

**SAN DIEGO GAS & ELECTRIC COMPANY
SOUTHERN CALIFORNIA GAS COMPANY
PIPELINE SAFETY & RELIABILITY PROJECT (PSRP)
(A.15-09-013)
(DATA REQUEST ORA-91)**

Date Requested: June 20, 2017

Date Responded: July 6, 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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In response to ORA Data Request 84, Question 11, SoCalGas/SDG&E stated:

Applicants provided the information for the relevant segments that was in Applicants' High Pressure Database at the time of the original and updated responses. As discussed above, the High Pressure Database was updated from conservative default values for certain segments to actual values for those segments between the May 12, 2016 response to ORA DR-06, Q12 and the June 13, 2016 response to SED DR 3, Q2, a copy of which was provided to ORA in Applicants' July 15, 2016 response to ORA DR 19 and subsequently resubmitted to ORA on August 4, 2016 following an August 2, 2016 amended response to SED DR 3 Q2.

In response to ORA Data Request 84, Question 1a, SoCalGas/SDG&E stated (confidential data redacted):

In May 2016, when the original response to ORA DR-06, Q12 was provided, Applicants' High Pressure database had not been updated with documented wall thickness information and therefore the wall thickness defaulted to unknown for the CUM Station XXX to XXX. When a wall thickness value is unknown in the database, it is conservatively assigned a wall thickness value that provides a margin of safety. The conservative value assigned based on the diameter and year of installation, and which was reflected in the database at the time the May 12, 2016 response to ORA DR-06, Q12 was prepared, was XXX wall thickness for CUM Station XXX to XXX.

Ex. ORA-02-C Confidential Workpapers of M Botros, tab "Low Design Feet – CONF" identified a certain number of segments with weaker design features based on the May 2016 response to ORA Data Request 6, Question 12. In total 0.5 miles of weaker pipeline were identified as compared to the majority of Line 1600.

With these facts in mind:

QUESTION 1:

- a. At the time SoCalGas/SDG&E filed Application 15-09-013, please identify, by engineering stations, all segments of Line 1600 which SoCalGas/SDG&E were using assumptions.
- b. For each segment identified in response to Question 1a, all information needed to complete Barlow's formula, as well as the class location of that segment.
- c. For each segment identified in response to Question 1a, identify if there had been a class location change. If so, identify the month and year of the class location change, the date of the class location study.

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d. For each segment identified in response to Question 1a, please identify and explain any maintenance work that was performed on those specific segments.

e. For each segment of Line 1600 which SoCalGas/SDG&E updated in the April and May 2017 Corrected and Updated Responses to ORA Data Request 06, Question 12, please identify the date of when SoCalGas/SDG&E identified the traceable, verifiable, and complete records used to make the updates, and the date on which those updates were entered into the High Pressure Database.

RESPONSE 1:

Some of the attachments contain **confidential information provided pursuant to California Public Utilities Code § 583, General Order 66-C, D.16-08-024 and the accompanying declaration.**

- a. The attached excel spreadsheet (*PSRP ORA 91 Q1 confidential.xls*) lists the conservative decision tree values used for wall and yield strength pipe attributes in SDG&E's and SoCalGas' (Applicants') High Pressure Database (HP Database) for Line 1600 on March 21, 2016 which was the date of the amended application. The listing uses engineering (ENG) stationing. These 25 segments have been progressively updated in the High Pressure Pipeline Data (HPPD). 18 segments were updated prior to the Applicants' original May 12, 2016 response to ORA DR-6, Q12. Of the remaining 7 segments, 6 were updated prior to the Applicants' original response to SED DR 3, Q2 (provided to ORA in Applicants' July 15, 2016 response to ORA DR-19, Q6) and original August 12, 2016 response to ORA 25, Q1. The supporting documentation for these 6 segments was provided in response to ORA 84, Q1 to Q6. The remaining segment from ENG station 2-131 was replaced in 2012 (ENG 2-16) and 2016 (ENG 17-131). The report provided to ORA in response to ORA DR-86, Q1, demonstrates that the segment removed pursuant to Resolution SED-1 had a yield strength greater than 52,000 psi and a nominal wall thickness of 0.250 inches.

Except for the replaced section as noted above, wall thickness values were known and available in the HP Database (Column H) for Line 1600 as of March 21, 2016. However as per the Applicants' practice, when a decision tree value is applied for wall thickness or specified minimum yield strength (SMYS), decision tree values are applied to both attributes in tandem. As such, because SMYS was not available, a more conservative decision tree value was applied for wall thickness (Column I, J) even though reliable records existed denoting its actual value (Column H), had completed review, and been entered into the HPPD.

