SOUTHERN CALIFORNIA GAS COMPANY
SAN DIEGO GAS & ELECTRIC COMPANY

APPLICATION TO RECOVER COSTS RECORDED IN THE PIPELINE SAFETY AND RELIABILITY MEMORANDUM ACCOUNTS, THE SAFETY ENHANCEMENT EXPENSE BALANCING ACCOUNTS, AND THE SAFETY ENHANCEMENT CAPITAL COST BALANCING ACCOUNTS (A.16-09-005)

(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.01:

In their workpapers for test and replacement projects in the current Application, SCG and SDG&E include "Cost Avoidance" and "Field Conditions" sections that describe actions purportedly taken to reduce or avoid costs and conditions in the field that change costs beyond expectations (respectively).

Please quantify all costs associated with the actions, conditions, or choices included in the "Cost Avoidance" or "Field Conditions" sections of SCG/SDG&E's workpapers.

RESPONSE 4.01:

The items listed as "cost avoidance" in the workpapers presented did not have separate cost estimates developed for each of the items listed for each completed project, therefore SoCalGas/SDG&E cannot specifically quantify cost avoidance actions for all projects.

For example, as stated in Direct Testimony Chapter 2 (Phillips) at pp. 10-11, SoCalGas and SDG&E scope validation efforts identified cost avoidance opportunities by reducing scope mileage. No additional cost estimates were pursued to quantify the estimated cost for the eliminated scope. Please refer to the Project Description section of the Workpapers for a discussion of scope reduction details per project.

In addition to the cost avoidance items listed in Workpapers, Attachment A in Testimony Chapter 2 (Phillips) summarizes a quantifiable cost avoidance of $3.9 million for projects in this filing awarded to a construction contractor under the Performance Partner Program.

The items listed as "Field Conditions" are intended to provide information for unforeseen factors encountered during construction. When a field condition necessitated a change order for a project, this cost for the construction contractor is quantified in the change notices provided in response to ORA-DR-3-Question 10. Change notices may not be all inclusive of cost impacts to address field conditions; additional expenditures may include support staff costs. Please refer to Testimony Chapter 2 (Phillips) at pp.26-32 for a description of external factors that may impact projects during construction.

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(ORA Data Request-04)

Date Requested: October 27, 2016
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QUESTION 4.02:

Please provide a list showing all PSEP projects involving Line 2000, including their status.

RESPONSE 4.02:

The status of all PSEP projects involving Line 2000 can be found in the PSEP monthly reports available on SDG&E and SoCalGas webpages noted below:

SDG&E - http://www.sdge.com/regulatory-filing/469/gas-pipeline-safety-order-instituting-rulemaking-2011
SoCalGas - http://socalgas.com/regulatory/R11-02-019.shtml

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Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.03:

Does PSEP work on Line 2000-West involve any other segments or sections beyond those included in the current application? If so, please describe.

RESPONSE 4.03:

Yes, in addition to Sections 1, 2, and 3, which are included in the current application, the Line 2000 West project also includes work at the Santa Fe Springs regulation station, which will be presented for recovery in a future reasonableness review application.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.04:

Please define the following terms:

a. Gas filtration scrubber
b. Drop leg
c. Hump band
d. Substructures
e. Coal tar wrap

RESPONSE 4.04:

a. A gas scrubber is a vessel that removes entrained liquid from the gas stream, using a combination of a baffle or coalesces with a screening element.
b. SoCalGas and SDG&E believe ORA to be inquiring about their use of the term drip leg. As defined in Workpapers Appendix B at p. WP-G-4, a drip leg is an additional section of gas pipeline which is installed in such a way that any debris or moisture in the gas line will be caught in the trap where it can be cleaned out.
c. As defined in Workpapers Appendix B at p. WP-G-7, a (pierced) hump band is a method of repair and reinforcement of pipelines damaged due to internal and/or external corrosion, gouges, dents, cracks and defective welds.
d. A substructure is a pipeline, conduit, duct, wire, or other structure located underground.
e. As defined in Workpapers Appendix B at p. WP-G-3, coal tar wrap is a thermoplastic polymeric coating produced from the plasticization of coal tar pitch, coal and distillates, followed by the addition of inert filler.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.05:

Please provide costs for the PSEP work performed on Line 2000-West, Segments 1-3 broken down by segment. Please provide records showing the basis for these costs. If there are no records for these costs, please indicate as such.

