

Company: Southern California Gas Company (U 904 G)  
Proceeding: 2024 General Rate Case  
Application: A.22-05-015/-016 (cons.)  
Exhibit: SCG-27-2R-E

**SECOND REVISED**  
**PREPARED DIRECT TESTIMONY OF**  
**NEENA N. MASTER**  
**(SAFETY & RISK MANAGEMENT SYSTEMS)**

**ERRATA**

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



May 2023

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**SUMMARY**

<b>SAFETY &amp; RISK MANAGEMENT SYSTEMS</b>			
<b>In 2021 \$ (in 000s)</b>			
	<b>2021 Adjusted-Recorded</b>	<b>TY2024 Estimated</b>	<b>Change</b>
Total Non-Shared Services	13,661	21,521	7,860
Total Shared Services (Incurred)	1,908	2,385	477
<b>Total O&amp;M</b>	<b>15,569</b>	<b>23,906</b>	<b>8,337</b>

<b>SAFETY &amp; RISK MANAGEMENT SYSTEMS</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Capital</b>	<b>Estimated 2022</b>	<b>Estimated 2023</b>	<b>Estimated TY2024</b>
<b>Total Capital</b>	<b>13,129</b>	<b>12,152</b>	<b>13,238</b>

**Summary of Requests**

Southern California Gas Company (SoCalGas or the Company) is requesting the California Public Utilities Commission (CPUC or Commission) to adopt its Test Year 2024 (TY 2024) General Rate Case (GRC) forecast of \$23.906 million for Safety & Risk Management Systems expenses, which is composed of \$21.521 million for non-shared service activities and \$2.385 million for shared service activities. The programs outlined within this witness area collectively comprise the key integrated components of SoCalGas’s Safety and Risk Management Systems.

The forecast methodology used to project costs begins with the Base Year (BY) 2021 and adjusts for incremental changes as appropriate. This methodology best represents the nature of these costs, as a significant portion of the programs outlined will be new and/or will have new initiatives added by direction of the CPUC for utilities to develop and deploy data-driven and risk-informed approaches to improving employee, contractor, public, and infrastructure safety.

**Safety Management Systems (SMS)** – For TY 2024 SoCalGas requests \$19.219 million (an increase of \$7.502 million above BY 2021 adjusted recorded costs) for SMS. SoCalGas’s request is reasonable and justified in that the activities:

- Maintain and enhance SoCalGas’s safety programs and commitments to its employees, contractors, customers/public, infrastructure integrity, and system reliability;
- Support a culture of continuous improvement;

- Are consistent with operational laws, codes, and standards established by local, state, and federal authorities;
- Support SoCalGas’s commitment to, “build the cleanest, safest, most innovative energy company in America;”
- Support the Commission’s rulemaking to develop a risk-based decision-making framework to evaluate safety and reliability improvements; and
- Maintain and strengthen a well-informed and knowledgeable workforce.

**Risk Management Systems** – For TY 2024 SoCalGas requests \$4.687 million (an increase of \$0.836 million above base year 2021 adjusted recorded costs) for Risk Management. SoCalGas’s request is reasonable and justified in that the activities:

- Incorporate risk management as an integral part of key organizational decision-making processes;
- Foster greater collaboration in risk management across the enterprise, enhance risk management processes and procedures, and educate employees about risk management standards and best practices;
- More closely integrate risk, infrastructure, and investment management; and
- Implement an increasingly data-driven risk management process.

The activities in my testimony help to maintain and enhance the delivery of safe, reliable, and resilient service to SoCalGas’s customers.

**SECOND REVISED PREPARED DIRECT TESTIMONY OF  
NEENA N. MASTER  
(SAFETY & RISK MANAGEMENT SYSTEMS)**

**I. INTRODUCTION**

**A. Summary of Safety & Risk Management Systems Costs and Activities**

I am sponsoring SoCalGas’s SMS Policy and the operations and maintenance (O&M) costs and activities associated with SMS and Risk Management. SoCalGas’s Risk Management policy is discussed in the Risk Management Policy testimony of Deana M. Ng (Ex. SCG-03, Chapter 1). I am also sponsoring the operational need and business justification for three Information Technology capital projects and High-Pressure Project Record (HPPR) closeout assessments that have a capital cost inclusion. These Capital costs can be identified in the following witness areas:

- Gas Transmission Operations & Construction: Rick Chiapa, Steve Hruby, and Aaron Bell (Ex. SCG-06)
- Pipeline Safety Enhancement Plan (PSEP): Bill Kostelnik, (Ex. SCG-08)
- Gas Distribution: Mario Aguirre, (Ex. SCG-04)
- Gas Integrity Management Programs: Amy Kitson and Travis Sera, (Ex. SCG-09)
- Information Technology: William J. Exon, (Ex. SCG-21, Chapter 2)

My testimony supports the TY 2024 forecasts for O&M costs for both shared and non-shared services, and the business justification for capital costs to the witness areas identified above, for the forecast years 2022, 2023, and 2024. Table NNM-1 summarizes my O&M sponsored costs and Table NNM-2 summarizes the Capital costs where my testimony provides the business justification.

**TABLE NNM-1  
Test Year 2024 Summary of Total O&M Costs**

<b>SAFETY &amp; RISK MANAGEMENT SYSTEMS</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>O&amp;M</b>	<b>2021 Adjusted-Recorded</b>	<b>TY2024 Estimated</b>	<b>Change</b>
Total Non-Shared Services	13,661	21,521	7,860
Total Shared Services (Incurred)	1,908	2,385	477
<b>Total O&amp;M</b>	<b>15,569</b>	<b>23,906</b>	<b>8,337</b>

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**TABLE NNM-2**  
**Test Year 2024 Summary of Total Capital Costs**

<b>SAFETY &amp; RISK MANAGEMENT SYSTEMS</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Capital</b>	<b>Estimated 2022</b>	<b>Estimated 2023</b>	<b>Estimated TY2024</b>
<b>Total Capital</b>	<b>13,129</b>	<b>12,152</b>	<b>13,238</b>

**B. Support To and From Other Witnesses**

My testimony also references the testimony and workpapers of several other witnesses, either in support of their testimony or as referential support for mine. Those witnesses include:

- Direct Testimony of Naim Jonathan Peress (Climate Policy) and Michelle Sim (Sustainability) – Sustainability and Climate Policy (Ex. SCG-02);
- Direct Testimony of Deana Ng – Risk Management Policy (Ex. SCG-03, Chapter 1);
- Direct Testimony of Gregory Flores and R. Scott Pearson – RAMP-to-GRC Integration (Ex. SCG-03/SDG&E-03, Chapter 2);
- Direct Testimony of Mario Aguirre – Gas Distribution (Ex. SCG-04);
- Direct Testimony of Wallace Rawls – Gas System Staff & Technology (Ex. SCG-05);
- Direct Testimony of Rick Chiapa, Steve Hruby, and Aaron Bell - Gas Transmission Operations & Construction (Ex. SCG-06);
- Direct Testimony of Maria T. Martinez – Gas Engineering (Ex. SCG-07);
- Direct Testimony of Bill Kostelnik – Pipeline Safety Enhancement Plan (PSEP), (Ex. SCG-08);
- Direct Testimony of Amy Kitson and Travis Sera – Gas Integrity Management Programs, (Ex. SCG-09);
- Direct Testimony of Larry Bittleston and Steve Hruby – Gas Storage Operations and Construction, (Ex. SCG-10);
- Direct Testimony of Michael Franco – Fleet Services (Ex. SCG-18);
- Direct Testimony of Albert J. Garcia – Environment Services (Ex. SCG-20);
- Direct Testimony of William J. Exon - Information Technology (Ex. SCG-21, Chapter 2);



- Direct Testimony of Sara P. Mijares – Administrative and General (Ex. SCG-29); and
- Direct Testimony of Angel Le – Shared Service Billing, Shared Assets Billing, Segmentation, & Capital Reassignments (Ex. SCG-30).

**C. Organization of Testimony**

My testimony is organized as follows:

- Section I is the Introduction;
- Section II describes SoCalGas’s SMS policy;
- Section III describes the 2021 Risk Assessment Mitigation Phase (RAMP) reported costs and activities that pertain to SMS and Risk Management and any updates or changes to those forecasts that are reflected in my testimony.
- Section IV describes SoCalGas’s Sustainability and Safety Culture;
- Section V describes Non-Shared costs requested in this testimony;
- Section VI describes Shared costs requested in this testimony;
- Section VII describes the business justification for Capital initiatives;
- Section VIII is the Conclusion;
- Section IX is the Witness Qualifications.

**II. SOCALGAS SAFETY MANAGEMENT SYSTEM POLICY**

At SoCalGas, the safety of its customers, employees, contractors, infrastructure, and the communities the Company serves has been, and will remain, a foundational value for the Company. As the nation’s largest natural gas distribution utility, SoCalGas’s tradition of safety spans more than 150 years, and SoCalGas takes its safety commitment very seriously.

SoCalGas’s longstanding commitment to safety focuses on three primary areas – employee and contractor safety, customer and public safety, and the safety of the Company’s gas system. This safety focus is foundational to the culture of SoCalGas from initial employee training to the installation, operation, and maintenance of SoCalGas’s utility infrastructure, and to SoCalGas’s commitment to provide safe and reliable service to its customers.

SoCalGas strives to continuously improve and strengthen its safety performance by setting clear measurable goals with a strong focus on leading indicators, assessing safety performance, reviewing, and questioning approaches and assumptions. SoCalGas integrates people and activities into the continuous improvement process to promote a holistic approach to

1 safety, learning from and sharing best practices, and lessons learned with stakeholders and peers.  
2 This safety commitment has guided SoCalGas’s past and current success and will continue to  
3 guide its future direction.

4 **A. SoCalGas’s SMS**

5 The origins of SoCalGas’s SMS can be traced back more than a decade to when the  
6 Company established and implemented its Environmental and Safety Compliance Management  
7 Program (ESCMP). ESCMP is conceptually based on the International Standards Organization  
8 (ISO) 14001<sup>1</sup> Environmental Management Systems standard and includes safety components  
9 unique to SoCalGas. Similarly, SoCalGas’s Gas Integrity Management Programs, also in place  
10 for more than a decade, are another form of safety management systems that were designed to  
11 oversee and continually enhance the integrity of SoCalGas’s pipeline system. These  
12 companywide programs have been assessed, improved, and matured to drive continuous  
13 improvement and have been further influenced by the American Petroleum Institute (API) and  
14 American Gas Association (AGA). In 2015, API introduced an API Recommended Practice  
15 (RP) 1173<sup>2</sup> as an industry standard for Pipeline Safety Management Systems (PSMS), based on  
16 ten tenets that outline safe and effective pipeline operations. In 2019, the AGA approved a  
17 resolution recommending that all member companies implement a PSMS based on API RP  
18 1173.<sup>3</sup> Initially, following API’s introduction of API RP 1173, SoCalGas focused its burgeoning  
19 SMS on addressing pipeline safety. SoCalGas gradually expanded the scope of its safety  
20 management system to address all aspects of safety relevant to SoCalGas’s business, creating  
21 one comprehensive safety management system. SoCalGas has taken this knowledge and  
22 experience from its companywide programs, with additional influence of API and AGA, to  
23 establish its SMS to further enhance safe operations, strengthen safety culture, and improve  
24 overall safety performance.

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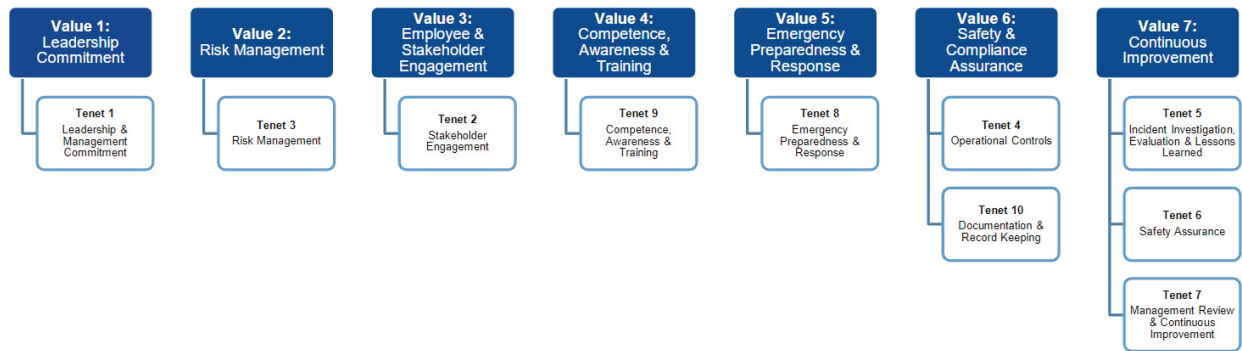
<sup>1</sup> ISO 14001:2015, “Environmental management systems — Requirements with guidance for use,”  
*available at:* <https://www.iso.org/obp/ui/#iso:std:iso:14001:ed-3:v1:en>.

<sup>2</sup> API RP 1173, “Pipeline Safety Management Systems,” July 2015, *available at:*  
<https://pipelinesms.org/rp-1173/>.

<sup>3</sup> AGA, “AGA Board Recommends Holistic Approach to Improving Pipeline Safety,” May 21, 2019,  
*available at:* <https://www.aga.org/news/news-releases/ga-board-recommends-holistic-approach-to-improving-pipeline-safety/>.

1 The adoption of SoCalGas’s SMS in its current structure began in 2019, when SoCalGas  
2 reorganized existing safety-focused departments under one consolidated organization, named the  
3 Safety Management System organization, reporting directly to SoCalGas’s Chief Safety Officer  
4 (CSO). In addition, SoCalGas implemented an SMS Company Operations Standard, that covers  
5 all areas of safety, and integrates the ten tenets of API RP 1173 into seven SoCalGas Safety  
6 Values (summarized in Figure NNM-1 below)

7 **Figure NNM-1:**  
8 **SoCalGas Safety Values**



10  
11 SoCalGas’s SMS uses the “Plan-Do-Check-Act” (PDCA) cycle to drive continuous  
12 safety performance improvement (Figure NNM-2). SoCalGas takes an integrated approach to  
13 improve and enhance safety through people, processes, and technology as well as policies,  
14 procedures, and programs. SoCalGas’s SMS is deliberate and intentional. It provides a  
15 framework that connects everything the Company does when it comes to safety. SoCalGas  
16 continues to focus on integrating this plan into its employees’ daily activities. It is a living set of  
17 policies and documents that embodies SoCalGas’s safety values.

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**Figure NNM-2  
Plan-Do-Check-Act Safety Cycle**



The PDCA is a core principle of a continuous improvement framework. Its principal aim is to encourage creating strategies and plans, executing those strategies and plans in line with guidelines, checking those actions for conformity, and using those results to adjust the next generation of plans. It is important to note that SoCalGas’s SMS is a framework that is designed to connect a multitude of safety activities, safety programs, safety policies, safety compliance plans, safety controls, and safety mitigations that have existed and have been evolving over a long period of time prior to the establishment of the API RP 1137 in 2015 and SoCalGas’s SMS organization in 2019. The vision of the SMS is to provide a framework that integrates and connects everything SoCalGas does when it comes to safety with the goal to continuously enhance the safety of operations, strengthen the safety culture, and improve overall safety performance.

1           **B.     Safety Values**

2           The following highlights SoCalGas’s seven Safety Values that guide the SMS and are  
3 discussed in further detail throughout my testimony:

4                   **1.     Leadership Commitment**

5           SoCalGas leadership is fully committed to safety as a core value. SoCalGas’s Executive  
6 Leadership is responsible for overseeing reported safety concerns and promoting a strong,  
7 positive safety culture and an environment of trust that includes empowering employees to  
8 identify risks and to “Stop the Job.”

9                   **2.     Risk Management**

10          SoCalGas manages risk through a structured, data-driven approach that identifies threats  
11 and hazards, assesses, and prioritizes risks, implements mitigation efforts, and engages in  
12 assessments and reviews to understand risk mitigation effectiveness.

13                   **3.     Employee and Stakeholder Engagement**

14          SoCalGas encourages and expects employees to take ownership and actively engage in  
15 safety practices, and openly share and receive information with one another, contractors, and  
16 external stakeholders to continuously enhance safety practices.

17                   **4.     Competence, Awareness, and Training**

18          SoCalGas is committed to providing employees with the proper tools, resources, training,  
19 and oversight to promote safe operations. This includes training tailored to specific roles and  
20 educating employees on why training, policies, and procedures are important to safety.

21                   **5.     Emergency Preparedness and Response**

22          SoCalGas maintains readiness to promptly respond to emergency incidents and events  
23 through an Incident Command System that incorporates response planning, training, and  
24 equipping of personnel, and coordination with first responders and external stakeholders.

25                   **6.     Safety and Compliance Assurance**

26          SoCalGas maintains operational policies and procedures that document safety practices,  
27 standards, and compliance with applicable regulations and follows a “management of change”  
28 process to structure change when new policies and procedures are implemented.

29                   **7.     Continuous Improvement**

30          SoCalGas strives to continuously improve and strengthen its safety performance and  
31 culture by setting clear and measurable goals, assessing safety performance through self-

1 assessments, inviting employee feedback, and applying lessons learned from incidents and near-  
2 miss events. SoCalGas also shares safety best practices with peer gas utilities and best in class  
3 companies in other industries.

4         These safety values are embedded in SoCalGas’s culture. SoCalGas’s safety-focused  
5 culture and structure allow the Company to be proactive and accountable in the safe delivery of  
6 gas and associated business operations. SoCalGas embraces a work environment where  
7 employees and contractors are encouraged to raise concerns regarding gas system safety,  
8 customer safety, personal safety, and/or offer suggestions for improvement. SoCalGas  
9 implemented an SMS Responsibilities Policy to promote the use of these safety values as part of  
10 all activities performed at SoCalGas.<sup>4</sup> This policy establishes responsibilities at various levels  
11 within SoCalGas to promote, support, develop, implement, and continuously improve SMS in an  
12 effective and efficient manner. These Safety Values are the foundation of the Company’s SMS.  
13 Each SoCalGas officer embraces and endorses the Company’s commitment to safety and  
14 supports the SMS Plan.

15         SoCalGas’s SMS is unique because it takes a broad, holistic view of safety management.  
16 The SMS encompasses all aspects of safety relevant to SoCalGas’s business, including employee  
17 safety, contractor safety, customer safety, public safety, and system safety. It applies to all  
18 SoCalGas assets and operations as well as to all employees, including executives, directors,  
19 managers, supervisors, and front-line employees. The SMS is intended to engage with  
20 employees, so they are knowledgeable about safety expectations, protocols, and procedures and  
21 can fully support and further a safety-focused culture. SoCalGas’s SMS integrates the ten  
22 elements of API RP 1173 within SoCalGas’s seven Safety Values as they relate to Company  
23 infrastructure, assets, and operations, including transmission and distribution pipelines,  
24 compressor and regulator stations, gas control operations, underground and aboveground storage  
25 operations, gas engineering, buildings and facilities, engineering operations, construction  
26 operations, customer service field operations, contact center operations, billing services, and  
27 remittance processing.

28         In addition, SoCalGas expects its construction contractors to adhere to SoCalGas’s SMS  
29 when working on any SoCalGas project and encourages them to adopt their own safety

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<sup>4</sup> See Appendix B – SoCalGas’s 2021 Safety Management System Plan.

1 management systems that are appropriate for their size of operations and circumstances.  
2 SoCalGas requires its Class 1 contractors to support the implementation of SoCalGas’s SMS  
3 when working on any SoCalGas project. This support includes utilizing industry best practices  
4 in safety management, including using “Stop the Job” authority as needed, and identifying and  
5 reporting safety risks and gaps in operating procedures for resolution.

6 SoCalGas’s SMS emphasizes a proactive approach to planning and providing feedback.  
7 This includes identifying risk in a methodical manner by clarifying responsibilities for safety  
8 throughout the organization, emphasizing non-punitive reporting of safety concerns, providing  
9 safety assurance by regularly evaluating operations, and fostering a culture of risk reduction and  
10 continuous improvement. SoCalGas has established responsibilities at various levels to promote,  
11 support, develop, implement, and continuously improve its SMS in an effective and efficient  
12 manner.

13 Using the framework of these seven Safety Values, SoCalGas has developed a  
14 comprehensive set of safety plans, programs, and procedures and put them in place to address  
15 specific infrastructure or activity areas. SoCalGas has several programs to gather employee and  
16 external stakeholder feedback, as well as methods and resources for the public to report safety  
17 concerns and engage with the Company on safety matters. These programs, methods, and  
18 resources include Stop the Job authority, Close Call Incident reporting, safety culture  
19 assessments, and Contractor and Employee Safety Congresses, as well as public awareness  
20 programs that enables SoCalGas to incorporate stakeholder feedback and take action to address  
21 issues and enhance safety. With a systematic approach to managing safety, the SMS is aimed at  
22 establishing accountability and includes organizational structures, policies, and procedures to  
23 support implementation. It is comprehensive and iterative in nature, designed to identify,  
24 manage, and reduce risks. Safety incidents, including serious injuries to employees, contractors,  
25 and the public are outcomes that SoCalGas strives to eliminate through the SMS.

26 In 2019, the CPUC issued an Order Instituting Investigation (OII) to determine whether  
27 SoCalGas’ organizational culture and governance prioritize safety and achieve safety goals and  
28 standards. The CPUC selected Evolving Energy Consortium (2EC) to perform this assessment.

1           2EC’s assessment began in 2020 and extended through much of 2021, with their final  
2 report<sup>5</sup> being provided to SoCalGas in January 2022. The 2EC assessment represents a new  
3 approach for SoCalGas, leveraging more qualitative information and highlighting perceptions  
4 and beliefs expressed or discussed in smaller conversations, creating an opportunity to delve into  
5 specific perceptions and beliefs to pursue learning and improvement. SoCalGas is evaluating the  
6 report to determine the appropriate actions and prioritization of this feedback. This testimony  
7 includes both mitigations and enhancements that were already part of SoCalGas’s plans for  
8 enhancing safety prior to its receipt of 2EC’s recommendation as well as those which are in line  
9 with 2EC’s recommendations. SoCalGas looks forward to continuing to collaborate with the  
10 CPUC in the Safety Culture OII<sup>6</sup> and Safety Culture Rulemaking<sup>7</sup> and will stay engaged with  
11 other regulatory agencies and stakeholders to stay abreast of industry best practices and continue  
12 to enhance its safety practices and programs.

13           For more information on SoCalGas’s SMS, please refer to SoCalGas’s 2021 RAMP  
14 Report (SCG-CFF-6).<sup>8</sup>

### 15 **III. RISK ASSESSMENT MITIGATION PHASE (RAMP) INTEGRATION**

16           Certain costs supported in my testimony are driven by activities described in SoCalGas  
17 and San Diego Gas & Electric Company’s (SDG&E) respective 2021 RAMP Reports  
18 (collectively, the 2021 RAMP Reports).<sup>9</sup> The 2021 RAMP Reports presented an assessment of  
19 the key safety risks for SoCalGas and SDG&E and proposed plans for mitigating those risks. As  
20 discussed in the RAMP to GRC Integration testimony of Gregory S. Flores and R. Scott Pearson

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<sup>5</sup> 2EC, “Independent Safety Culture Assessment of SoCalGas and Sempra Energy,” (January 13, 2022) available at: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M440/K090/440090725.PDF>.

<sup>6</sup> I.19-06-014.

<sup>7</sup> R.21-10-001 “Order Instituting Rulemaking To Develop Safety Culture Assessment For Electric and Natural Gas Utilities.”

<sup>8</sup> SoCalGas, “Risk Assessment and Mitigation Phase Cross-Functional Factor Safety Management System (SCG-CFF-6)” (May 17, 2021) available at: <https://www.socalgas.com/sites/default/files/SCG-CFF-6-SMS-48.pdf>.

<sup>9</sup> See Application (A.) 21-05-011/-014 (cons.) (RAMP Proceeding). Please refer to the RAMP to GRC Integration testimony of Gregory S. Flores and R. Scott Pearson (Ex. SCG-03/SDG&E-03, Chapter 2) for more details regarding the 2021 RAMP Reports.



(Ex. SCG-03/SDG&E-03, Chapter 2), the costs of risk mitigation projects and programs were translated from the 2021 RAMP Reports into the individual witness areas.

While preparing the Safety & Risk Management Systems GRC forecasts, SoCalGas continued to evaluate the scope, schedule, resource requirements, and synergies of RAMP-related projects and programs. Therefore, the final presentation of RAMP costs may differ from the ranges shown in the 2021 RAMP Reports. Table NNM-3 provides summaries of the RAMP-related costs supported in my testimony.

**TABLE NNM-3**

<b>SAFETY &amp; RISK MANAGEMENT SYSTEMS Summary of RAMP O&amp;M Costs<sup>10</sup> In 2021 \$ (000s)</b>			
<b>RAMP Risk Chapter</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>
SCG-Risk-5 Incident Involving an Employee	3,574	6,043	2,469
SCG-Risk-7 Incident Involving a Contractor	470	707	237
Sub-total	4,044	6,750	2,706
<b>RAMP Cross-Functional Factor (CFF) Chapter</b>			
SCG-CFF-3 Emergency Preparedness and Response and Pandemic	2,100	2,890	790
SCG-CFF-6 Safety Management System	5,401	9,090	3,689
Sub-total	7,501	11,980	4,479
<b>Total RAMP O&amp;M Costs</b>	<b>11,545</b>	<b>18,730</b>	<b>7,185</b>

**A. RAMP Risk and Cross-Functional Factor Overview**

As summarized in Table NNM-3 above, my testimony includes costs to mitigate the safety-related risks and Cross-Functional Factors (CFF) included in the 2021 RAMP Report.<sup>11</sup> These risks and CFFs are further described in Table NNM-4 below:

<sup>10</sup> In accordance with the March 30, 2022, Ruling by the Assigned Commissioner in A.21-05-011/-014 (cons.), CFF-related information is provided in the RAMP to GRC Integration testimony of Gregory S. Flores and R. Scott Pearson (Ex. SCG-03/SDG&E-03, Chapter 2).

<sup>11</sup> Unless otherwise indicated, references to the 2021 RAMP Report refer to SoCalGas’s respective RAMP Report (A.21.05-014).

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**TABLE NNM-4  
RAMP Risk and CFF Chapter Description**

SCG-Risk-5 Incident Involving an Employee	This addresses the risk of conditions and practices that may lead to an incident threatening employee health and safety caused by non-adherence to Company policies, procedures and programs, or by external factors.
SCG-Risk-7 Incident Involving a Contractor	This addresses the risk of an incident that threatens the safety of the contractor, SoCalGas employees, or the public caused by the contractor's non-adherence to the Company's and/or contractor's policies, procedures, and programs, or by external factors.
SCG-CFF-3 Emergency Preparedness and Response and Pandemic	The Emergency Preparedness and Response and Pandemic CFF describes how Emergency Preparedness and Response, and Pandemic activities impact the risks described in SoCalGas's RAMP risk chapters.
SCG-CFF-6 Safety Management System	The Safety Management System CFF describes how Safety Management System activities impact the risks described in SoCalGas's RAMP risk chapters.

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Given that SoCalGas's SMS is an enterprise-wide framework providing a standardized approach for managing safety related risks across all assets and activities, the SMS is cross-functional in nature and helps mitigate all SoCalGas's RAMP risks. The SMS continuous improvement framework and PDCA cycle can be applied to mitigations and programs identified within each RAMP risk chapter of SoCalGas's 2021 RAMP Report. SoCalGas's risk mitigation and safety programs are guided by the elements of the SMS and subject to ongoing assessments to evaluate the health of the programs and identify areas for continuous improvement. Taking a systematic approach to safety, providing a framework for risk assessment across the entire organization, enhancing communication, collaboration, feedback, documentation, and using data and analytics to regularly measure effectiveness and make continuous improvements will help make each of the risk mitigations and safety programs more effective.

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In developing my request, priority was given to the above key safety risks and CFFs to assess which risk mitigation activities Safety & Risk Management Systems currently perform and what incremental efforts are needed to further mitigate these risks. While developing the GRC forecasts, SoCalGas evaluated the scope, schedule, resource requirement, and synergies of RAMP-related projects and programs to determine costs already covered in the base year and those that are incremental increases expected in the test year.

1 The testimony of Mr. Flores and Mr. Pearson (Ex. SCG-03/SDG&E-03, Chapter 2),  
 2 discuss all the risks and CFFs included in the 2021 RAMP Reports and the RAMP to GRC  
 3 integration process.

4 **B. GRC Risk and CFF Activities**

5 Table NNM-5 below provides a narrative summary of the forecasted RAMP-related  
 6 activities that I sponsor in my testimony.

7 **TABLE NNM-5**  
 8 **Summary of RAMP Risk and CFF Activities**

<b>RAMP ID</b>	<b>Activity</b>	<b>Description</b>
SCG Risk-5-C1	Employee health and safety programs	Employee health and safety programs and Standardized Policies are comprised of standardized safety elements, as required by the California Code of Regulations (CCR)
SCG Risk-5-C3	Employee Wellness Program	Employee wellness program objective is to design comprehensive “Wellbeing” programs that reflect the Company’s commitment to employees and their social communities. Further, the wellness program builds a culture of promoting health and safety at work and in personal life.
SCG Risk-5-C4	Employee Safety Training	Employee Safety Training consists of training, education, and awareness elements that support the safety programs outlined in Risk-5-C1. SoCalGas employees receive extensive training because SoCalGas believes safety starts with proactive upstream measures to prevent a safety incident from occurring.
SCG Risk-5-C5	Safe Driving Programs	SoCalGas’s safe driving programs aim to increase driver safety awareness to prevent and minimize the risk of motor vehicle incidents. This commitment includes written policies and procedures and the following outlined program elements.
SCG Risk-5-C6	Personal Protective Equipment (PPE)	The purpose of SoCalGas’s PPE Program is to protect employees from the risk of injury by creating a barrier against workplace hazards. The PPE Program addresses eye, face, head, foot, and hand protection.
SCG Risk-5-C7	Near Miss, Stop the Job, and Jobsite Safety Programs	SoCalGas’s Near Miss, Stop the Job, and Jobsite Safety Programs were developed to empower employees to recognize and report on at-risk behaviors. These programs are designed to be used as a tool for learning and promoting safe behaviors, regardless of rank or title.
SCG Risk-5-C8	Safety Culture Programs	SoCalGas’s Safety Culture Programs promote a vigilant focus among all employees by investing in

<b>RAMP ID</b>	<b>Activity</b>	<b>Description</b>
		regular events on safety issues facilitating discussion of safety practices. These discussions occur at varying frequencies and include such topics as: review of relevant policies and procedures, workplace hazards, work plans, safety incidents, close calls, responsibilities, and other safety topics.
SCG Risk-5-C9	Utilizing Industry Best Practices and Benchmarking	SoCalGas collaborates through participation in various industry groups to benchmark with other utilities, industries, and leaders in safety performance. SoCalGas benefits from building relationships with other safety leaders, accessing best practices on employee and contractor safety, and benchmarking on leading indicators and key safety program elements.
SCG-Risk-5- M1	OSHA Construction Certification Training	The purpose of OSHA Construction Certification Training is to promote workplace safety and health and to make workers more knowledgeable about workplace hazards and their rights.
SCG-Risk-5- M2	Industrial Hygiene Program Refresh	The purpose of the Industrial Hygiene Program Refresh initiative is to review past exposure assessments and refresh or update them to confirm that they still support the decisions made on mitigation controls to promote employee health and safety.
SCG-Risk-5- M3	Proactive Monitoring for Indoor Air Quality and Chemicals of Concern	The Proactive Monitoring for Indoor Air Quality and Chemicals of Concern allows for the Proactive Monitoring program to conduct annual IAQ (Indoor Air Quality) assessments at the six large headquarters facilities in its service territory.
SCG-Risk-5- M4	Creation of a Safety Video Library	SoCalGas plans to subscribe to a third-party online streaming service provider to get access to the latest safety training materials from a reputable training source. Having 24/7 ready access to relevant and updated safety training materials to use during safety meetings, safety stand-downs, daily tailgates, and other safety discussions.
SCG-Risk-5- M5	Expand Safety Culture Assessments	Expanding the Safety Culture Assessments includes focus group discussions, employee interviews, and field observations of employee job activities to view safety culture in action and further supplement the feedback received from the Safety Culture Surveys.
SCG-Risk-5- M6	Industrial Hygiene Program Expansion	Industrial Hygiene Program Expansion focuses on increasing the number of certified industrial hygiene professionals available to support the continued expansion of this role in managing safety during normal business operations and during responses to emergencies.

