SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY

PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)

(A.15-09-013)

(DATA REQUEST ORA-79)

Date Requested: March 22, 2017
Date Responded: April 7, 2017

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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Subject: Lines 1600

QUESTION 1:

If the capacity of Line 1600 is set at 325 psi, or 20% of SMYS for the majority of segments of the line, how much capacity is contributed to meeting San Diego demand?

RESPONSE 1:

Line 1600 would not contribute to system capacity if the pressure, not capacity, is limited to 325 psig.

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QUESTION 2:

Would a pressure test with gas at 487.5 psi would be at 30% SMYS?

RESPONSE 2:

Yes, based on the pipe properties of the original installation.

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QUESTION 3:

Please describe any limitations to maintaining a test pressure with gas at 487.5 psi across Line 1600 for at least one hour while the segment(s) are leak-tested.

RESPONSE 3:

For a natural gas pressure test, 487.5 psig is the maximum pressure allowed by code for this pipeline as that pressure equates to 30% of SMYS for the original 16” diameter, 0.250” wall thickness grade X52 pipe. Due to instrumentation accuracy and the need to accommodate both elevation effects and temperature changes over the duration of the test, a test would be planned at a pressure within an established pressure range. The maximum range pressure will likely be set slightly lower than the maximum allowed by code to ensure conformance. For these reasons, it is unlikely that the test would be conducted at exactly 487.5 psig.

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QUESTION 4:

Are there any safety concerns with testing Line 1600 with gas to support a pressure test at 487.5 psi? If so, please describe them.

RESPONSE 4:

Contemplating whether to pressure test using water or gas is irrelevant because there is no requirement for pressure testing Line 1600 once de-rated to a distribution pipeline. However, if Line 1600 remained a transmission line, pressure testing with gas rather than water would not be prudent and would be constrained by regulation on the amount of hoop stress allowed as a percent of the SMYS.

Applicants do not typically use natural gas, air or other inert gas as a test medium for pipelines that operate over 60 psig. Testing with gas significantly increases the exposure to rupture risk for stress levels above 20% SMYS (and especially above 30% SMYS) where development of a propagating fracture is more likely (see SDGE-2 Prepared Direct Testimony of Travis Sera, page 13, line 18 through page 14 line 2). Additionally, detection of test leaks – particularly small ones – becomes an issue that must be addressed during testing. In light of these risks, Applicants, as prudent and knowledgeable operators of their integrated natural gas system, would not recommend pressure testing Line 1600 with gas, particularly in populated/congested areas or areas where the public could be exposed.

Further, federal regulations constrain the amount of hoop stress allowed when testing with gas. For example, the majority of Line 1600 is in class 3 location. Per 49 CFR § 192.503 and 49 CFR § 192.619(a)(2), for a class 3 location, it is not possible to conduct a pressure test of a pipeline using natural gas as the test medium to establish an MAOP of more than 20% SMYS without violating the regulations.

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QUESTION 5:

From 2008 to 2011 (prior to the de-rating on Line 1600 to 640 psi):

a. How many total instances was the pressure on Line 1600 below 487.5 psi?

b. While the Line was operating at or above 487.5 psig for at least one hour, how many times was the line leak surveyed?

c. While the leak surveys were performed, what was the lowest pressure along Line 1600?

d. What were the results of each leak survey?

e. While the Line was operating at or above 487.5 psig for at least one hour, how many times was the line leak tested?

f. While each leak test was performed, what was the lowest pressure along Line 1600?

g. What were the results of each leak test?

RESPONSE 5:

Applicants object to this question as vague and ambiguous regarding the terms “instances” and “leak tests.” Without waiving this objection, and subject thereto, Applicants respond as follows:

Performing leak surveys at a specific pressure and recording pressure during leak surveys are not requirements. Please refer to 49 CFR § 192.705 and § 192.706 regarding patrol and leak survey requirements.

Examining hourly data, total instances that pressure on Line 1600 was below 487.5 psig were 14, 3,128, and 3,730 at Rainbow Metering Station, downstream of Kearny Villa pressure limiting station, and at Mission City Gate station, respectively, for the time period requested.

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QUESTION 6:

From 2011 (at or after the de-rating on Line 1600 to 640 psi) to 2016 (before the date the Executive Director ordered the Line to be de-rated to 512 psi):

a. How many total instances was the pressure on Line 1600 below 487.5 psi?

b. While the Line was operating at or above 487.5 psig for at least one hour, how many times was the line leak surveyed?

c. While the leak surveys were performed, what was the lowest pressure along Line 1600?

d. What were the results of each leak survey?

e. While the Line was operating at or above 487.5 psig for at least one hour, how many times was the line leak tested?

f. While each leak test was performed, what was the lowest pressure along Line 1600?

g. What were the results of each leak test?

RESPONSE 6:

Please refer to the response Question 5 above. Examining hourly data for the time period requested, total instances that pressure on Line 1600 was below 487.5 psig were 4188, 6595, 8432, and 8447 at Rainbow Metering Station, at Kearny Villa pressure limiting station, downstream of Kearny Villa pressure limiting station, and at Mission City Gate station, respectively.

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QUESTION 7:

From 2016 (the date the Executive Director ordered the Line to be de-rated to 512 psi) to the date of this data request (or the latest date for which information is available):

a. How many total instances was the pressure on Line 1600 below 487.5 psi?

b. While the Line was operating at or above 487.5 psig for at least one hour, how many times was the line leak surveyed?

c. While the leak surveys were performed, what was the lowest pressure along Line1600?

d. What were the results of each leak survey?

e. While the Line was operating at or above 487.5 psig for at least one hour, how many times was the line leak tested?

f. While each leak test was performed, what was the lowest pressure along Line 1600?

g. What were the results of each leak test?