RESPONSE 4.05:

For Line 2000-West, costs are not broken down by section, except for contractor Target Price Estimate (TPE) costs, because the sections were planned together as one project.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.06:

Please describe the scope of the Performance Partner/Construction Contractor contract for Line 2000-West.

RESPONSE 4.06:

The attached supporting documents include Confidential and Protected Information pursuant to PUC Section 583, GO 66-C, and D.16-08-024, and the accompanying declaration. The scope of the Line 2000-West work was performed under the Performance Partner agreement as fully described in attachment *"Q6 CONFIDENTIAL Line 2000-West Work Authorizations"*.

The scope of work is generally comprised of work items required to:

- Assist with hydrotests
- Provide continued service to customers during the time period when construction and testing are taking place
- Replace pipe sections as needed
- Additional construction as required in support of hydrotest

The Contractor is responsible for all traffic control, excavation, prefabrication and testing of test headers, all work needed with associated drips, drains, valves, and tap tie-ins, discharge of hydrotest water, drying of line (as required), fabrication and installation of all work associated with the Santa Fe Springs Station Bypass, backfilling, restoration, paving, and other construction that may be required to support the hydrotests. In the event of hydrotest failure or pipeline rupture, the Contractor will also be responsible for mitigation efforts.

It should be noted that work at Santa Fe Springs Station will be presented for recovery in a future reasonableness review application as stated in WP-III-A91.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.07:

Please explain the variance between the estimated construction contractor cost and the actual construction contractor costs for Line 2000-West. Provide evidence that prudent management occurred demonstrating reasonable oversight and cost containment. In particular, where actual costs exceeded estimates, please explain why and provide all documentation available to show why actual costs exceeded estimates.

RESPONSE 4.07:

The actual paid cost of $9,107,657
Less risk reward amount of $619,478
Less embedded staff cost of $32,873
Equals actual cost of the Construction contractor $8,455,306

Estimated cost of construction contractor subtotal in Stage 3 tool was $6,410,707
Less Hydrotest certification cost ($32,400) and Water Disposal ($302,400)
Plus Paving ($29,600)
Equals Stage 3 estimate of $6,105,507
Plus Change Order amount of $1,198,279
Equals $7,303,786

The variance is due to the nature of the preliminary estimating. Please refer to Chapter 2 (Phillips) at pp. 32-35 regarding cost variances in construction and the purpose of preliminary estimates and workpaper pp. WP-III-A91 – A94 for further detail regarding field conditions that cause cost variances. Furthermore, please refer to Testimony Chapter 2 (Phillips) pp. 25 describing how PSEP's Cost Tracking, Controls and Management Practices prudently manage project costs. Specifically, the $1,151,521 variance is partially due to Field Overheads (actual cost $1,020,502) not being included in the Stage 3 estimate.

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(ORA Data Request-04)

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Date Responded: November 11, 2016

QUESTION 4.08:

In regards to PSEP work on Line 2000-West, Sections 1-3, how many substructures were not identified? Please describe why each of these substructures was not identified.

RESPONSE 4.08:

There was one substructure that was not identified in the design phase that resulted in re-design during construction. A water main was not identified through the substructure research process, which involves searching on maps and records for utilities. Since there was no indication that a water main was in that location and the location of the tap valve had been verified by District operations, potholing was not performed in this particular location.

As explained in Chapter 2 (Phillips) at pp, 30-31, despite efforts in the planning and design phase, unforeseen circumstances encountered during construction may increase the complexity of projects and cause projects to take longer than planned. For example, it is not uncommon to discover substructures that were not on maps or in records during excavation. This is particularly true for older areas because requirements for substructure recordation were not as stringent as today. Additionally, governmental records may have been lost over the years. Unidentified substructures usually result in pipeline rerouting changes.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.09:

Please provide all workpapers, documentation, and other supporting documents associated with the calculations of "SoCalGas' and SDG&E's system average cost of pressure testing" of $1.7 million per mile (see, for example, SCG Workpapers page WP-III-A97).