<b>RAMP ID</b>	<b>Activity</b>	<b>Description</b>
SCG-Risk-7- C1	Contractor Safety Oversight	SoCalGas’s Contractor Safety Oversight consists of contractor safety program policies and procedures, the Contractor Safety Manual for SoCalGas Approved Pipeline Construction Contractors <sup>12</sup> , field inspections and oversight, post-job safety evaluation, stop-the-job, near-miss and close-call reporting, internal audits, enforcement actions, and management of the pipeline safety risk by the pipeline safety oversight committee.
SCG-Risk-7- C2	Third-Party Administration Tools	SoCalGas utilizes three best-in-class third-party tools to manage various aspects of its contractor safety, including: pre-qualification and safety monitoring, recording covered task qualification and related certification and training, membership to the Golden Shovel Standard platform to promote excavation safety.
SCG-Risk-7- C3	Contractor Engagement	SoCalGas reinforces its strong safety culture by engaging contractors in a variety of ways, including hosting an annual Contractor Safety Congress and three Quarterly Meetings with the SoCalGas Approved Pipeline Construction Contractors.
SCG-CFF-3-1	Policies and Procedures	Emergency Management Preparedness and Response Policies and Procedures are activities, programs, or initiatives that are put in place before an emergency and can be used to support and improve the response to an emergency.
SCG-CFF-3-2	Training, Exercises, and Drills	Training, Exercises, and Drills focuses on activities that promote and enhance employee readiness.
SCG-CFF-3-3	Stakeholder Outreach	Stakeholder Outreach focuses on the ongoing communication and partnership with external first responders.
SCG-CFF-3-4	Incident Command Structure	The Incident Command Structure is a standardized approach to incident management that is used for all kinds of events.
SCG-CFF-3-5	Mutual Assistance	Mutual Assistance focuses on SoCalGas’s mutual aid agreements and membership in the Western Regional Mutual Aid Group, California Utilities Emergency Association, American Gas Association, and the City of Long Beach.
SCG-CFF-3-6	After-Action Review Program	The After-Action Review (AAR) Program is built on the Federal Emergency Management Agency’s (FEMA) guidance to have a system that can assess the

<sup>12</sup> SoCalGas Approved Pipeline Construction Contractor refers to a contractor that has been vetted and approved by SoCalGas for considerations and/or to receive a contract for managing all aspects of a pipeline project.

<b>RAMP ID</b>	<b>Activity</b>	<b>Description</b>
		Company's responses, take the lessons learned, and take corrective action for continuous improvement opportunities.
SCG-CFF-3-7	Crisis Communications Technologies	Crisis Communications Technologies focus on SoCalGas's ability to communicate and remain mobile during an emergency.
SCG-CFF-3-8	Watch Office	The Watch Office focuses on the monitoring of events which may lead to an emergency within the SoCalGas service territory. The Watch Office oversees the Emergency Operation Center (EOC) 24/7/365.
SCG-CFF-3-9	Expert Advisory Service	Expert Advisory Service focuses on utilizing expert support services through specialized, external, resources in order to provide guidance on how to best handle risk and apply leading industry practice.
SCG-CFF-3-10	EOC Enhancement Project	The EOC Enhancement Project is a modernization project to expand on current capabilities and house more emergency responders.
SCG-CFF-3-11	Emergency Management Technology	Emergency Management Technology focuses on the technology applications utilized by the Emergency Management department.
SCG-CFF-6-1	SMS Framework	SMS Framework focuses on the integration of SoCalGas's Safety Management System across all aspects of safety within the Company.
SCG-CFF-6-2	Pipeline Safety & Compliance Oversight	Pipeline Safety and Compliance Oversight focuses on the monitoring, distribution, tracking, and reporting of regulatory inspections, audits, and guidelines.
SCG-CFF-6-3	Continuous Improvement and Quality Assurance	Continuous Improvement and Quality Assurance focuses on the continuous improvement section of SoCalGas's SMS Plan, which is to create an environment and culture where feedback mechanisms are part of decisions and to create processes that result in collective participation and learning from events to achieve the safest outcomes.
SCG-CFF-6-4	Technology and Analytics	Technology and Analytics focuses on SoCalGas's continued effort to find ways to link key performance indicators, data, and technology to continue to enhance safety performance and safety culture.
SCG-CFF-6-5	Develop Incident Evaluation Central Database and Further Enhance Causal Analysis Training	Develop Incident Evaluation Central Database and Further Enhance Causal Analysis Training focuses on an enhancement effort to build a centralized database for all incidents and near-miss reports across the Company.
SCG-CFF-6-6	Expand Quality Assessment Program	Expand Quality Assessment Program is an effort that seeks to expand quality assessments and enhance consistent quality oversight across the Company.

<b>RAMP ID</b>	<b>Activity</b>	<b>Description</b>
SCG-CFF-6-7	Expand Compliance Assurance Program	Expand Compliance Assurance Program focuses on the enhancement to the tracking and reporting capabilities of the Compliance Assurance team.
SCG-CFF-6-8	Pipeline Safety Self Assessments	Pipeline Safety Self Assessments focus on the implementation of new self-assessment programs for pipeline safety compliance related items/activities.

1           These activities are discussed further below in the cost category sections of my  
2 testimony, as well as in my workpapers. For additional information and a roadmap, please refer  
3 to Appendix C, SMS RAMP Activity by Workpaper, which contains a table identifying by  
4 workpaper the TY 2024 forecast dollars associated with activities in the 2021 RAMP Report that  
5 are discussed in this testimony.

6           The RAMP risk mitigation efforts are associated with specific actions, such as programs,  
7 projects, processes, and utilization of technology. For each of these mitigation efforts, an  
8 evaluation was made to determine the portion, if any, that was already performed as part of  
9 historical activities (*i.e.*, embedded base costs) and the portion, if any, that was incremental to  
10 base year activities. Furthermore, for the incremental activities, a review was completed to  
11 determine if any portion of incremental activity was part of the workgroup’s base forecast  
12 methodology. The result is what SoCalGas considers to be a true representation of incremental  
13 increases over the base year.

14           My incremental request supports the ongoing management of these risks that could pose  
15 significant safety, reliability, and financial consequences.

16           **C.       Changes from RAMP Report**

17           As discussed in more detail in the RAMP to GRC Integration testimony of Mr. Flores and  
18 Mr. Pearson (Ex. SCG-03/SDG&E-03, Chapter 2), in the RAMP Proceeding, the Commission’s  
19 Safety Policy Division (SPD) and intervenors provided feedback on the Companies’ 2021  
20 RAMP Reports. Appendix B in Ex. SCG-03, Chapter 2 provides a complete list of the feedback  
21 and recommendations received and the Companies’ responses.

22           Other than as discussed below, the RAMP-related activities described in my GRC  
23 testimony are consistent with the activities presented in the 2021 RAMP Report. General  
24 changes to risk scores or Risk Spend Efficiency (RSE) values are primarily due to modifications  
25 of the Multi-Attribute Value Framework (MAVF) and RSE methodology, as discussed in the

1 RAMP to GRC Integration testimony of Mr. Flores and Mr. Pearson (Ex. SCG-03/SDG&E-03,  
2 Chapter 2).

3 Changes from the 2021 RAMP Report presented in my testimony, including updates to  
4 forecasts and the amount and timing of planned work, are summarized as follows:

- 5 • SCG-CFF-3 C10 (EOC Enhancement Project) will no longer be forecasted. The  
6 benefits described in the 2021 RAMP Report will be achieved without the  
7 incremental need for additional funding. This minor change will not have an  
8 impact on the reliability or safety of the EOC function.
- 9 • SCG-Risk-5 M05 (Expanded Safety Culture Assessments) was presented as a  
10 discrete control in the 2021 RAMP Report; however, for the purposes of the  
11 GRC, SoCalGas has incorporated this activity into SCG-CFF-6 C01 (SMS  
12 Framework), which is further discussed in my testimony.
- 13 • C02 (Third-Party Administration Tools) and C03 (Contractor Engagement)  
14 identified in SCG-Risk-7 (Incident Involving a Contractor) were updated in the  
15 GRC to reflect a projected increase in new hires and increase in scope.  
16 Accordingly, the GRC forecasted costs have increased compared to the 2021  
17 RAMP Report.
- 18 • C04 (Employee Safety Training and Awareness Programs) identified in SCG-  
19 Risk-5 (Incident Involving an Employee) were updated in the GRC to reflect a  
20 projected increase in new hires and increase in scope. Accordingly, the GRC  
21 forecasted costs have increased compared to the 2021 RAMP Report.
- 22 • C01 (SMS Framework), C02 (Pipeline Safety & Compliance Oversight), C04  
23 Technology & Analytics), C05 (Develop IEC Database and Further Causal  
24 Analysis Training), C06 (Expand Quality Assessment Programs), C07 (Expand  
25 Compliance Assurance Program), and C08 (Pipeline Safety Self Assessments)  
26 identified in SCG-CFF-6 (Safety Management System) were updated in the GRC  
27 to reflect a projected increase in new hires and increase in scope. Accordingly,  
28 the GRC forecasted costs have increased compared to the 2021 RAMP Report.
- 29 • C01 (Policies and Procedures), C02 (Training, Exercises, and Drills), C03  
30 (Stakeholder Outreach), C04 (Incident Command System), C05 (Mutual  
31 Assistance), C06 (After-Action Review Program), and C07 (Crisis



1 Communication Technology) identified in SCG-CFF-3 (Emergency Preparedness  
2 and Response and Pandemic) were updated in the GRC to reflect a projected  
3 increase in new hires and increase in scope. Accordingly, the GRC forecasted  
4 costs have increased compared to the 2021 RAMP Report.

5 For additional details on these RAMP activities, please refer to the impacted sections  
6 below and to my workpapers (Exhibit SCG-27-WP).

#### 7 **IV. SUSTAINABILITY AND SAFETY CULTURE**

8 Sustainability at SoCalGas focuses on continuous improvement, innovation, and  
9 partnerships to advance California’s climate objectives incorporating holistic and sustainable  
10 business practices and approaches. SoCalGas’s sustainability strategy, ASPIRE 2045, integrates  
11 five key focus areas across the Company’s operations to promote the public interest, and the  
12 wellbeing of utility customers, employees, and other stakeholders. These five focus areas are  
13 summarized as: (1) Accelerating the Transition to Clean Energy, (2) Protecting the Climate and  
14 Improving Air Quality in Our Communities, (3) Increasing Clean Energy Access and  
15 Affordability, (4) Advancing a Diverse, Equitable, and Inclusive Culture, and (5) Achieving  
16 World-Class Safety. For a more detailed discussion of SoCalGas’s sustainability and climate  
17 policies, please refer to the Sustainability and Climate Change Policy testimony of Michelle Sim  
18 and Naim Jonathan Peress (Ex. SCG-02, Chapters 1 and 2).

19 Safety is foundational to SoCalGas and SoCalGas’s sustainability strategy. As the  
20 nation’s largest gas distribution utility, the safety of SoCalGas’s customers, employees,  
21 contractors, system, and the communities served has been – and will remain – a fundamental  
22 value for the Company and is interwoven in everything SoCalGas does. This safety-first culture  
23 is embedded in every aspect of SoCalGas’s business. The tradition of providing safe and reliable  
24 service spans 150 years of the Company’s history and is summarized in SoCalGas’s Leadership  
25 Commitment statement, which is endorsed by the entire senior management team:

26 ““SoCalGas leadership is fully committed to safety as a core value.

27 SoCalGas’s Executive Leadership is responsible for overseeing reported  
28 safety concerns and promoting a strong, positive safety culture and an  
29 environment of trust that includes empowering employees to identify risks  
30 and to “Stop the Job.””

1 SoCalGas's approach to safety is one of continuous improvement where all employees  
2 and contractors are encouraged and expected to engage in areas of opportunity of learning and  
3 open dialog where learning can take place. This is illustrated through regular engagement with  
4 third party assessors, who utilize maturity assessments and/or benchmarking to engage with  
5 employees and contractors at various levels of SoCalGas to evaluate its safety culture against  
6 peer utilities and industry standards.

7 For example, SoCalGas has engaged with the National Safety Council since 2013 to  
8 perform periodic Safety Barometer Surveys, which measure culture using six performance  
9 categories and compare a company's performance against a large database of companies. The  
10 most recent survey occurred in 2021, and SoCalGas was assessed by the National Safety Council  
11 as falling within the top quartile among 1,495 companies, scoring above 80 out of 100 in every  
12 performance category, and, perhaps most importantly, showing increased positive perceptions  
13 across all six performance categories over surveys from prior years. SoCalGas also periodically  
14 deploys Employee Engagement Surveys to assess employee behavior, perceptions, and  
15 engagement. SoCalGas's most recent engagement survey also occurred in 2021 and showed that  
16 overall employee engagement was at a ten-year high of 87%, with 92% of employees responding  
17 that the Company is committed to safety. These results reflect that the Company institutes a  
18 strong belief that working with employees, contractors, employee organizations, and having an  
19 organized, structured methodology to safety is a critical part of its overall safety success.  
20 SoCalGas uses these engagements as learning opportunities to continuously improve its focus  
21 and commitment to safety.

22 As further described in the Risk Management Policy testimony of Deana M. Ng (Ex.  
23 SCG-03, Chapter 1) and Section II of my testimony, the incorporation of a comprehensive Risk  
24 Management policy and SMS has continued to demonstrate organized improvement across the  
25 enterprise. Risk- and safety-related activities discussed within my witness testimony are further  
26 enhanced within SoCalGas's SMS. Business ownership, accountability, and support provide the  
27 foundation for the SMS framework. The SMS affirms, aligns, integrates, and brings further  
28 awareness and engagement to such programs by providing increased safety leadership  
29 engagement, awareness, communication, and transparency; the broad sharing of information and  
30 utilization of lessons learned; enhanced documentation in the form of standardized processes  
31 with widely accessible document and data repositories; strengthened employee feedback

mechanisms with consistent processes for follow-up and remediation; early identification of risks with increased data analytics; and on-going review and assessment to determine program effectiveness and identify opportunities for continuous safety improvement. SoCalGas believes the focus, dedication, and commitment to safety is never-ending.

**V. NON-SHARED COSTS**

“Non-Shared Services” are activities that are performed by a utility solely for its own benefit. Corporate Center provides certain services to the utilities and to other subsidiaries. For purposes of this general rate case, SoCalGas treats costs for services received from Corporate Center as Non-Shared Services costs, consistent with any other outside vendor costs incurred by the utility. Table NNM-6 summarizes the total non-shared O&M forecasts for the Safety Management and Risk Management Systems cost categories.

**TABLE NNM-6  
Non-Shared O&M Summary of Costs**

<b>SAFETY &amp; RISK MANAGEMENT SYSTEMS</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Categories of Management</b>	<b>2021 Adjusted-Recorded</b>	<b>TY2024 Estimated</b>	<b>Change</b>
A. Safety Management System	963	2,348	1,385
B. Strategy	621	1,109	488
C. Risk Management	3,851	4,687	836
D. Continuous Improvement	1,062	1,644	582
E. Safety Management	3,818	6,524	2,706
F. Emergency Services	2,007	3,028	1,021
G. Technology & Analytics	1,339	2,181	842
<b>Total Non-Shared Services</b>	<b>13,661</b>	<b>21,521</b>	<b>7,860</b>

**A. Safety Management Systems (SMS)**

Included in this section of the testimony are activities and associated O&M expenses to address the core duties of the CSO, Senior Director of SMS, and Administration that are non-shared. These activities and expenses are summarized in Table NNM-7 below.

**TABLE NNM-7  
Non-Shared O&M CSO Summary of Costs**

<b>CHIEF SAFETY OFFICER &amp; ADMINISTRATION</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	<b>BY 2021 Adjusted-Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2SM000.000	963	2,348	1,385

1                   **1.       Description of Costs and Activities**

2                   As described in the direct testimony of Mary Gevorkian in SoCalGas’s TY 2019 GRC,<sup>13</sup>  
3 SoCalGas’s safety culture was previously overseen by the Executive Safety Council (ESC)  
4 which was made up of senior leadership. In 2019, SoCalGas adopted the SMS organization in its  
5 current structure, which is a dedicated and consolidated safety-focused organization, and  
6 identified the role of a CSO, which was integrated into the role of Chief Operations Officer  
7 (COO). In 2020, SoCalGas introduced its SMS Plan, which established the framework that  
8 integrates and connects everything SoCalGas does when it comes to safety. In 2021, to further  
9 support the SMS Plan and provide a more focused concentration in the area of safety, SoCalGas  
10 identified the need for the role of CSO to be independent of the COO. The SMS costs include  
11 labor and non-labor for the CSO, Senior Director of the SMS organization, and one  
12 Administrative Assistant.

13                   The CSO provides executive level safety leadership and strategic direction within  
14 SoCalGas. This officer is ultimately responsible and accountable for the safety performance of  
15 SoCalGas. The responsibilities of this position include establishing safety policy, developing  
16 and implementing safety programs and procedures, integrating new/enhanced methods into  
17 SoCalGas’s safety culture, and guiding short-term and long-term safety performance  
18 management. Additionally, the CSO also oversees the Emergency Management function of  
19 SoCalGas. This includes the Emergency Management (EM) department supporting the response  
20 to and recovery from emergency incidents.

21                   Reporting to the CSO is the Director of Emergency Management and Senior Director of  
22 SMS, who provides leadership and guidance to the entire SMS organization, which includes  
23 Safety Management, Pipeline Safety & Compliance, Technology & Analytics, Continuous  
24 Improvement, and SMS Strategy. These departments oversee all safety programs, policies,  
25 technologies, and initiatives, impacting all SoCalGas employees whether working in a remote,  
26 at-home environment or working in an operations capacity in the field and/or office, to support  
27 the Company’s goals of providing safe, reliable, and efficient service to customers.

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<sup>13</sup> A.17-10-008, Ex. SCG-32, “SoCalGas Direct Testimony of Mary Gevorkian (Human Resources Department, Safety, Workers Compensation & Long-Term Disability)” (October 6, 2017).

1                                   **a.       RAMP Activities**

2                   RAMP-related costs for the SMS contribute to the overall costs for the following  
3 activities: (1) SMS Framework and (2) Expanded Safety Culture Assessments. These activities,  
4 which are identified in Table NNM-4 in Section III (Risk Assessment Mitigation Phase (RAMP  
5 Integration), are discussed further below.

6 **SMS Framework:**

7                   The vision of SoCalGas’s SMS framework is to integrate and connect everything  
8 SoCalGas does when it comes to safety with the goal to continuously enhance the safety of  
9 operations, strengthen the safety culture, and improve overall safety performance. The SMS  
10 guides SoCalGas’s safety strategy in a uniformed, collaborative, consistent way to improve  
11 safety performance across the entire enterprise.

12 **Expanded Safety Culture Assessments:**

13                   Since 2013 SoCalGas has partnered with the National Safety Council to conduct safety  
14 culture assessments. These safety culture assessments are conducted every two to three years  
15 and administered to all SoCalGas employees. These assessments identify strengths,  
16 opportunities, and gaps in the SMS that can assist in prioritizing continuous improvement efforts.  
17 Additionally, the Commission has directed in Order Instituting Rulemaking (OIR) R. 21-10-  
18 001<sup>14</sup> the development of safety culture assessments for Electric and Natural Gas utilities.  
19 SoCalGas is awaiting a proposed decision to help further integrate these assessments into its  
20 Safety Management System.

21                   Table NNM-8 below provides the RAMP activities, their respective cost forecasts, and  
22 the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my  
23 workpapers (Exhibit SCG-27-WP).

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<sup>14</sup> R.21-10-001 “Order Instituting Rulemaking To Develop Safety Culture Assessment For Electric and Natural Gas Utilities” *available at:*  
<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M414/K981/414981208.PDF>.

**Table NNM-8  
RAMP Activities**

<b>SAFETY MANAGEMENT SYSTEMS RAMP Activity O&amp;M Forecasts by Workpaper In 2021 \$ (in 000s)</b>						
<b>Work- paper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Cost</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2SM00 0.000	SCG-CFF-6 - 1	SMS Framework	817	2,202	1,385	0.00
2SM00 0.000	RISK-5 – M05	Expanded Safety Culture Assessments	146	146	0	0.00

\*An RSE was not calculated for this activity.

**2. Forecast Method**

The forecast method developed for this cost category to labor and non-labor expense is the base year method because this forecasting methodology serves to represent growth and historical spend more accurately for this workgroup given a greater focus in the area of Safety by adding support at the executive level. An average or linear trend could not account for anticipated growth in the activities for this cost category.

**3. Cost Drivers**

The cost drivers behind this forecast includes leadership support. As discussed above, SoCalGas leaders are responsible for setting the tone and direction of their organization, and in the case of the CSO and Senior Director of SMS, setting the tone of SoCalGas’s safety culture across the entire utility. The goal of the SMS organization is to continue to establish and promote a safety-focused culture and structure that allows all employees and contractors to be proactive and accountable in the safe delivery of gas and associated business operations. SMS leadership must communicate and reinforce this goal through interactions, such as regular dialogue sessions with managers, front-line supervisors, employees, and contractors.

The role of the CSO transitioned to a standalone executive position in August 2021. Prior to August 2021, the COO held both the COO and CSO position. SoCalGas is seeking incremental funding to include a full annual salary for the CSO position as well as an Executive Assistant that joined the Company in 2022. The CSO’s organization is responsible for the execution and funding of high-level activities, including safety assessments, and other safety enhancement services that are also included in the incremental request.

1 **B. SMS Strategy**

2 Included in this section of the testimony are activities and associated O&M expenses to  
3 address the core duties of the SMS Strategy department that are non-shared. These activities and  
4 expenses are summarized in Table NNM-9 below.

5 **TABLE NNM-9**  
6 **Non-Shared O&M SMS Strategy Summary of Costs**

<b>SMS STRATEGY</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	<b>BY 2021 Adjusted- Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2SM004.000 SMS Strategy	621	1,109	488

7 **1. Description of Costs and Activities**

8 SoCalGas’s SMS Strategy department provides and oversees the SMS framework to  
9 continuously enhance the safety of operations, strengthen the safety culture, and improve overall  
10 safety performance. The SMS Strategy department’s responsibilities and activities are captured  
11 in six focus areas, which are further described below. The efforts put forth within these six focus  
12 areas assist in the development, implementation, continuous improvement, and evaluation of  
13 maturity for SoCalGas’s SMS. The SMS Strategy department accomplishes this by establishing  
14 appropriate foundational policies, publishing enterprise safety plans, and facilitating employee  
15 and stakeholder engagement regarding SMS. The SMS Strategy department also institutes a  
16 common management of change (MOC) process for SMS initiatives, leading internal and  
17 external assessments of SMS maturity, benchmarking and sharing best safety practices with  
18 peers and industry associations and engaging with contractors. The department strives to  
19 continuously improve and mature SoCalGas’s SMS to become an industry benchmark for gas  
20 operators nationwide.

21 The SMS Strategy department is led by the SMS Strategy Manager and supported by a  
22 staff of five Program/Project Managers. All department members support and contribute to each  
23 focus area discussed below.

1 SoCalGas’s SMS framework includes the following six focus areas (whereby each focus  
2 area is shown to relate to one or more of the seven Safety Values, as shown in Figure NNM-1,  
3 and highlights activities performed by the SMS Strategy department within that focus area):

4 **(1) SMS Policy, Scope, Commitment, and Responsibilities**

5 The purpose of this focus area is to maintain and continually improve foundational  
6 policies of SoCalGas’s SMS. These include SoCalGas’s seven Safety Values, SMS  
7 responsibilities, and the SMS standard. These policy documents establish the scope, objectives,  
8 and oversight responsibilities associated with Company-wide implementation of the SMS.  
9 SoCalGas has developed an SMS Company Operations Standard that is designed to establish a  
10 framework to define, develop, implement, maintain, and continue to improve SoCalGas’s SMS.  
11 The standard identifies objectives for each Safety Value of the SMS, along with a listing of key  
12 controls that are in place and responsibilities of various individuals and/or organizations to help  
13 achieve the stated objectives.

14 The SMS Strategy department is also responsible for providing oversight to SMS  
15 initiatives and projects designed to address gaps in program maturity. Partnering with functional  
16 groups within the Company to implement SMS initiatives, the SMS Strategy department will  
17 monitor and track these SMS initiatives and projects to completion while assessing their  
18 effectiveness through the utilization of Key Performance Indicators (KPI) and SMS maturity  
19 assessment results.

20 **(2a) SMS Plan<sup>15</sup>**

21 SoCalGas published its inaugural SMS Plan in 2020. This plan is a voluntary initiative  
22 and is not driven by any regulatory requirement. The SMS Plan communicates the focus and  
23 direction of SoCalGas’s efforts pertaining to all aspects of safety that are relevant to its business,  
24 including employee and contractor safety, customer and public safety, and the safety of the gas  
25 system. It further demonstrates how everything SoCalGas does is connected to the seven Safety  
26 Values and guides how the Company can continuously evolve its safety culture. The SMS Plan  
27 serves as a baseline description of the SMS framework, explains what aspects of safety,  
28 Company operations, and programs are covered by the framework, and demonstrates SoCalGas’s

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<sup>15</sup> See Appendix B - 2021 Safety Management System Plan.



1 commitment to achieving continuous improvement of its safety culture and performance.  
2 SoCalGas refines and publishes the SMS Plan on an annual basis.

### 3 **(2b) Gas Safety Plan**

4 The Gas Safety Plan is a statutory requirement established by the California Legislature  
5 in 2011,<sup>16</sup> which requires all gas corporations to develop a plan for the safe and reliable  
6 operation of Commission-regulated gas pipeline infrastructure. SoCalGas’s Gas Safety Plan  
7 describes the Company’s overarching safety strategy and performance encompassing all its  
8 plans, programs, and policies associated with meeting pipeline safety requirements. Each year,  
9 the Gas Safety Plan is reviewed and updated to highlight changes from the prior year and is  
10 submitted to the CPUC annually in March. According to the Commission, “the rationale for  
11 developing a gas safety plan is to motivate a gas utility to reflect upon its existing methods and  
12 for it to change, to optimize, or to enhance the existing methods, using...the lessons learned from  
13 the San Bruno incident, as appropriate, to ensure that the gas utility has a prudent plan in place to  
14 protect public safety and worker safety.”<sup>17</sup> The Gas Safety Plan conveys the Company’s safety  
15 performance expectations, policy principles, and goals/objectives for a gas utility’s safety  
16 performance. SoCalGas has designed its annual Gas Safety Plan to satisfy each of these  
17 directives, and to implement “the policy of the state that the commission and each gas  
18 corporation place safety of the public and gas corporation employees as the top priority.”<sup>18</sup>

### 19 **(3) Employee & Stakeholder Engagement**

20 The successful execution of SMS is critically dependent on the actions of SoCalGas’s  
21 employees and external stakeholders (*e.g.*, contractors). SoCalGas relies on them to identify and  
22 resolve safety risks and adopt and implement safety practices to strengthen and protect SoCalGas  
23 infrastructure. SoCalGas has developed an SMS Stakeholder Engagement Plan,<sup>19</sup> which  
24 describes communication and engagement activities for internal and external stakeholders  
25 regarding risk identification and management, safety performance, and as appropriate, other

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<sup>16</sup> California Senate Bill 705, “Natural Gas: Service and Safety,” was signed into law on October 7, 2011 and codified as California Public Utilities Code §§ 961 and 963.

<sup>17</sup> D.12-04-010 at 19

<sup>18</sup> Cal. Pub. Util. Code § 963

<sup>19</sup> See Appendix E - Stakeholder Engagement Plan.

1 elements of the SMS. SoCalGas relies on front-line employees and contractors to bring safety  
2 issues to the attention of management for assessment and resolution. Therefore, SoCalGas  
3 regularly engages with front-line workers to raise awareness and understanding of their roles and  
4 responsibilities within the SMS framework and facilitating a healthy safety culture of non-  
5 punitive reporting of safety concerns. The SMS Stakeholder Engagement Plan will be reviewed  
6 periodically using the PDCA methodology to address gaps and integrate emerging best practices.  
7 SoCalGas is continually evaluating and implementing additional training and competence tools  
8 to further improve employee and contractor understanding of SMS. The goal of the training is to  
9 fully integrate and mature SMS components, including the PDCA methodology, the recognition  
10 of failures and identifying risks, along with the granular details of the SMS Framework.

11 SoCalGas relies heavily on contractors to support its gas infrastructure including  
12 construction, repair, and maintenance work. SoCalGas expects its SoCalGas Construction  
13 Contractors to adhere to SoCalGas's SMS when working on any SoCalGas project and  
14 encourages them to adopt their own SMS as appropriate to their size of operations and  
15 circumstances. SoCalGas has been communicating the requirement of its SMS with its 16  
16 SoCalGas Approved Pipeline Construction Contractors and will continue to expand that outreach  
17 to all construction contractors, a group that includes more than 500 contractors. The contractor  
18 engagement effort will include a program to aid and oversee SoCalGas Construction Contractors  
19 in creating their own SMS and establishing two-way communications with the SoCalGas  
20 Construction Contractors for reporting, feedback, and continuous improvement of the respective  
21 SMS programs. This mitigation is a significant expansion of the responsibility of the SMS  
22 Strategy department requiring incremental resources to establish and sustain the ongoing  
23 collaboration and oversight over SoCalGas Construction Contractors for successful adoption of  
24 their SMS.

#### 25 **(4) Centralized Electronic Management of Change (MOC) Process**

26 The SMS Strategy department's role is to project manage the development of a common  
27 MOC framework for the Company. The department leads the development and maintenance for  
28 the foundational MOC governance documents that contain the roadmap for planning,  
29 implementing, and sustaining a common MOC framework at SoCalGas. The department will  
30 continue to facilitate discussions with Subject Matter Experts (SMEs) across the Company to  
31 identify existing MOC processes and address gaps where new MOC processes are required. The

1 SMS Strategy department will also develop and manage a process to promote all MOC related  
2 standards and procedures and to follow the common MOC framework. In establishing this  
3 common framework, the necessary change management efforts in communication, awareness,  
4 and training will also be managed by the SMS Strategy department. This includes the  
5 development and execution of communication and training plans to promote consistent  
6 application of the MOC framework. The effectiveness of these efforts will be measured through  
7 SMS maturity assessments explained below.

#### 8 **(5) SMS Maturity Assessments**

9 The SMS Strategy department is responsible for managing the scope, cost, and schedule  
10 for maturity assessments of the SMS program. The group takes on the role of assessor when  
11 performing internal assessments and will act as facilitator when inviting a third party to conduct  
12 an assessment. Regardless of the method of assessment, all SMS related findings are managed  
13 by the SMS Strategy department. All findings requiring a commitment for resolution are  
14 communicated to senior leadership through the management review process owned by the SMS  
15 Strategy department. Furthermore, each commitment resulting from a maturity assessment is  
16 tracked to closure and documented.

#### 17 **(6) SMS Benchmarking**

18 The SMS Strategy department participates in planning committees for several industry  
19 groups, such as the AGA, API, and the Western Energy Institute (WEI) events throughout the  
20 year and presents on aspects of SoCalGas's SMS. The SMS Strategy department also facilitates  
21 informal meetings throughout the year with industry peers to benchmark and share best practices  
22 in various aspects of its SMS. The information obtained in these meetings is leveraged to mature  
23 the SMS program.

24 The SMS Strategy department mitigates safety risks identified in the 2021 RAMP Report.  
25 Accordingly, this workpaper in its entirety, aligns with a RAMP activity.

26 Table NNM-10 below shows the TY 2024 forecast dollars and RSE associated with the  
27 activities in the 2021 RAMP Report. For additional details on these RAMP activities, please  
28 refer to my workpapers (Exhibit SCG-27-WP).

**TABLE NNM-10  
RAMP Activities**

<b>SMS STRATEGY</b>						
<b>RAMP Activity O&amp;M Forecasts by Workpaper</b>						
<b>In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2SM004.000	SCG-CFF-6 - 1	SMS Framework	621	1,059	438	0.00

\* An RSE was not calculated for this activity.

**2. Forecast Method**

The forecast method developed for this cost category to labor and non-labor expense is the base year method because this forecasting methodology serves to represent this workgroup growth and historical spend more accurately. Incremental adjustments provide a greater emphasis on enhancing safety for SoCalGas’s contractors through dedicating resources for the Contractor Management program. Therefore, SoCalGas anticipates increasing mitigation programs to be implemented within this group which require additional staffing and resources. An average or linear trend could not account for anticipated growth in the activities for this cost category.

**3. Cost Drivers**

The primary cost driver of the SMS Strategy department’s activities is to continue to improve and evolve its safety culture to help achieve its aspirational goal of zero safety incidents. This is in line with industry associations like the AGA and API that are working proactively with their respective membership companies to encourage adoption of the industry benchmark standard API RP 1173 to prevent safety incidents. SoCalGas is seeking incremental funding for additional resources to manage the accountability of the Contractor Engagement program as described in the Employee & Stakeholder Engagement activity above. This incremental funding is needed to oversee the implementation of API RP 1173 for the SoCalGas Approved Pipeline Construction Contractors.

Additionally, SoCalGas appreciates that recognition can significantly promote positive safety behavior, therefore, to incentivize and inspire employees and contractors to support the advancement of SMS, the SMS Strategy group is developing a recognition program for

1 employees and contractors to include symbolic and impactful recognition ways and means. This  
2 may include such incentive items as challenge coins, shirts, jackets, awards, trophies, etc.

3 **C. Risk Management**

4 Included in this section of my testimony are activities and associated O&M expenses to  
5 address non-shared Risk Management activities. These activities and expenses are summarized  
6 in Table NNM-11 below.