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As noted earlier, SMYS records (Column K) were not in the HP Database as of March 21, 2016 for the segments identified in the attachment. As such, decision tree values were applied as conservative values (Column L and M).

Applicants note that the Proposed Project only includes de-rating Line 1600 from Rainbow Metering Station to Kearny Villa Pressure Limiting Station, and that all Engineering Stations higher than 235,213 reflect Line 1600 pipe segments that are not within the Proposed Project.

Decision tree values are listed in the attribute fields with a preface of 'min'. Min values are listed in the HP Database numerically for calculation purposes (MinWT and MinSMYS) and with a 'DT' designator for display purposes (MinWT_label and MinSMYS_label).

- b. The attached spreadsheet (*PSRP ORA 91 Q1 confidential.xls*) references diameter, wall thickness, and SMYS which are values needed to perform a Barlow equation calculation. Class location information is also listed in the HP Database as of March 21, 2016.
- c. Class location changes denoted in the HP Database for one record listed in the attached excel spreadsheet based upon available records in the HP Database going back to 2008. There are no class location study records available.
- d. Applicants object to this question on the grounds that it is vague and ambiguous and overbroad. Subject to and notwithstanding their objections, Applicants respond as follows. In an effort to be responsive, the Applicants interpret this question as asking what prescriptive maintenance is performed on these pipeline segments per 49 CFR § 192, Subpart M – Maintenance and Subpart I – Corrosion Control.

As a transmission pipeline, these segments as part of Line 1600 are scheduled for leak survey, pipe line patrol, evaluated for class location, valve, regulator inspections, cathodic protection inspections and as necessary bridge and span inspections.

- e. As a prudent operator SoCalGas/SDG&E has maintained records to maintain and safely operate L1600. These records over the 68-year time span that the pipeline has been in operation have been mainly archived and kept in various formats. An initial review of L1600 completed in 2011 identified a first tier of documentation, which over the years has been used and supplemented with subsequent records searches to update the High Pressure Pipeline Database, please see attachment ORA 91_Q1(e).xls for the dates the updates were processed in the HPPD.

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QUESTION 2:

In the opening testimony of Sera, at page 16, footnote 25 is the following statement:

Per 49 CFR Part 192.113, electric flash welded long seams are assigned a longitudinal joint factor of 1.0. To account for the long seam hook cracking that has been observed in the EFW seams on Line 1600, and consistent with a conservative approach to risk evaluations based on feedback from pipeline assessment data, a longitudinal joint factor of 0.8 was used in lieu of 1.0 as a conservative approach to reflect the condition of these pipe segments in the risk scoring.

- a. Please explain the difference in how SoCalGas/SDG&E uses “risk scoring” versus “49 CFR 192” to establish the MAOP of its pipelines.
- b. Does SoCalGas/SDG&E use risk scoring to determine the maximum safe pressure of its pipelines? Please explain.
- c. Utilizing the primary segments of Line 1600 (52,000 yield strength, (16” diameter, 0.25” wall thickness) and the 0.8 joint efficiency factor that SoCalGas/SDG&E uses for risk scoring in this application, please confirm that Barlow’s equation results in a design pressure of 1,300 psi. If not, please explain and provide the value that SoCalGas/SDG&E asserts is the result of Barlow’s equation.
- d. Are any of the segments identified with EFW long seams in class 3 locations? If so, would the design equation under 49 CFR 192.105 result in a MAOP of 650 psig if the 0.8 joint efficiency factor was used? Please explain.

RESPONSE 2:

Applicants object to Question 2(a) – (d) to the extent that it calls upon Applicants to utilize a longitudinal joint factor contrary to that specified in 49 CFR § 192.113 and thus contrary to the required calculation to determine design pressure for steel pipe in accordance with 49 CFR § 192.105. ORA’s request that Applicants do so seeks information not relevant to the scope of this proceeding, is unduly burdensome, and runs the risk that it would be improperly perceived to be in compliance with federal safety regulations. Subject to and without waiving their objections, Applicants respond as follows:

- a. The Applicants do not use risk scoring to establish the maximum allowable operating pressure (MAOP) of their pipelines. The Applicants establish the MAOP of their transmission pipelines in accordance with 49 CFR § 192.619 which governs the MAOP of pipelines. Risk scoring is used to provide a relative comparison of one piping system to

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another. Please refer to the response to ORA DR-92 Question 2(a) for a description of how risk scoring was conducted using the joint factor of 0.8 in lieu of 1.0.

