include the beginning and ending milepost of each portion provided in response to question 6b.

d. Provide supporting documentation for each response to Question 6.

RESPONSE 7:

a. Not applicable since values are not assumed.

b.- d. Not applicable

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QUESTION 8:

How was the nominal wall thickness for the segment of Line 1600 where engineering assumptions were used made? When and at what points on Line 1600 was this measurement made?

RESPONSE 8:

See response to Question 4 above.

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QUESTION 9:

How was the longitudinal joint factor for the segment of Line 1600 where engineering assumptions were used determined? What assumed value did SoCalGas/SDG&E use? When was this determination made?

RESPONSE 9:

The longitudinal joint factor of 1.0 was applied to this segment of Line 1600 in accordance with the table in 49 CFR 192. In 2013, Applicants performed a bell hole inspection on a section of this segment of pipe and determined that the longitudinal seam type was Flash or EFW, both of which carry a joint factor of 1.0 in 49 CFR 192.113.

QUESTION 10:

When did SoCalGas/SDG&E become aware that it was using engineering assumptions for a segment of Line 1600?

RESPONSE 10:

See response to Question 4 above.

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QUESTION 11:

Did SDG&E ever report to PHMSA or the CPUC's Safety and Enforcement Division that it was making engineering assumptions for this segment of Line 1600? If yes, please state when? Provide documentation showing such reporting.

RESPONSE 11:

No.

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QUESTION 12:

Subject: Compliance

Please provide a list of all federal and state pipeline safety regulations that SoCalGas or SDG&E have been found in violation of relating to Line 1600, if any.

RESPONSE 12:

After a reasonably diligent review, Applicants have not found any violation of federal or state pipeline safety regulations relating to Line 1600.

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QUESTION 13:

Has SoCalGas or SDG&E ever been found in violations of standards or best practices relating to Line 1600 that they claimed they followed at the time of the violation? Please explain.

RESPONSE 13:

After a reasonably diligent review, Applicants have not found any violation of standards or best practices relating to Line 1600.