7 **TABLE NNM-11**  
8 **Non-Shared O&M Risk Management Summary of Costs**

<b>RISK MANAGEMENT</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	<b>BY 2021 Adjusted- Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2SM006.000 Risk Management	3,851	4,687	836

9 **1. Description of Costs and Activities**

10 The Risk Management department is organized into three functional activities: (1) Risk  
11 Management (RM), (2) Regulatory Compliance (RC), and (3) Risk & Accountability  
12 Department (RAD).

13 **Risk Management**

14 Since 2019, the RM department is no longer a shared service between SoCalGas and  
15 SDG&E. The division is led by the Vice President of Risk Management and Chief Risk Officer,  
16 whose role is to oversee the continued development, implementation, and application of risk  
17 management best practices. This includes promoting the integration of risk concepts and  
18 analysis in asset management and investment processes to support the strengthening of  
19 SoCalGas’s safety culture. This role is also responsible for developing and setting risk  
20 management policy to assist SoCalGas in managing its risks through a structured, increasingly  
21 data-driven approach that identifies threats and hazards, assesses and prioritizes risks,  
22 implements mitigation efforts, and engages in assessments and reviews to understand risk  
23 mitigation effectiveness.

24 SoCalGas’s risk management policy is discussed in detail in the Risk Management Policy  
25 testimony of Deana M. Ng (Ex. SCG-03, Chapter 1). Information regarding the RM functional  
26 areas is discussed below.

27 The RM department has responsibilities to refresh the risk registries and apply new risk  
28 models to risk identification, analysis, and evaluation processes. An essential element of an

1 effective risk management function is a consistent process for identifying, evaluating,  
2 prioritizing, and documenting enterprise risk and risk mitigation plans. SoCalGas’s annual risk  
3 registry process documents the prioritization of potential business and operational risks. This  
4 enables the Company to manage risk in a coordinated and proactive manner to advance risk  
5 mitigation and promote continuous improvement.

6 The RM department is also responsible for increasing the use of data-driven probabilistic  
7 and quantitative processes to assess risks, measuring results of its risk management efforts, and  
8 supporting the Safety Model Assessment Proceeding (S-MAP) and other risk-related regulatory  
9 matters. The development and implementation of risk spend efficiency (RSE) modeling and  
10 assumptions are meant to assess the effectiveness of risk mitigation investments, as directed in  
11 the CPUC’s Order Instituting Rulemaking (OIR) to Further Develop a Risk-Based Decision-  
12 Making Framework for Electric and Gas Utilities (R.20-07-013), is one example of the complex  
13 and evolving nature of risk models that must be applied to enterprise risk assessments. The RM  
14 department also partners with staff in the RAD, Accounting & Finance, and Regulatory  
15 departments to contribute to the preparation of the Accountability Reports required by D. 14-12-  
16 025 and D.16-06-054,<sup>20</sup> and enhancing the inclusion of risk valuation in the investment  
17 management processes. Using a continuously improving data driven approach allows SoCalGas  
18 to develop metrics to measure and monitor mitigation activity effectiveness.

19 The RM department also maintains independent oversight and risk management  
20 governance over SoCalGas energy procurement activities conducted by SoCalGas’s Gas  
21 Acquisition department. These activities include monitoring the effectiveness of risk  
22 measurement methodologies necessary to capture, measure, report, and monitor the risk inherent  
23 in Gas Acquisition’s natural gas and renewable natural gas portfolios. Additionally, the RM  
24 department is responsible for the administration of the Company’s Market Activity Policy, which  
25 governs Gas Acquisition market activities. The RM department’s efforts include facilitating  
26 requests for contract amendments and performing records and documentation management.

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<sup>20</sup> D.14-12-025, “Decision Incorporating a Risk-Based Decision-Making Framework into the Rate Case Plan and Modifying Appendix A of Decision 07-07-004” in the CPUC Rulemaking 13-11-006; D.16-06-054, “Decision Addressing the General Rate Cases of San Diego Gas & Electric Company and Southern California Gas Company and the Proposed Settlements” in the CPUC Application 14-11-004.

1 The RM group also supports effective governance over risk management activities and  
2 identification of continuous improvement opportunities by facilitating quarterly Enterprise Risk  
3 Management Committee (ERMC) meetings, including the development and maintenance of a  
4 committee charter and the preparation of agendas and meeting summaries. The ERMC is  
5 chaired by the Chief Risk Officer and is comprised of senior officers. The purpose of the ERMC  
6 is to establish risk management policy and governance, oversee the management of ongoing and  
7 emerging risks, encourage operationalization of SoCalGas's comprehensive Enterprise Risk  
8 Management framework, foster risk-informed decision-making, and promote continuous  
9 improvement of the Enterprise Risk Management framework.

### 10 **Regulatory Compliance (RC)**

11 The RC group oversees compliance programs that seek to support enterprise-wide  
12 compliance with specific legal, regulatory, and Company standards and policies, including those  
13 related to Affiliate Compliance regulations, as well as document retention and information  
14 management policies. Consistent with the June 2020 U.S. Department of Justice Guidance,  
15 which emphasizes the need for companies to identify compliance areas and to have an effective  
16 Enterprise Compliance Program, SoCalGas participates in Sempra Energy's Corporate  
17 Compliance Department's annual Compliance Management Framework and Risk Assessment  
18 process.

19 Affiliate Compliance activities include overseeing the business processes designed to  
20 facilitate and comply with state and federal Affiliate Transaction and intercompany transaction  
21 Rules (ATRs). RC responsibilities include updating, reviewing, and approving utility policies as  
22 well as verifying that the policies are consistent with those of the parent company, Sempra  
23 Energy. Records Management activities include annual records training, retention, and cleanup  
24 efforts, which are designed to preserve, protect, organize, store, and dispose of company-related  
25 records in compliance with legal, regulatory, and Company requirements.

26 The RC also supports effective governance over compliance activities and identification  
27 of continuous improvement opportunities by facilitating quarterly Enterprise Compliance  
28 Committee (ECC) meetings, including the development and maintenance of a committee charter  
29 and the preparation of agendas and meeting summaries. The ECC is comprised of senior officers  
30 and the purpose of the ECC is to establish, oversee, periodically review, and continuously  
31 improve upon SoCalGas's comprehensive enterprise compliance management framework.

1 **Risk & Accountability Department (RAD)**

2 The RAD function was established in 2020 to lead a series of projects to support effective  
3 and efficient implementation of changes associated with the Commission’s Risk-based Decision-  
4 making Framework series of proceedings. Objectives for projects include enhancements to  
5 information systems and Company processes for preparing annual accountability reports, and to  
6 further the Company’s risk-informed decision-making in its financial and work prioritization  
7 plans. These projects are currently estimated to be performed during 2022 – 2026 and continue  
8 further into the GRC’s post-test years.

9 **2. Forecast Method**

10 The forecast method developed for this cost category to labor and non-labor expense is  
11 the base year method because this forecasting methodology serves to represent this workgroup  
12 growth and historical spend more accurately. Incremental adjustments will focus a greater  
13 emphasis to support Risk Management compliance, accountability, strategic & operational and  
14 quantitative activities. Therefore, SoCalGas anticipates increasing mitigation programs to be  
15 implemented within this group which require additional staffing and resources. An average or  
16 linear trend could not account for anticipated growth in the activities for this cost category.

17 **3. Cost Drivers**

18 The key cost driver behind this forecast is to continue to develop the risk mitigation  
19 practices outlined in the Risk Management Policy testimony of Deana M. Ng (Ex. SCG-03,  
20 Chapter 1) and as described under the Risk Management section above. Non-labor O&M will  
21 primarily be used to obtain support from experts within the industry which will allow SoCalGas  
22 to continue to mature its risk management practices. The expectations and requirements of the  
23 CPUC are complex and dynamic, which requires SoCalGas to employ the assistance and  
24 expertise of outside experts. For example, advancing risk management practices requires in-  
25 depth knowledge of Company operations, risks faced by the Company, and enterprise risk  
26 management quantification methods. In addition, the RM team is required to modify internal  
27 practices and drive changes across the enterprise to meet evolving regulatory requirements and  
28 expectations, which often requires the assistance of outside technical experts. With the  
29 expansion and increasing complexity of regulatory requirements and expectations and the  
30 Company’s commitment to continuous improvement of its risk management practice and culture,  
31 the size of the group is also expected to grow to support the new activities as described.



1 Incremental funding is requested to bring in additional resources to further the  
2 development and implementation of strategic and operational risk management, including  
3 identifying strategic and emerging risks, benchmarking industry best practices, and the  
4 development of risk frameworks. These responsibilities include overseeing and managing the  
5 development of the Company's enterprise risk registry each year to promote identification of  
6 risks, key risk drivers, and mitigations to reduce risk. These positions will also provide strategic  
7 guidance to meet risk-related regulatory requirements including the Commission's S-MAP  
8 proceedings, RAMP proceeding, and annual Risk Spending Accountability Reporting (RSAR).  
9 Other responsibilities include coordination of input from and participation with various other  
10 departments within the Company as needed to support risk-informed decision-making and to  
11 guide resource prioritization for mitigation activities. These positions are necessary to allow the  
12 organization to continue to enhance risk management practices and advance risk management  
13 discipline throughout SoCalGas.

14 Incremental funding is also requested to bring in additional resources to evaluate the  
15 creditworthiness of counterparties that SoCalGas contracts with for critical goods and services.  
16 This will enable SoCalGas to establish a Credit Risk function to address the need to assess,  
17 evaluate, and monitor third party risk. This discipline needs to be expanded to provide third  
18 party risk assessments that would include comprehensive screening of suppliers, identification of  
19 key suppliers for continuity of supply chain, evaluation and monitoring of financial performance,  
20 supplier credit worthiness, and non-financial risks such as cybersecurity. Additionally, in the  
21 event that SoCalGas's Gas Acquisition department enters into long-term contracts to procure  
22 biomethane to help the State of California achieve its emission reduction goals, this function will  
23 play a key role to calculate, evaluate, advise, and monitor credit exposure from contracting with  
24 counterparties.

25 As described above, the RAD seeks incremental funding to support the development of  
26 information technology solutions for the recording and reporting of risk-related information.  
27 This position will provide leadership and direction on projects for improving business systems,  
28 business intelligence, data visualization, and regulatory reporting. This position will also  
29 provide business systems support for meeting changes in regulatory reporting requirements from  
30 the Commission's ongoing S-MAP proceedings.

1 Costs for information systems enhancements are proposed in the Information Technology  
 2 testimony of William J. Exon (Ex. SCG-21, Chapter 2), and the business justification is  
 3 addressed in the Administrative and General testimony of Sara P. Mijares (Ex. SCG-29).

4 **D. Continuous Improvement (CI)**

5 Included in this section of my testimony are activities and associated O&M expenses to  
 6 address core Continuous Improvement (CI) department programs and duties which are non-  
 7 shared. The activities and expenses associated with the CI department are summarized in Table  
 8 NNM-12 below.

9 **TABLE NNM-12**  
 10 **Non-Shared O&M Continuous Improvement Summary of Costs**

<b>CONTINUOUS IMPROVEMENT (CI)</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	<b>BY 2021 Adjusted- Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2SM002.000 Continuous Improvement	1,062	1,644	582

11 **1. Description of Costs and Activities**

12 The CI department strives to continuously improve and strengthen SoCalGas’s safety  
 13 performance and culture by creating an environment in which feedback is integrated into  
 14 decisions, activities, and processes. Continuous improvement, driven by quality management  
 15 assessments and continuous improvement activities are an impetus necessary to achieving safety  
 16 excellence by listening, assessing, and learning.

17 The activities and expenses associated with the CI department consist of multiple  
 18 interconnected non-shared groups, as follows:

19 The Quality Risk & Compliance group performs independent quality assessments for  
 20 various pipeline safety and compliance activities on gas utility assets. This work is performed in  
 21 order to determine the effectiveness and adequacy of the processes and procedures, identifying,  
 22 assessing, and addressing emerging operational issues before becoming a compliance or safety  
 23 concern. The group provides direct assessments and analyses resulting in recommendations and  
 24 process improvements to compliance activities (e.g., locate and mark, leak survey, and  
 25 construction projects). Additionally, the group provides process improvement oversight with an  
 26 emphasis on implementation, tracking, and effectiveness evaluation through trending data. For  
 27 example, this group completes documentation assessments on large capital construction projects,

1 determines process improvements for improved documentation, tracks the implementation of the  
2 solution, and validates the improved process and sustainability through quality control checks.

3 The Continuous Improvement Project Management (CI PM) group is responsible for  
4 gathering information from three primary areas: Incidents, Feedback, and Performance  
5 Measurement. Internal and external incidents are analyzed and learned lessons are extrapolated.  
6 After an incident, feedback is requested from relevant stakeholders, feedback is analyzed,  
7 lessons learned are extrapolated and turned into continuous improvement opportunities.  
8 Feedback is gathered from employees, contractors, regulatory agencies, safety culture surveys,  
9 and audits & assessments. Performance Measurement includes analyzing data, reviewing KPI  
10 trends, and benchmarking. Examples of activities performed by this group include:

- 11 1. Incidents: CI PM partners with EM to track, analyze, document, and drive the CI  
12 opportunities that result from After-Action Reports (AAR).
- 13 2. Feedback: CI PM derives CI opportunities from the Advisory Safety Council  
14 (ASC) meetings. The ASC is made up of external industry experts that advise the  
15 CSO on safety related topics. Designed to promote a culture that embraces and  
16 advances safety in the Company's operations, this work allows SoCalGas to  
17 improve upon existing practices, creating a safer work environment for all  
18 employees. CI PM also manages the Safety Observation and Reporting (SOAR)  
19 system, which is used for non-emergency safety observations submitted by  
20 employees and contractors. This group also analyzes data and works with various  
21 stakeholders to develop plans to address CI opportunities identified from audits  
22 and assessments such as the AGA Peer Review.
- 23 3. Performance Measurement: CI PM works with Quality Risk & Compliance group  
24 to follow up on CI opportunities that result from Quality Assessment (QA)  
25 findings. CI PM conducts effectiveness reviews on completed continuous  
26 improvement items using established criteria, validation, and evaluation methods  
27 6-12 months after CI PM has closed the item.

28 **a. RAMP Activities**

29 RAMP-related costs for Continuous Improvement include the costs for the following  
30 activities: (1) Continuous Improvement and Quality Assurance, (2) Expanded Quality  
31 Assessment Program, (3) After-Action Review Program, and (4) SMS Framework. These

1 activities, which were identified in Table NNM-4 in Section III (Risk Assessment Mitigation  
2 Phase (RAMP Integration), are discussed further below.

### 3 **Continuous Improvement and Quality Assurance**

4 The Continuous Improvement and Quality Assurance activities consist of efforts  
5 performed by various, interconnected groups. This department is responsible for creating an  
6 environment where feedback mechanisms are part of the decision-making process, and processes  
7 which result in collective participation and learning from events to achieve the safest outcomes.

8 The goal of the Quality Risk & Compliance group is to provide independent and  
9 objective assessment of the gas operations and construction processes. This group verifies the  
10 quality in planning, defines quality control and quality assurance of the activities, and  
11 collaborates with key stakeholders (Gas Operations and Construction) to drive continuous  
12 improvement. The assessments performed constitute a check of Gas Operations and  
13 Construction procedures and processes, and the corrective actions that result from these reviews  
14 improve these procedures and processes. This group proactively uses tools and processes to  
15 enhance system safety and reliability through the implementation of continuous improvement  
16 across the Company.

### 17 **Expand Quality Assessment Program**

18 Quality assessment trending data has revealed that continued regular assessments  
19 contribute to a decrease in findings. The Quality Risk & Compliance group plans to expand  
20 quality assessments and enhance consistent quality oversight across the Company. The Quality  
21 Risk & Compliance group also plans to enhance a selection process for adding new quality  
22 assessment programs through a risk ranking approach by analyzing available data sources and  
23 benchmarking with external organizations (*e.g.*, AGA, other gas operators). As further described  
24 in the Technology & Analytics section of my testimony, these efforts will also include the  
25 development and implementation of a quality management data collection tool for field and  
26 office assessments to increase efficiency, accuracy, and data sharing capabilities. The data will  
27 be gathered and analyzed to identify trends or other insights that will provide information to  
28 monitor and enhance internal processes.

### 29 **After-Action Review Program**

30 CI PM manages and systematically tracks to completion all continuous improvement  
31 opportunities that come from internal and external sources including contractors and audits. The

1 goal is to improve safety culture by systematically documenting, tracking, implementing, and  
2 communicating continuous improvement opportunities. The Continuous Improvement Tracking  
3 Program includes internal sources such as the After-Action Reports (AARs) Quality Assessment  
4 findings. External sources include the AGA Peer Review and the API assessment. Partnering  
5 with EM and event stakeholders, the CI PM works to determine timelines for completion of the  
6 Continuous Improvement opportunities. Status updates are scheduled on a monthly or quarterly  
7 basis as appropriate to track progress. From the information gathered, CI PM develops metrics  
8 and identifies trends to work with stakeholders to improve completion times of continuous  
9 improvement opportunities. Pitfalls and other contingencies that may delay completion or result  
10 in repeat occurrences are also identified. Lessons learned are extrapolated to apply to ongoing  
11 and future safety projects.

## 12 **SMS Framework**

13 As previously mentioned in the SMS Strategy section, SMS Benchmarking is one of the  
14 six focus areas within the SMS framework. The CI PM department supports SMS benchmarking  
15 focus area by working as a conduit of communication between ASC and CSO. The ASC is made  
16 up of external industry experts that advise and assist the CSO on safety-related matters. The  
17 ASC meets quarterly to review and discuss safety related topics such as Management of Change  
18 (MOC) & Emergency Preparedness, as well as visit various Company facilities to better  
19 understand safety related practices. The CI PM facilitates these quarterly meetings and as  
20 continuous improvement opportunities are identified by ASC and discussed with the CSO; the CI  
21 PM department will follow up on these opportunities.

22 Table NNM-13 below provides the RAMP activities, their respective cost forecasts, and  
23 the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my  
24 workpapers (Exhibit SCG-27-WP).

1  
2

**TABLE NNM-13  
RAMP Activities**

<b>CONTINUOUS IMPROVEMENT RAMP Activity O&amp;M Forecasts by Workpaper In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2SM002.000	SCG-CFF-3 - 6	After Action Review Program	39	39	0	0.00
2SM002.000	SCG-CFF-6 - 1	SMS Framework	39	74	35	0.00
2SM002.000	SCG-CFF-6 - 3	Continuous Improvement and Quality Assurance	475	751	276	0.00
2SM002.000	SCG-CFF-6 - 6	Expand Quality Assessment Program	338	609	271	0.00

3 \* An RSE was not calculated for this activity.

4 **2. Forecast Method**

5 The forecast method developed for this cost category to labor and non-labor expense is  
6 the base year method because this forecasting methodology serves to represent this workgroup  
7 growth and historical spend more accurately. Incremental adjustments will focus a greater  
8 emphasis on enhancing quality management/assessments and data collection capabilities.  
9 Therefore, SoCalGas anticipates increasing mitigation programs to be implemented within this  
10 group which require additional staffing and resources. An average or linear trend could not  
11 account for anticipated growth in the activities for this cost category.

12 **3. Cost Drivers**

13 **a. Quality Risk & Compliance**

14 The key cost driver for the Quality Risk & Compliance group is the expansion of quality  
15 assessments. Quality assessments provide critical data for evaluating, measuring, and enhancing  
16 compliance activities within gas operations and construction. Quality Risk & Compliance  
17 intends to expand quality assessments and enhance consistent quality oversight across the  
18 Company and to increase the number and types of assessments performed. One area of  
19 expansion will be the high-pressure project record closeout quality assessments, funded by the  
20 capital project teams outlined in the introduction of my testimony. Additionally, Quality Risk &  
21 Compliance is seeking incremental funding to expand both Leak Survey and Locate and Mark

1 (damage prevention) assessments and begin new quality assessments of Pipelines on Bridges and  
2 Spans Assessments and Pipeline Patrol/Unstable Earth assessments.

3         Quality Risk & Compliance also seeks to develop and implement an electronic data  
4 collection tool for field and office assessments to increase efficiency, accuracy, and data sharing  
5 capabilities. Specifically, to address the expansion of quality assessments, Quality Risk &  
6 Compliance plans to add advisors to perform quality assessments and support data management  
7 as well as perform incident investigations on high-risk trends. The increased quality assessments  
8 will identify potential safety risks to the Company.

9         As a result of the 2018 Columbia Gas Incident in Merrimack Valley, Massachusetts,<sup>21</sup> the  
10 Quality Risk & Compliance group began to perform quality assessments of Gas Handling Plans  
11 for Storage, PSEP, Transmission, and Distribution at SoCalGas. The Quality Risk &  
12 Compliance group will look to expand quality assessments to the gas handling process to verify  
13 adherence to procedure(s) and identify opportunities for improvement. The gas handling  
14 assessors will be assessing completed and in-process work, verifying compliance with all  
15 applicable Gas Standards, Procedures, and Form Instructions.

16         The Quality Risk & Compliance group is also looking to expand the quality management  
17 program to focus on upcoming complex construction projects such as the Honor Rancho  
18 Compressor Modernization project, as discussed in the Gas Storage Operations and Construction  
19 testimony of Messrs. Bittleston and Hruby (Ex. SCG-10). Specifically, the Quality Risk &  
20 Compliance group is looking to proactively carry out major Construction project assessments to  
21 confirm that these projects are being carried out in accordance with Company policies and  
22 procedures, governmental requirements, all applicable Gas Standards, and awarded contracts.  
23 The scope of the incremental positions will include both the work performed in the field (*e.g.*,  
24 welding assessments, construction site safety assessments) and in the office (closeout documents  
25 review).

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<sup>21</sup> State of Massachusetts, “Merrimack Valley Natural Gas Explosions After Action Report,” (January 2020) available at: [https://andoverma.gov/DocumentCenter/View/7038/September-2018-Merrimack-Valley-Natural-Gas-Explosion-AAR\\_MEMA?bidId=](https://andoverma.gov/DocumentCenter/View/7038/September-2018-Merrimack-Valley-Natural-Gas-Explosion-AAR_MEMA?bidId=)

1 **b. Continuous Improvement Project Management**

2 The key cost driver for the CI PM group is the increase in the number of continuous  
3 improvement opportunities identified through various reporting channels that the group engages.  
4 CI PM is seeking incremental funding to support the increase in quality assessment findings  
5 performed by the Quality Risk & Compliance group. Additionally, through the functions  
6 performed by the ASC and the identification of action items identified through the AARs, the CI  
7 PM group seeks incremental funding to engage with internal and external stakeholders to look  
8 for opportunities to improve upon existing practices, programs, initiatives, and methods, creating  
9 a safer work environment for all employees, contractors, and the general public.

10 **E. Safety Management**

11 Included in this section of the testimony are activities and associated O&M expenses to  
12 address Safety Management programs and duties. The Safety Management department is  
13 responsible for positioning SoCalGas employees to perform their job duties and responsibilities  
14 in a safe and productive manner. Along with the responsibilities of managing employee safety,  
15 this department also manages contractor safety. The services provided by the department include  
16 but are not limited to, safety and industrial hygiene education and compliance, incident  
17 prevention training, incident analysis, and incident reporting. The activities and expenses  
18 associated with the Safety Management department are summarized in Table NNM-14 below.

19 **TABLE NNM-14**  
20 **Summary of Non-Shared O&M Safety Management Costs**

<b>SAFETY MANAGEMENT</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	<b>BY 2021 Adjusted-Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2SM003.000 Safety Management	3,818	6,524	2,706

21 **1. Description of Costs and Activities**

22 The Safety Management department is responsible for ensuring SoCalGas is, at a  
23 minimum, in compliance with all required health and safety regulations (e.g., Department of  
24 Transportation (DOT), Occupational Safety and Health Administration (OSHA), etc.) and is  
25 responsible for positively influencing SoCalGas personnel to provide education and training that  
26 can result in an incident-free workplace. Based on the 2021 National Safety Council’s Safety  
27 Barometer survey SoCalGas is among the leaders in the country in having created a robust safety



1 culture. SoCalGas continues to implement programs that focus on reducing employee and  
2 contractor safety risks, as well as enhancing contractor, customer, and public safety.

3 The Safety Management department reviews incidents and shares lessons learned with  
4 management, safety committees, and other departments within SoCalGas to prevent incidents  
5 and injuries from occurring. The staff also provide safety leadership training to frontline  
6 supervisors to make the training more relevant and effective. It also benchmarks its safety  
7 practices against those of other companies and makes recommendations for areas of  
8 improvement. The Safety Management department also participates in incident analysis and  
9 reporting, facility inspections, and administers numerous facets of the SoCalGas occupational  
10 health and safety program.

11 **a. RAMP Activities**

12 RAMP-related costs for Safety Management department include the costs for the  
13 following activities: (1) Employee health and safety programs and standardized policies, (2)  
14 Employee Wellness Program, (3) Employee Safety Training, (4) Safe Driving Program, (5)  
15 Personal Protective Equipment (PPE), (6) Near Miss, Stop the Job, and Jobsite Safety Programs,  
16 (7) Safety Culture Programs, (8) Utilizing Industry Best Practices and Benchmarking, (9) OSHA  
17 Construction Certification Training, (10) Industrial Hygiene Program Refresh, (11) Proactive  
18 Monitoring for Indoor Air Quality and Chemicals of Concern, (12) Creation of a Safety Video  
19 Library, (13) Industrial Hygiene Program Expansion, (14) Contractor Safety Oversight, (15)  
20 Third-Party Administration Tools, and (16) Contractor Engagement. These activities, which  
21 were identified in Table NNM-4 in Section III (Risk Assessment Mitigation Phase (RAMP  
22 Integration), are discussed further below.

23 **Employee Health and Safety Programs and Standardized Policies**

24 The SoCalGas Safety programs and standardized policies contain the principal safety  
25 standards integral to utility operations. Categories include General Safety and Health,  
26 Operational/Field Safety, Hazardous Substances, Personal Protective Equipment (PPE), and  
27 Pipeline Safety. The Safety Management department develops, administers, and oversees the  
28 safety policies and programs.

- 29 • **Employee Safety Standards** The purpose of the Health and Safety policies and  
30 procedures is to guide and direct all employees to work safely and prevent injury  
31 to themselves and others. Safety standards are specifications designed to promote

1 the safety of work activities or processes. The increased need for additional  
2 resources in this area includes resources to address the increasing number of  
3 proposed policies and programs proposed by Cal/OSHA. These proposed  
4 regulations include Indoor Heat Illness, Communication Tower Safety (Telecom  
5 towers at bases and offsite), Lockout/Tagout updates, PPE in Construction, and  
6 Walking Working Surfaces. While these regulations have not been adopted,  
7 Safety Management needs to focus on potential impacts to employee health and  
8 safety in advance of these new requirements.

- 9 • **Environmental and Safety Compliance Management Program (ESCMP)**  
10 SoCalGas uses ESCMP to track and document completion of all mandatory safety  
11 training. These courses include ergonomics, the injury and illness prevention  
12 program, emergency action plan, and fire prevention plan training for office  
13 employees. For employees working in the field, training also includes defensive  
14 driving training, heat illness, lockout/tagout, and field ergonomics. As part of the  
15 ESCMP program, the Safety Management department conducts annual self-  
16 assessments of approximately 100 company facilities annually to verify  
17 compliance.
- 18 • **Injury and Illness Prevention Program (IIPP):** SoCalGas’s IIPP is a written  
19 plan for preventing injury and illness that includes procedures which are  
20 contained within manuals, for managers, supervisors, and employees to assist in  
21 establishing and sustaining a safe and healthy work environment. Safety  
22 Management manages the IIPP, incorporating updates as needed and regularly  
23 reviewing to promote consistency with internal and external standards.

#### 24 **Employee Wellness Program**

25 SoCalGas’s Employee Wellness Program is a comprehensive program that builds a  
26 culture of health and safety to help employees maintain a healthy lifestyle. Occupational health  
27 nursing is a specialty practice that delivers health and safety programs and services to  
28 employees. The practice focuses on promotion and restoration of health, prevention of illnesses  
29 and injuries, and protection from work related and environmental hazards.

1 **Employee Safety Training and Awareness Programs:**

2 SoCalGas develops training plans by job classification that include courses required to  
3 perform certain work, meet Company objectives, improve driver safety, and satisfy required  
4 compliance training. Each department is responsible for maintaining training records and  
5 ensuring employees complete initial and periodic refresher training requirements. Activities  
6 include:

- 7 • **Supervisor Essentials Safety Training:** a one-day workshop developed for new  
8 and existing supervisors and provides a comprehensive understanding about  
9 safety culture and leadership.
- 10 • **Safety Leader Skill Up:** SoCalGas has established Safety Committees at each  
11 work location to evaluate and enhance safety engagement with local workforce.  
12 The “Safety Leader Skill Up” program provides safety training to committee  
13 members, to improve safety related projects, and to enhance person-to-person  
14 interaction to better influence the safety culture.
- 15 • **Job Observation Program:** Job observations and field rides are conducted by  
16 management personnel based upon behavior-based safety principles. SoCalGas’s  
17 “Job Observation Program” is a proactive approach to safety and health  
18 management, focusing on principles that recognize at-risk behaviors as a frequent  
19 cause of both minor and serious injuries.

20 **Safe Driving Programs**

21 In August 2018 Safety Management introduced and implemented a new web-based  
22 defensive driving program, focused on increasing and enhancing skills that will help keep  
23 employees safe and reduce motor vehicle incidents. The web-based training uses courses  
24 designed to assess employees’ safety driving behaviors and evaluate skills using footage of near-  
25 collision situations.

26 **Personal Protective Equipment (PPE) Program**

27 The purpose of SoCalGas’s PPE program is to protect employees from the risk of injury  
28 by creating a barrier against workplace hazards. PPE includes clothing and equipment designed  
29 to protect employees while performing their job (e.g., flame resistant clothing, gloves, protective  
30 eyewear). All employees who are required to use PPE are trained on when PPE is necessary,

1 which PPE is necessary, how to properly don/remove/adjust/wear PPE, limitations of PPE and  
2 the proper care/maintenance/life/disposal of PPE.

### 3 **Near Miss, Stop the Job, and Jobsite Safety Programs**

4       There are many benefits to reporting close calls and sharing them with others.  
5 Understanding the causes of a close call and, more importantly, the actions that can be taken to  
6 prevent a close call from reoccurring, provides the opportunity to prevent future injuries and  
7 incidents. The Stop the Job policy at SoCalGas documents that every employee has the  
8 responsibility and authority to stop work when they encounter unsafe conditions, actions, or are  
9 unsure about a policy or how to correctly perform a job task that could potentially endanger  
10 themselves, employees, contractors, customers, the public, equipment, or facilities. No activity  
11 is so important that a person's safety or health is ever to be compromised. These programs are  
12 administered by the Safety Management department who provides mechanisms for reporting  
13 through the Safety Information Management System (SIMS), online through the safety website  
14 (with the option of being anonymous) and through their local safety committees and supervisors.  
15 Additionally, the Safety Management department conducts investigations for potentially serious  
16 incidents and at the request of safety committees or leadership. The Safety Management  
17 department also takes the lead in communicating and sharing lessons learned throughout all  
18 levels of the Company via weekly close call/stop the job reports as well as through weekly safety  
19 calls with Executive leadership. These lessons learned are also shared with affected workgroups  
20 through weekly/monthly client support calls.

### 21 **Safety Culture Programs**

22       Open, two-way communication between management and employees on safety issues is  
23 essential to an injury-free, productive workplace. Several avenues of communication are used to  
24 promote a continuous flow of information. SoCalGas has many forums to actively discuss safety  
25 at all levels of the Company with opportunities to review lessons learned, discuss effectiveness  
26 of current and future programs, present new safety information, and review updates to policies  
27 and procedures. One such forum is the Employee Safety Congress, which SoCalGas holds  
28 annually. The Employee Safety Congress provides employees the opportunity to attend  
29 workshops focused in safety areas, visit exhibit tables, attend keynote speaker events, interact  
30 with the SoCalGas senior management team, and exchange safety information and ideas.

1 SoCalGas also recognizes employees through Safety Excellence Awards to individuals and  
2 committees who exemplify safety leadership.

### 3 **Utilizing Industry Best Practices and Benchmarking**

4 SoCalGas collaborates with environmental, health, and safety leaders across numerous  
5 industry sectors and conducts benchmarking with other utilities and industries in safety  
6 performance. SoCalGas subscribes to the Phylmar Regulatory Roundtable and the CAL/OSHA  
7 Reporter. These memberships and communications help the Safety Management department  
8 stay abreast of current and relevant safety issues.

### 9 **OSHA Construction Certification Training**

10 The Safety Management department is responsible for the program management of the  
11 ten and thirty-hour OSHA Construction Certification programs for employees who are directly  
12 involved in and overseeing construction jobs performed by Company employees. The purpose  
13 of providing employees with this training is to further enhance their skills in hazard identification  
14 and gain a certification that is recognized by regulatory agencies nationwide.

### 15 **Industrial Hygiene Program Refresh**

16 The Industrial Hygiene (IH) program focuses on the protection of employee health from  
17 exposures in the workplace. Industrial hygienists are responsible for monitoring changes in  
18 employee safety and health regulations, developing internal safety policies and procedures to  
19 promote compliance with the applicable regulations, and managing Company-wide  
20 implementation of key IH programs. Industrial hygienists are also the technical experts  
21 consulted during emergencies involving any health hazard to employees.