- b. The Applicants do not use risk scoring to determine maximum safe pressure of pipelines. The maximum safe pressure is determined in accordance with 49 CFR § 192.619.
- c. Use of a joint efficiency factor of 0.8 in the Barlow's equation does produce a value of 1300 psig, however, it is incorrect to do so. Per 49 CFR § 192.113, the joint efficiency factor for a flash welded long seam is 1.0 – and the correct result in this example using the code requirements for joint efficiency factor of 1.0 is 1625 psig.
- d. Using the design equation in 49 CFR § 192.105 and a joint factor of 0.8 does produce a value of 650 psig in a class 3 location, however it is incorrect to do so. Per 49 CFR § 192.113, the correct joint factor is 1.0 for electric flash welded longitudinal seams in a class 3 location, which results in a design pressure of 812.5 psig for a class 3 location.

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QUESTION 3:

Please provide the results of any and all in-line inspections conducted in response to Resolution SED-01

RESPONSE 3:

Please see the attached document, which contains **confidential information provided pursuant to California Public Utilities Code § 583, General Order 66-C, D.16-08-024 and the accompanying declaration.**

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QUESTION 4:

Please explain how pipeline features with assumed values are identified in the High Pressure Database. To the extent that engineering stations and cumulative stations differ in their identification, please explain how and why.

RESPONSE 4:

Applicants object to this question on the ground that it assumes facts not in evidence. As explained in response to ORA DR-46, Question 4, the values in the HP Database are not assumed. Subject to and without waiving their objection, Applicants respond as follows.

Transmission line features with established conservative minimum values for wall thickness and grade are prefixed with "DT" to indicate additional data research or nondestructive testing should be completed in the HP Database.

At original construction, engineering and cumulative stationing on a transmission pipeline should be equivalent. However, as the transmission pipeline is altered, the station values may diverge. Engineering stationing attempts to maintain historical stationing on the pipeline. As such, engineering station equations may be introduced in the linear stationing of the transmission pipeline to account for differences in the total lengths added and removed while considering the historic station values of the transmission pipeline. Whereas cumulative stationing is recalculated for the entire line whenever an alteration is performed.

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QUESTION 5:

Please explain if the 7 segments of Line 1600, where assumed values had been used, had been identified during MAOP validation as using assumed values.

RESPONSE 5:

Applicants object to this question on the ground that it assumes facts not in evidence. As explained in response to ORA DR-46, Question 4, the values in the HP Database are not assumed. Subject to and without waiving their objection, Applicants respond as follows.

Of the 7 segments of Line 1600 identified in Mina Botros' Confidential Workpapers, Exhibit ORA-2-C at page 4, the MAOP validation process confirmed that four were installed pre-1970 and the MAOP was set based upon Section 192.619(c). For the remaining three segments, the MAOP validation process confirmed that they were installed after 1970 and the MAOP was set based upon Section 192.619(a)(1). As stated in Applicants' response to ORA DR-84, Question 26 "until a reliable source document is found conservative numbers are used, which provide a margin of safety. Basing the analysis on conservative values sets the maximum allowable operating pressure (MAOP) as determined by Section 192.619(a)(1) at lower setting."

**BEFORE THE PUBLIC UTILITIES
COMMISSION OF THE STATE OF CALIFORNIA**

**DECLARATION OF MARIA MARTINEZ
REGARDING CONFIDENTIALITY OF CERTAIN DATA/DOCUMENTS
PURSUANT TO D.16-08-024**

I, Maria Martinez, do declare as follows:

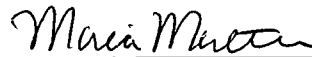
1. I am the Director of Pipeline Integrity for San Diego Gas & Electric Company (“SDG&E”) and Southern California Gas Company (“SoCalGas”). I have been delegated authority to sign this declaration by Douglas M. Schneider, Vice President of System Integrity and Asset Management for SDG&E and SoCalGas. I have reviewed the attachments to SDG&E’s and SoCalGas’ response to the Office of Ratepayer Advocates (“ORA”) Data Request 91, Questions 1 and 3, submitted concurrently herewith (“ORA DR 91 Q1 & Q3 Attachments”). I am personally familiar with the facts and representations in this Declaration and, if called upon to testify, I could and would testify to the following based upon my personal knowledge and/or belief.

2. I hereby provide this Declaration in accordance with Decision (“D.”) 16-08-024 to demonstrate that the confidential information (“Protected Information”) provided in the ORA DR 91 Q1 & Q3 Attachments are within the scope of data protected as confidential under applicable law, and pursuant to California Public Utilities Code (“P.U. Code”) § 583 and General Order (“GO”) 66-C, as described in Attachment A hereto.

3. In accordance with the legal authority described herein, the Protected Information should be protected from public disclosure.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge.

Executed this 5th day of July 2017, at Los Angeles, California.