RESPONSE 4.09:

The attached supporting documents include Confidential and Protected Information pursuant to PUC Section 583, GO 66-C, and D.16-08-024, and the accompanying declaration.
The average cost to Hydrotest is calculated by dividing the total Hydrotest Costs by the Total Length (miles). Refer to the formula below:

$$\text{Average Cost to Hydrotest} = \frac{\text{Total Hydrotest Cost}}{\text{Total Length (miles)}}$$

Hydrotest Cost Calculation

1. **Hydrotest Projects** are projects in which 100% of the tasks were for hydrotesting a specific segment of pipeline. These projects are identified where "Hydrotest" is indicated in the Project Type field. There are 6 hydrotest projects that are included in the calculation. The hydrotest costs (Capital and O&M) for these projects were derived from the May 2015 PSEP Monthly Report (see *Q9 CONFIDENTIAL Cost per mile backup.xlsx*, tabs: 'May 2015 PSEP Cost Rpt – Cap' and 'May 2015 PSEP Cost Rpt - O&M').

2. There are 20 projects that are indicated as **Replacement Projects**. The scope of these projects had a mix of hydrotesting and pipeline replacement jobs. The costs related to the hydrotesting of pipelines in these projects needed to be separated from the total project costs for the calculation of the Average Cost to Hydrotest. SoCalGas and SDG&E could not use the Data in the May 2015 PSEP Monthly Report because it accounted for total project costs (which included hydrotesting and replacement costs). Instead, SoCalGas and SDG&E followed the procedures below:
    a. SoCalGas and SDG&E reviewed project costs in the PSEP Project Cost Management Database (TM1) and selected costs for vendors who had a hydrotest scope (see *Q9 CONFIDENTIAL Cost per mile backup.xlsx*, tab: 'Replacement').

b. SoCalGas and SDG&E selected contract costs from Work Order Authorizations (WOAs) if a specific line item incurred costs associated with hydrotesting. A 50% premium (based on the Stage 3 Estimate Template) was added to the value of the contract to approximate the SCG Management, PM/Project Services, and Engineering & Design Services costs for the hydrotest project (see *Q9 CONFIDENTIAL Cost per mile backup.xlsx*, tab: 'Replacement').
c. SoCalGas and SDG&E used a supplemental report from the Distribution organization (see *Q9 CONFIDENTIAL Cost per mile backup.xlsx*, tab: 'Avg Cost to PT rpt') that calculates the Average Cost to Pressure Test Replacement Projects.

3. **Length (miles) -** The footage was provided as of May 2015 from a mileage report. A factor of 5,280 ft./mile was applied for the conversion from feet to miles (see *Q9 CONFIDENTIAL Cost per mile backup.xlsx*, tab: 'RPT_1MM_General')

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Project	Project Type	Length (ft)	NOP Date	Hydrotest Cost
1005	Replacement	107	2/4/2015	$ 121,615
1011	Replacement	382	8/28/2014	$ 164,206
1013	Replacement	129	9/25/2014	$ 215,958
1014	Replacement	16	11/4/2014	$ 23,225
1015 (North & South)	Hydrotest	2,161	12/10/2014	$ 5,302,257
2000 West Sec (1,2,3)	Hydrotest	76,966	12/18/2014	$ 23,892,011
2000-A	Hydrotest	81,063	11/7/2014	$ 26,466,681
2003 Sec (1,4)	Replacement	1,259	11/19/2014	$ 1,453,256.95
235 West	Replacement	17	9/11/2014	$ 560,631
235 West Sawtooth Canyon	Replacement	2,824	12/6/2014	$ 263,279
33-120 Sec 2	Replacement	1,513	9/5/2014	$ 425,314
36-1032 Sec (1,2)	Replacement	2,530	10/23/2014	$ 197,713
36-9-09 North Section 2B	Hydrotest	1,310	7/31/2014	$ 2,683,153
36-9-09 North Section 4B	Replacement	2,284	12/11/2014	$ 514,854
36-9-09 North Section 6A	Hydrotest	4,839	5/5/2015	$ 2,926,179
38-539	Replacement	13,794	3/13/2015	$ 240,333
404 Sec 8A	Replacement	9,837	3/31/2015	$ 1,712,805
406 Sec (1,2,2A,4,5)	Replacement	6,325	12/16/2014	$ 2,076,579
407 (North & South)	Hydrotest	15,820	8/20/2014	$ 6,429,663
44-654	Replacement	170	9/24/2014	$ 165,804
45-120 Sec 1	Replacement	2,987	7/13/2014	$ 176,917
49-14 Sec 1	Replacement	151	11/1/2014	$ 221,253
49-16 Sec 5	Replacement	36	3/28/2015	$ 24,598
49-17 West Sec (1A,2A)	Replacement	5,464	12/23/2014	$ 1,283,262
49-25 Sec 2	Replacement	1,555	12/29/2014	$ 309,767
49-28 Sec (1A,2A)	Replacement	8,378	12/19/2014	$ 1,068,012