### 22 **Proactive Monitoring for Indoor Air Quality (IAQ) and Chemicals of Concern**

23 IAQ program tests air quality at Company locations to determine if facilities are  
24 operating within the permissible exposure limits. Tests are conducted when a concern is  
25 identified, and the Safety Management department will consult with third party vendors to  
26 complete the assessment. Safety Management plans to conduct annual IAQ assessments at the  
27 six headquarters facilities in its service territory.

### 28 **Implementation of Safety Video Library**

29 Safety Management plans to subscribe to a third-party online streaming service provider  
30 to access safety videos focused on current and approved safety practices. Access to relevant and  
31 updated safety information that can be used during safety stand-downs, daily morning safety

1 meetings, daily tailgate meetings for field crews, and other safety events will provide an  
2 opportunity to share pertinent safety information.

### 3 **Industrial Hygiene Program Expansion**

4 Industrial Hygienists are responsible for monitoring changes in employee safety and  
5 health regulations, developing internal safety policies and procedures to promote compliance  
6 with the applicable regulations, and managing Company-wide implementation of key industrial  
7 hygiene programs, such as Hazard Communications, Hearing Conservation, Respiratory  
8 Protection, Mold, Asbestos, and Lead Exposure Management. Additionally, Safety Management  
9 will be adding one new initiative, real-time Air Quality Index (AQI) monitoring for Wildfire  
10 Smoke Protection. Each of these programs includes developing policies and practices that  
11 integrate protection from work-related safety and health hazards and promotion of injury and  
12 illness-prevention efforts to advance worker well-being. Each new regulation requires an  
13 assessment, written program, training program, and a significant time commitment for ongoing  
14 program management. Safety Management responsibilities will include evaluating the current  
15 and proposed processes that support the IH Program Refresh for air monitoring exposure  
16 assessments for approximately thirteen chemicals of concern and the expanded IAQ program.  
17 These programs will require Safety Management to plan, review monitoring, manage data,  
18 communicate results, and implement process controls where needed. These programs include  
19 infectious diseases, hazard communication, welding in confined spaces, occupational exposure to  
20 crystalline silica, mold, valley fever, naturally occurring asbestos, respirator fit testing, chemical  
21 inventories, and hearing conservation.

### 22 **Contractor Safety Oversight**

23 SoCalGas has instituted a Contractor Safety Program (CSP) to manage contractors'  
24 safety based upon the type and number of hazards they will be exposed to while working on a  
25 SoCalGas project. The program is guided by the Company Operations Standard and requires the  
26 SoCalGas Business Units and Supply Management personnel to manage the program  
27 requirements with their contractors.

- 28 • **Contractor Safety Standard:** SoCalGas has formalized its contractor safety  
29 program in the Company Operations Standard – Contractor Safety Program. The  
30 standard is for internal use only and applies to SoCalGas employees who oversee

1 SoCalGas Approved Pipeline Construction Contractors and subcontractors on  
2 behalf of the Company.

- 3 • **Contractor Safety Manual** In 2017, SoCalGas issued a contractor safety manual  
4 for use by all SoCalGas Approved Pipeline Construction Contractors and their  
5 subcontractors. This manual consolidated in one place all the safety requirements  
6 and expectations SoCalGas has established for contractors and subcontractors  
7 working for SoCalGas. The manual provides guidelines on the process to be  
8 followed in managing safety for construction projects, including reviewing  
9 applicable compliance requirements, providing appropriate oversight on  
10 contractor work, and reporting safety incidents.
- 11 • **Contractor Stop the Job, Near Miss, Close Call Reporting Program** SoCalGas  
12 requires all its SoCalGas Approved Pipeline Construction Contractors and their  
13 subcontractors to develop and implement a Stop the Job policy on SoCalGas  
14 projects. Stop the Job is a critical process and gives authority to everyone onsite  
15 to stop a job or task if an unsafe work condition, behavior, or activity is identified.  
16 SoCalGas also encourages its contractors to report near miss or close calls  
17 incidents so that everyone can learn from these incidents and prevent injuries  
18 and/or reduce/eliminate safety risks on the job and to its pipeline delivery system.

### 19 **Third Party Administration Tools**

- 20 • **ISNetworld (ISN)** The ISN platform is used to pre-qualify, vet, and monitor  
21 SoCalGas Approved Pipeline Construction Contractors and their subcontractors  
22 for safety and compliance. The Safety Management department serves as the  
23 liaison between ISN and SoCalGas operating units so that SoCalGas Approved  
24 Pipeline Construction Contractors and subcontractors currently performing or  
25 seeking to perform work for SoCalGas are meeting SoCalGas contractor safety  
26 program requirements.
- 27 • **Veriforce®** SoCalGas utilizes Veriforce® to monitor contractors' compliance  
28 with the PHMSA and DOT Drug and Alcohol (D&A) program requirements.  
29 SoCalGas utilizes Veriforce® to centrally track records for covered task  
30 qualifications, along with related certifications and training. Veriforce® delivers  
31 a comprehensive solution for D&A compliance, combining software with audit

1 services to help streamline management of the contractor D&A compliance  
2 program and drive improvements that mitigate contractor risk. The purpose of  
3 utilizing the Veriforce® platform is to streamline Operator Qualification (OQ)  
4 program administration and facilitate compliance with PHMSA OQ Rule  
5 requirements for SoCalGas Approved Pipeline Construction Contractors and their  
6 subcontractors who work on safety sensitive tasks.

### 7 **Contractor Engagement**

8 SoCalGas aims to reinforce its strong safety culture by engaging contractors in a variety  
9 of ways, including hosting an annual Contractor Safety Congress and four Quarterly Meetings  
10 with SoCalGas and each SoCalGas Approved Pipeline Construction Contractor. This equates to  
11 14 contractor meetings per quarter. SoCalGas’s annual Contractor Safety Congress was initiated  
12 in 2015 to share safety best practices and learn from one another’s experiences. The event is  
13 expected to continue to further strengthen SoCalGas and contractors’ collective “safety culture”  
14 and provide a foundation for safety improvement. The forum provides an opportunity for  
15 SoCalGas executives to share their safety vision and expectations with contractors and offers an  
16 opportunity for contractors to showcase their safety successes and challenges, as well as share  
17 serious safety incidents and lessons learned so others can benefit from their experience and  
18 improve their own safety performance.



1 Table NNM-15 below provides the RAMP activities, their respective cost forecasts, and  
 2 the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my  
 3 workpapers (Exhibit SCG-27-WP)

4 **Table NNM-15**  
 5 **RAMP Activities**

<b>SAFETY MANAGEMENT</b>						
<b>RAMP Activity O&amp;M Forecasts by Workpaper</b>						
<b>In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE</b>
2SM003.000	SCG-Risk-5 - C01	Employee Health and Safety Programs and Standardized Policies	807	865	58	0.00*
2SM003.000	SCG-Risk-5 - C03	Employee Wellness Programs	191	541	350	5.00
2SM003.000	SCG-Risk-5 - C04	Employee Safety Training and awareness programs	685	708	23	29.00
2SM003.000	SCG-Risk-5 - C05	Safe Driving Programs	304	914	610	19.00
2SM003.000	SCG-Risk-5 - C06	Personal Protection Equipment (PPE)	304	304	0	0.00*
2SM003.000	SCG-Risk-5 - C07	Near Miss, Stop the Job and Jobsite Safety Program	304	327	23	47.00
2SM003.000	SCG-Risk-5 - C08	Safety Culture Programs	495	652	157	11.00
2SM003.000	SCG-Risk-5 - C09	Utilizing Industry Best Practices & Benchmarks	191	191	0	5.00

**SAFETY MANAGEMENT**  
**RAMP Activity O&M Forecasts by Workpaper**  
**In 2021 \$ (in 000s)**

<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE</b>
2SM003.000	SCG-Risk-5 - M02	Industrial Hygiene Program Refresh	0	971	971	0.34
2SM003.000	SCG-Risk-5 - M03	Proactive monitoring for indoor air quality and chemicals of concern	0	74	74	10.00
2SM003.000	SCG-Risk-5 - M04	Creation of a Safety Video Library	0	50	50	25.00
2SM003.000	SCG-Risk-5 - M06	Industrial Hygiene Program Expansion	0	153	153	45.00
2SM003.000	SCG-Risk-7 - C01	Contractor Safety Oversight	188	280	92	71.00
2SM003.000	SCG-Risk-7 - C02	Third Party Administration Tools	188	333	145	14.00
2SM003.000	SCG-Risk-7 - C03	Contractor Engagement	94	94	0	25.00

\* An RSE was not calculated for this activity.

**2. Forecast Method**

The forecast method developed for this cost category to labor and non-labor expense is the base year method because this forecasting methodology serves to represent this workgroup growth and historical spend more accurately. Incremental adjustments will focus an even greater emphasis on enhancing safety for employees and contractors through such programs as defensive driving refresher training, industrial hygiene, and environmental & safety compliance management. Therefore, SoCalGas anticipates increasing mitigation programs to be implemented within this group which require additional staffing and resources. An average or linear trend could not account for anticipated growth in the activities for this cost category.

1                   **3.       Cost Drivers**

2                   The activities performed in this workgroup are driven by the requirement to meet safety  
3 regulatory requirements, Cal/OSHA regulations, and improved safety performance to continue to  
4 enhance the Company’s objective of having a proactive and accountable, safety-focused  
5 workforce. SoCalGas’s incremental funding request for Safety Management initiatives and  
6 activities support the ongoing management of risks and exposures that could lead to a significant  
7 safety consequence to customers, employees, contractors, and the public.

8                   Safety Management activities can be categorized into three main areas: support programs,  
9 employee training, and enhancement to user experience. These categories, and the programs and  
10 drivers that fall into each one, are further explained below. In addition to my testimony, please  
11 also refer to my workpapers (Exhibit SCG-27-WP) for additional information about the activities  
12 described herein.

13                   **Support Programs**

14                   Safety Management is seeking incremental funding in this area to address the increasing  
15 number of policies and programs being implemented, enhanced client support, and identifying  
16 and addressing safety and health issues. SoCalGas is currently developing a comprehensive  
17 potential Serious Injury and Fatality (pSIF) program to provide assessments on incidents that  
18 could have led to a serious injury or fatality but did not. These assessments will help to inform  
19 program managers and leadership on how, and where, to take action to strengthen SoCalGas’s  
20 safety culture against future risk. Additionally, the areas of enhancement that are identified  
21 through this pSIF initiative will require an increased level of support and assessment from Safety  
22 Management advisors, resulting in a need for additional resources.

23                   Safety Management is also seeking incremental funding to further support the Contractor  
24 Safety programs, with this incremental funding necessary to bring in dedicated resources to  
25 provide oversight on both Contractor Safety Standard Program and Contractor Safety Manual.

26                   Safety Management is also responsible for the Safe Driving Program described above.  
27 To further support this program, Safety Management requests additional vehicles to advance the  
28 development of the program through behind the wheel instruction. This development will utilize  
29 these additional vehicles to instruct safe driving behaviors amongst Company employees. The  
30 request for these incremental vehicles can be found in the Fleet Services testimony of Mr. Franco  
31 (Ex. SCG-18).

1 **Employee Training**

2 Safety Management believes that safety starts with proactive, upstream measures to  
3 prevent a safety incident from occurring and is seeking incremental funding to further devote  
4 resources to those efforts. One area that Safety Management plans to focus on is the reduction of  
5 Controllable Motor Vehicle Incidents (CMVIs) through enhancements to the Safe Driving  
6 Program.

7 **Enhanced User Experience**

8 Safety Management is seeking incremental funding to provide ease of access to  
9 information for employees and contractors through various channels. These include  
10 implementing an electronic library for employees to access current safety information, such as  
11 Ladder Safety, Fire Extinguisher Training, Confined Space, etc. Additionally, Safety  
12 Management is looking to provide dedicated oversight of existing online tools currently available  
13 for the contract workforce.

14 **F. Emergency Management (EM)**

15 Included in this section of my testimony are activities and associated O&M expenses to  
16 address SoCalGas’s EM programs and duties which are non-shared. These activities and  
17 expenses are summarized in Table NNM-16 below.

18 **TABLE NNM-16**  
19 **Summary of Non-Shared O&M Emergency Management Costs**

<b>EMERGENCY MANAGEMENT</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group Emergency Management</b>	<b>BY 2021 Adjusted-Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2SM001.000	2,007	3,028	1,021

20 **1. Description of Costs and Activities**

21 SoCalGas’s EM department is a centralized and dedicated department that supports  
22 business operations with first responder outreach and emergency response, preparedness, and  
23 recovery. The EM department utilizes the FEMA Incident Command System (ICS), which  
24 allows for a multi-level emergency response. The ICS is a nationally recognized standardized  
25 approach to incident management providing responders with an integrated organizational  
26 structure that matches the complexities and demands of the incident and can expand or contract  
27 to meet incident needs.

1 SoCalGas’s ICS outlines communication standards for inter-functional (*e.g.*,  
2 Transmission and Distribution) and inter-agency (*e.g.*, fire, police, and emergency officials)  
3 cooperation and coordination during an emergency incident and responsibilities within the  
4 Company. EM, in coordination with various stakeholder groups, assesses and responds to  
5 incidents that can be managed locally, as well as more complex incidents that require activation  
6 of the Emergency Operation Centers (EOC) and implementation of the ICS.

7 The EM department sits within the SMS organization, reporting to the Director of  
8 Emergency Management. Within the department, there are two Managers, one who oversees  
9 operations and one who oversees planning. The operations group consists of two sections, (1)  
10 EOC and Watch Office, and (2) the Training, Exercises, and Drills group. Additionally, the  
11 planning department consists of two sections, (1) Regulatory and (2) Planning and Preparedness.  
12 Except for the Regulatory group, each section is led by a supervisor and performs a variety of  
13 functions to help achieve the department’s goal of effectively planning, preparing, and  
14 responding to incidents.

15 **a. RAMP activities**

16 RAMP-related costs for Emergency Management include the costs for the following  
17 activities: (1) Policies and Procedures, (2) Training, Exercises, and Drills, (3) Stakeholder  
18 Outreach, (4) Incident Command Structure, (5) Mutual Assistance, (6) After Action Review  
19 Program, (7) Crisis Communications Technologies, (8) Watch Office, and (9) Expert Advisory  
20 Service. These activities, which were identified in Table NNM-4 in Section III (Risk  
21 Assessment Mitigation Phase (RAMP Integration)), are discussed further below.

22 **Policies and Procedures**

23 SoCalGas has several policies, standards, and procedures in place so that the Company  
24 and its employees are prepared to respond to emergencies. These activities are intended to limit  
25 damage from accidents, provide timely response to customers, and take adequate precautions to  
26 protect personnel and the public from hazardous conditions or emergency events such as  
27 earthquakes, wildfires, and mudslides.

28 The EM department is the document owner of the Gas Emergency Management  
29 Preparedness and Response Policy, which documents how SoCalGas aligns with the emergency  
30 response requirements specified by SMS and complies with the Public Utilities Code Sections

1 961(d)(5), (6) and (8), as well as the emergency response procedures required by 49 C.F.R.  
2 Section 192.615.

3 EM also conducts After Action Reviews (AAR), which is built on FEMA’s guidance to  
4 have a system that can assess the Company’s responses, take the lessons learned, and implement  
5 corrective action for continuous improvement opportunities. These include plan or process  
6 revisions, training and drills, analysis on collaboration with external agencies, and lessons  
7 learned.

8 In addition to the Gas Emergency Management Preparedness and Response Policy and  
9 the AAR, SoCalGas also conducts annual Business Continuity Planning exercises to provide  
10 continuous operation or resumption of critical functions in the event of a major disruption.  
11 Facilities with ten or more employees also have an Emergency Action Plan (EAP) that provides  
12 for the safety of employees during emergencies and complies with state and federal guidelines.

### 13 **Emergency Response Training (ERT)**

14 The purpose of the Emergency Management training program is to integrate the  
15 deliberate and intentional efforts that are underway to better prepare employees for success when  
16 responding to emergency incidents. Training in the ICS and EOC creates a solid foundation for  
17 any incident response. For this reason, all SoCalGas management personnel who respond to  
18 incidents complete ICS 100 and 200 FEMA training.

19 Additionally, Emergency Responder Playbooks were developed to provide SoCalGas  
20 with a clear understanding of procedures, roles, and responsibilities to manage emergency crisis  
21 situations and other related incidents that may disrupt operations. Further, the playbooks can be  
22 utilized to familiarize staff on EOC functions and position roles and responsibilities prior to an  
23 incident, as well as provide guidance during an actual EOC response to an incident.

### 24 **Exercises and Drills**

25 The departments involved in emergency operations conduct annual exercises to maintain  
26 employee readiness and proficiency in their emergency assignments and validate the  
27 organization’s emergency plan. EM is responsible for identifying groups to plan, organize,  
28 conduct, and critique exercises with support from other departments.

### 29 **Stakeholder Outreach**

30 The First Responder Program was developed to educate first responders (*e.g.*, fire, police,  
31 and emergency officials) on how to safely work with SoCalGas personnel when responding to

1 natural gas related incidents and to establish local contact between SoCalGas field operations  
2 departments and first responders. The program is responsible for providing information about  
3 the Company's response capability and the level of participation during a unified command. The  
4 program is driven by DOT Regulation 49 C.F.R. Section 192.615(c), California Public Utilities  
5 Code Section 956.5, and API Recommended Practice 1162.

### 6 **Incident Command Structure (ICS)**

7 The ICS is a standardized approach to incident management that can be used for all kinds  
8 of events, by all organizations, and enables a coordinated response, consistent processes, and  
9 allows for the integration of internal and external resources within a common structure. This has  
10 become an industry standard for responding to incidents and is also universally used across the  
11 public sector and at all levels of government in responding to hazards. SoCalGas uses the ICS to  
12 guide emergency incident activities, thereby reducing risk.

### 13 **Mutual Assistance**

14 Mutual Assistance Agreements (MAAs) and other types of arrangements provide  
15 assistance during and after an emergency event to facilitate the mobilization of personnel,  
16 equipment, and supplies. MAAs are an important component of the National Incident  
17 Management System (NIMS), which provides a systematic approach to guide governments at all  
18 levels, nongovernmental organizations, and the private sector in collaborative emergency  
19 preparedness and response activities. SoCalGas maintains agreements to provide and receive  
20 mutual assistance with various nonprofit organizations, utilities, and certain municipalities.  
21 Examples include the California Utilities Emergency Association (CUEA), Western Regional  
22 Mutual Aid Group (WRMAG), and the American Gas Association (AGA).

### 23 **After-Action Review Program**

24 An AAR is a retrospective analysis of the immediate response to, and recovery operations  
25 of an incident. This report is used to assist the Company in preparing for and responding to  
26 future incidents. Partnering with the CI PM group and event stakeholders, EM solicits, analyzes,  
27 and discusses feedback from personnel who supported the incident and identifies areas that work  
28 well and identifies areas with opportunity for improvement. The AAR is critical in capturing  
29 best practices and lessons learned with the goal of continuous improvement and identification of  
30 actionable items for opportunity enhancements.

1 **Crisis Communications Technologies**

2 SoCalGas recognizes that communications during a crisis are critical to organizing,  
3 establishing priorities, and sharing information with key stakeholders. Current capabilities  
4 include technology for Mobile Command Trailers and a Satellite Communication Program. A  
5 Mobile Command Trailer is a specialized trailer that can be deployed to and stationed at the  
6 scene of an emergency for several days. It can be used as an Incident Command Post (ICP) to  
7 facilitate communication between response crews, command staff, and external agencies and  
8 provide support to the frontline employees during a major event. SoCalGas currently has three  
9 mobile command trailers, so when a major emergency arises, SoCalGas can continue to  
10 communicate, plan, coordinate, support, and lead the efforts to provide safety to the crews and  
11 public.

12 In the Satellite Communication Program, SoCalGas currently maintains over 140 satellite  
13 phones that are assigned to key personnel that are trained to respond to incidents as well as are  
14 located at Company facilities. These satellite phones are intended to support emergency events  
15 where traditional methods of communications like a cell phone or landline are not available.

16 **Watch Office**

17 Previously identified through RAMP (SCG-CFF-3 Emergency Preparedness & Response  
18 and Pandemic) as the Watch Desk, the Watch Office oversees the Emergency Operation Center  
19 (EOC) 24/7/365. The EOC may be activated when there are large impacts to the Company or a  
20 natural disaster event that may require coordination and communication with multiple internal  
21 and/or external organizations. In some instances, an Incident Command Post may be established,  
22 in addition to, or in place of an EOC. The Watch Office provides real-time monitoring of data to  
23 increase situational awareness and identify potential hazards, create executive notifications,  
24 convene situational awareness meetings, and timely regulatory reporting to external agencies.  
25 Based on evaluation of the incident, the Watch Office will then recommend if an EOC activation  
26 is required. Once activated, the objectives of the EOC are to:

- 27 • Obtain situational awareness of the incident, including gathering information to  
28 determine safety issues, identifying system damage, reporting repair and resource  
29 availability, and the status of restoration activities;
- 30 • Offer timely, and accurate information to government officials, regulatory  
31 authorities, employees, customers, public at large, and media;



- 1 • Provide policy guidance for repair and restoration activities;
- 2 • Coordinate incident operations with the City, County, State, and Federal
- 3 emergency service organizations; and
- 4 • Manage acquisition and allocation of resources.

5 The purpose of the Watch Office is to manage and assist on tasks related to Emergency  
6 Management which include:

- 7 • Review and analyze information from Message Center Reports;
- 8 • Monitor the service the territory 24 hours/7 days a week including Holidays;
- 9 • Make the proper release reporting to external agencies in a timely manner;
- 10 • Manage the hotline;
- 11 • Analyze and assess State and County communications;
- 12 • Monitor weather forecasting and generate reports;
- 13 • Schedule and prepare situational reports and calls, or all other EM
- 14 communications; and
- 15 • Create and maintain the Emergency Responders weekly On-Call Schedule.

#### 16 **G. Expert Advisory Services**

17 EM leverages external advisory support services and expertise to help inform the best  
18 method to handle risks and apply leading industry practice. These services and advisors help to  
19 inform training and exercise activities, or to update policies and procedures. EM uses an Energy  
20 Event Index (EEI), which is a categorical risk-based forecast index for certain impactful weather  
21 events such as lightning, wind speed, wind gusts, rainfall, snow, ice, and wildfires. EEI is a  
22 human based forecast, performed by an expert team of meteorologists. Utilizing these services  
23 allows EM to prepare for incoming adverse weather events more effectively and accurately.  
24 Additionally, EM utilizes insight from a seismologist expert, who currently sits on SoCalGas's  
25 Advisory Safety Council which is further described in the Continuous Improvement section of  
26 my testimony, to assist with earthquake preparedness.

27 Table NNM-17 below provides the RAMP activities, their respective cost forecasts, and  
28 the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my  
29 workpapers (Exhibit SCG-27-WP).

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2

**TABLE NNM-17  
RAMP Activities**

<b>EMERGENCY MANAGEMENT RAMP Activity O&amp;M Forecasts by Workpaper In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2SM001.00 0	SCG-CFF-3 - 1	Policies & Procedures	161	161	0	0.00
2SM001.00 0	SCG-CFF-3 - 2	Training, Exercises and Drills	161	277	116	0.00
2SM001.00 0	SCG-CFF-3 - 3	Stakeholder Outreach	161	277	116	0.00
2SM001.00 0	SCG-CFF-3 - 4	Incident Command Structure	435	435	0	0.00
2SM001.00 0	SCG-CFF-3 - 5	Mutual Assistance	38	38	0	0.00
2SM001.00 0	SCG-CFF-3 - 6	After Action Review Program	473	473	0	0.00
2SM001.00 0	SCG-CFF-3 - 7	Crisis Communication Technologies	310	360	50	0.00
2SM001.00 0	SCG-CFF-3 - 8	Watch Desk	0	508	508	0.00
2SM001.00 0	SCG-CFF-3 - 9	Expert Advisory Services	80	80	0	0.00

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\* An RSE was not calculated for this activity.

**1. Forecast Method**

The forecast method developed for this cost category to labor and non-labor expense is the base year method because this forecasting methodology serves to represent this workgroup growth and historical spend more accurately. Incremental adjustments will focus a greater emphasis on expanding SoCalGas’s emergency response/management planning processes. Therefore, SoCalGas anticipates increasing mitigation programs to be implemented within this group which require additional staffing and resources. An average or linear trend could not account for anticipated growth in the activities for this cost category.

1                   **2.       Cost Drivers**

2                   The key cost driver behind this forecast is to help mitigate risk. The better prepared  
3 SoCalGas is, the better SoCalGas can reduce and/or mitigate the impacts, costs, and recovery  
4 times following an incident. SoCalGas recognizes it is an integral part of the community across  
5 Southern California, and its commitment to preparedness directly contributes to overall safety,  
6 resilience, and risk reduction of its employees, contractors, customers, infrastructure, and  
7 surrounding communities. The projects and programs listed above that EM is looking to  
8 implement and/or enhance are in alignment with the five mission areas of the National  
9 Preparedness Goal: Prevent and Protect, Prepare, Respond, Recovery, and Enabling  
10 Technologies.

11                  While SoCalGas’s EM has implemented controls to meet the objectives outlined by the  
12 National Preparedness Goals, SoCalGas continues to look for opportunities to take proactive  
13 action by making enhancements in key areas. As an example, while conducting an AAR, an  
14 opportunity was identified for enhancements to the ICS training. The training will be designed  
15 to cover the material that the emergency responders would need to build the skill set that will  
16 make them successful in the management of an emergency incident where the Emergency  
17 Operations Center is activated or to serve their on-call responsibilities and duties. The training is  
18 tailored to eleven ICS role specific positions, including the following: Incident Commander,  
19 Legal Officer, Corporate Security Officer, Human Resource Officer, Public Information Officer,  
20 Safety Officer, Liaison Officer, Operations Sections, Planning Section, Logistics Section, and  
21 Finance Section. As this enhanced training will require dedicated resources to achieve the  
22 objectives of this initiative, EM seeks incremental funding to bring in these resources to meet the  
23 demand for additional development, coordination, and conducting training sessions.

24                  EM is also seeking incremental funding for the expansion of the Watch Office. EM has  
25 implemented a 24 hour/7 day a week schedule to proactively monitor for potential emergency  
26 incidents within the service territory. SoCalGas is required to make reportability on incidents  
27 that meet triggers for agencies such as California Governor's Office of Emergency Services  
28 (CalOES), Certified Unified Program Agency (CUPA), CPUC, DOT, etc., in a timely manner to  
29 avoid penalties. The Watch Office provides real-time data monitoring to increase situational  
30 awareness of hazards, makes agency reportability as necessary, and provides predictive analytics  
31 capabilities to help anticipate where a future disruption may arise. This capability allows

1 SoCalGas to address potential risks before they happen and to take a forward-leaning posture in  
 2 emergency response. To expand upon current capabilities, EM is requesting incremental funding  
 3 associated to the maintenance and repair of its mobile command centers. This will enhance the  
 4 Company’s disaster response communication capabilities, and thus facilitate critical  
 5 communication that will organize resources to address disasters.

6 EM is also seeking incremental funding for an additional resource to perform  
 7 responsibilities associated to regulatory reporting for lines of business under the CSO. With the  
 8 increase in regulatory reporting (RAMP, GRC, Safety Performance Metrics Report (SPMR),  
 9 Risk Spend Accountability Report (RSAR)) and monitoring, the SMS organization recognizes  
 10 the value in having a consistent method of approach and dedicated resources when compiling  
 11 regulatory filings.

12 EM is also requesting incremental vehicles for emergency support functions described  
 13 above under the Crisis Communication Technologies section. These vehicles will be used to  
 14 transport the Mobile Command Trailers to various locations as situations demand. The vehicle  
 15 resources can be found within the Fleet Services testimony of Mr. Franco (Ex. SCG-18).

16 **H. Technology and Analytics Group (TAG)**

17 Included in this section of my testimony are activities and associated O&M expenses to  
 18 address technology and analytics programs and duties. The Technology and Analytics Group  
 19 (TAG) includes two sub-groups under one cost center, the SMS Technology Advancement and  
 20 the Metrics and Analytics groups. The focus of TAG is to support the SMS organization by  
 21 using data and technology to identify key performance indicators and associated risk factors  
 22 from various data sources to maintain, promote, and enhance the efficiency and effectiveness of  
 23 SMS programs and initiatives. Additionally, TAG focuses on establishing and maintaining data  
 24 integrity and record-keeping programs and systems for the SMS organization. These activities  
 25 and expenses are summarized in Table NNM-18 below.

26 **TABLE NNM-18**  
 27 **Summary of Non-Shared O&M Technology & Analytics Costs**

<b>TECHNOLOGY &amp; ANALYTICS GROUP</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group Technology &amp; Analytics Group</b>	<b>BY 2021 Adjusted-Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2SM005.000	1,339	2,181	842

1                   **1.       Description of Costs and Activities**

2                   The TAG is an organization that supports various technology applications, internal and  
3 external, safety reporting, technology, analytics, and SMS programs and initiatives. The  
4 applications support EM, Safety Management, CI, and new technology and strategic initiatives.  
5 The current applications the group supports are the Safety Incident Management System (SIMS),  
6 Noggin, Walk Me, Alert Driving, Safety Observation and Reporting (SOAR), and the Safety  
7 Performance Management system. Future applications currently in development include On-  
8 Call, Predictive Safety Analytics applications, and the Environmental Health and Safety  
9 Management (EHSM) Program. The TAG supports tracking metrics, analysis, and reporting.  
10 Those metrics include key performance indicators used to measure the safety section of the  
11 employee Individual Compensation Plan (ICP). As an example, metrics include Lost Time  
12 Incidents (LTI), Safe Driving Program compliance, and year-end certification for ESCMP.

13                                   **a.       Technology and Systems**

14                   SIMS is an application used by all employees to record and track safety incidents,  
15 including OSHA employee injuries, motor vehicle incidents, stop the job, and near-miss. The  
16 application serves as a data repository for compliance reporting. The TAG serves as data  
17 administrators responsible for reporting, analysis, and user support.

18                   The SOAR application is used to report non-emergency safety observations for  
19 employees and contractors. Safety observations are suggestions used to improve processes and  
20 can be submitted anonymously. The TAG supports system maintenance, training, stakeholder  
21 engagement, and system enhancements to various data management systems, safety dashboards,  
22 and compliance reporting. In addition to administering the various applications, the group is  
23 responsible for access controls, training, contract management, vendor management, reporting,  
24 system configuration, and enhancements.

25                                   **b.       Metrics and Analytics**

26                   In addition to the applications that the TAG supports, the department is responsible for  
27 employee safety reporting and analytics. Reports include day-to-day employee operational  
28 safety data provided to internal and external clients as well as annual safety compliance  
29 reporting. Analytics processes include dashboards for employees, contractors, and safety data  
30 for the CI group. New initiatives include report automation and identifying and implementing  
31 report synergies. The department also supports reporting and technology enhancements for

1 contractor safety. The TAG manages the safety aspect of the year-end certification process for  
2 the ESCMP, which is further discussed in the Safety Management section of my testimony.  
3 Another essential function that the TAG supports is the Key Performance Indicators  
4 (KPI) analysis and governance. This includes data validation and trend analysis to measure the  
5 effectiveness of the safety programs and risk management.

6 **c. RAMP Activities**

7 RAMP-related costs for the TAG include the costs for the following activities: (1)  
8 Pipeline Safety & Compliance Oversight, (2) Continuous Improvement and Quality Assurance,  
9 (3) Technology and Analytics, (4) Safe Driving Programs, and (5) Emergency Management  
10 Technology. These activities, which were identified in Table NNM-4 in Section III (Risk  
11 Assessment Mitigation Phase (RAMP Integration), are discussed further below.

12 **Pipeline Safety & Compliance Oversight/Emergency Management Technology**

13 Noggin and Walk Me are applications used for EM and consist of two platforms. The  
14 Incident Management System (IMS) and the Situational Management Platform (SMP). IMS is  
15 used for incident management, including incident communications via Message Center Report  
16 (MCR). SMP provides centralized technology for communications, tracking, and reporting  
17 emergency activations. The Walk Me application is an application that interfaces with Noggin  
18 used to support guided training for users. This platform provides tracking of day-to-day  
19 incidents for internal and external reporting purposes. IMS allows for creating a situation record,  
20 enabling departments with reporting responsibilities to store critical incident information such as  
21 Operations assessments, activation documents, and real-time integration with GIS for mapping  
22 incident locations. Noggin supports mission-critical functions of the EOC and gas operations.

23 Additionally, the TAG is developing a new On-Call Application to automate manual  
24 processes with a mobile capability for various business units and enhance emergency safety  
25 operations. The purpose of the application is to provide real-time visibility to EM and on-call  
26 personnel.

27 **Continuous Improvement and Quality Assurance**

28 In support of CI, the TAG develops and manages dashboards and reports for the Quality  
29 Risk & Compliance group. The Quality Risk & Compliance group conducts assessments, which  
30 provide independent and objective evaluations of the gas operations and construction processes.  
31 The TAG plans to partner with CI to enhance the Quality Risk & Compliance data collection tool

1 for office and field quality assessments. An electronic data collection tool will increase  
2 efficiency, accuracy, and data sharing capabilities. The data will be gathered and analyzed to  
3 identify trends or other insights that will provide information to monitor and enhance internal  
4 processes.