RESPONSE 7:

Please refer to the response to Question 5 above. Note that the Executive Director required additional leak surveys. Examining hourly data for the time period requested, total instances that pressure on Line 1600 was below 487.5 psig were 0, 350, 577, and 973 at Rainbow Metering Station, at Kearny Villa pressure limiting station, downstream of Kearny Villa pressure limiting station, and at Mission City Gate station, respectively.

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QUESTION 8:

In response to Energy Division Data Request 2, Question 4, SCG/SDG&E indicated that two electric generator peaker plants and another large industrial customer would be directly impacted in the event of hydrotesting and de-rating Line 1600 to 320 psig, but that these customers could have their desired pressures met through on-site gas compression. SCG/SDG&E further indicated in this response that another gas turbine peaker plant would not be materially impacted by de-rating Line 1600 to 320 psig.

a. Is this characterization accurate?

b. If not, explain why not.

c. Are there any other customers not identified in response to Energy Division Data Request 2 Question 4 that SCG/SDG&E anticipates being directly impacted by derating Line 1600 to 320 psig?

d. From an operational perspective, are there any other electric generation, or large industrial customers that would be directly impacted if Line 1600 was de-rated to an MAOP of 325 psig instead of 320 psig, and tested with gas instead of water? If so, please list them.

e. If the answer to question 8d is yes, which of these identified customers could be served by:
    i. On site gas compression?
    ii. Modifications to Line 3010, or any of the cross-ties that connect Lines 1600 and 3010?

f. From an operational perspective, are there any other customers that would be directly impacted if Line 1600 was de-rated to an MAOP of 325 psig instead of 320 psig, and tested with gas instead of water?

g. If the answer to question 8f is yes, which of these customers could be served by:
    i. On site gas compression?
    ii. Modifications to Line 3010, or any of the cross-ties that connect Lines1600 and 3010?

h. If Line 1600 was de-rated to 325 psig and tested using natural gas, are there any customers that could not be served by having on-site gas compression, by modifying Line 3010, or by modifying a cross-tie that connects Line 3010 and Line 1600?

RESPONSE 8:

a. No, the statement as written does not accurately convey the information contained in Applicants' response to ED DR2 Question 4.

b. ORA's characterization indicates that there are a total of four customers supplied from Line 1600 that may be impacted with the plan to lower the operating pressure. This is not supported by the Applicant's response to Energy Division Data Request 2 Question 4, which identified only two peaker plants (not three) and one industrial customer. Further, ORA's characterization attributes to the Applicants a confidence regarding the customers' ability to employ on-site compression to meet their needs that the response to Energy Division's question lacks.

c. Applicants have not identified any other customers whose desired service would be adversely impacted by the de-rating of Line 1600 to 320 psig as proposed in this Application.

d. Applicants have not performed detailed studies involving testing of Line 1600 with gas and establishing an MAOP of 325 psig and do not advocate for this concept. Notwithstanding, based on experience and engineering judgement, since the hypothetically proposed MAOP of 325 psig is close to that of the Applicants proposed MAOP of 320 psig, Line 1600 operating at 325 psig provides no additional benefit compared to operating at 320 psig. Further, given that distribution lines must be below 20% SMYS, it is neither consistent with federal regulation nor prudent to set the MAOP at exactly 20% of SMYS.

   Additionally, testing with a gas, either natural gas or any other gaseous medium, still requires the pipeline to be out of service and would have the same or similar impact to customers. Applicants do not believe that any additional customers would be adversely affected if the Proposed Project was implemented with the modification of derating Line 1600 to 325 psig instead of 320 psig.

e. N/A

f. See response to Question 8(d) above.

g. N/A.

h. Applicants object to this question as vague and ambiguous and as proposing an incomplete hypothetical as proposed modifications are not defined. Without waiving this objection, and subject thereto, Applicants respond as follows:

With respect to testing Line 1600 with gas to establish an MAOP of 325 psig, see the response to Question 8(d) above. Applicants have not performed detailed studies involving testing of Line 1600 with natural gas and establishing an MAOP of 325 psig and do not advocate for this concept. Notwithstanding, since the hypothetically proposed MAOP of 325 psig is close to that of the Applicants proposed MAOP of 320 psig, Applicants believe that they would meet their obligation to have adequate capacity to serve all existing customer loads if the Proposed Project was implemented with the modification of derating Line 1600 to 325 psig instead of 320 psig. Applicants are not obligated to provide pressures higher than standard serving pressure and cannot attest to the feasibility of on-site compression for each specific customer situation.

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QUESTION 9:

Please describe any other operational concerns with Line 1600 operating at a MAOP of 325 psi. For this question, ORA is asking solely about operations associated directly with Line 1600, and is not looking for impacts associated with Line 3602 or any other alternative.

RESPONSE 9:

Please refer to the response to Question 8(d) above. As previously stated, if Line 1600 were de-rated to distribution pressure, i.e., less than 20% of SMYS, without a new pipeline being constructed, Applicants' gas system would be degraded and would not comply with the CPUC's mandated design criteria.

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QUESTION 10:

In order to ensure that Line 1600 meets the requirements of Public Utilities Code 958, to test or replace, would SCG/SDG&E be willing to seek a federal waiver in order to test with gas at the pressure necessary to support the tested segments of Line 1600 being at least 487.5 psi for the duration of the leak test, or for at least 1 hour, whichever is greater?

RESPONSE 10:

No.