Cost Per Foot to hydrotest	$ 326.22
Cost Per Mile to hydrotest	**$ 1,722,460**

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.10:

Was PSEP work on Line 2001-West-A subject to an estimate using the Stage 3 Estimating Tool? If not, please provide the name of the estimating tool used.

RESPONSE 4.10:

The Stage 3 Estimating tool was not used for 2001 West-A. The Stage 2 Test vs Replace tool was used for Line 2001 West A due to the expediting of the project in order to benefit from the pipeline being blown down during Pipeline Integrity's work and to avoid the additional resources and costs of a separate mobilization and demobilization.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.11:

Regarding the use or involvement of coal tar wrapping for SCG/SDG&E's system:

a. How many total miles of transmission pipe are in the SCG/SDG&E system?

b. How many miles of transmission pipe in the SCG/SDG&E system use or involve coal tar wrap?

c. What percentage of lines on SCG/SDG&E's system use or are involved with coal tar wrap?

d. How many total miles of transmission pipe in SCG/SDG&E's system are within the scope of the present application?

e. How many miles of SCG/SDG&E transmission pipe within the scope of the present application use or involve coal tar wrap?

RESPONSE 4.11:

a. SoCalGas - approximately 3,485 miles, SDG&E – approximately 228 miles
b. Historically, coating information has been routinely captured in hard copy construction records and also identified as coated or non-coated pipe for reporting purposes. Additionally, SoCalGas and SDG&E have been working towards compiling coating information into the company databases, which will be more easily accessible. Based upon the information that has been compiled to date, there is approximately 1,150 miles of transmission pipe designated as coal tar or coal tar enamel coating operating within the two utilities.
c. For SoCalGas and SDG&E, approximately 30% and 50% respectively.
d. For total miles[1] of pipe included in this application, please refer to Chapter 3 Direct Testimony (Phillips) on pp. 2-3.
e. Please refer to response 4.11b above. Based upon the information that has been compiled to date, there is approximately 9.7 miles of transmission pipe in the present

[1] Of the total mileage, 0.874 miles is incidental piping that is operating at less than 20% SMYS and is not transmission piping.

application designated as coal tar or coal tar enamel coating operating within the two utilities.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.12:

Regarding environmental remediation of coal tar wrap, please quantify how often SCG/SDG&E encounter environmental remediation issues with coal tar wrap when performing pipeline excavation work? In particular,

a. How many miles of coal tar wrap transmission pipe in the instant application has required environmental remediation?

b. How many miles of coal tar wrap transmission pipe in SCG/SDG&E's system has required environmental remediation?

c. What are the total costs of environmental remediation related to coal tar wrap transmission pipe that is within the scope of the instant application?

d. What is the average per mile cost of environmental remediation related to coal tar wrap transmission pipe that is within the scope of the instant application?

e. What are the total number of projects in the instant application that have involved coal tar wrap on transmission pipe?

f. Of the total number of projects in the instant application that have involved coal tar wrap on transmission pipe, what number have required environmental remediation?

g. If only certain coal tar wrap transmission pipe required environmental remediation, please explain why that pipe required such remediation, while other coal tar wrap pipe did not.

h. What other quantifications are there related to environmental remediation issues with coal tar wrap when performing pipeline excavation work?

i. Explain how SCG/SDG&E's practices have minimized the cost of remediation.

j. Explain circumstances under which SCG/SDG&E's practices cannot avoid the cost of remediation.