### 5 **Technology and Analytics**

6 The TAG maintains a process for the identification, collection, and analysis of data  
7 generated from operations and maintenance, integrity management, audits and evaluations,  
8 management reviews, and other relevant sources related to the suitability and effectiveness of the  
9 SMS. The TAG supports the administration, access controls, reporting, user support, and  
10 configuration of the Safety Performance Metrics System (SPM) used to collect safety metrics.  
11 SPM was built to support the CPUC Safety Performance Metrics Report (SPMR) and includes an  
12 approval and validation process to support data governance. In addition to SPMR metrics, the  
13 application serves as a centralized data repository for additional safety metrics, including KPI's  
14 which include elements of employee safety, contractor safety, pipeline safety, compliance, and  
15 damage prevention, all of which are part of the S-MAP metrics adopted in D.19-04-020.

16 The Predictive Safety Analytics (PSA) system is a new application in development  
17 to support predictive safety analytics, initially for CMVIs. The application will provide insights  
18 to proactively coach employees on preventing motor vehicle incidents. The analytic insights will  
19 also support safety training initiatives, trends, and predictions.

20 The TAG, with support from Pipeline Safety Oversight (PSO), will implement a  
21 centralized incident evaluation and analysis database, which will allow for enhancements for the  
22 tracking and identification of the cause(s) of an incident and any contributing factors, including  
23 consideration of potential consequences, and corrective action to prevent a recurrence. Incident  
24 investigation and evaluation, lessons learned, including learning from past events, are  
25 communicated to stakeholders. The TAG supports vendor management, administration, access  
26 controls, reporting, user support, and configuration of safety applications.

### 27 **Safe Driving Programs**

28 As described in the Safety Management section of my testimony, SoCalGas utilizes a  
29 web-based, online Safe Driving Program. While the Safety Management department supports  
30 the program management aspect of the Safe Driving Program, the TAG supports vendor

1 management, administration, access controls, reporting, user support, and configuration of safety  
 2 applications.

3 Table NNM-19 below provides the RAMP activities, their respective cost forecasts, and  
 4 the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my  
 5 workpapers (Exhibit SCG-27-WP).

6 **TABLE NNM-19**  
 7 **RAMP Activities**

<b>TECHNOLOGY &amp; ANALYTICS</b>						
<b>RAMP Activity O&amp;M Forecasts by Workpaper</b>						
<b>In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2SM005.000	SCG-CFF-6 - 2	Pipeline Safety & Compliance Oversight	79	79	0	0.00
2SM005.000	SCG-CFF-6 - 3	Continuous Improvement and Quality Assurances	158	292	134	0.00
2SM005.000	SCG-CFF-6 - 4	Technology & Analytics	945	1,618	673	0.00
2SM005.000	SCG-CFF-6 - 11	Emergency Management Technology	79	79	0	0.00
2SM005.000	SCG-Risk-5 - C05	Safe Driving Programs	79	79	0	0.00

8 \* An RSE was not calculated for this activity.

9 **2. Forecast Method**

10 The forecast method developed for this cost category to labor and non-labor expense is  
 11 the base year method because this forecasting methodology serves to represent this workgroup  
 12 growth and historical spend more accurately. Incremental adjustments will focus a greater  
 13 emphasis on enhancing various quality management and safety data-related reporting & analytics  
 14 dashboards. Therefore, SoCalGas anticipates increasing mitigation programs to be implemented  
 15 within this group which require additional staffing and resources. An average or linear trend  
 16 could not account for anticipated growth in the activities for this cost category.



1                   **3. Cost Drivers**

2                   The TAG cost drivers include licensing and maintenance costs for safety applications.  
3 The TAG is requesting incremental funding for the addition of seven full-time equivalents  
4 (FTEs). With the growing presence of analysis, safety reporting, and technology to improve  
5 efficiencies within the SMS organization, the group's size is also expected to grow to support and  
6 enhance the new activities being performed. With the additional funding, the TAG plans to build  
7 a comprehensive, centralized safety reporting group that supports the SMS organization,  
8 operational business units, and the Company's safety culture. SoCalGas's current safety  
9 reporting capabilities are limited due to data housed in various systems. Additional resources  
10 will support making data connections in a centralized database that will allow for automated  
11 analysis and reporting. Cost drivers are internally identified enhancements to information  
12 systems and business processes that continue to build the Company's risk-based decision-making  
13 capabilities. They also include changes resulting from the Commission's Safety Model  
14 Assessment Proceeding (S-MAP).<sup>22</sup>

15                  SoCalGas recognizes the importance of making data-driven decisions to improve  
16 SoCalGas's safety and training programs for its employees and contractors. One of the key  
17 drivers of the incremental funding the TAG is requesting is to support enhancements to data  
18 analytics, data governance, and KPI assessments. Increasing current data analytics capabilities  
19 will support various departments, both internal and external to the SMS organization, and  
20 provide new data insights to support current programs.

21                  The incremental funding requested will also allow for user support, reporting, and data  
22 analysis of new systems in development. The TAG will support users with troubleshooting,  
23 reporting, and training in alignment with current safety applications. In addition, the TAG will  
24 continue to support access controls, analysis, and data governance. New applications include  
25 Predictive Safety Analytics (PSA), On-Call application, and enhancements to the Safety  
26 Performance Metrics (SPM) system and Noggin. PSA is an application that will provide  
27 employee driving risk scores. The analytics model will provide data-driven insights to  
28 supervisors. Supervisors will use the information to coach and train employees based on the  
29 employees' driving risk scores. The On-Call application and enhancements to Noggin will

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<sup>22</sup> D.14.12.025.

1 support EM. The On-Call application will automate the current manual process of creating  
 2 rosters of on-call personnel and will have mobile capabilities with current updated data. Noggin  
 3 enhancements will require additional support from the TAG to develop new business processes,  
 4 enhance reporting, and create new dashboards. The TAG understands the need to evaluate  
 5 current systems and enhance technology to operate more efficiently. The incremental funding  
 6 requested will support technology enhancements and new analytics to continuously improve  
 7 processes.

8 **VI. SHARED COSTS**

9 As described in the Shared Services Billing, Shared Assets Billing, Segmentation, &  
 10 Capital Reassignments testimony of Angel N. Le and Paul D. Malin (Ex. SCG-30/SDG&E-34),  
 11 Shared Services are activities performed by a utility shared services department (*i.e.*, functional  
 12 area) for the benefit of: (i) SDG&E or SoCalGas, (ii) Sempra Energy Corporate Center, and/or  
 13 (iii) any affiliate subsidiaries. The utility providing Shared Services allocates and bills incurred  
 14 costs to the entity or entities receiving those services.

15 Table NNM-20 summarizes the total shared O&M forecasts for the listed cost categories.

16 **TABLE NNM-20**  
 17 **Shared O&M Summary of Costs**

<b>SAFETY MANAGEMENT SYSTEMS – SHARED</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Incurred Costs (100% Level)</b>	<b>2021 Adjusted-Recorded</b>	<b>TY2024 Estimated</b>	<b>Change</b>
A. Pipeline Safety & Compliance	<b>882</b>	<b>1,010</b>	<b>128</b>
B. Pipeline Safety Oversight	<b>627</b>	<b>845</b>	<b>218</b>
C. Compliance Assurance	<b>399</b>	<b>530</b>	<b>131</b>
<b>Total Shared Services (Incurred)</b>	<b>1,908</b>	<b>2,385</b>	<b>477</b>

18 I am sponsoring the forecasts on a total incurred basis, as well as the shared services  
 19 allocation percentages related to these costs. These percentages are presented in my shared  
 20 services workpapers, along with a description explaining the activities being allocated (Exhibit  
 21 SCG-27-WP). The dollar amounts allocated to affiliates are presented in Ms. Le’s and Mr.  
 22 Malin’s testimony (Exhibit SCG-30/SDG&E-34).

23 **A. Pipeline Safety and Compliance (Cost Center 2200-2473)**

24 Included in this section of my testimony are activities and associated O&M expenses to  
 25 address Pipeline Safety and Compliance programs and duties which are shared. These activities  
 26 and expenses are summarized in Table NNM-21 below.

**TABLE NNM-21**  
**Shared O&M Pipeline Safety and Compliance Summary of Costs**

<b>PIPELINE SAFETY AND COMPLIANCE</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	BY 2021 Adjusted- Recorded	TY 2024 Estimated	Change
2200-2473.000 Pipeline Safety and Compliance	882	1,010	128

**1. Description of Costs and Activities**

The Pipeline Safety and Compliance (PS&C) department is the lead for CPUC Safety & Enforcement Division (SED) audits, inspections, investigations, communications, and other inquiries. PS&C serves as a centralized gas compliance information center for SoCalGas in collecting, reporting, trending, assessing, analyzing, investigating, communicating, and providing process improvement guidance for pipeline safety and compliance related issues. A fundamental tenet of PS&C is to fully meet the requirements set by PHMSA and the CPUC.

**a. RAMP Activities**

RAMP-related costs for PS&C include the costs for the following activities: (1) Pipeline Safety & Compliance Oversight and (2) Pipeline Safety Self Assessments. These activities, which were identified in Table NNM-4 in Section III (Risk Assessment Mitigation Phase (RAMP Integration)), are discussed further below.

**Pipeline Safety & Compliance Oversight**

The PS&C department is located within the SMS organization and acts as the intermediary to state and federal regulatory agencies and divisions, including the CPUC, SED, PHMSA, CalFire (Dig Safe Board), and CalGEM. The PS&C department is the primary point of contact to those agencies in audits, inspections, and investigations and provides the groundwork for related compliance reporting as well as continuous improvement opportunities resulting from regulatory agency interaction activities described below.

**Incident Monitoring and Reporting**

The PS&C department monitors incidents 24 hours a day, 365 days a year through MCRs for both SoCalGas and the gas operations of SDG&E and then reports those incidents to the appropriate agencies<sup>23</sup> based on the guidelines mandated by Code of Federal Regulations, Title

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<sup>23</sup> Appropriate agencies include the Safety Enforcement Division (SED) of the CPUC, PHMSA, and the Underground Safety Board

1 49, Part 191, Sections 191.1, 191.7, 191.23, and 191.25 and the PHMSA Incidents defined and  
2 mandated by General Order (GO) 112-F.<sup>24</sup> Each reported incident to PHMSA and the CPUC  
3 may have multiple follow-up reports provided to those agencies upon request.

#### 4 **Self-Identified Violation Reporting**

5 Commission decision, D.16-09-055,<sup>25</sup> related to Natural Gas and Electric Safety Citation  
6 Programs, made reporting of certain self-identified violations voluntary and others mandatory.  
7 The PS&C department supports internal operations organizations with addressing and reporting  
8 all items covered by this program.

#### 9 **Other PS&C Reports to CPUC & PHMSA/DOT**

10 The PS&C department is responsible for submitting various other mandated reports such  
11 as the CPUC Quarterly Report, DOT annual Reports, Notice of Construction Reports, CPUC  
12 Customer Complaint Responses, Safety Related Condition Reports, and Pressure Test Failure  
13 Reports.

#### 14 **PS&C Audit, Notice of Probable Violation (NOPV) and Data Request Response Platform**

15 Design and implementation of the PS&C Response Platform for use across both  
16 SoCalGas and SDG&E was completed in Q3, 2021. The application is designed to help the  
17 PS&C department, assigned Responsible Persons (RPs), Directors, Legal, and impacted  
18 Executives to efficiently respond to audit, NOPV letters, and data requests. The application has  
19 streamlined the process of review and approval for responses to the regulatory agencies, within  
20 the required timeframe, thus enhancing the enterprise Safety Values.

#### 21 **Regulatory Audits and Inspections**

22 Each year, the CPUC conducts audits of operations districts, areas, and storage fields,  
23 along with other specialized audits on programs such and Drug and Alcohol, Operator  
24 Qualifications, EM, Control Room Management, Integrity Programs, and other programs. In  
25 2018, the CPUC reorganized and created a new division called the “Regional Division” with the  
26 intent to focus on gas utility construction projects throughout the state. The CPUC construction  
27 inspections may involve reviewing work plans, checking worker knowledge and competence

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<sup>24</sup> CPUC, General Order No. 112-F, subpart 124.

<sup>25</sup> D.16-09-055; see also R.14-05-013, Order Instituting Rulemaking on the Commission's Natural Gas and Electric Safety Citation Programs.

1 through Operator Qualification evaluation, checking that the correct procedures are being used  
 2 and that the crew is following the procedures, witnessing welding or fusing of pipe, and  
 3 witnessing pressure tests and proper backfilling. Audits are also conducted by CalGEM. The  
 4 PS&C department supports all internal stakeholders during these audits for compliance with Title  
 5 49 of the Code of Federal Regulations and GO No. 112-F.

6 **Pipeline Safety Self Assessments**

7 PS&C has implemented a new self-assessment program focusing on pipeline safety  
 8 compliance. The program includes internal field inspections for operations groups and  
 9 specialized programs to review compliance items in a proactive manner. Under this program, the  
 10 PS&C department performs assessments by observing activities such as odor intensity tests, leak  
 11 surveys, pipeline patrols, Cathodic Protection (CP) and Measurement & Regulation (M&R)  
 12 inspections, amongst many other inspection types, with the qualified employees. This is to  
 13 verify the employee’s knowledge and understanding and increase their comfort level while  
 14 completing tasks in front of an audience of assessors who are attempting to proactively identify  
 15 and mitigate hazards, risks, and safety incidents. Utilizing the PDCA tool, this program is  
 16 designed to reveal and mitigate risks in a proactive manner to continue to improve SoCalGas’s  
 17 pipeline safety performance for compliance with Title 49 of the Code of Federal Regulations and  
 18 GO112-F.

19 Table NNM-22 below provides the RAMP activities, their respective cost forecasts, and  
 20 the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my  
 21 workpapers (Exhibit SCG-27-WP).

22 **TABLE NNM-22**  
 23 **RAMP Activities**

<b>PIPELINE SAFETY &amp; COMPLIANCE</b>						
<b>RAMP Activity O&amp;M Forecasts by Workpaper</b>						
<b>In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2200-2473.000	SCG-CFF-6 - 2	Pipeline Safety & Compliance Oversight	441	534	93	0.00
2200-2473.000	SCG-CFF-6 - 8	Pipeline Safety Self-Assessment	441	476	35	0.00

24 \* An RSE was not calculated for this activity.

1                   **2. Forecast Method**

2                   The forecast method developed for this cost category to labor and non-labor expense is  
3 the base year method because this forecasting methodology serves to more accurately represent  
4 this workgroup given the significant increase in Commission oversight. Therefore, SoCalGas  
5 anticipates increasing mitigation programs to be implemented within this group and require  
6 additional staffing and resources. An average or linear trend could not account for anticipated  
7 growth in the activities for this cost category.

8                   **3. Cost Drivers**

9                   The key cost driver behind this forecast is the increase in the number and complexity of  
10 non-audit related construction field visits, data requests, incident investigations, and discussions  
11 of best practices initiated by the CPUC. The inception of the PS&C internal self-assessment  
12 program is a secondary cost driver, as multiple resources will be utilized over the course of every  
13 year. This program will be fully implemented in 2022.

14                   **B. Pipeline Safety Oversight (Cost Center 2200-2251)**

15                   Included in this section of my testimony are activities and associated O&M expenses to  
16 address Pipeline Safety Oversight programs and duties which are shared. These activities and  
17 expenses are summarized in Table NNM-23 below.

18                   **TABLE NNM-23**  
19                   **Shared O&M Pipeline Safety Oversight Summary of Costs**

<b>PIPELINE SAFETY OVERSIGHT</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	<b>BY 2021 Adjusted-Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2200-2551.000	627	845	218

20                   **1. Description of Costs and Activities**

21                   The PSO department pursues continuous improvement on incident investigation and  
22 evaluations by providing objective analysis, identifying opportunities, and tracking mitigations  
23 that lead to enterprise process improvements and minimize the possibility of recurrence. This  
24 department’s incident evaluation process follows a structured process for consistent, integrated,  
25 and comprehensive guidelines all to help make sure that corrective actions are completed. This  
26 department also conducts effectiveness reviews to gauge the corrective actions for achieving  
27 their intended purpose for risk assessment and continuous improvement.

1 The Compliance Improvement Oversight Process (CIOP) group is a sub-group of the  
2 PSO department. The CIOP group is responsible for coordinating and tracking the corrective  
3 action items through its completion. These action items result from the Incident Evaluations  
4 Process (IEP) corrective actions, compliance audits, field inspections, gas incidents, and safety  
5 citations programs, among others. The CIOP group is responsible for leading and supporting the  
6 effectiveness reviews and lessons learned sharing and documentation.

7 **a. RAMP Activities**

8 RAMP-related costs for PSO include the costs for the following activities: (1) Pipeline  
9 Safety & Compliance Oversight, (2) Continuous Improvement & Quality Assurance, and (3)  
10 Develop Incident Evaluation Central Database & Further Enhance Casual Analysis Training.  
11 These activities, which were identified in Table NNM-4 in Section III (Risk Assessment  
12 Mitigation Phase (RAMP Integration), are discussed further below.

13 **Pipeline Safety & Compliance Oversight**

14 The PS&C department acts as the primary intermediary to state and federal regulatory  
15 agencies, and divisions therein, including the CPUC, SED, PHMSA, CalFire, and CalGEM. The  
16 PSO department collaborates with PS&C and other stakeholders on action items from the  
17 regulator's audits, inspections, and investigations. PSO's role is to track and follow up on these  
18 items through to completion, which includes the following three focus areas:

19 **2. Monitoring CPUC and PHMSA/DOT Regulations**

20 The PSO department works closely with internal stakeholders to monitor changes and  
21 updates to regulations that can have an impact on the management of safety program(s).  
22 Additionally, PSO is responsible for monitoring National Transportation Safety Board (NTSB)  
23 pipeline accident reports, pipeline investigations, and safety recommendations as lessons learned  
24 opportunities. SoCalGas has a process for learning and identifying improvement opportunities  
25 from external gas infrastructure safety incidents. This process includes tracking and sharing  
26 pipeline safety-related incidents that occur across the nation and updates on findings and  
27 recommendations for improvements.

28 **3. Incident Monitoring and Reporting**

29 The PSO department monitors incidents through MCRs for both SoCalGas and the gas  
30 operations of SDG&E. While the PS&C department is responsible for the reporting of certain  
31 incidents, as defined by Title 49 of the Code of Federal Regulations and GO No. 112F, the PSO

1 department is responsible for incident investigation that is conducted and documented for the  
2 incident. During the incident investigations, PSO documents and tracks all corrective actions  
3 identified and works with the impacted stakeholders to follow up on implementation of said  
4 actions.

#### 5 **4. Regulatory Audits and Inspections**

6 Each year, the CPUC conducts compliance audits, construction inspections and incident  
7 investigations which can result in findings of NOPVs, concerns, recommendations, or directives.  
8 PSO plays an important role in documenting, tracking, and monitoring the corrective actions  
9 which result from the findings. This is done in collaboration with other impacted stakeholders in  
10 order to collectively determine the best strategy for implementation of corrective action items  
11 identified. The PSO department oversees these items through to implementation.

12 Develop Incident Evaluation Central Database & Further Enhance Causal Analysis  
13 Training for pipeline safety incidents involving operations, SoCalGas established the Incident  
14 Evaluation Process (IEP) to identify gaps in processes and procedures from a systematic  
15 perspective and provide recommendations through corrective actions that lead to enterprise-wide  
16 process improvements. The IEP is one of the core functions of the PSO department and is an  
17 integral part of SoCalGas's continuous improvement. The IEP strives to produce a consistent,  
18 structured process for a causation analysis on specific events that may have impacts to the safety,  
19 integrity, or reliability of the natural gas pipeline system. The lessons learned from the incident  
20 evaluation enables SoCalGas to strengthen policies and procedures and to mitigate risk.

#### 21 **Incident Lessons Learned/Effectiveness Review**

22 Lessons learned and Effectiveness Reviews are key components of an organizational  
23 culture committed to continuous improvement and risk management review. The lessons learned  
24 process flow is comprised of defining the objective, collecting the information, verifying  
25 applicability, storing the information, and disseminating the outcome. The PSO manages the  
26 lessons learned that come from the IEP which are then shared to the impacted organizations and  
27 those that can benefit. Lessons learned identified in corrective actions are periodically evaluated  
28 and reviewed for the effectiveness of the implemented procedures and processes. The  
29 effectiveness review is conducted to review potential consequences and opportunities on  
30 significant events to see if there are patterns or trends related to the corrective action items.



**Investigation of Accidents and Pipeline Failures**

In alignment with Title 49, C.F.R. Section 192.617 (“Investigation of Failures”), PSO provides guidance and governance to Operation's investigation of accidents and pipeline failures, in order to determine the cause(s) of the failure and mitigation from reoccurrence.

**Natural Gas Safety Citation Program Self-Reported Possible Violation and Response to CPUC SED Citation**

PSO has responsibilities to facilitate the response to safety citations and to track the completion of corrective actions identified through the Natural Gas Safety Citation Program and for self-identified potential safety violations to the CPUC SED are mitigated, executed and/or implemented.

Table NNM-24 below provides the RAMP activities, their respective cost forecasts, and the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my workpapers (Exhibit SCG-27-WP).

**TABLE NNM-24  
RAMP Activities**

<b>PIPELINE SAFETY OVERSIGHT RAMP Activity O&amp;M Forecasts by Workpaper In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2200-2551.000	SCG-CFF-6 - 2	Pipeline Safety & Compliance Oversight	209	311	102	0.00
2200-2551.000	SCG-CFF-6 - 3	Continuous Improvement and Quality Assurance	209	209	0	0.00
2200-2551.000	SCG-CFF-6 - 5	Develop Incident Evaluation Central Database and Further Enhance Causal Analysis Training	209	325	116	0.00

\* An RSE was not calculated for this activity.

1                   **5. Forecast Method**

2                   The forecast method developed for this cost category to labor and non-labor expense is  
3 the base year method because this forecasting methodology serves to represent this workgroup  
4 growth and historical spend more accurately. Incremental adjustments will focus on a continued  
5 emphasis to support Title 49, C.F.R. Section 192.617 requirements through planned  
6 enhancements of incident investigations, evaluations and lessons learned across the company.  
7 Therefore, SoCalGas anticipates increasing mitigation programs to be implemented within this  
8 group and require additional staffing and resources. An average or linear trend could not account  
9 for anticipated growth in the activities for this cost category.

10                   **6. Cost Drivers**

11                   The cost drivers for incremental funding for the PSO department are related to the  
12 development of an incident evaluation central database, as discussed in the TAG section of my  
13 testimony, and to further enhance causal analysis training. PSO and the TAG will implement a  
14 centralized incident evaluation and analysis database, which will allow for enhancements for the  
15 tracking and identification of the cause(s) of an incident and any contributing factors including  
16 consideration of potential consequences, and corrective action to prevent reoccurrence. Incident  
17 investigation and evaluation and lessons learned, including learning from past events, are  
18 communicated to internal and external stakeholders and the records of the investigation and  
19 resulting actions maintained for possible use in subsequent risk assessments.

20                   Additionally, the PSO department will implement root cause analysis training to promote  
21 effective solutions for consistency across the Company. In order to implement this, PSO is  
22 seeking incremental funding in order to be certified as a train-the-trainer instructor. The selected  
23 attendees must complete the 5-Day Systematic Root Cause Analysis Team Leader training, in  
24 addition to the 3-Day Systematic Root Cause Analysis train-the-trainer program. This will then  
25 allow the PSO train-the-trainer attendees to train additional SoCalGas employees on the root  
26 cause analysis program.

27                   PSO is also seeking incremental funding for enhanced reporting capabilities in the CIOP  
28 group. CIOP is responsible for coordinating and tracking across departments the corrective  
29 actions in response to reports on compliance audits, construction inspections, and incident  
30 investigations, among others, through completion.

1 **C. Compliance Assurance (Cost Center 2200-2409)**

2 Included in this section of my testimony are activities and associated O&M expenses to  
3 address Compliance Assurance programs and duties which are shared. These activities and  
4 expenses are summarized in Table NNM-25 below.

5 **TABLE NNM-25**  
6 **Shared O&M Compliance Assurance Summary of Costs**

<b>COMPLIANCE ASSURANCE</b>			
<b>In 2021 \$ (in 000s)</b>			
<b>Workpaper Group</b>	<b>BY 2021 Adjusted- Recorded</b>	<b>TY 2024 Estimated</b>	<b>Change</b>
2200-2409.000	399	530	131

7 **1. Description of Costs and Activities**

8 The Compliance Assurance (CA) department supports the data accuracy of maintenance  
9 and inspection records for Gas Distribution on behalf of SoCalGas and SDG&E, which also  
10 contributes to overall records management. Specifically, this department creates data validation  
11 tools to identify missing or incorrect information.

12 In support of data accuracy and consistency, the CA department develops and manages  
13 SAP (Systems, Applications, and Products) custom user interfaces used by five Distribution  
14 organizations (Gas Distribution Operations, Field Operation Supervisors, Leakage Clerical and  
15 Supervisor, System Protection Clerical and Supervisors, District Operations Clerks, and  
16 Dispatch). These custom user interfaces provide the users with standardized methods of  
17 managing Gas Distribution assets maintained in SAP as well as order management for those  
18 assets. These custom user interfaces have validations built in to promote data accuracy and  
19 reduce the amount of training required for the Distribution organizations. The CA department  
20 partners with the user community to document that required enhancements are shared with Work  
21 Management and Field Technology for implementation of enhancements by SAP IT. The  
22 department is responsible for performing thorough testing to verify enhancements are  
23 implemented per requirements and without defects and provides training and support to the end  
24 users.

25 The CA department provides both routine and ad-hoc data support for many special  
26 projects, including those within the SB 1371 Emissions Strategy Program (ESP) discussed in the  
27 Gas Distribution testimony of Mr. Aguirre (Ex. SCG-04), the leak abatement and Electronic  
28 Leak Survey project team discussed in the Gas System Staff Technology testimony of Mr. Rawls

1 (Ex. SCG-05), the Aerial Leak Survey project discussed in the Gas Engineering testimony of Ms.  
2 Martinez (Ex. SCG-07), and as needed for Gas Distribution Managers and Directors. The CA  
3 department is responsible for providing final audit reports to the CPUC, demonstrating that the  
4 Gas Distribution organizations are in compliance with the maintenance of those assets. The CA  
5 department also supports the Leak Survey Levelization project being implemented so that all  
6 SoCalGas Gas Distribution districts have a consistent level of leak survey footage scheduled  
7 throughout all twelve months of the year, which provides a consistent scheduling methodology  
8 for Leak Survey activities throughout the entire year.

9 **a. RAMP Activities**

10 RAMP-related costs for CA include the costs for the following activities: (1) Expand  
11 Compliance Assurance Program. These activities, which were identified in Table NNM-4 in  
12 Section III (Risk Assessment Mitigation Phase (RAMP Integration)), are discussed further below.

13 **Expand Compliance Assurance Program**

14 The CA department plans to expand operational asset and data monitoring to identify and  
15 mitigate risks associated with data accuracy so that the Company remains compliant per Gas  
16 Standards and the Federal Code of Regulations. SoCalGas anticipates a need to expand the  
17 capability to:

18 (1) Automate all maintenance planning activities for Gas Distribution asset types. The  
19 automation of maintenance planning activities will reduce the risk of missed mandated  
20 compliance inspections by confirming that gas distribution assets are assigned to proper  
21 maintenance plans for the generation of inspection orders. Automation eliminates the possibility  
22 of errors in the assignment of assets to plans.

23 (2) Implement new and enhance existing Inspection Forecasting reports for all Gas  
24 Distribution asset types. The Inspection forecasting reports are used for business workforce  
25 planning and annual budgeting. Also, these reports will enable the business units to confirm that  
26 assets are scheduled for inspections based on mandated timeframes.

27 (3) Produce new asset exception reports to identify potential data concerns. The creation  
28 of additional exception reports will provide a means to identify potential data concerns related to  
29 gas distribution assets which will enable the business units to address those concerns to promote  
30 compliance.

(4) Create new custom user interfaces in asset management system for additional user groups. The creation of the additional custom user interfaces to manage gas distribution M&I assets and orders aims to eliminate errors and standardize processes for departments. Errors encountered by users updating the information directly in SAP without the types of validation built into the customer user interfaces raises the risk of noncompliance.

Table NNM-26 below provides the RAMP activities, their respective cost forecasts, and the RSEs for this workpaper. For additional details on these RAMP activities, please refer to my workpapers (Exhibit SCG-27-WP).

**TABLE NNM-26  
RAMP Activities**

<b>COMPLIANCE ASSURANCE RAMP Activity O&amp;M Forecasts by Workpaper In 2021 \$ (in 000s)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs</b>	<b>TY2024 Estimated Total</b>	<b>TY2024 Estimated Incremental</b>	<b>GRC RSE*</b>
2200-2409.000	SCG-CFF-6 - 7	Expand Compliance Assurance Program	399	530	131	0.00

\* An RSE was not calculated for this activity.

**2. Forecast Method**

The forecast method developed for this cost category to labor and non-labor expense is the base year method because this forecasting methodology serves to represent this workgroup growth and historical spend more accurately. Incremental adjustments will focus a greater emphasis to support enhancements to the Compliance Assurance Program activities and remain compliant per Gas Standards and the Federal Code of Regulations (49 C.F.R., Part 192). Therefore, SoCalGas anticipates increasing mitigation programs to be implemented within this group and require additional staffing and resources. An average or linear trend could not account for anticipated growth in the activities for this cost category.

1 **3. Cost Drivers**

2 CA is seeking incremental funding to expand operational assets and data monitoring, to  
3 continue to identify and mitigate compliance data accuracy risks so that the company remains  
4 compliant per Gas Standards and the Federal Code of Regulations (49 C.F.R., Part 192). CA is  
5 seeking incremental funding and anticipates a need to increase the capability to:

- 6 (1) Automate all maintenance planning activities for Gas Distribution asset types;  
7 (2) Implement new and enhance existing Inspection Forecasting reports for all Gas  
8 Distribution asset types;  
9 (3) Produce new asset exception reports to identify potential data concerns; and  
10 (4) Create new custom user interfaces in asset management system for additional user  
11 groups.

12 **VII. CAPITAL**

13 Capital costs for the forecast years 2022, 2023, and 2024 for Capital projects that support  
14 Safety and Risk Management initiatives, are sponsored by the following witness areas:

- 15 • Gas Transmission Operations & Construction: Rick Chiapa, Steve Hruby and  
16 Aaron Bell (Ex. SCG-06)  
17 • Pipeline Safety Enhancement Plan (PSEP): Bill Kostelnik (Ex. SCG-08)  
18 • Gas Distribution: Mario A. Aguirre (Ex. SCG-04)  
19 • Gas Integrity Management Programs: Amy Kitson and Travis Sera (Ex. SCG-09)  
20 • Information Technology: William J. Exon (Ex. SCG-21, Ch. 2)

21 The purpose of this section of my testimony is to describe the business rationale for these  
22 projects. Table NNM-27 summarizes the capital forecast for 2022, 2023, and 2024 for each of  
23 these projects.

24 **TABLE NNM-27**  
25 **Capital Summary Costs**

<b>CAPITAL PROJECTS</b> <b>(In 2021 \$, in 000s)</b>			
<b>Capital</b>	<b>Estimated 2022</b>	<b>Estimated 2023</b>	<b>Estimated TY2024</b>
<b>Noggin</b>	<b>2,919</b>	<b>2,739</b>	<b>1,261</b>
<b>EHSM (Phase 1)</b>	<b>2,424</b>	<b>0</b>	<b>0</b>
<b>EHSM (Phase 2)</b>	<b>6,826</b>	<b>6,173</b>	<b>7,177</b>
<b>CI and Quality Assurance</b>	<b>960</b>	<b>3,240</b>	<b>4,800</b>
<b>Total Capital</b>	<b>13,129</b>	<b>12,152</b>	<b>13,238</b>

1           **A.     Noggin**

2           To further expand the Company’s capabilities, SoCalGas intends to enhance the  
3 capabilities of the current Noggin OCA software to the latest Noggin 2.0 version. The system  
4 upgrade has a modern look and feel with enhanced performance. The enhancement will result in  
5 a multi-year system upgrade that will allow SoCalGas to digitize additional incident forms, build  
6 workflows, dashboards, and notifications to provide situational awareness and automated  
7 reporting functionalities to address business and compliance requirements. Reporting certain  
8 incidents is mandated by Title 49 of the Code of Federal Regulations to be reported to PHMSA.  
9 Incidents defined and mandated by GO No. 112-F are reported to the CPUC.

