

**SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY
PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)
(A.15-09-013)
(DATA REQUEST ORA-73)**

**Date Requested: March 8, 2017
Date Responded: March 24, 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.

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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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Subject: Line 1600 Class 3 Locations, Class 4 Locations, and High Consequence Areas

QUESTION 1:

Provide a map that identifies for Line 1600 (assuming Line 1600 was defined as a transmission line under 49 CFR Section 192) the class 3, class 4, and high consequence areas:

- a. If operated at 320 psig;
- b. If operated at 360 psig; and
- c. If operated at 400 psig.

RESPONSE 1:

As discussed in SDG&E-12 Supplemental Testimony of SDG&E and SoCalGas at Chapter 20, if Line 1600 were operated with an MAOP of 320 psig, it would be classified and managed as a distribution line. At 320 psig, the hoop stress of Line 1600 pipe is less than 20% of specified minimum yield strength (SMYS) and would be classified as a distribution line which do not have high consequence areas.

SDG&E and SoCalGas (Applicants) note that the values provided in the responses to questions in ORA DR 73 represent a “snapshot” in time. As San Diego County continues to develop, grow and its population increases, it is anticipated that the values provided herein would also grow. Applicants, as well as the Commission, should not make a decision on the long-term safety of Line 1600 under the assumption that the values associated with class location and potential impact radii are static. As set forth in the record of this proceeding, the likelihood of a significant incident occurring should be considered and based on the information provided in the Cost-Effectiveness Analysis and Kiefner Report (Attachment C to SDGE-12 of the Supplemental Testimony of SDG&E and SoCalGas), which both find that the proposed Line 3602 is safer than keeping Line 1600 in transmission service. A more detailed discussion of the risk benefits of the Proposed Project compared to Line 1600 is presented in the Kiefner report at pages 28 through 32 and includes a summary at page 31 which states “the review of the risk factors concluded that Line 1600 has greater vulnerability or susceptibility to several key failure mechanisms compared with the proposed Line 3602.”

Attached is a file containing three maps that provides the class 3 and 4 areas along Line 1600 and the high consequence areas, where present, for the three requested MAOPs.

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Amended Response Submitted: May 3, 2017**

The response to Question 2 has been amended, this amendment replaces the previous response to Question 2 in its entirety.

QUESTION 2:

ORA understands that SoCalGas/SDG&E has identified approximately 2.3 miles of High Consequence Areas if Line 1600 is derated to 320 psig or less (February 2017 Supplemental Testimony, page 117). For items 1a, 1b and 1c above, provide the total number of miles each that would be in:

- a. Class 3 locations;
- b. Class 4 locations;
- c. High Consequence Areas;
- d. Total number of miles in Class 3, Class 4, and High Consequence Areas.

RESPONSE 2:

As stated in response to Question 1 above, if Line 1600 were operated with an MAOP of 320 psig, it would be classified as a distribution line because it would operate at less than 20% of SMYS and therefore would not meet the criteria of 49 CFR § 192.3 to have HCAs assigned.

SDGE-12 Supplemental Testimony of SDG&E and SoCalGas at 117 states that “a de-rated Line 1600, at distribution pressure, would pass through only 2.3 miles of HCA.” When preparing the Cost-Effectiveness Analysis (CEA) in early 2016, a calculation was made to determine the amount of Line 1600 pipe that would remain at or above 20% SMYS if the MAOP was reduced to 320 psig. Data was taken from a database that had not been fully updated with information learned from research of historical records and to reflect recent construction activity. Based upon the updated data, the statement in the CEA at page 62 and Table 28 that there would be 2.3 “HCA miles” remaining on Line 1600 after the MAOP was reduced to 320 psig is incorrect. Similarly, Mr. Sera’s cited supplemental testimony at page 117, line 20-23, is incorrect. Based upon the updated data, including the replacement of a pipeline segment pursuant to Resolution SED-1, at a reduced MAOP of 320 psig the number of transmission and HCA miles is 0. Mr. Sera’s supplemental testimony and Mr. Sawaya’s supplemental testimony regarding the CEA statement about “HCA miles” will be corrected when they testify.

With that clarification, the responses to Question 2a, b and c are as follows:

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Scenario	A	B	C
	320 psig	360 psig	400 psig
Class 3 (miles)	32.2	32.2	32.2
Class 4 (miles)	0	0	0
HCA (miles)	0	29.1	29.7
Total (miles)	32.2	61.4	61.9

*Calculations assume the removal of the segment 17-131.

Applicants also note that totaling the mileage together as instructed will duplicate the distance. This is because class 3 areas under method 1 per 49 CFR § 192.903 requires all transmission pipeline segments operating in class 3 and 4 areas to be assigned as HCA. Please note that the variance between the Class 3 mileage and HCA mileage arises because some Class 3 segments operate under 20% of SMYS even at 360 or 400 psig and thus classified as distribution pipeline, which does not require an HCA to be calculated.

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QUESTION 3:

For each of the pressures identified below, please confirm the following potential impact radii (PIR) on Line 1600. Note that ORA has slightly rounded the values upward to add an extra level of conservatism. The formula used is from 49 Code of Federal Regulations 192.903 (1). If the estimated PIR is incorrect, please provide the correct value.

- a. 320 psig has a PIR of approximately 199 feet.
- b. 360 psig has a PIR of approximately 210 feet.
- c. 400 psig has a PIR of approximately 221 feet.
- d. 512 psig has a PIR of approximately 250 feet.
- e. 640 psig has a PIR of approximately 280 feet.

(1) $r = 0.69 * \text{square root of } (p * d^2)$. r is the radius of a circular area in feet surrounding the point of failure; p is the maximum allowable operating pressure; and d is the nominal diameter of the pipeline in inches. For the calculations above, ORA utilized a diameter of 16" (the diameter of Line 1600), and the MAOP identified in each sub-question (e.g. 320 psig).

RESPONSE 3:

The potential impact radii (PIR) denoted in items (a) through (e) in this question align with the methodology outlined by 49 CFR § 192.903(1), however, Applicants note that item (a) was rounded from 197.49 to 199 which is different rounding methodology than what ORA used with items (b) to (e) of rounding to next whole number.

Please note, consistent with their standard practice, Applicants add a 50-foot addendum to its calculated PIR when determining HCA for its transmission pipelines in operation. This additional safety margin is intended to address potential inaccuracies and data limitations of the GIS tools and datasets. The adding of a safety margin is in alignment with *PHMSA Advisory Bulletin ADB-2016-065: Pipeline Safety: High Consequence Identification for Gas Transmission Pipelines* published on December 13, 2016.

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QUESTION 4:

For each pressure identified in questions 3a through 3e, please list the corresponding number of structures that would be within the PIR along:

- a. All of Line 1600.
- b. The current Class 3 locations along Line 1600.
- c. The current Class 4 locations along Line 1600.
- d. The current HCA's along Line 1600.
- e. The total number of structures within the PIR of Class 3, Class 4 and HCA's. Please ensure where there is overlap between HCA's and Class 3/4 locations, the structures in those areas of overlap are counted only once.

RESPONSE 4:

The table below provides the number of structures within the PIR based upon the following MAOPs and conditions:

Condition	Pressure				
	320 psig	360 psig	400 psig	512 psig	640 psig
All 1600	2,674	2,780	2,893	3,232	3,568
Class 3 locations	2,588	2,689	2,799	3,125	3,449
Class 4 locations	0	0	0	0	0
HCA	0	2,598	2,733	3,122	3,449
HCA/Class 3 and 4	2,588	2,689	2,799	3,125	3,450

Note: HCA mileage is determined for segments meeting the transmission definition at each pressure.