Maria Martinez
Director of Pipeline Integrity
San Diego Gas & Electric and
Southern California Gas Company

ATTACHMENT A

SDG&E and SoCalGas Request for Confidentiality on the following Protected Information in its response to ORA DR 91, Question 3

Location of Data	Description of Data	Applicable Confidentiality Provisions	Basis for Confidentiality
ORA-91_Q3_P1_Final Report.pdf	<p>Page 1: Vendor Name/ Information, Assessment Date, and Issue Number</p> <p>Pages 2, 5-19: Vendor Name/ Information, Issue Number, and Inspection Results (Production Data, Indication Count/ Description, Percent Wall Loss, Pipeline Attributes and Specific Location)</p> <p>Page 3: Vendor Name/ Information and Issue Number</p> <p>Page 4: Vendor Name/ Information, Assessment Date, and Issue Number</p>	<p>D.11-01-036, 2011 WL 660568 (2011)</p> <p>GO 66-C Sections 2.2(b), 2.8</p> <p>Personnel Information - Gov't Code §6254(c)</p> <p>Critical Energy Infrastructure Information ("CEII") under 18 CFR § 388.113(c); Federal Energy Regulatory Commission ("FERC") Orders 630, 643, 649, 662,683, and 702 (defining CEII).</p> <p>Critical Infrastructure Information ("CII") under 6 U.S.C. §§ 131(3), 133(a)(1)(E); 6 CFR §§ 29.2(b), 29.8 (defining CII and restricting its disclosure).</p> <p>Cal. Gov't Code § 6254(e) exempts from mandatory disclosure, plant production data, and similar information relating to utility systems. Pressure information is also exempt from public disclosure per Cal. Gov't Code § 6254(e).</p>	<p>Vendor names and contact information has been marked as confidential as publicly disclosing this information could lead to a competitive disadvantage and potential loss of market share for those vendors.</p> <p>Assessment Information is a type of production data that is protected by Gov't Code § 6254(e) and critical energy infrastructure. It relates details related to the transmission and distribution of energy. This information if released to the public can be used to predict repair schedules and availability of segments of the transportation network. It may affect market pricing for gas transportation and delivery and lead to speculation in the energy markets that may be detrimental to consumers. This information could also be used to identify vulnerabilities of the gas network.</p>
ORA-91_Q3_P2_Final Report.pdf	<p>Page 1: Vendor Name/ Information, Assessment Date, and Issue Number</p> <p>Pages 2, 5-19: Vendor Name/ Information, Issue Number, and Inspection Results (Production Data, Indication Count/ Description, Percent Wall Loss, Pipeline Attributes and Specific Location)</p>	<p>The Pipeline and Hazardous Materials Safety Administration ("PHMSA") guidelines in the Federal Register, Vol 81, pg. 40764, published on 6/22/2016 and U.S. Department of Homeland Security Transportation Security Administration ("TSA") guidelines consider the data to be restricted pipeline information.</p>	<p>Based on security concerns, these production data sets have been proposed by PHMSA to be a restricted pipeline attribute in the Federal Register Vol 81, No. 120, pg. 40764 published on 6/22/2016. Furthermore Cal.</p>

	<p>Page 3: Vendor Name/ Information and Issue Number</p> <p>Page 4: Vendor Name/ Information, Assessment Date, and Issue Number</p>		<p>Gov't. Code § 6254(e) exempts mandatory disclosure to the public of plant production data, and similar information relating to utility systems. This exemption is also mirrored in Federal Code 18 CFR 388.113 related to details related to the transmission and distribution of energy.</p>
<p>ORA-91_Q1.pdf</p>	<p>Page 1: Pipeline Information and Attributes - Pipeline Name, Stationing, Segment Length, Class Location, Outside Diameter (OD), Wall Thickness (WT), Minimum Wall Thickness and Label, SMYS, Minimum SMYS and Label, and Class Change Date</p> <p>Page 2: Pipeline Information and Attributes - Pipeline Name, (Cumulative and Engineering) Stationing, Parcel Number, Form 2112 and 2120 Dates, Update to HPPD Dates, (Update) Note, WOA Number, and Installation Date</p>		<p>Specific engineering design information (i.e., Pipeline Attributes) about an existing critical infrastructure that could be used to determine the criticality of a gas facility and identify vulnerabilities of the gas delivery network. The values can be used to calculate stress levels of a pipe. Because of the critical nature of these attributes, they have been proposed by PHMSA to be restricted attributes available only to government officials in the Federal Register Vol. 81, No. 120, pg. 40764 published in 6/22/2016.</p> <p>Personnel Information - Gov't Code §6254(c) ("disclosure of which would constitute an unwarranted invasion of personal privacy").</p>