10           **B.     EHSM Phase I**

11           The purpose of EHSM is to centralize various existing applications into one common  
12 platform. The program will allow for centralized data with new reporting and analytical  
13 capabilities and support the current business processes with analysis and reporting resulting in  
14 information-based decisions. Leveraging the new SAP S/4 solution of the applications identified  
15 below will improve security vulnerabilities, decrease significant technology obsolescence, and  
16 redundancy. In addition, SoCalGas can eliminate duplicate legacy applications, reduce support  
17 costs, and deliver improvements in functionality and user satisfaction. There are siloed  
18 processes across different business units that can be consolidated onto an enterprise platform.  
19 Leveraging a single platform creates efficiencies and reduces the total cost of ownership. EHSM  
20 consists of Phase I, Environmental Health and Safety (EH&S), and Phase II, Environmental  
21 Health & Safety Management Modernization. Phase I includes ten applications – eight  
22 applications are shared between SoCalGas and SDG&E, one is an application that only benefits  
23 SoCalGas, and one is an application that only benefits SDG&E. These applications are further  
24 described below.

25           **Shared Applications:**

26           (1) Environmental Tracking System is an application used to track environmental project  
27 review, processing, and regulatory permit reporting.

28           (2) Industrial Hygiene is an application used to manage workplace sampling and  
29 exposure assessment of agents with predefined limits to protect workers’ health and safety and  
30 promote regulatory compliance.

1 (3) Near Miss is an application that allows employees to report a Near Miss, which is  
2 defined as an incident in which no property was damaged, and no personal injury was sustained,  
3 but where, given a slight shift in time or position, damage or injury easily could have occurred.

4 (4) Stop the Job is an application that allows employees to stop work when they  
5 encounter unsafe conditions, actions, or are unsure about a Gas Standard or how to correctly  
6 perform a job task that could potentially endanger themselves, employees, contractors,  
7 customers, the public, equipment, or facilities.

8 (5) Safety Incident Management System (SIMS) is an application that allows users to  
9 access one interface for reporting and managing all required data related to employee injuries  
10 and incidents and facility safety inspections. This application maintains compliance with policy  
11 requirements of both the Injury and Illness Prevention Program (IIPP) and the Environmental  
12 and Safety Compliance Management Program.

13 (6) Environmental and Safety Compliance Management Program (ESCMP) is an  
14 application to address compliance requirements, awareness, goals, monitoring, and verification  
15 related to all applicable environmental, health, and safety laws, rules and regulations, and  
16 company standards.

17 (7) Sempra Energy Product Approvals (SEPA) is an application to request approval of  
18 new products containing hazardous ingredients for use by Company employees.

19 (8) Asbestos Notification is a system used to notify employees of the presence of asbestos  
20 in their location.

21 **SoCalGas Only Application:**

22 (9) Ops Environmental is an application that tracks environmental compliance for  
23 SoCalGas. Ops Environmental provides workflow management for submitting, approving, and  
24 analyzing environmental data.

25 **SDG&E Only Application:**

26 (10) Ignition Management is a solution to manage Fire Ignition Events for SDG&E. Data  
27 Recorders will gather ignition and near ignition data from the field and provide it to the  
28 mitigation owners for follow-up actions and the ability to run analytics on data collected.

29 **C. EHSM Phase II**

30 Phase II is a continuation of the Environmental Health & Safety Management (EHSM)  
31 Program. Phase II includes 14 applications – eight applications are shared between SoCalGas



1 and SDG&E, two applications only benefit SoCalGas, and four applications only benefit  
2 SDG&E. These applications are further described below.

3 **Shared Applications:**

4 (1) SIF questionnaire reactive and proactive applications provide desktop and mobile  
5 solutions in SAP for SoCalGas to assess Serious Injury and Fatality (SIF) potential using  
6 questionnaires and decision logic tools.

7 (2) Safety Observation and Reporting (SOAR) is an application to report anonymous  
8 safety observations by any employee in SoCalGas or a contractor.

9 (3) Industrial Hygiene is an application to manage workplace sampling and exposure  
10 assessment of agents with predefined limits to protect workers' health and safety and promote  
11 regulatory compliance.

12 (4) Safety Observations / Field Audit Collection Tool (FACT) is an application to report  
13 various safety observations, including driving, job, ergonomics, and field observations. The  
14 primary intent of a safety observation tool is to observe personnel in the course of their job  
15 execution, recording safe or at-risk behaviors and interacting with the observed person for  
16 coaching opportunities to elicit awareness and behavioral change.

17 (5) Contractor safety incidents is an application to report safety incidents for SoCalGas  
18 and SDG&E contractors.

19 (6) Ergonomics is an application to report ergonomic observations for all employees.

20 (7) Notice of Violation is an application to allow the user to report the agency action,  
21 violation category, source, and the reason for action and the issuing agency, date and time of  
22 issuance, and penalties.

23 (8) Environmental Tracking System Release 2 are improvements to the Environmental  
24 Tracking System application.

25 **SoCalGas Only Applications:**

26 (9) Pipeline safety incidents: application to report and manage incidents related to  
27 pipeline safety and document investigation process, findings, root causes, and correct actions.

28 (10) Pipeline QA Assessments is an application to record inspection assessments  
29 completed in the field to evaluate compliance to gas pipeline standards.

1 **SDG&E Only Applications:**

2 (11) Fleet Maintenance is an online employee observation tool for the SDG&E Fleet to  
3 replace the existing paper method.

4 (12) SafetyNet and Fastfield are applications to report field safety observations.

5 (13) Behavior-Based Safety (BBS) Adaptive Solutions is an application to report  
6 behavior-based safety peer-to-peer observations.

7 (14) Ignition Management Release 2 is the Implementation of Evidence of Heat Form,  
8 Damage Assessment Form, and Outage Detail Form.

9 **D. CI and Quality Assurance**

10 Quality Management is committed to performing Quality Management Assessments with  
11 a holistic project view, with the intent of facilitating adherence to compliance, driving corrective  
12 actions, and promoting continuous improvement. The base for the quality assessments is the  
13 Quality Management Plan for Construction SP-1102.<sup>26</sup> It is the Standard Procedure which will  
14 be utilized as guidance for quality in the Construction Organization. The Quality Management  
15 Assessments will be performed to verify compliance with Gas Standards and procedures. The  
16 assessments areas are based off Gas Standard 192.0026 Records Management for High Pressure  
17 Project Closeout: High Pressure Projects Records Checklist. Assessments results will be  
18 analyzed, and trending data will be shared with all applicable organizations quarterly as a part of  
19 this program. The expansion of Quality Management into various new areas will bring the  
20 benefits identified in the Continuous Improvement section of my testimony with the expectation  
21 to improve the projects' ability to achieve final documentation that is Traceable, Verifiable, and  
22 Complete (TVC).

23 To perform the quality assessments, the Quality Management group utilizes company  
24 vehicles to visit active construction sites and other Company locations (i.e., Company  
25 Headquarters). To support the activities described above, Quality Management is requesting  
26 incremental vehicles which can be found within the Fleet Services testimony of Mr. Franco (Ex.  
27 SCG-18).

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<sup>26</sup> See Appendix D, Quality Management Plan for Construction SP-1102.

1 **VIII. CONCLUSION**

2 SoCalGas asks that the Commission approve the TY 2024 forecast of \$23.906 million for  
3 Safety & Risk Management Systems expenses, which is composed of \$21.521 million for non-  
4 shared service activities and \$2.385 million for shared service activities. Additionally, SoCalGas  
5 requests that the Commission adopt the IT capital projects presented in this testimony. Since the  
6 development of the SMS and Risk Management, as a non-shared service, in 2019, these  
7 organizations have carefully evaluated, considered, and expanded the existing programs within  
8 these organizations. The O&M forecasts have been thoughtfully developed and scrutinized to  
9 demonstrate prudent and transparent justification in the areas of Safety and Risk Management  
10 and should be approved by the Commission. This testimony incorporates strategies to continue  
11 to advance SoCalGas’s safety culture to fulfill SoCalGas’s commitment to provide safe and  
12 reliable service to its customers, contractors, the public and the gas system infrastructure.

13 This concludes my prepared direct testimony.

1 **IX. WITNESS QUALIFICATIONS**

2 My name is Neena N. Master, and I am currently employed by the Southern California  
3 Gas Company. My business address is 555 West Fifth Street, Los Angeles, CA, 90013. I  
4 presently hold the position of Director of Emergency Management. In this position I am  
5 responsible for providing strategic direction to plan for, respond to, and recover from incidents to  
6 protect our employees, the public, and the gas system infrastructure. I hold a Bachelor of  
7 Science degree in Business Administration from the University of Southern California. I also  
8 hold a Master of Business Administration from the Claremont Graduate University, Peter F.  
9 Drucker School of Management.

10 I have over 23 years of experience with a background in customer services, customer  
11 operations, community relations and pipeline safety. I have held numerous positions within the  
12 Company with increasing responsibility.

13 I have not testified previously before the Commission.

**APPENDIX A**  
**Glossary of Terms**

**APPENDIX A**  
**Glossary of Terms**

<b>Acronym</b>	<b>Definition</b>
AAR	After Action Reports
AGA	American Gas Association
API	American Petroleum Institute
AQI	Air Quality Index
ASC	Advisory Safety Council
ATR	Affiliate Transaction Rules
BY	Base Year
CalOES	California Governor's Office of Emergency Services
CA	Compliance Assurance
CAP	Corrective Action Program
CI	Continuous Improvement
CIOP	Compliance Improvement Oversight Process
CP	Cathodic Protection
CPUC	California Public Utilities Commission
COO	Chief Operations Officer
CSO	Chief Safety Officer
CUEA	California Utilities Emergency Association
CUPA	Certified Unified Program Agency
D&A	Drug and Alcohol
DIMP	Distribution Integrity Management Program
DOT	Department of Transportation
EAP	Emergency Action Plan
ECC	Enterprise Compliance Committee
EI	Energy Event Index
EIR	Emergency Incident Report
EHSM	Environment, Health & Safety Management
EM	Emergency Management
EOC	Emergency Operations Center
EP&R	Emergency Preparedness & Response
ERM	Enterprise Risk Management
ERT	Emergency Response Training
ESC	Executive Safety Council
ESCMP	Environmental and Safety Compliance Management Program
ESP	Emissions Strategy Program
FEMA	Federal Emergency Management Agency
FTE	Full-Time Employee
HPPR	High-Pressure Project Record
IAQ	Indoor Air Quality
ICS	Incident Command System
IEP	Incident Evaluation Process

<b>Acronym</b>	<b>Definition</b>
IH	Industrial Hygiene
IMS	Incident Management System
IOU	Investor-Owned Utility
ISO	International Standards Organization
IT	Information Technology
KPI	Key Performance Indicator
LTI	Lost Time Incident
MAA	Mutual Assistance Agreements
MAOP	Maximum Allowable Operating Pressure
MAVF	Multi-Attribute Value Framework
MCR	Message Center Reporting
M&R	Measurement and Regulation
MSAI	Meter Set Assembly Inspection
NIM	National Incident Management System
NTSB	National Transportation Safety Board
OHN	Occupational Health Nurse
OIR	Order to Institute Rulemaking
OSHA	Occupational Safety and Health Administration
OQ	Operator Qualification
PDCA	Plan-Do-Check-Act
PHSMA	Pipeline and Hazardous Materials Safety Administration
PPE	Personal Protective Equipment
PS&C	Pipeline Safety & Compliance
PSEP	Pipeline Safety Enhancement Plan
PSMS	Pipeline Safety Management Systems
pSIF	Potential Serious Injury or Fatality
QM	Quality Management
RAD	Risk and Accountability Department
RAMP	Risk Assessment Mitigation Phase
RMI	Repetitive Motion Injury
RP	Recommended Practice
RSE	Risk Spend Efficiency
SAP	Systems, Applications and Products
SED	Safety & Enforcement Division
SIF	Serious Injury & Fatality
S-MAP	Safety Model Assessment Proceeding
SMP	Situational Management Platform
SMS	Safety Management System
SPM	Safety Performance Metrics
SPMR	Safety Performance Metrics Report
TAG	Technology and Analytics Group
TIMP	Transmission Integrity Management Program
TVC	Traceable, Verified and Complete
TY	Test Year

<b>Acronym</b>	<b>Definition</b>
WRMAG	Western Regional Mutual Aid Group



**APPENDIX B**

**2021 Safety Management System Plan**



# 2021 SAFETY MANAGEMENT SYSTEM PLAN

*Our mission is to build the cleanest, safest and most innovative energy company in America.*



September 2021

NNM-B-1

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## CHAPTER 1: OVERVIEW

### A. INTRODUCTION

At Southern California Gas Company (SoCalGas), the safety of our employees, customers, contractors, and the communities we serve has been, and will remain, our core value. Our tradition of safety spans more than 150 years and is the foundation of our business.

As the nation's largest natural gas utility, we take our safety commitment very seriously.

***Our longstanding commitment to safety focuses on three primary areas – employee and contractor safety, customer and public safety, and the safety of our gas system. This safety focus is embedded in all we do and is the foundation for who we are – from initial employee training, to the installation, operation and maintenance of our utility infrastructure, and to our commitment to provide safe and reliable service to our customers.***

This safety commitment is further supported by our overarching goal of zero safety incidents. This means zero incidents involving employee injuries, contractor injuries, customer injuries, public injuries, or damage to our gas infrastructure as a result of our company activities and operations. SoCalGas is implementing its comprehensive Safety Management System with this commitment and goal in mind.

We strive to continuously improve and strengthen our safety performance by setting clear, measurable goals, assessing our safety performance, reviewing and questioning approaches and assumptions, integrating people and activities to promote a common approach to safety, and learning from and sharing best practices and lessons learned with our stakeholders, including our peers.

This safety commitment has guided SoCalGas' past and current success and will continue to guide our future direction.

### B. PLAN OVERVIEW

SoCalGas has a comprehensive set of safety plans, programs, and procedures in place that address specific infrastructure or activity areas. The intent of our Safety Management System (SMS) is to provide a framework that integrates and connects everything we do when it comes to safety in order to drive our progress towards our goal of zero safety incidents. In the hierarchy of SoCalGas documents that communicate our safety program, the Gas Safety Plan and the SMS Plan are the foundational documents.

The origin of our SMS began more than a decade ago when we established and implemented our Environmental and Safety Compliance Management Program (ESCMP). ESCMP is conceptually based on the International Standards Organization (ISO) 14001 Environmental Management Systems standard and includes safety components unique to SoCalGas. Similarly, SoCalGas' pipeline integrity management programs, which have been in place for two decades, are another form of safety management system, designed to oversee and continually enhance the integrity of SoCalGas' pipeline system.

Over the years, these companywide programs have been assessed, improved, and matured to drive continuous improvement. SoCalGas has taken this knowledge and experience to establish our SMS to further enhance our safe operations, strengthen our safety culture, and improve our overall safety

performance.

## C. OBJECTIVES

SoCalGas' SMS is unique because it takes a broad, holistic view of safety management. The SMS encompasses all aspects of safety relevant to SoCalGas' business, including employee safety, contractor safety, customer safety, public safety, and system safety. It applies to all SoCalGas assets and operations as well as to all employees, from senior management to those on the frontline.

The SMS is designed with the employee in-mind; so they are knowledgeable about SoCalGas' safety expectations, protocols, and procedures and can fully support a safety-focused culture. In addition, SoCalGas expects its construction contractors to adhere to SoCalGas' SMS when working on any SoCalGas project and encourages them to develop and implement their own safety management systems that are appropriate for their size of operations and circumstances.

We have several programs to gather employee and external stakeholder feedback, as well as methods and resources to report safety concerns and engage with SoCalGas leadership on safety matters. These programs, methods, and resources include Stop the Job authority, close call incident reporting, safety culture assessments, safety and health congresses as well as our public awareness program outreach that enable SoCalGas to incorporate stakeholder feedback and take action to address issues and enhance safety.

With a systematic approach to managing safety, our SMS is aimed at establishing accountability and includes an organizational structure, policies and procedures to support its implementation. It is comprehensive and iterative in nature, designed to identify, manage and reduce risks. Safety incidents, including serious injuries to employees, contractors, and the public are consequences we strive to eliminate through our SMS.

Our SMS emphasizes a proactive approach to planning. This includes identifying risk in a methodical manner by clarifying responsibilities for safety throughout the organization, emphasizing non-punitive reporting of safety concerns, providing safety assurance by regularly evaluating operations and SMS effectiveness in identifying and addressing risks, and fostering a culture of risk reduction and continuous improvement. As our SMS evolves, we continue to establish meaningful key performance indicators (KPIs) to drive and gauge improvements, and perform annual reviews with SoCalGas executives to further enhance the accountability of our SMS.

SoCalGas plans to continue to benchmark our practices against peer companies and the gas industry associations, as well as best practices in other industries.

Looking ahead, we continue to identify the potential impact of new and emerging regulations and lessons-learned and how addressing them can be systematically integrated into our SMS. SoCalGas will also continue to collaborate with the California Public Utilities Commission (CPUC) and other regulatory agencies to stay abreast of industry best practices and address future safety issues.

## CHAPTER 2: SOCALGAS SAFETY VALUES

SoCalGas’ SMS uses the “Plan-Do-Check-Act” cycle to drive continuous safety performance improvement. We take an integrated approach to improve and enhance safety through our people, policies, procedures, and programs.

Our SMS is deliberate and intentional, it provides a framework that connects everything we do when it comes to safety. SoCalGas continues to focus on integrating this plan into what our employees do every day. It is a living set of policies and documents that embodies our safety values.



Figure 1: SoCalGas Safety Values

The following SoCalGas Safety Values guide our SMS:

### 1. Leadership Commitment

SoCalGas leadership is fully committed to safety as a core value. SoCalGas’ Executive Leadership is responsible for overseeing reported safety concerns and promoting a strong, positive safety culture and an environment of trust that includes empowering employees to identify risks and to “Stop the Job.”

### 2. Risk Management

SoCalGas manages risk through a structured, increasingly data-driven approach that identifies threats and hazards, assesses and prioritizes risks, implements mitigation efforts, and engages in assessments and reviews to understand risk mitigation effectiveness.

### **3. Employee and Stakeholder Engagement**

SoCalGas encourages and expects employees to take ownership and actively engage in safety practices and openly share and receive information with one another, our contractors, and external stakeholders to continuously enhance our safety practices.

### **4. Competence, Awareness and Training**

SoCalGas is committed to providing employees the proper tools, resources, training, and oversight to promote safe operations. This includes training tailored to specific roles and educating employees on why our training, policies, and procedures are important to safety.

### **5. Emergency Preparedness and Response**

SoCalGas maintains readiness to promptly respond to emergency incidents and events through an Incident Command System that incorporates response planning, training and equipping of personnel, and coordination with first responders and external stakeholders.

### **6. Safety and Compliance Assurance**

SoCalGas maintains operational policies and procedures that document safety practices and standards, compliance with applicable regulations, and follows a “management of change” process to structure change when new policies and procedures are implemented.

### **7. Continuous Improvement**

SoCalGas strives to continuously improve and strengthen its safety performance and culture by setting clear and measurable goals, assessing safety performance through audits and self-assessments, inviting employee feedback, and applying lessons learned from incidents and near-miss events. SoCalGas also learns from and shares safety best practices among peer gas utilities and best in class companies in other industries.

These safety values are embedded in our culture. SoCalGas’ safety-focused culture and structure allow us to be proactive and accountable in the safe delivery of gas and associated business operations. We embrace a work environment where employees and contractors are encouraged to raise concerns regarding gas system safety, customer safety, personal safety, and/or offer suggestions for improvement.

To make certain these safety values are part of all activities performed at SoCalGas, we set forth an SMS Responsibilities policy described in Chapter 3. The policy establishes responsibilities at various levels within SoCalGas to promote, support, develop, implement, and continuously improve SMS in an effective and efficient manner.

These safety values are the foundation of our SMS. Each SoCalGas officer embraces and endorses the company’s commitment to safety, including the overarching goal of zero safety incidents, and supports the SMS Plan.

## CHAPTER 3: SMS PLAN OVERSIGHT AND EXECUTION

Our SMS organization is responsible for developing and implementing a comprehensive system based on our seven safety values: leadership commitment; risk management; employee and stakeholder engagement; competence, awareness, and training; emergency preparedness and response; safety and compliance assurance; and continuous improvement.

SoCalGas has established responsibilities at various levels to promote, support, develop, implement, and continuously improve our SMS in an effective and efficient manner.

- SoCalGas' Chief Safety Officer (CSO), in collaboration with and support from the Senior Management Team (SMT), has the overall authority, accountability, and responsibility to provide leadership and commitment in support of SMS.
- SoCalGas' SMT has the responsibility to provide oversight, guidance, and direction to the SMS organization for the development, implementation, ongoing maintenance, and continuous improvement of SMS. The SMT also has the responsibility to establish high level performance measures to help assess the effectiveness of SMS and to conduct the annual management review of SMS.
- The SMS organization reporting into the CSO has the centralized authority, accountability, and responsibility to support the execution of SMS throughout the organization, including designing, developing, implementing, and continuously improving SMS. This includes:
  - Providing strategic guidance and establishing appropriate policies, standards, procedures, and KPIs. This includes providing direction regarding technology and data analytics tools, platforms, and reporting capabilities for various elements of SMS to promote its consistent implementation and effectiveness across organizations
  - Leading incident investigations and sharing lessons learned with stakeholders to demonstrate risk reduction and improvement
  - Leading the annual management review of SMS and its safety assurance functions
  - Collaborating with other business organizations to provide safety and compliance support, emergency preparedness and response support, assess best practices and conduct periodic SMS maturity reviews to measure progress
- All levels of management have the authority, accountability, and responsibility to appropriately support, implement, and oversee elements of SMS that are the direct responsibility of their organizations. Management demonstrates commitment to SMS and enhancing safety performance by communicating to their organizations the importance of SMS and fostering responsibility to execute it.
- SMS Value Champions serve a vital role in the implementation and enhancement of our SMS. These champions have the responsibility to represent various operational and functional departments to support the implementation of SMS and collaborate periodically to discuss opportunities for advancing SMS maturity.
- SoCalGas employees have the responsibility to:
  - Work safely when performing any job task and to Stop the Job if necessary
  - Identify and elevate issues and gaps in Company operating procedures for resolution and lessons learned
  - Identify and elevate safety risks for resolution
- SoCalGas construction contractors are responsible for adhering to SoCalGas' safety requirements when working on a SoCalGas project. This includes working safely, using Stop the Job authority if needed, and identifying and reporting safety risks and gaps in operating procedures for resolution.



## CHAPTER 4: LEADERSHIP COMMITMENT

*SoCalGas leadership is fully committed to safety as a core value. SoCalGas' Executive Leadership is responsible for overseeing reported safety concerns and promoting a strong, positive safety culture and an environment of trust that includes empowering employees to identify risks and to "Stop the Job."*

SoCalGas is committed to fostering a culture where leadership sets the example and demonstrates the safe behaviors expected of employees. This year we published the SMS Company Operations Standard, 167.09, which establishes a framework to define, develop, implement, maintain, and continuously improve SoCalGas's SMS. The standard identifies "Objectives" for each safety value of the SMS, along with a listing of "Controls" that are in place and "Responsibilities" of various individuals and/or organizations to help achieve the stated objectives. SMS is designed to further enhance the safety of our operations, strengthen our safety culture, improve our overall safety performance, and drive our progress towards our goal of zero safety incidents.

SoCalGas' leadership team is dedicated to championing people, doing the right thing, shaping the future, and striving for excellence in everything we do. Our executives make safety a way of life in all aspects of company operations and drive that message throughout the organization. Executives routinely promote safety as a core value, seek candid feedback through safety culture and employee engagement surveys, encourage employees to own and use Stop the Job authority and report close calls to address their safety concerns and share lessons learned. All executives are required to be Occupational Safety and Health Administration (OSHA) -10-Hour certified and to have Incident Command Structure (ICS) 100 and 200 certifications. Several internal executive-level forums are in place to enable focused review of safety. In 2020, SoCalGas added the Advisory Safety Council as an external forum to further enhance its executive oversight of safety, as further described below.

### A. EXECUTIVE SAFETY COUNCIL (ESC)

SoCalGas' ESC has been in place for over a decade and its purpose is to provide safety oversight and executive interactions with employees over safety matters. The ESC is led by the CSO of SoCalGas and includes all executives with operations responsibilities. The ESC meets on a quarterly basis at various operating locations to engage with represented employees, supervisors, and managers associated with an operating district or a region. Unique and separate employee dialogue sessions are held to provide a forum for employees to share their candid feedback on what is going well in safety and what could be even better. Issues brought up are discussed and resolved during the dialogue session or carried forward as action items for later resolution, with follow up to the employees who made the suggestion. These sessions enable executives and employees to share their perspectives on safety successes, challenges, and opportunities.

Beginning in 2019, SoCalGas expanded these interactions to include monthly outreach to operating districts and employees. SoCalGas executives are responsible for fostering a safety culture that strives for every employee to go home safe every day.

### B. PIPELINE SAFETY OVERSIGHT COMMITTEE (PSOC)

The PSOC has been in place for several years and provides primary oversight over SoCalGas' pipeline safety programs, including the utilities' Distribution Integrity Management Program, Transmission

Integrity Management Program, Storage Integrity Management Program, Facility Integrity Management Program, Pipeline Safety Enhancement Program, Public Awareness Program, and Operator Qualification program. The committee typically meets on a quarterly basis to provide leadership and oversight regarding pipeline safety activities.

### C. CAPITAL PROJECTS EXECUTIVE STEERING COMMITTEE (CPESC)

The purpose of the CPESC is to establish a consolidated executive steering committee for capital projects, enabling officers to monitor and guide the progress (safety, scope, cost, and schedule) of major gas programs and projects to ensure timely achievement of established goals and objectives, foster leadership alignment, and share safety practices across the enterprise. The CPESC also provides an opportunity for program and project teams to obtain direction, authorization, escalation support, or guidance, as necessary, to achieve project goals.

### D. ADVISORY SAFETY COUNCIL (ASC)

SoCalGas established an ASC in November 2020, comprising independent members with deep experience and proven leadership in the areas of safety management systems, public safety, community relations, regulatory oversight and industry safety. Consistent with SoCalGas' SMS framework of continuous improvement, the ASC provides candid, independent perspectives on SoCalGas' SMS, and observations about policies, practices and procedures. The ASC meets quarterly and provides recommendations and feedback to the SoCalGas Chief Safety Officer, which are in turn provided to the SoCalGas Board as part of the regular Board safety agenda items. The ESC and the ASC are intended to provide additional safety recommendations for SoCalGas with respect to safely providing natural gas services.

### E. ENTERPRISE RISK MANAGEMENT COMMITTEE (ERMC)

The ERMC provides a forum for leadership to provide oversight, guidance, and strategic direction around all aspects of risk to promote a culture of continuous improvement, operationalize SoCalGas' Enterprise Risk Management framework, and cultivate risk-informed decision-making. The ERMC oversees implementation of enterprise risk management policies and practices, monitors the effectiveness of enterprise risk management practices and strategies, oversees implementation of identified continuous improvement opportunities, and promotes risk-informed decision-making across the enterprise.

### F. SOCALGAS BOARD SAFETY COMMITTEE

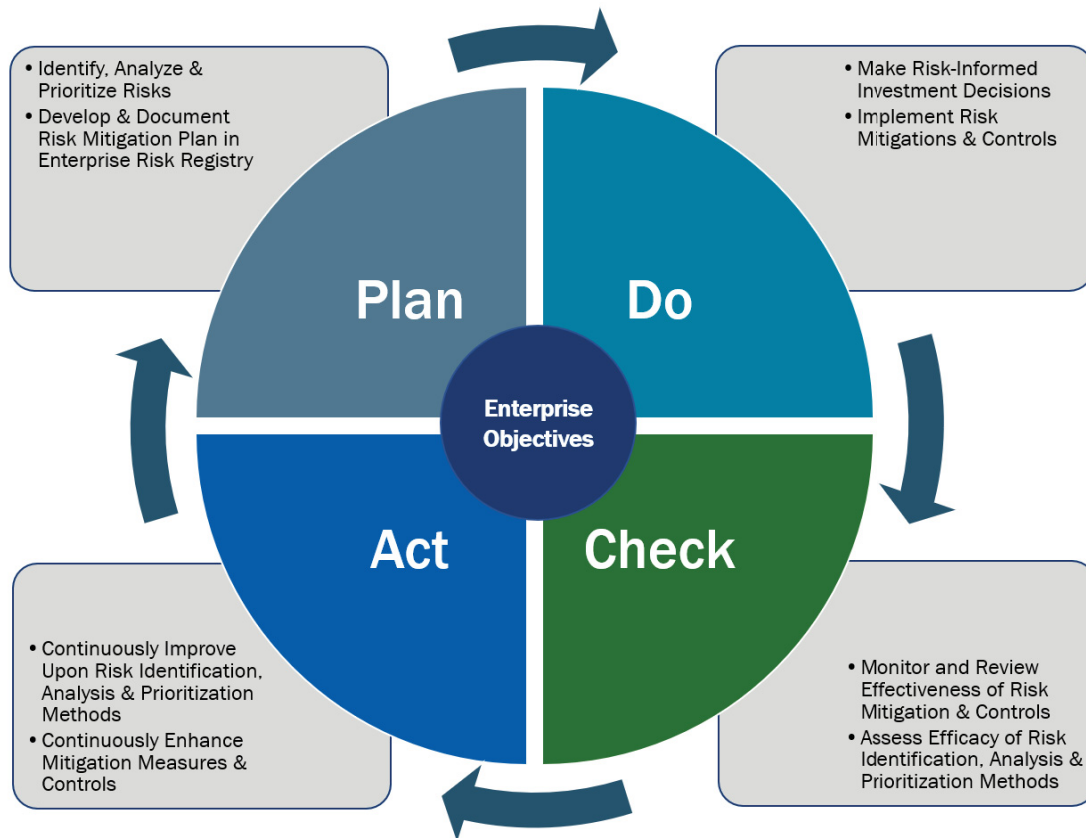
The Safety Committee (the "Committee") is a committee of the Board of Directors of Southern California Gas Company (the "Company"). The purpose of the Committee is to advise and assist the Company's board of directors (the "Board") in the oversight of safely providing natural gas services to the Company's customers. The Committee consists of not fewer than two members of the Board. The Committee's members, including its chair, are appointed by the Board.

## CHAPTER 5: RISK MANAGEMENT

*SoCalGas manages risk through a structured, increasingly data-driven approach that identifies threats and hazards, assesses and prioritizes risks, implements mitigation efforts, and engages in assessments and reviews to understand risk mitigation effectiveness.*

SoCalGas implements a programmatic Enterprise Risk Management (ERM) framework to manage our business risks. Our approach to prioritizing work and allocating resources covers employee, contractor, customer, public, and infrastructure safety risks.

The Chief Risk Officer (CRO) leads a dedicated Risk Management organization, responsible for implementing and continuously improving SoCalGas’ ERM, a comprehensive framework to identify, assess, respond to and report on key risks and opportunities with the objective to advance the enterprise’s strategic objectives. The Risk Management and SMS organizations collaborate to discuss risk management, mitigation progress and effectiveness, the SMS policies and framework, and the continuous improvement of the SMS and ERM frameworks to promote effective safety and risk management practices across the enterprise.



**Figure 2: Enterprise Risk Management Plan-Do-Check-Act Model**

While the Risk Management group develops and oversees implementation of an Enterprise Risk Management framework and risk management policies, our operating business organizations manage risks every day for employees, contractors, customers, communities, and our pipeline infrastructure. These risk management activities include safety management programs, described further in this chapter, mandated by federal and state occupational, health and safety agencies, and pipeline safety laws and regulations.

## A. ENTERPRISE RISK MANAGEMENT

### A.1 Enterprise Risk Registry (ERR)

An Enterprise Risk Registry compiles potential risks in a single document, prioritizes those risks, and identifies assigned “risk owners,” enabling the enterprise to manage risk in a coordinated and proactive manner to advance strategic objectives. As depicted in Figure 2 above, during the Plan stage of the ERM Plan-Do-Check-Act cycle, the Risk Management organization facilitates the identification, analysis and prioritization of enterprise risks to develop and document the Company’s risk mitigation plan in an Enterprise Risk Registry. SoCalGas’ ERR is updated on an annual basis, through a collaborative process that incorporates subject matter expertise and data from functional areas across SoCalGas, and is reviewed and finalized by the SMT through three executive review sessions facilitated by the Risk Management organization.

### A.2 Risk Assessment Mitigation Phase (RAMP)

The RAMP is a phase of the general rate cases of the State’s CPUC-regulated utilities, implemented by the CPUC to incorporate risk into its ratemaking processes. In accordance with CPUC guidelines, SoCalGas must submit a RAMP report to the CPUC every four years, and include a detailed assessment of each identified safety-related risk, a plan to address each identified risk, and a post-mitigation analysis. In addition, SoCalGas identifies cross-functional factors (*e.g.*, SMS, Emergency Preparedness, and Workforce Planning), which are not risks themselves, but rather, transcend multiple risk categories by influencing the likelihood or consequence of identified risks. SoCalGas develops its RAMP reports based on the most current Enterprise Risk Registry.

## B. SAFETY RISK MANAGEMENT

### B.1 Employee

The Safety Department maintains the Injury & Illness Prevention Program (IIPP), which provides prescriptive measures to assist management and employees in reducing occupational health and safety risks. Additionally, the Safety department maintains various health and safety standards, and procedures that promote and sustain a safe and healthy work environment.