RESPONSE 4.12:

a. A total of approximately 6,431 feet or 1.22 miles of pipe wrap underwent removal or abatement for the subject projects. Approximately six projects encountered pipe wrap debris in the excavation, which is not included in the linear feet of disposal. The debris is not represented in linear feet/miles as the data for removal of pieces of pipe wrap debris was not tracked in terms of length.
b. Per the response above, 1.22 miles of pipe wrap was removed. Coal tar pipe wrap is a known to contain asbestos so it requires management by trained and certified contractors and is regulated by the State.
c. The total cost of pipe wrap abatement activities captured by the project in this application is about $1,674,576. Abatement activities include, but are not limited to, use of materials like personal protective equipment, plastic, etc., air sampling, labor to remediate pipeline and labor for third party oversight of removal activities, management and removal coal tar debris fields, waste shipment and disposal, regulatory notification fees, etc.
d. Based on the total pipewrap removed in the response to question a. and the total costs provided in question c., the average cost per mile is $1,372,603/mile. It is important to note that length of debris fields is not captured in the total removal length. The pieces of coal tar debris that are removed from dirt are placed into bags. As noted above in the response to a., coal tar debris fields were encountered on 6 projects.
e. A total of 35 out of the 41 projects in this application required abatement of pipe wrap.
f. Per the response to e., a total of 35 projects required the pipeline to be remediated.
g. Given the vintage of the pipelines being serviced and the presence of coal tar pipewrap, asbestos content was presumed to be present on pipelines that were excavated. For reference, presumed asbestos containing material is defined by Cal/OSHA as material with unknown content that is pre-1981 thermal system insulation, pre-1981 surfacing material sprayed or troweled on, pre-1981 asphaltic or vinyl flooring material, asphaltic (coal tar) pipe coating/wrap or fiber-reinforced (“Transite”) cement products.
h. None. See the response to c. above.
i. Remediation is required by regulation. The list of regulations addressing asbestos is provided below. The cost of remediation is minimized by only performing abatement on the area of the pipeline that will be disturbed to complete the project.
    - California Code of Regulations (CCR), Title 8, Section 1529, Construction Safety Orders, Asbestos
    - CCR, Title 8, Section 5208, General Industry Safety Orders, Asbestos
    - CCR, Title 8, Section 5203, Carcinogen Report of Use Requirements
    - CCR, Title 8, Section 341.15, Certification of Asbestos Consultants and Site Surveillance Technicians

- California Business and Professions Code (B&PC) Sections 7058.5 – 7058.6 Asbestos Contractors
- California B&PC Sections 7180 - 7189.7 Asbestos Consultants
- California Health and Safety Code Sections 25915 - 25919.7. Notification
- CFR Title 40 Part 763. Subpart E Asbestos-Containing Materials in Schools Section 763.86 Sampling and Appendix E — Interim Method for the Determination of Asbestos in Bulk Insulation Samples
- Antelope Valley AQMD - Rule 1403
- Bay Area AQMD – Reg 11, Rule 2
- Imperial County APCD – Rule 1001, (CFR Title 40 Part 61 Subpart M)
- Eastern Kern County APCD – Rule 423, (CFR Title 40 Part 61 Subpart M)
- Mojave Desert AQMD – Rule 1000, (CFR Title 40 Part 61 Subpart M)
- Sacramento Metropolitan AQMD – Rule 902
- San Joaquin Valley APCD – Rule 4002, (CFR Title 40 Part 61 Subpart M)
- San Diego APCD – Regulation IX, (CFR Title 40 Part 61 Subpart M)
- San Luis Obispo APCD – Rule 701, (CFR Title 40 Part 61 Subpart M)
- Santa Barbara County APCD – Rule 1001, (CFR Title 40 Part 61 Subpart M)
- South Coast AQMD - Rule 1403
- Ventura County APCD - Rule 62.7

