

**SAN DIEGO GAS & ELECTRIC COMPANY  
SOUTHERN CALIFORNIA GAS COMPANY  
PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)  
(A.15-09-013)  
(DATA REQUEST ORA-49)  
Date Requested: November 9, 2016  
Date Responded: November 28, 2016**

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**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.

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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: Rupture versus Leak of Line 1600**

In ORA DR-42, Question 7, asked:

According to SoCalGas' calculations in the reference above, at what operating pressure is there no chance of a rupture on Line 1600.

**SCG/SDG&E Responded:**

Please refer to page 13, lines 18 & 19, page 24, lines 1 & 2, lines 7-9, and the discussion on page 25 of Travis Sera's direct testimony.

- a. Confirm that at the proposed operating pressure of 320 psig, that Figure 1 (page 18 of the Prepared Testimony of T. Sera) indicates that the pipeline may still rupture.
- b. Confirm that page 13, lines 18 to 19 of the Prepared Testimony of T. Sera do not provide the maximum operating pressure at which there is no chance of a rupture on Line 1600.
- c. Confirm that page 24, lines 1, 2, 7, 8 and 9 of the Prepared Testimony of T. Sera does not provide the maximum operating pressure where there is no chance of a rupture on Line 1600.
- d. Confirm that page 25 of the Prepared Testimony of T. Sera does not provide the maximum operating pressure where there is no chance of a rupture on Line 1600.
- e. Is there anywhere in SoCalGas'/SDG&E's testimony, application, amended application, cost effectiveness analysis, proponent's environmental assessment, or anything else they have filed in this proceeding provision of the maximum operating pressure where there is no chance of a rupture on Line 1600? If the answer is anything other than an unqualified no, please explain and provide the reference to the exhibit and page number that contains this information. Using the scale provided in Figures 1 and 2 on page 18 of the Prepared Testimony of T. Sera, provide the specific maximum operating pressure at which there is no chance of a rupture on Line 1600. If it is not possible to accurately determine the specific maximum operating pressure at which there is no chance of a rupture on Line 1600 based on Figures 1 and 2, make an affirmative statement as such.
- f. If it is not possible to affirmatively state the maximum operating pressure at which there is no chance of a rupture on Line 1600 in response to question 1e, please provide the maximum operating pressure at which there is no chance of a rupture on Line 1600. Please provide all documentation, calculations, and references to federal and state requirements that support this answer.

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g. If it is not possible to state the maximum operating pressure at which there is no chance of a rupture on Line 1600, please provide the reasons for such a statement.

**RESPONSE 1:**

- a. Figure 1 on page 18 of the Prepared Direct Testimony of Travis Sera shows that for a pipeline of 16-inch diameter, 0.250 inch wall, 52ksi specified minimum yield strength, and a Charpy toughness of 17 ft-lb operating pressure at a pressure of 320 psig, it is possible for a critical flaw 82% deep and 15.1 inches long to rupture. However, Figure 1 also demonstrates that since Line 1600 has operated with MAOPs well in excess of 320 psig (800 psig historically, and 640 psig currently), it is improbable that a flaw susceptible to failure at 320 psig could have survived in operation at the historical and current pressures.
- b. Page 13, lines 18 to 19 of the Prepared Direct Testimony of Travis Sera provides a discussion of pipelines, in general, operating at stress levels above 20% SYMS as the threshold for “leakage” vs. “rupture” risk, with continued discussion on page 14 including references.
- c. Page 24, lines 1, 2, 7, 8 and 9 of the Prepared Direct Testimony of Travis Sera provide the percentage SMYS threshold at which rupture on Line 1600 is effectively nullified.
- d. Please refer to page 25, lines 8 & 9 of the Prepared Direct Testimony of Travis Sera.
- e. No assessment method, pipeline, or engineering evaluation is perfect – and as a result an unqualified guarantee of zero rupture risk cannot be provided since there is inherent risk associated with any pipeline operation. However, as described in the Prepared Direct Testimony of Travis Sera (at page 13, lines 18 & 19; page 14, lines 1 & 2; page 24, lines 1 & 2, lines 7-9; and page 25) rupture risk is effectively nullified below 20% SMYS (320 psig).
- f. Please refer to the response to Question 1(e) above for a discussion of rupture pressure. The references to reports that describe 20% SMYS as a threshold for leak vs rupture risk are provided throughout the Prepared Direct Testimony of Travis Sera. 49 CFR Part 192.485(c) provides the basis for the calculations used in the analysis of Line 1600.
- g. Please refer to the response to Question 1(e) above.