### B.2 Contractor

SoCalGas’ contractor risk management consists of contractor safety program policies and procedures, contract terms and conditions, field inspections and oversight, post-job safety evaluations, Stop the Job, near-miss and close-call reporting, internal audits, and enforcement actions. These controls are in place to enhance the safety of SoCalGas construction projects from inception to completion. SoCalGas also utilizes a third-party, ISNetwork, to vet contractors for occupational health and safety risks using criteria and methodology that are considered industry standards.

### B.3 Public Safety

Public Safety addresses the programs and policies established to ensure the safety and reliability of our natural gas pipeline system. This includes the integrity management and safety enhancement programs in place to address pipeline safety risk as well as company policies and procedures that mitigate risk of incidents caused by employees.

*B.3.1 Employee Risk*

SoCalGas provides all employees with the training necessary to safely perform their job responsibilities. We have formal procedures, processes, and standards to provide guidance to employees and document the way work is to be performed safely. These are periodically updated and include training practices, such as module and skills testing, as well as field evaluations for employees.

Motor vehicle incidents are an employee, customer and public safety risk that can result in significant consequences including injuries, fatalities, and property damage. To reduce motor vehicle risks, SoCalGas utilizes a driver safety program that includes a monthly training module that serves to bolster employee awareness of safe driving practices and promote safe driving. The goal is to help employee drivers see, think, and act their way through various driving environments and challenges that exist regardless of where they travel or the vehicles they operate.

*B.3.2 Infrastructure Risks – Integrity Management and Safety Enhancement Programs*

SoCalGas implements several plans and programs to identify and minimize hazards and systemic risks in our pipeline infrastructure. The plans and programs also serve to promote public safety and property protection. These include:

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| <ul style="list-style-type: none"> <li>• Transmission Integrity Management Program</li> <li>• Distribution Integrity Management Program</li> <li>• Pipeline Safety Enhancement Plan</li> </ul> | <ul style="list-style-type: none"> <li>• Storage Integrity Management Program</li> <li>• Facilities Integrity Management Program</li> </ul> |
|--|---|

*B.3.2.1 Transmission Integrity Management Program*

The Transmission Integrity Management Program (TIMP) is an ongoing program to identify, prioritize, assess, evaluate, repair and validate the integrity of gas transmission pipelines operated in populated areas, referred to as “high consequence areas” or “HCAs.” SoCalGas’ TIMP was developed in accordance with the Department of Transportation’s (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations, set forth in Subpart O – “Gas Transmission Pipeline Integrity Management” of Part 192 of Title 49 of the Code of Federal Regulations. TIMP regulations prescribe how pipeline operators validate the integrity of their gas transmission infrastructure through systematically performing assessments, identifying risks, and evaluating and prioritizing repairs to mitigate identified risks or “threats.”

SoCalGas’ TIMP processes are aimed at identifying threats to pipeline integrity through data gathering and routine testing, assessing material integrity, and determining preventative, mitigation, and other actions to remediate identified threats. The TIMP plan identifies responsible parties, establishes timelines for each process element, and incorporates lessons learned and industry-wide best practices.

As part of this program, information concerning the pipeline infrastructure, operating environment and performance history is integrated into a broad evaluation of the pipeline and its environment. This information is analyzed for each pipeline segment being assessed and specific integrity-related work plans are developed.

SoCalGas employs pipeline integrity validation activities to assess and evaluate pipelines in its system such as: in-line inspections (ILI), pressure testing, and direct assessment. In cases where ILI is appropriate and capable of assessing an identified threat, it is SoCalGas’ preferred assessment method. These evaluations monitor the effectiveness of the systems in place to maintain the safe operation of the transmission pipeline, including corrosion control and damage prevention programs.

Additionally, effective July 1, 2020, PHMSA amended its transmission pipeline regulations and adopted a new rule entitled, “Safety of Gas Transmission Pipelines: MAOP (Maximum Allowable Operating Pressure) Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments,” and SoCalGas has enhanced our TIMP in accordance with these new regulations. Furthermore, SoCalGas has expanded assessments to segments outside-of-high consequence areas per 49 CFR § 192.710. SoCalGas continues to develop and implement procedures and new initiatives driven by the final rule. Refer to B.4 for additional information.

TIMP and the related and referenced procedures identify and prescribe activities to minimize systemic transmission risks and document its history and capability.

#### *B.3.2.2 Distribution Integrity Management Program*

The Distribution Integrity Management Program (DIMP) is an ongoing program that was developed in accordance with the DOT’s PHMSA regulations, specifically Subpart P – “Gas Distribution Pipeline Integrity Management” of Part 192 of Title 49 of the Code of Federal Regulations. The program’s purpose is to improve pipeline safety by having operators identify and reduce pipeline integrity risks on distribution pipelines. SoCalGas first published its DIMP written plan in August 2011.

SoCalGas’ DIMP focuses on potential risks and measures designed to reduce the likelihood and consequences of pipeline failures. Specifically, it addresses system knowledge, threats, evaluation and ranking of risk, measures to address risks, performance measurement, results monitoring, effectiveness evaluation, periodic evaluation and improvement, and results reporting.

SoCalGas’ DIMP written plan and related procedures identify and prescribe activities to minimize systemic and localized risks to SoCalGas’ distribution system and document relevant system information.

#### *B.3.2.3 Storage Integrity Management Program*

The Storage Integrity Management Program (SIMP) was established to mitigate safety-related risks as well as validate and enhance well integrity using enhanced risk management activities, processes, and procedures. SIMP activities consist of threat identification, integrity and risk assessment, remediation, mitigation development and records maintenance. Since its initial development, many SoCalGas SIMP activities have become regulatory requirements in response to the California Geologic Energy Management division’s (CalGEM) California Underground Gas Storage Projects regulations as defined in 14 California Code of Regulations (CCR) § 1726 and PHMSA’s Final Rule (FR) as defined in 49 CFR 192.12.

SIMP addresses storage design, construction, operation, and maintenance, and includes activities in risk management, site security, safety, emergency preparedness, and procedural documentation and training. It is designed to address Federal and State regulatory standards as well as applicable industry standards set forth for underground natural gas storage.

#### *B.3.2.4 Facilities Integrity Management Program*

SoCalGas is developing a Facilities Integrity Management Program (FIMP) based on principles developed by the Canadian Energy Pipeline Association and the Pipeline Research Council International. SoCalGas’ FIMP is not intended to duplicate systems or processes that already exist; rather, it is intended to supplement the already existing integrity management programs (ie., SIMP, TIMP, and DIMP) to enhance the safety and integrity of SoCalGas’ facility assets that are not already addressed under existing programs. FIMP will apply integrity management principles to facilities assets to reduce risks and promote operational excellence.

### *B.3.3 Pipeline Safety Enhancement Plan (PSEP)*

The Pipeline Safety Enhancement Plan (PSEP) was established to promote the continued safety and integrity of our natural gas transmission pipelines.

In response to the 2010 San Bruno incident, in 2011, the CPUC ordered all-natural gas transmission operators in California to develop an implementation plan to achieve the goal of orderly and cost-effectively testing or replacing all-natural gas transmission pipelines in their system that do not have sufficient documentation of a pressure-test. In 2014, the CPUC approved Phase 1 of SoCalGas' PSEP, which replaces or tests pipe in more populated areas that do not have sufficient documentation of a pressure test. SoCalGas' PSEP also includes provisions to replace pipeline installed prior to 1946 that cannot be assessed using in-line inspection tools and to upgrade, replace, or retrofit valves in the transmission pipeline system with technology that allows them to be opened or closed remotely by system operators from a central control location, or that automatically shuts off the flow of natural gas in the event of a significant pressure drop. In 2019, the CPUC approved several Phase 2 PSEP projects proposed by SoCalGas to test or replace transmission pipelines in less populated areas that do not have sufficient documentation of a pressure test.

### B.4 PHMSA Gas Transmission Safety Rule Implementation

In October of 2019, PHMSA amended its pipeline safety regulations to include a new final rule entitled, "Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments." Published as the first of three parts, the final rule updates sections of 49 CFR Parts 191 and 192 and federally mandates gas operators to update or implement procedures accordingly.

Of the updated sections of the CFR, there are three new sections with which SoCalGas must comply that result in new risk mitigating programs. First, the rule adds regulations to require operators to assess the integrity of pipelines located outside of high consequence areas. Second, operators are required to verify, test, and retain records for properties and attributes of high pressure pipeline material. Third, pipeline operators are required to reconfirm the MAOP of high pressure pipelines located in populated areas that do not have documentation of a pressure test conducted in accordance with federal pipeline safety regulations. The regulations authorize pipeline operators to reconfirm the MAOP of pipelines using one of six methods: pressure testing, replacement, pressure reduction, engineering critical assessment (ECA), pressure reduction for lines with a small potential impact radius (PIR), and alternative technology approved by PHMSA.

In addition to the amended regulations' effective date of July 1, 2020, PHMSA requires operators to document new procedures to comply with the MAOP reconfirmation regulations by July 1, 2021. SoCalGas has developed these MAOP reconfirmation procedures and continues to manage and enhance a comprehensive plan to comply with these new federal pipeline safety regulations, which will further reduce risk and enhance the safety of our natural gas transmission system.

## CHAPTER 6: EMPLOYEE AND STAKEHOLDER ENGAGEMENT

*SoCalGas encourages and expects employees to take ownership and actively engage in safety practices and openly share and receive information with one another, our contractors and other external stakeholders to continuously enhance our safety practices.*

Safety is a core value for our employees, contractors, and others who work with us. Through our broad and comprehensive safety programs, our employees are knowledgeable of SoCalGas' safety expectations, protocols, and procedures and are expected to fully support and further a safety-focused culture.

Our contractors, in addition to complying with federal, state and/or local laws, ordinances, and regulations, are required to provide training on SoCalGas' safety requirements to their employees and subcontractors. Their safety commitment and practices are key to working with us.

Accordingly, the successful execution of our SMS is critically dependent on the actions of our employees and third-party partners. We rely on them to identify and resolve safety risks and to adopt and implement safety practices that strengthen and protect SoCalGas infrastructure.

### A. EMPLOYEE ENGAGEMENT

We rely on frontline employees to bring safety issues to the attention of management for assessment and resolution. That is why we regularly engage with our employees to make sure our shared SMS policies, goals, objectives, and procedures are understood and implemented.

SoCalGas developed a Stakeholder Engagement Plan for our SMS in 2020. This plan provides an end-to-end framework and guidance for SoCalGas personnel on individual roles, responsibilities, and resources that should be used to support SoCalGas' SMS. It outlines how to utilize engagement and communication channels, identify risk factors and describe how individual roles affect the safety of SoCalGas' operations. The plan follows the SMS framework of facilitating a healthy safety culture of non-punitive reporting of safety concerns and includes engagement tools. It will be reviewed periodically to address gaps and integrate emerging best practices.

Employees are encouraged and expected to identify risks and elevate them to management consistent with SoCalGas' Injury & Illness Prevention Program. Employee feedback and recommendations are essential to reduce risk and enhance safety. This feedback is received through multiple platforms and processes including:

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| <ul style="list-style-type: none"><li>• Executive Safety Council</li><li>• Safety Committees</li><li>• Safety Meetings</li><li>• Safety and Health Congress</li><li>• Safety Leadership Team</li><li>• Safety Tailgates</li></ul> | <ul style="list-style-type: none"><li>• Safety Stand Downs</li><li>• Safety Culture Surveys</li><li>• Stop the Job Reporting</li><li>• Close Call Reporting</li><li>• Safety Observation and Reporting (SOAR)</li></ul> |
|---|---|

In support of increasing SMS awareness and understanding across the enterprise, we also kicked off an SMS video series. We published a video on Leadership Commitment in 2020, the first of our seven safety values. Thus far in 2021, we have released videos on Risk Management (our second safety value)



and Management of Change (a component of our sixth safety value, Safety and Compliance Assurance). We plan to continue developing and sharing videos to address the remaining SMS safety values. Furthermore, to raise the basic awareness of core principles of our SMS such as the Safety Values, the Plan-Do-Check-Act, and the safety reporting tools, SoCalGas reached out to employees company-wide including (i) implementing a train-the-trainer program to train approximately 200 field supervisors to share the content with front-line field employees, and (ii) distributing SMS Badge Cards and SMS Posters to remind employees of our key safety values and refresh the key concepts of SMS. These engagement efforts will continue on an ongoing basis to enhance adoption of SMS.

## B. EXTERNAL STAKEHOLDERS

### B.1 Public Awareness Plan

SoCalGas promotes pipeline safety with external stakeholders primarily through our Public Awareness Plan, which is aimed at enhancing public safety and property protection through improved public awareness that meets the requirements set forth in Federal Regulations (49 CFR sections 192.616 and 196.12).

The primary objectives of the plan are to:

- Enhance public pipeline safety through increased public awareness and knowledge
- Reduce third-party damage to pipeline facilities
- Provide better understanding of pipeline emergency response time

The plan educates the public on:

- The existence and purpose of pipelines
- Use of a one-call notification system prior to excavation and other damage prevention activities
- Possible hazards associated with unintended releases from a pipeline facility
- Physical indications that such a release may have occurred
- Steps that should be taken for public safety in the event of a pipeline release and procedures to report such an event

The plan follows the general guidance provided in the American Petroleum Institute Recommended Practice (API RP) 1162 First Edition - Public Awareness Programs for Pipeline Operators. Specifically, our plan identifies audiences for targeted communications, frequency of messages, messages tailored to each audience, and delivery and methods.

Our plan also identifies communications for sharing pipeline safety risk information with those residing near pipelines and defines a mechanism for the public to report pipeline safety risk issues to SoCalGas. The communications are accomplished through multiple channels including:

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|--|---|
| <ul style="list-style-type: none"> <li>• Customers and Public</li> <li>• Contractors</li> <li>• City/County/Municipal Officials</li> </ul> | <ul style="list-style-type: none"> <li>• First Responders/Emergency Officials</li> <li>• State or Federal Regulatory Agencies</li> <li>• Damage Prevention Program (8-1-1)</li> </ul> |
|--|---|

Other key external stakeholders not fully covered by the Public Awareness plan include regulatory agencies such as the CPUC, DOT, PHMSA, Cal/OSHA, CalGEM, Environmental Protection Agency (EPA), and Air Quality Management Districts (AQMD). SoCalGas engages with these regulatory agencies through our Regulatory Affairs, Pipeline Safety and Compliance, Safety, and Environmental groups.

The Damage Prevention Program is a good example of following the Plan-Do-Check-Act model to drive continuous improvement in safety performance. The program engages with construction crews in the public working near our pipelines in efforts to reduce third-party damage to SoCalGas assets. Through these field engagements, the team directly educates excavators about safe digging laws and best practices, as well as receives valuable feedback about improving our damage prevention program. By building these relationships we have opened new lines of communication with the excavators throughout the service territory. The team also trains excavators at companies both large and small to help ensure all workers understand their role in excavation safety. In 2020, the damage prevention team directly engaged with over 4,000 excavators.

## B.2 Contractor Engagement

An important element of an effective SMS is obtaining feedback not only from employees, but also from contractors who have direct knowledge of the safety issues arising in operations and supporting activities. Contractor input is highly valued and critical to supporting continuous improvement. Input is obtained from, and information is shared with, contractors through the following platforms:

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|---|---|
| <ul style="list-style-type: none"><li>• SOAR</li><li>• Gold Shovel Standard</li><li>• ISNetworld (ISN)</li><li>• Veriforce®</li></ul> | <ul style="list-style-type: none"><li>• Contractor Safety Manual</li><li>• Capital Project Outreach</li><li>• Quarterly Contractor Meetings</li><li>• Annual Contractor Safety Congress</li></ul> |
|---|---|

In 2020, SoCalGas met with its signatory pipeline construction contractors to raise awareness about our SMS and its relevance to the work performed by contractors and subcontractors. SoCalGas also shared a copy of our 2020 SMS Plan with these contractors. Engagement efforts with contractors will continue to expand to strengthen the adoption and use of core principles of SoCalGas' SMS going forward.

## CHAPTER 7: COMPETENCE, AWARENESS, AND TRAINING

*SoCalGas is committed to providing employees the proper tools, resources, training, and oversight to promote safe operations. This includes training tailored to specific roles and educating employees on why our training, policies, and procedures are important to safety.*

Training is foundational to the safe operation and maintenance of our system. This is especially true for employees and stakeholders whose responsibilities require education, skills training, knowledge, and experience to safely perform their jobs. For SoCalGas employees, our training programs demonstrate how safety is embedded in all phases of employee education, starting with centralized training employees receive when they begin their careers, reinforced with on-the-job training, and later re-emphasized during the re-certification process and additional training as they advance further in their careers.

SoCalGas has implemented similar training controls to confirm that contractors supporting SoCalGas operations and construction activities have the requisite training, qualifications, and competence to perform their jobs.

### A. TRAINING

SoCalGas' centralized training program provides effective, high-quality learning experiences to employees throughout SoCalGas. SoCalGas' training department develops, manages, and executes the training and services necessary for the Company to follow applicable laws, regulations and standards, and help maintain the safety of our workforce and public. The program also communicates and reinforces SoCalGas' safety culture to instill a passion for safety through direct interaction, such as dialogue sessions with frontline supervisors and employees, participation in employee seminars, safety standdowns, ongoing annual review refresher training, and one-on-one employee meetings.

#### A.1 Situational Training

In addition to in class "hands on" demonstrations, SoCalGas created an immersive live "real world" training environment where student's knowledge and performance is tested with live gas in real scenario situations. In addition, a Situation City was specifically designed to provide further hands-on learning opportunities for all Field Operations groups, including Customer Services, Gas Distribution, Measurement and Regulation, System Protection, Transmission, and Storage. Situation City consists of more than a dozen buildings and pipeline systems to simulate real world working conditions for meter inspections, meter and regulator installations, measurement instrumentation maintenance, pressure control operations, shoring, backhoe operation, above ground and underground leakage management and repair, confined space, oxygen deficiency, and firefighting.

It also includes skills training, such as valve operation, odorant equipment, non-destructive testing, official National Association of Corrosion Engineers (NACE) training, emergency response, pneumatic tools, safe excavating, pipe wrapping, hazardous material handling, hot tapping, Advanced Meter (AM) installation, trenchless construction, communications, and specialty tool handling.

#### A.2 Safety Essentials for Supervisors

This training program is comprised of a self-paced eLearning course, followed by an instructor led

course facilitated by members of the Safety department. The program is part of the New Supervisor Onboarding program, a comprehensive five-month program for new supervisors. Safety Essentials for Supervisors provides supervisors with a practical understanding of their safety leadership role and actionable skills they can implement in their daily jobs. By the end of the program supervisors are able to:

- Demonstrate safety leadership by upholding and championing the SoCalGas Seven Safety Values and by adhering to and supporting The Fundamental Safety Principles of SoCalGas
- Utilize the IIPP Manual as a resource for safety information and procedures
- Describe the importance of the Job Observation Program, the Incident Evaluation Program, and Semi-annual Inspections
- Locate ergonomic resources available on the Safety Website and apply fundamental ergonomic principles to help avoid injuries on the job
- Describe the purpose and importance of Industrial Hygiene Programs and access program resources on the Safety Website
- Utilize the Occupational Health Nurse (OHN) Program for themselves and their employees for non-emergency care, and to promote health and prevent injuries and illnesses
- Describe the importance of, and support the advancement of, Employee Safety Committees

### A.3 SMS Training

The SMS organization has developed an awareness module to provide all SoCalGas employees with a basic overview of the SMS framework, organization, and safety values. Additional awareness modules are being developed targeting external stakeholders, including SoCalGas contractors. To increase engagement and awareness, the SMS organization will continue to assess SMS specific training needs. The rollout of two modules addressing key aspects of SMS, Safety Observation and Reporting (SOAR) and Plan-Do-Check-Act, are planned for release in 2021.

### A.4 Gas Engineering Training

The Gas Engineering training program is comprised of three tiers and encompasses the recommendations that the American Gas Association delivered in its white paper, *Skills and Experience for Effectively Designing Natural Gas Systems*. Each tier includes self-paced eLearning courses, on-the-job training, and continual education requirements to make sure new engineers understand the basics of the gas industry, Pipeline Safety, and professional engineering requirements. The three tiers provide the following:

- Tier 1 – Basic Understanding of Natural Gas Systems: Includes natural gas system design, delivery of gas to end-user, operations and maintenance of natural gas systems, and an overview of federal and state regulations.
- Tier 2 – Job specific Processes and Procedures: Includes specific job functions, understanding of unique pipeline systems, procedures for regional or state requirements and communication between cross functional groups.
- Tier 3 – Technical Knowledge Acumen: Includes on the job training, industry conferences, continuous education, and gas related certifications or engineering license (*e.g.*, Professional Engineer License).

## B. COMPETENCE AND AWARENESS

### B.1 Operator Qualification (OQ)

SoCalGas' Operator Qualification (OQ) Program applies to all individuals who perform covered tasks, whether they are employed by us, a contractor, or a subcontractor. Per OQ Gas Standard 167.0100, section 4.8.1.: "The Company, through company representatives, local supervisors, project managers or supervision, verify that employees of contractors, subcontractors, and others performing covered tasks on behalf of the Company, are qualified to perform covered tasks in accordance with standards, policies, and procedures established by the Company and comply with the provisions of the Operator Qualification Program and recordkeeping requirements."

As referenced in section 4.8.2., the Contractor's Operator Qualification Programs are managed through Veriforce®, a third-party vendor hired by the Company to manage all contractors' OQ programs. Additional OQ covered task requirements or testing may be required as specified by different organizations and/or different activities in the Company.

The OQ program requires that employees are trained, initially qualified through a series of written and performance observations, and subsequently re-qualified every three or five years, depending on the task. SoCalGas' training frequency is based on these requirements, and the results of training evaluations are recorded to demonstrate employees' knowledge, skills, and abilities required for a specific job so employees can demonstrate they are qualified to perform the required tasks. If employees do not pass, they are not authorized to perform that activity until they have been successfully re-trained and re-qualified.

### B.2 Quality Assurance

The purpose of quality audits is to validate the effectiveness of training. The process is designed to verify that field employees are completing field orders according to established policy and procedures and to affirm that customers are receiving safe and reliable service. Established quality metrics and reporting through quality audits encourage consistency and contribute to the continuous improvement process.

Quality audits also validate that construction project closeout, Maximum Allowable Operating Pressure (MAOP), and other safety-critical construction records are traceable, verifiable and complete.

Material quality management is another layer of quality assurance where required source inspections are completed at the manufacturer site, prior to procurement and goods receipt, to confirm the material meets the Company's manufacturer specifications.

### B.3 Environmental & Safety Compliance Management Program (ESCMP)

SoCalGas maintains an ESCMP to address compliance requirements, awareness, goals, oversight, and verification related to all applicable environmental, health and safety laws, rules and regulations, as well as Company standards. The year-end ESCMP certification requirement captures employee safety training. In January each year, ESCMP required information is submitted by designated directors and officers into an online system for year-end approval and certification for the prior calendar year.

#### B.4 Veriforce®

Per SoCalGas' Contractor Safety Manual, a contractor must identify scope of work and services. The contractor will provide this information before commencing DOT-covered tasks or functions and register with Veriforce®, SoCalGas' contractor compliance review agent, to initiate a DOT compliance review. The contractor must pass the review, receive an "Approved" status from Veriforce® before performing any covered work, and continually maintain an "Approved" status from Veriforce® while performing any covered work.

#### B.5 Alert Driving

Fleet Defense by Alert Driving is an online driving safety program to help keep employees safe and reduce traffic incidents on the road and at our facilities. The web-based platform uses targeted defensive driving courses to assess employees' driving behaviors and evaluate their defensive skills. The system combines gamification elements with visual, auditory, and tactile exercises and gives employees a hands-on understanding of the dangers associated with common crash causes.

## CHAPTER 8: EMERGENCY PREPAREDNESS AND RESPONSE

*SoCalGas maintains readiness to promptly respond to emergency incidents and events through an Incident Command System that incorporates response planning, training and equipping of personnel, and coordination with first responders and external stakeholders.*

SoCalGas has policies and procedures to promote effective emergency incident management and response and address emergency and crisis type situations. This includes employees who are trained and equipped to respond promptly to protect people first and then property, maintain system reliability, and restore the affected system and Company operations to normal status.

### A. EMERGENCY MANAGEMENT AND PREPAREDNESS

Our Gas Emergency Management Preparedness and Response Policy (ER-1) documents how SoCalGas aligns with the emergency response requirements specified by our SMS standard and complies with Public Utilities Code section 961(d)(5), (6) and (8), as well as the emergency response procedures required by 49 Code of Federal Regulation (C.F.R.) § 192.615.

#### A.1 Emergency Management Organization

SoCalGas' Emergency Management is a centralized and dedicated organization that supports business operations with first responder outreach and emergency response and preparedness. Our emergency management organization is modeled after the Federal Emergency Management Agency (FEMA) Incident Command System (ICS), which allows for a multi-level emergency response. The ICS is a nationally recognized standardized approach to incident management, providing responders with an integrated organizational structure that matches the complexities and demands of the incident, enables effective coordination across agencies and organizations, and can expand or contract to meet incident needs.

SoCalGas' ICS outlines communication standards for inter-functional (*e.g.*, Transmission and Distribution) and inter-agency (*e.g.*, fire, police, and emergency officials) cooperation and coordination during an emergency incident and responsibilities within the Company. Emergency management, in coordination with various operations groups, assesses and responds to incidents that can be managed locally, as well as more complex incidents that require activation of our Emergency Operation Center (EOC) and implementation of our ICS.

### B. PREPAREDNESS

#### B.1 Training

SoCalGas emergency responders are required to complete FEMA training consistent with their assigned responsibilities. This training may include Incident Command System (ICS) and/or first responder training for field management personnel that may respond to emergencies. In addition to ICS training, SoCalGas invests in On-Call Training, Message Center Reporting (MCR) training, and EOC Responder Training.

On-Call staff are trained to respond to any emergency within an hour of activation. During the period they are on-call, they are required to be reachable by telephone, radio, or pager and are required to stay in the SoCalGas service territory. Training enables employees to more readily respond to

emergencies and allows for the rapid response of controls to lessen the impacts of a disaster.

The EOC is activated during major incidents, and employees who respond follow protocols in the Operations Emergency Manual. Training employees on those procedures and familiarizing with them will enable employees to fit into the ICS and create a command structure capable of assessing and responding to hazards.

SoCalGas developed its MCR program to provide employees an efficient way to communicate regarding an incident that has taken place. Training is provided to all management employees with the potential to open an MCR. It is utilized to communicate timely and factual information to internal stakeholders. That information is reviewed and verified by EM, Pipeline Safety & Compliance department personnel, and Environmental Department personnel, who determine reporting requirements to government agencies. When an incident occurs, the responding supervisor will initiate an MCR by contacting the dispatch office, and a chain of further communications is set in motion until the incident is closed. In 2020, EM held 15 sessions and trained 415 management employees. This training is typically conducted in-person, however, due to the COVID-19 pandemic, SoCalGas shifted to a virtual training process. Through continuous improvement methods, SoCalGas identified a way to use Microsoft Teams to continue training while meeting Company and government physical distancing guidelines.

## B.2 Business Continuity Plan (BCP)

SoCalGas' Business Continuity Plan (BCP), which is reviewed periodically, outlines how to assess the potential impact of disruptive events and reduces risks associated with them.

The BCP focuses on how to recover critical functions in the event of a business interruption by identifying business processes and key information technology systems or applications, staffing needs, alternative sourcing of functions, verifying employee emergency contact information and vital records necessary for recovery, setting forth appropriate crisis notifications and communications, and utilizing pre-planned workaround procedures and, if necessary, the use of an alternate work location until normal operations are restored.

## B.3 Facility Emergency Action and Fire Prevention Plans

SoCalGas requires all Company facilities to have an Emergency Action Plan (EAP) and Fire Prevention Plan (FPP) for employee safety during emergencies and to comply with all state and federal safety requirements. The plans contain procedures that address employee response for various types of emergencies including medical, fire, earthquake, natural disasters, and bomb threats.

## B.4 First Responder Outreach

SoCalGas regularly conducts a robust outreach program with first responders. Our staff meets with first responders (*e.g.*, fire, police, and emergency officials) to discuss pipeline safety and communication. These first responders may also participate in Company drills and exercises, both as participants and as observers.

Our service territory encompasses 12 counties, each with a designated emergency County Coordinator. A representative from Emergency Management or a delegate meets annually with each County Coordinator to discuss pipeline safety and awareness, as well as inter-agency coordination and communication.



As mentioned earlier, SoCalGas has a Public Awareness Plan to enhance public safety and property protection. This plan also educates the public on the process for reporting an incident to SoCalGas and appropriate public officials, including first responders.

## B.5 Exercises and Drills

The departments involved in emergency operations conduct annual exercises to maintain employee readiness and proficiency in their emergency assignments and validate the organization's emergency plan, including the following:

- Tabletop: Participants describe actions they would take in potential emergency situations
- Functional/Full Scale: Participants assume designated ICS roles in a simulated incident and must make decisions and take action in real-time. Simulators provide hypothetical emergency information to the participants at intervals for decision-making and action as the exercise progresses.
- Drills: Field personnel engage in drills to test their emergency response and decision making in the field

Emergency Management is responsible for identifying groups to plan, organize, conduct, and critique exercises with support from other departments. Where appropriate, these exercises may be coordinated with local public service agencies and include the element of surprise to simulate actual emergency conditions.

## B.6 Technology

SoCalGas uses various technologies to support emergency preparedness and response, ranging from incident management software to activating our EOC. The following are some of the technologies we use:

- Incident Management System: SoCalGas uses an incident management system based on the ICS framework and supports critical functions of the EOC and gas operations. The system is a single platform to track, coordinate, and communicate information related to incidents during and after an event.
- Satellite Communication: SoCalGas maintains over 140 satellite phones that are located at company facilities. Considering the diverse terrain in our service area, satellite phones are intended to support emergency events where traditional communication methods (*e.g.*, cellular and landlines) are not available. Additionally, during a significant incident (*e.g.*, wildfire or earthquake), operating directors and executives are issued a satellite phone which allows them to report, communicate, and support emergency response and recovery.
- Emergency Mobile Command Trailers: SoCalGas utilizes emergency mobile command trailers to support incidents in the field. These trailers provide field employees and first responders a place to conduct meetings and give them access to communication tools (*e.g.*, phone, satellite, and internet), mapping resources and printing capabilities.

## C. RESPONSE

### C.1 Emergency Operations Centers (EOCs)

SoCalGas's response program is built to address the immediate and short-term effects of an emergency. The Company's capabilities are designed to prioritize the safety of the workforce and public during a

response and protect assets.

### Incident Command System (ICS)

The ICS is a standardized approach to incident management that can be used for all kinds of events, by all organizations, and enables a coordinated response, consistent processes, and allows for the integration of internal and external resources within a common structure. This has become an industry standard for responding to incidents and is also universally used across the public sector and at all levels of government in responding to hazards. SoCalGas uses the ICS to guide EP&R activities, thereby reducing risk through the application of the following tenets:

- **Chain of Command and Unity of Command.** Promotes a clear line of authority to set priorities and objectives during the incident.
- **Common Terminology.** Using common terminology helps to define organizational functions, incident facilities, resource descriptions, and position titles. When all individuals across the response organization are using common terminology, roles and responsibilities are quickly understood and the right resources are identified and assigned efficiently.
- **Integrated Communications.** Incident communications are facilitated through the development and use of a communications plan to provide consistent messaging in alignment with operations and addresses the unique needs of stakeholder groups.

A key component of ICS is the use of standardized positions to help manage the response consistently, where individuals have familiarity with their expected roles and responsibilities. The following are just two examples of ICS positions and duties:

#### INCIDENT COMMANDER

- Oversees and assesses the overall event and response
- Establishes immediate priorities and sets incident objectives, strategies, next steps
- Mobilizes an appropriate response organization
- Coordinates with key staff and officials
- Approves requests for resources and release of resources
- Authorize the release of incident information for internal and external sources

#### PLANNING SECTION CHIEF

- Manages activities and provides policy guidance to Planning section
- Oversees resource assignments, notifications and activations
- Oversees documentation, reporting and situation status report dissemination
- Provides notifications to state and local agencies
- Provides incident response guidance to Incident Command
- Facilitate mutual assistance requests

Adopting the ICS structure and processes allows SoCalGas to align its emergency response and support operations by using a standardized approach to the command, control, coordination, and emergency management best practices.

## C.2 Mutual Assistance

Mutual assistance is an essential part of a utility's response and restoration process when resources have been depleted. Mutual assistance agreements (MAAs) and other types of arrangements provide for assistance during and after an emergency event to facilitate the mobilization of personnel, equipment, and supplies. MAAs are an important component of the National Incident Management

System (NIMS), which provides a systematic approach to guide governments at all levels, non-governmental organizations, and the private sector in collaborative emergency preparedness and response activities.