j. Before the crews can work on the pipeline, the asbestos hazard must be removed properly to avoid employee or contractor exposure. The requirements and certifications necessary to remove asbestos containing material to avoid exposure are prescriptive and dictated by regulatory agencies such as OSHA and the Air Quality Management District/Air Pollution Control Districts. Remediation on each project is completed as required by regulation and to the extent needed to remove the potential for exposure to asbestos containing material in the areas of the pipeline that require maintenance.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.13:

Under what conditions is Gas Transmission Operations (GTO) responsible for PSEP-related work?

RESPONSE 4.13:

As stated in Chapter 2 (Phillips) at p. 24 the PSEP project teams looked for ways to avoid costs in the design and construction phases. The teams looked for the least cost approach to design the pressure test, replacement, or valve work during the planning and detailed design phases. In situations where Gas Transmission Operations has a project adjacent to a PSEP related project, coordinated efforts were made when practical. Some of the items considered are eliminating separate blowdowns, utilizing the same construction contractor to eliminate separate mobilization/demobilization efforts by two separate contractors and minimize customer/system impacts by performing work as one project. At the time of these discussions, the issue of which organization takes the lead (responsible) will be determined.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.14:

Please provide the 1957 test records associated with Line 235-West Sawtooth Canyon (referenced on page WP-III-A162 of SCG/SDG&E's workpapers).

RESPONSE 4.14:

The attached supporting documents include Confidential and protected Information Pursuant to PUC Section 583, GO 66-C, and D.16-08-024. Please see attached test records for pipeline segments between valve #15 and #16 that relates to the section identified in the workpaper on Line 235-West Sawtooth Canyon.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.15:

Please provide the timeframe for the City of Lompoc's road widening as described in SCG/SDG&E's workpapers associated with Supply Line 36-1032, as described on Work paper pages WP-III-A230 through WP-III-A256.

RESPONSE 4.15:

The City of Lompoc has not indicated a precise timeframe for road widening. During the Line 36-1032 design phase, the City of Lompoc provided preliminary plans for a real estate development in the area which would necessitate extension of road widening. As a result, the project was designed to avoid future pipeline relocation.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.16:

Have SCG/SDG&E previously performed any PSEP or other construction work in areas affected by (or potentially affected by) Tule Fog?

RESPONSE 4.16:

Yes, Tule Fog occurs in the San Joaquin Valley and is sometimes unpredictable when it occurs during the day. Due to extremely low visibility associated with Tule Fog, when Tule Fog is encountered work may be suspended due to hazardous driving and working conditions.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.17:

Regarding preparation and cleanup time included in SCG/SDG&E PSEP cost and schedule estimates:

a. Why were preparation and cleanup time not included in SCG/SDG&E's initial estimates of its costs to perform work on Supply Line 38-539, as described on page WP-III-A268 of SCG/SDG&E's workpapers?

b. Are there other instances of initial cost estimates in the instant application that do not include preparation or cleanup time? If so, please provide a list of them.

RESPONSE 4.17:

a. SoCalGas and SDG&E interpret ORAs use of the term 'initial estimate' to mean contractor target price estimate. The hydrotest day was assumed to occur during normal working hours of the construction project. Due to unforeseen events such as valve maintenance, leak testing and extended traffic control preparation, an extra 4 hours of preparation and clean up time were not included in the initial estimate.

b. Preparation and cleanup time are generally included in the estimates, but may be included on different days than the hydrotest day. For some projects, the hydrotest day exceeds regular construction working hours, i.e. 38-539 and 2003 Section 4.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.18:

As described on page WP-III-A268 of SCG/SDG&E's workpapers, why was the water associated with the hydro test of Supply Line 38-539 "discovered to be discolored?" What impact does the discoloration have on the work SCG/SDG&E has done?

RESPONSE 4.18:

As stated in SoCalGas and SDG&E's workpapers at p. WP-111-A-269, the potable water that was used for the hydrostatic test became discolored after coming into contact with the internal surface of the pipeline. The discolored water impacted the disposal plan for the hydrostatic test water from the Supply Line 38-539 project because the hydrostatic test water was planned to be reused for dust control.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.19:

Please explain why the cost estimate for Line 41-30-A was prepared using SoCalGas Distribution Operating Regions' Construction Management System instead of standard PSEP estimating tools, as described in SCG/SDG&E Workpapers pages WP-III-A322 through WP-III-A331.

RESPONSE 4.19:

As stated in the Cost Estimating section of the 2016 Reasonableness Review Workpapers at pp. WP-Intro-5 to 6, "Early PSEP projects that were managed by the Region used the SoCalGas Construction Management System (CMS) tool to estimate costs."

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.20:

Why does additional wall thickness of pipe (as described on page WP-III-A423 of SCG/SDG&E's workpapers) require additional labor hours to perform PSEP work? Please provide a list of the differences in labor hours for different wall pipe thicknesses.

RESPONSE 4.20:

Additional wall thickness of pipe requires additional labor hours because of welding. The thicker the wall thickness, the greater amount of filler passes are required. Labor hours are not tracked by wall thickness due to the various ranges of wall thicknesses within a given pipeline project.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.21:

On page WP-III-A32 of SCG's Workpapers, SCG states "Through the L-1013 Replacement Project, SoCalGas and SDG&E enhanced its high-pressure transmission pipeline system by successfully replacing 140 feet of pipe and installation of a new mainline valve capable of automation." Was the "new mainline valve capable to automation" funded by or approved in any past or current General Rate Case? If yes please explain.

RESPONSE 4.21:

No, the automation of the new mainline valve was not funded or approved by the General Rate Case.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.22:

On page WP-III-A185 of SCG's Workpapers, SCG states "This estimate [for Line 35-20-N] was prepared in September 2013 using the SoCalGas Distribution Operating Regions' Construction Management System (CMS)."

Why was the estimate prepared using this tool and not SCG's Stage 3 SCG Pipeline Estimate Template tool?

RESPONSE 4.22:

See ORA-DR-04, Response 19.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.23:

On page WP-III-A212 of SCG's Workpapers, under "Field Conditions/Constructability issues," SCG states "Additional pressure control fittings not in the original scope of work were added to safely perform gas handling." Please:

a. Explain why additional pressure control fittings were not included in the original scope of work;

b. Explain the cost impact of the additional pressure control fitting work; and

c. Explain what steps SoCalGas and SDG&E have taken to ensure that pressure control fittings are appropriately estimated in similar projects in the future.

RESPONSE 4.23:

a. The additional nipples were required to facilitate gas handling near the tie-in locations. Those additional nipples were not included in the original scope of work or design drawings. Site space constraints caused the need for additional bell holes for the vent stacks to be located at a safe distance from the work site.

b. Due to distance requirements of stacks with air gauges, the crew had to excavate additional holes, as there was not enough space within the original excavation. Please refer to the change notices provided in response to ORA-DR-3-Question 10 for the cost impacts of this additional work.

c. Through interactive planning sessions (IAPs), stakeholders such as District Operations provide feedback for proposed tie-in activities. Interactive Planning (IAP) sessions serve as a platform to enhance collaboration between a cross-section of project stakeholders and team members to explore, discuss, and reach solutions about a particular aspect of a project. By bringing together all key members of a project team, we're able to more effectively map out critical milestones, schedule considerations, and necessary tasks to support the achievement of those milestones. The session recognizes and reminds team members that the end in mind is a project objective that must be met, and looks for the best means to meet those objectives.

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(ORA Data Request-04)

Date Requested: October 27, 2016
Date Responded: November 11, 2016

QUESTION 4.24:

In page WP-III-A195 of SCG's Workpapers, SCG states "this estimate was prepared in September 2013 using the SoCalGas Distribution Operating Regions' Construction Management System (CMS)."

Why was the estimate prepared using this tool and not SCG's Stage 3 SCG Pipeline Estimate Template tool?

RESPONSE 4.24:

See ORA-DR-04, Response 19.