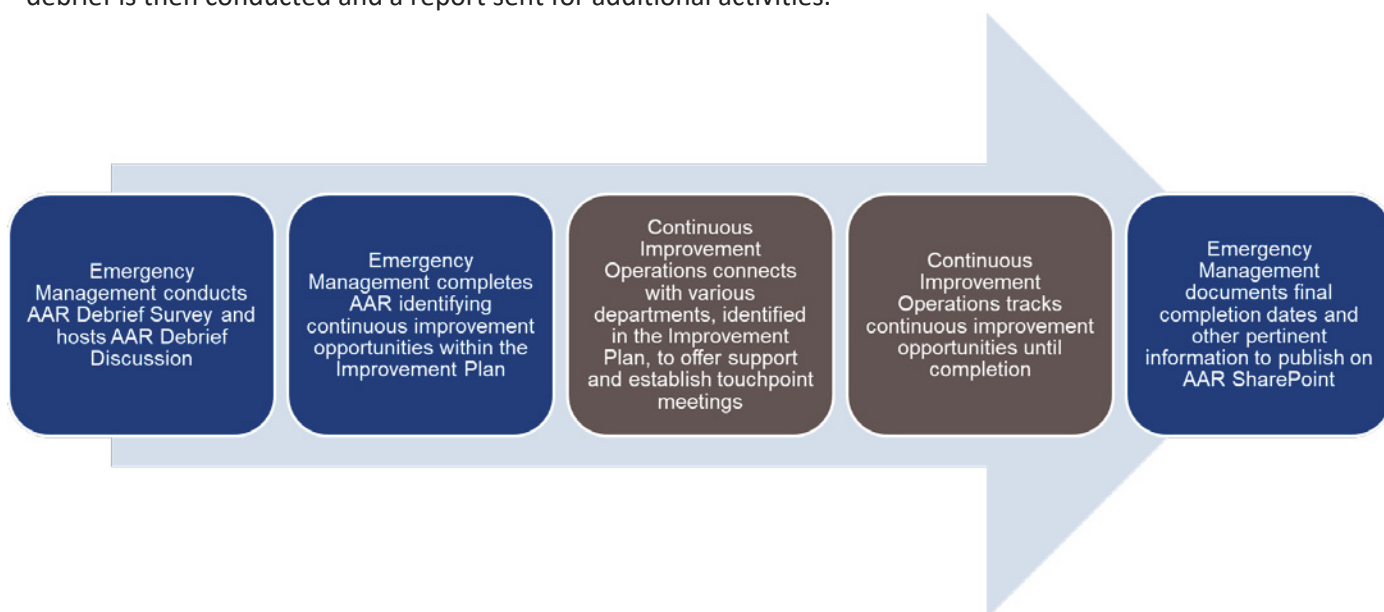
SoCalGas maintains agreements to provide and receive mutual assistance with various non-profit organizations, utilities, and municipalities. Examples include the California Utilities Emergency Association (CUEA), Western Regional Mutual Aid Group (WRMAG), and the American Gas Association (AGA).

## D. RECOVER

### D.1 After Action Review Program

SoCalGas’s After-Action Review (AAR) Program is built on FEMA’s guidance to have a system that can assess the Company’s responses, take the lessons learned, and take corrective action for continuous improvement opportunities. These include plan or process revisions, training and drills, analysis on collaboration with external agencies, and lessons learned. We take this approach of continuous improvement of capabilities and benchmark Company procedures with industry standards.

SoCalGas has an AAR procedural flowchart manual that guides when and how we conduct AARs. Activations of AARs can be initiated by any executive, at the discretion of the Emergency Management office, after drills/exercises, and for any ICS activation that is a Level 2 or higher. Data is then gathered and input into the Company’s continuous improvement processes to identify areas of improvement, establish check-ins and touch points with stakeholders involved, and present findings to leadership. A debrief is then conducted and a report sent for additional activities.



**Figure 3. After Action Report Driving Continuous Improvement**

The AAR program facilitates continuous improvements by providing constructive feedback into the Company’s internal processes. This allows SoCalGas to be an even more responsive and forward leaning organization, and better equipped to handle future disasters by implementing the lessons learned into Company processes.

## CHAPTER 9: SAFETY AND COMPLIANCE ASSURANCE

*SoCalGas maintains operational policies and procedures that document safety practices, standards and compliance with applicable regulations, and follows a “management of change” process to structure change when new policies and procedures are implemented.*

We document and communicate our safety processes through a wide-ranging set of operational controls, policies, training, and recordkeeping. This includes activities to maintain compliance with applicable local, state and federal laws and regulations. Through dedicated resources and subject matter expertise in various disciplines, our focus is to track, understand, and meet regulatory requirements by developing formalized company standards.

Our policies, training, resources, and programs focus on how employees are to conduct their day-to-day tasks in a compliant and safe way. SoCalGas employees are required to follow written company standards to comply with regulatory requirements, bring about more efficient operations, and promote both employee and public safety. All standards are available online in a centralized library for easy employee access and are reviewed at a designated frequency to stay current with pertinent regulations and laws, as well as changing business needs. To reinforce compliance with safety procedures and standards, supervisors conduct regular job observations with their employees at the job sites.

To further assist with effective implementation, company standards are consolidated into manuals, plans, or programs for each distinct compliance discipline. For example, three principal categories of regulatory requirements that SoCalGas must comply with are: (1) CPUC/DOT/PHMSA pipeline safety regulations; (2) federal and Cal/OSHA guidelines for employee safety; and (3) CalGEM for underground natural gas storage safety.

At SoCalGas, pipeline safety standards for operations and maintenance activities are addressed in our Operations and Maintenance Plan; employee safety standards are addressed in our IIPP; contractor safety requirements are addressed in our Contractor Safety Manual; Gas Engineering safety standards in our GE Governance Plan and the Company’s various integrity management plans for Underground Storage (SIMP), Transmission (TIMP) and Distribution (DIMP) which addresses related federally mandated compliance programs with a set of safety standards for their respective operating units. We have additional pipeline safety standards that address aspects of pipeline safety: material specification and traceability, design and procurement specifications, and construction, inspection, and testing procedures. These standards, plans and manuals are consolidated into the Gas Safety Plan, which is updated annually. In addition to these various standards, processes, and activities, SoCalGas recognizes that effective management of change (MOC) is critical to the success of our safety and compliance assurance programs.

In support of “Plan-Do-Check-Act” and continuous improvement, SoCalGas strives to innovate and establish new plans and programs that reinforce our robust SMS framework. These innovations will aid in the maturity of safety and compliance assurance as the SMS program matures.

### A. GAS ENGINEERING GOVERNANCE

The Gas Engineering (GE) Governance Plan establishes a system of standards, policies, and procedures and specifically establishes GE as the enterprise technical and engineering authority. The Plan outlines GE’s roles in providing oversight and execution of engineering, land, and research activities for critical energy infrastructure and facilities. Approval, inspection, and use of material and equipment, as well

as verification of designs, fabrication, and modifications across multiple asset types, fall within GE’s responsibility. GE services include collaboration in the identification of qualified personnel providing engineering services, and the applicability of laws, codes, and standards related to those services. The Plan’s focus is to promote the safe and reliable operation of the enterprise energy infrastructure. The Plan is intended to be consensus-oriented and create alignment through stakeholder participation and information sharing.

The GE Governance Plan is driven by its mission, vision and eight (8) guiding principles:

- 1. Safety**
- 2. Collaborative Accountability and Participation**
- 3. Transparency**
- 4. Responsiveness**
- 5. Authority**
- 6. Roles and Responsibilities**
- 7. Effective and Value-Added**
- 8. Sustainability: Forward Thinking**

Plan work products include a RACI matrix which incorporates the accountabilities between GE and the operational and support services organizations that rely on Engineering Services. The technology solution will be the Project Lifecycle System (PLCS). PLCS will manage engineering request workflows and related document control as well as establish KPIs and metrics. The Plan distinctly specifies GE’s roles and responsibilities, outlines the leadership roles (Director, Manager, Team Lead), and describes the functional aspects of the seven (7) GE departments: Engineering Design, Measurement, Regulation and Control (MRC), Measurement, the Engineering Analysis Center (EAC), Land Services, Research and Materials and Project Engineering.

There are currently two efforts initiated under the GE Governance Plan: 1) Engineering Services Contract Governance and 2) Professional Engineering Oversight and Governance. Engineering Governance for Contractors is a business control for engineering service activities being performed for any and all gas infrastructure or support facilities. Only approved engineering service contractors are allowed to perform within certain engineering disciplines and activities. Professional Engineering (PE) Governance provides criteria in which the PE seal must be applied to Issue for Construction (IFC) drawings. The PE Stamp Criteria is a voluntary and collaborative partnership with the California Public Utilities Commission (CPUC) – Safety Enforcement Division (SED).

Other elements of the plan support the Company’s operations, maintenance, inspection and construction activities through contract management, materials and equipment selection, and technology and software applications. Gas Engineering is committed to being proactive and embracing emerging and new technologies while promoting safe, sustainable, reliable, and efficient work practices throughout the system. GE will enhance existing and design new gas infrastructure that is sustainable, scalable and future forward. In addition, GE also instills continuous process improvement as an overarching objective to reinforce safety and reliability for years to come.

## B. HYDROGEN

SoCalGas has proposed a Hydrogen Blending Demonstration Program. The Program utilizes the Plan-Do-Check-Act model. SoCalGas is currently in the “Plan” Stage: researching the impact of hydrogen blending at the Engineering Analysis Center and partnering with Consortiums to conduct additional

hydrogen blending literature reviews and research. The Program will move into the “Do” Stage, by initiating the controlled blending projects that have been informed by the Plan Stage, which will include controlled hydrogen blend testing at Pico Rivera Training Facility (Situation City) for additional data gathering and training of employees. Leading up to and during this stage SoCalGas will establish operational controls, train employees to operate with hydrogen blends, document and record data from the demonstrations, and engage with stakeholders, including the communities served and commercial and/or industrial end users. The Program leads into the “Check” Phase where SoCalGas will learn from the data collected, including utilizing the data for an integrity/risk management analysis. During the “Act” Phase, SoCalGas will propose a Hydrogen Injection Standard to the CPUC to allow for hydrogen to be blended in the system more broadly. SoCalGas will incorporate the knowledge gained from the Program into safety policies and mitigations for the rest of our natural gas system and customer installed equipment. Plan-Do-Check-Act is a continuous loop, and SoCalGas intends to expand risk modeling, revise standards, policies, and procedures to safely blend hydrogen into the natural gas grid.

## C. OPERATIONAL CONTROLS FOR EMPLOYEES

### C.1 Operation & Maintenance (O&M) Plan for Pipeline Safety

SoCalGas’ Operation and Maintenance (O&M) plan contains procedures that address safe work practices. The plan is a collection of over 140 policies that meet the requirements of 49 C.F.R. § 192.605, “Procedural Manual for operations, maintenance, and emergencies.”

The O&M plan is reviewed annually to verify that the referenced documents containing policies and procedures remain in compliance with the requirements of the relevant sections of Title 49 of the Code of Federal Regulations and California General Order Nos. 112 and 58. Policies and procedures are updated throughout the year in response to new information, regulations, technology, or other items that drive improvement to the policy.

### C.2 Injury & Illness Prevention Program (IIPP) for Employee Safety

SoCalGas’ IIPP and Manual include standards that address safe work practices. The IIPP contains the Eight Elements that are required by Cal/OSHA. The IIPP Manual assists managers, supervisors and employees in meeting those requirements and sustaining a safe and healthy work environment. The information applies to all managers, supervisors and employees, whether in the office or field. The IIPP Manual outlines company, supervisor, and employee responsibilities and identifies resources to prevent/reduce employee injuries and motor vehicle incidents.

### C.3 Planning and Project Execution

#### C.3.1 Planning

SoCalGas has policies, procedures, standards, and guidelines for planning related to design, procurement, installation and construction of distribution, transmission and storage pipelines, and associated activities. The Distribution and Transmission organizations have dedicated planning departments responsible for this function.

#### C.3.2 Material Traceability

SoCalGas has policies, procedures, standards, and guidelines regarding material traceability on pipes, valves, fittings, and equipment (PVFE) on high-pressure (HP) pipelines and gas facilities operated by Storage, Transmission, and Distribution. Material Traceability records validate that HP PVFE comply

with regulatory requirements, industry codes, and/or Company Material Specifications (MSPs) from manufacturer, procurement, installation location, reconciliation of excess material, to retirement of in-service material.

### *C.3.3 Construction*

SoCalGas has policies, procedures, standards, and guidelines regarding construction, installation, inspection, testing and commissioning of pipelines and associated activities. SoCalGas also has a centralized construction organization to manage large capital projects. Similarly, each group such as Distribution, Transmission and Storage, is responsible for managing their respective capital projects that are not covered by the centralized organization.

### *C.3.4 Capital Delivery Model (CDM)*

The Capital Delivery Model (CDM) is a comprehensive approach to achieving excellence in delivery of energy infrastructure projects and programs utilized by the centralized construction organization. The CDM is broadly applicable to a diverse range of projects and programs, is supported by tools and resources, and complements the Company's policies, procedures and gas standards.

The CDM is made up of three major components: (1) A manual to drive consistent, industry leading project execution practices through implementation of a Five Stage Process; (2) Resources and tools, including the Framework Overview, Stage Gate Checklists and Templates, and Responsible-Accountable-Consulted-Informed (RACI) matrices to support successful project execution, and (3) A SharePoint site to provide teams with convenient access to the CDM components.

The CDM is in place for many of our large capital projects and programs, and efforts are underway to support expanded adoption of the CDM (where appropriate) to organizations such as Aboveground Storage, Gas Transmission Technical Services, and Distribution to drive further Company-wide consistency. The upkeep and maintenance of the CDM follows a Plan-Do-Check-Act approach to evaluate and continuously improve the model.

### *C.3.5 Project Closeout*

SoCalGas has policies, procedures, standards, and guidelines regarding Project Closeout activities associated with construction, maintenance, and new business aspects of our infrastructure assets. Information flows from Project Closeout to other impacted departments to retain project and Life of Asset records. Our Geographical Information System (GIS) department incorporates final as-builts into the GIS database. Additionally, Accounting and Finance follows through with moving the cost of assets from construction work in progress to utility plant in service to account for projects that have been closed out.

## C.4 Gas Safety Plan

The Gas Safety Plan conveys the safety performance expectations of SoCalGas' Senior Management Team and describes the gas safety plans, programs, policies, standards, and procedures that are designed to achieve those expectations.

According to the Commission, "the rationale for developing a gas safety plan is to motivate a gas utility to reflect upon its existing methods and for it to change, to optimize, or to enhance the existing methods... and the lessons learned from the San Bruno incident, as appropriate, to ensure that the gas utility has a prudent plan in place to protect public safety and worker safety." Decision (D.) 12-04-010 at 19. SoCalGas has designed our plan to satisfy each of the directives in CPUC D. 12-04-010 and CPUC General Order 112-F. We dedicate significant time each year to thoroughly update the plan pursuant to

company evolution and CPUC directives and ensure submittal by the annual March 15<sup>th</sup> deadline. The Gas Safety Plan also addresses the implementation of our SMS.

## C.5 Management of Change (MOC)

The objective of MOC, an integral component of operational controls, is to reduce the possibility of introducing additional risk, or inadvertently increasing the risk, to public or employee health and safety, the environment, or the community because of a change.

Under normal (non-emergency) circumstances, SoCalGas' MOC process requires that technological, procedural, organizational, and operational changes are reviewed, documented, and communicated prior to implementation, and that impacted stakeholders in the Company are informed accordingly. When exigent circumstances dictate (*e.g.*, emergency situations) preservation of health and safety of the public, employee, community, or pipeline system, then a change may be implemented prior to the MOC review.

## D. OPERATIONAL CONTROLS FOR CONTRACTORS

### D.1 Contractor Safety Standard

SoCalGas has formalized the contractor safety operational controls in the Company Operations Standard 167.04 – Contractor Safety Program. The standard is for internal use only and applies to SoCalGas employees who oversee Class 1 contractors and subcontractors on behalf of the company. It establishes the policy, scope, and approach used by SoCalGas to manage contractor safety, requirements for pre-qualification of contractors, roles and responsibilities for various employees who work with contractors, expectations on contractor oversight, periodic safety inspections and investigations of contractor safety incidents.

### D.2 Contractor Oversight Plan (COP)

A COP has been completed. This plan is to define the oversight policy for contractors performing construction activities on SoCalGas pipelines. Under the plan:

- Our contractors are managed and utilized in a manner that conforms to the Company's safety, quality, and compliance requirements for pipeline construction
- Class 1 contractors performing pipeline construction are covered
- Oversight spans the entire process of contractor use from qualification and selection to construction, project closeout, and lessons learned/continuous improvement
- The COP does the following:
  - Communicates requirements of SMS activities and processes to the contractor, including scope, boundaries, and applicable standards and procedures
  - Defines responsibility, accountability, and authority for managing activities performed by contractor
  - Incorporates lessons learned into SoCalGas operations
  - Provides awareness and orientation for contractors on SoCalGas' safety policies
  - Evaluates contractor safety performance
  - Communicates known risks at the work site
  - Shares the MOC procedure



## E. RECORD MANAGEMENT AND RETENTION

SoCalGas has established two fundamental operational controls to effectively manage documents and records associated with our SMS. These controls include detailed procedures for the identification, distribution, approval, and control of documents, as well as responsibilities for the collection, storage, protection, retrieval, retention, and disposition of records. These controls are identified as the Document Library and Records Retention Schedules.

### E.1 Documentation

Our Document Library is a repository of documents that represent the standard operating procedures for safety and compliance activities for SoCalGas. All employees have access to these documents, which are identified, created, maintained, approved, and interpreted by various responsible departments within SoCalGas. Each individual document is assigned a specific responsible person (RP) for maintenance. There is an active project to modernize the Document Library in 2021 with the intent to increase general functionality of the platform. Along with these updates, SoCalGas' procedural MOC process is being included as a new function within the Document Library to streamline the tracking of document changes.

The Document Library contains the following types of documents:

- |                                |                                |
|--------------------------------|--------------------------------|
| • Company Operations Standards | • Gas Standards                |
| • Environmental Fact Sheets    | • Handbooks/Manuals            |
| • Environmental Standards      | • Information Bulletins        |
| • Form Instructions            | • MSPs                         |
| • Form 190                     | • Operations Emergency Manuals |
| • Form 2110                    |                                |

### E.2 Records Retention

Recordkeeping procedures and controls are established to demonstrate our conformity to regulatory and SMS requirements. SoCalGas' parent company, Sempra Energy, implements a centralized Information Management (IM) Policy that is reviewed annually. SoCalGas adheres to the Corporate IM Policy. The Master Records Retention Schedule are reviewed periodically by Sempra Corporate Compliance and by SoCalGas, and are updated as new regulations arise and as organization changes occur. The Records Retention Schedule identifies record series codes, which establishes consistent retention periods for records for SoCalGas. The IM Policy and the Records Retention Schedule highlight the requirements for the identification, preservation, retention, and disposition of records. Records are retained as defined by the Record Retention Schedule or as otherwise required by legal and other applicable requirements.

### E.3 Record Management Systems

SoCalGas utilizes a range of repositories to store and maintain our records and compliance data. These are primarily managed in systems such as GIS, SAP, Maximo, and customized document repositories like the Pipeline Document Management System (PDMS) and Records and Document Management System (RDMS). The functional business units within the Company utilize operations focused process management systems tailored for specific compliance requirements for work order creation, tracking, materials, requisitions, and project closeout.

## CHAPTER 10: CONTINUOUS IMPROVEMENT

*SoCalGas strives to continuously improve and strengthen our safety performance and culture by setting clear and measurable goals, assessing safety performance through audits and self-assessments, inviting employee feedback, and applying lessons learned from incidents and near-miss events. SoCalGas also learns from and shares safety best practices among peer gas utilities and best-in-class companies in other industries.*

Continuous improvement, driven by listening and learning, is necessary to achieve safety excellence and is a fundamental component of our SMS, rooted in every aspect of our operations and activities.

Our SMS continuous improvement activities include:

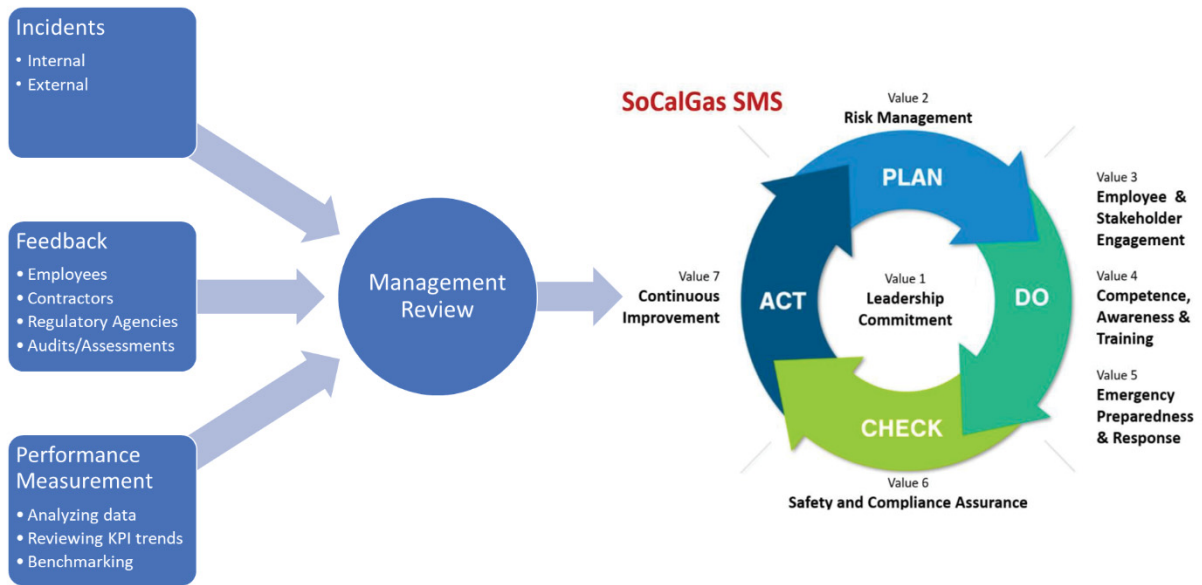
- Creating an environment and culture where feedback is encouraged and integrated through the Plan-Do-Check-Act model, into decisions, activities, and processes, to encourage collective participation and learning from events to achieve the safest outcomes
- Strengthening our collective knowledge of safety and compliance across the organization by facilitating discussions about lessons learned and corrective actions
- Adapting to dynamic regulatory and operating environments requiring advancements in efficiency, automation, and technology
- Applying the benefits of business process and technology enhancements and delivering achievable and measurable benefits
- Improving our effectiveness in achieving strategic objectives
- Continuing to evolve, become better, and evolve yet again

To achieve continuous improvement, we are committed to:

- Sustaining a culture where leadership demonstrates commitment to SMS objectives
- Strengthening our commitment to improve what we do and how we do it
- Developing forums in which our employees feel empowered to suggest and pursue improvements
- Putting systems in place to capture learning and build on the experience of our people and systems already operating within the organization
- Continuing to pursue ways to measure the effectiveness of the continuous improvement programs and demonstrate advancements and lessons learned

The continuous improvement cycle for SoCalGas comes from three primary areas (Figure 4):

- Incidents
- Feedback
- Performance Measurement



**Figure 4: Continuous Improvement Cycle**

Using lessons learned is a principal component of an organizational culture committed to continuous improvement and adaptive management. Lessons learned mechanisms communicate acquired knowledge more effectively and enable beneficial information to be factored into planning, work processes, and activities. The mechanisms or processes used to collect, share, and disseminate lessons learned may vary, but in general, such a process is comprised of the five main elements in Figure 5 below:



**Figure 5: Lessons Learned Process Flow**

A lesson learned approach offers an opportunity to improve and provides a platform for team members and/or partners to discuss successes, unintended outcomes, and recommendations for others involved in similar future continuous improvement initiatives or events in the future. It enables employees to reevaluate processes, procedures, causal factors, and corrective actions of problems that occurred, and elucidates ways to avoid those problems from recurring. The incident evaluation process periodically evaluates past investigations of high consequence and significant near-miss events.

Under SMS, these elements are integrated so that data and output from each of various elements feed into one another enabling metrics to be trended, incidents reviewed, and activities tracked, thereby providing opportunity for investigation and follow-up improvements. Furthermore, the information is consolidated into the management review process and becomes the basis for demonstrating the extent to which the performance goals and objectives of our SMS are being met. The improvements are also integrated into the Plan-Do-Check-Act iteration of our SMS plan and supporting processes.

## A. INCIDENTS

While we strive for zero safety incidents, information from incidents is a vital source for learning and

improvement. Investigations into incidents lead to improvements in policies, programs, procedures, and human behavior and help to prevent similar incidents from recurring. SoCalGas has formal processes in place to learn from a variety of incidents, including employee injuries and motor vehicle accidents, contractor and subcontractor injuries, pipeline safety and material and equipment failure, environmental, and third-party claim-related incidents. These are investigated to determine underlying causes and appropriate improvements to prevent recurrences. Lessons learned are shared internally with employees on a regular basis and externally with contractors as appropriate.

#### A.1 Learning from Company Employee Injuries and Motor Vehicle Incidents

Pursuant to the IIPP, supervisors conduct evaluation of incidents involving all employee injuries and motor vehicle accidents to identify factors contributing to incidents and implement appropriate corrective actions to prevent future occurrences. The evaluations are performed according to a structured process and are documented in the Safety Incident Management System (SIMS). Resulting corrective actions and improvements are tracked to closure in SIMS. Lessons learned are shared with supervisors and employees on a regular basis.

#### A.2 Learning from Contractor/Subcontractor Incidents

SoCalGas' Contractor Safety Manual outlines important safety requirements and expectations for contractors working for SoCalGas. The Contractor Safety manual and associated oversight provided by SoCalGas, requires the contractor to promptly investigate incidents and submit the resulting investigation report to SoCalGas within 10 working days. The investigation report must be provided to SoCalGas as part of the Contractor Safety Incident Reporting Form and include photographs from the incident, as well as information regarding corrective and preventive measures taken by the contractor to prevent reoccurrences. SoCalGas shares lessons learned from these incidents with pipeline contractors through multiple outlets, including quarterly meetings, an annual Contractor Safety Congress, and through ISNetworld.

#### A.3 Learning from Gas Systems Safety Incidents

SoCalGas has established various procedures for evaluating gas safety incidents. Incident investigation may occur at the district operations level (GS 191.01) and/or from an enterprise-wide perspective (GS 223.0032). Several departments participate in evaluating safety incidents depending on the subject matter such as: material and equipment failure, emergency response, and environmental impact. The intent is to address gas system related safety incidents systematically such that corrective actions lead to effective process improvements.

The following defines the various incident evaluation procedures across SoCalGas:

##### *A.3.1 Investigation of Accidents and Pipeline Failures*

GS 191.01, Investigation of Accidents and Pipeline Failures details the procedure that is followed for evaluation and resolution of incidents that occur at the local operations level. The purpose of this procedure is to analyze accidents and failures to determine the cause and minimize the possibility of recurrence. Accidents and failures are defined as incidents per 49 CFR Part 191.3 and shall be investigated. Emergency events as defined in this standard, shall be investigated when considered significant to local operations and/or other interested departments and stakeholders. In support of continuous improvement, the Company updated the procedure with a common form for incident investigation. This enhancement formalizes the process with consistent documentation and recordkeeping.

### *A.3.2 Material and Equipment Failure Analysis*

Gas Engineering conducts a variety of failure analyses in part as a proactive means of evaluating new and existing material and equipment as well as a review of system material failures supporting Investigation of Accidents and Pipeline Failures. The objective is twofold in monitoring and approving new materials being introduced to the infrastructure as well as conducting an analysis and making recommendations to minimize the possibility of incident reoccurrence.

### *A.3.3 Incident Evaluation Process (IEP) for Gas Infrastructure Incidents*

SoCalGas has a more involved process for incident investigation documented in GS 223.0032, Incident Evaluation Process on Gas Systems. The scope of the IEP is to identify gaps in processes and procedures from a systematic perspective and provide recommendations through corrective action that lead to enterprise-wide process improvements. The IEP provides guidance for a root cause analysis on specific events that may have impacted the safety, integrity, or reliability of the natural gas pipeline system.

The tracking and closure of corrective actions resulting from incidents evaluated through the IEP process, as well as CPUC audits, is managed by the Compliance Improvement Oversight Process (CIOP). CIOP coordinates communication of corrective actions across departments to facilitate improvements for systemwide learning. The CIOP process will include a formal effectiveness review of the Incident Evaluation Process corrective actions, that is in the process of being finalized.

### *A.3.4 Environmental Incident Evaluation Process for Incidents*

The purpose of GS 104.0004, Environmental Incident Evaluation Process (E-IEP), is to establish the environmental incident evaluation process with a fact-finding approach. Facts are used as a learning tool to develop recommendations and implement change to prevent similar incidents. Company policy is to implement the E-IEP, as appropriate, to identify contributing factors for an environmental incident so lessons learned can be communicated to help prevent similar occurrences in the future.

## B. FEEDBACK

Feedback from employees, contractors, customers, regulatory agencies, and the public provides a leading source for continuous improvement opportunities. SoCalGas has made available a variety of tools and avenues for our internal and external stakeholders to provide feedback and ideas for improving safety and operational performance. Valuable feedback is also received from audits and assessments conducted periodically to assess the effectiveness of our SMS and its associated components.

### B.1 Feedback from Employees and Contractors

SoCalGas maintains reporting systems and engagement tools for both employees and contractors to identify new and emerging risks and evaluate risk mitigation performance. Such reporting programs include leveraging both our internal and external stakeholder communication plans.

SoCalGas recognizes the importance of learning from close calls to reduce the potential for a serious incident or injury in the future. Employees have the ability and are encouraged to report close-calls and near-miss incidents through their supervisors on the Safety intranet website.

Referenced within the Stakeholder Engagement Plan, the Safety Observation and Reporting (SOAR) tool

was designed as a solution to report pipeline safety observations as they relate to our assets, data, and policies for both employees and contractors working directly on company gas pipelines.

Other reporting systems include:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Safety Services SharePoint Site</li> <li>• Ethics and Compliance Helpline</li> </ul> | <ul style="list-style-type: none"> <li>• ISN</li> <li>• Dig Alert 811</li> </ul> |
|---|--|

## B.2 Feedback from Safety Culture Surveys

Safety culture surveys are vital to engaging employees and receiving feedback on their perception of the state of our culture. SoCalGas has established a procedure to document the process and tools used to measure and assess the safety culture at SoCalGas. Safety culture assessment extends to all employees and covers all business functions and locations in our service area.

The National Safety Council (NSC) is comprised of independent experts who assist with evaluating SoCalGas’ safety culture. The NSC Safety Barometer survey is an employee perception survey that engages employees and asks for their anonymous feedback on safety by measuring elements of safety excellence in six areas:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Employee Participation</li> <li>• Supervisory Participation</li> <li>• Management Participation</li> </ul> | <ul style="list-style-type: none"> <li>• Safety Support Activities</li> <li>• Safety Support Climate</li> <li>• Organizational Climate</li> </ul> |
|---|---|

## B.3 Feedback from Audits and Assessments

Even before the initiation of our SMS, SoCalGas leveraged feedback and learning from inspections and reviews conducted by regulators, such as the CPUC, DOT/PHMSA, CalGEM, Cal/OSHA, and Sempra Audit Services.

In addition to formal audits, SoCalGas conducts internal safety self-assessments and quality and compliance assessment activities to help identify gaps, strengthen controls, and continually improve. Going forward, many of these assessments will either be led by the SMS organization, or conducted in collaboration with SMS Value Champions. These champions are representatives from various departments who support the implementation of SMS, meet periodically to discuss status updates, barriers, opportunities, and any support needed to progress the SMS to a higher maturity level. Results of these self-assessment efforts are integrated into the management review and, along with feedback received from other areas, form the basis for recommending improvement opportunities.

## B.4 SMS Maturity Evaluation

SoCalGas uses various methods to evaluate the growth and development (i.e., maturity) of our SMS. The evaluation of the SMS on an ongoing basis is important to provide assurance that the SMS is achieving its desired goals and objectives and making progress towards enhanced safety performance and more effective risk management. SoCalGas conducts SMS assessments at a frequency of once every three years. Based on the experience gained from completed assessments, SoCalGas may adjust its approach to assessments to better suit SMS requirements in any given year. SoCalGas plans to conduct assessments to evaluate our 7 core safety values, utilizing external third-party industry experts to maintain independence and objectivity. The results will be shared with the impacted stakeholders for

follow-up and completion of improvement opportunities identified by the assessment.

SoCalGas invited API to conduct an external third-party assessment of our SMS in the fourth quarter of 2020. Due to COVID-19 restrictions, the assessment was split into two parts: a virtual interview component, which was completed in 2020, and an in-person evaluation of our SMS concluded in July 2021.

SoCalGas' SMS also plans to use the following tools to assess the effectiveness of the SMS program on an ongoing basis:

- Reviews and assessments that are an integral part of various safety programs such as the integrity management programs, and self-assessments and inspections performed pursuant to SoCalGas' Environmental & Safety Compliance Management Program
- Annual management reviews of the SMS performed by various SoCalGas organizations led by the SMS organization under the direction of SoCalGas' Senior Management Team
- Periodic reviews and/or audits
- Peer reviews performed by industry associations (such as the AGA)
- External third-party audits and assessments of the SMS

## C. PERFORMANCE MANAGEMENT (METRICS)

Continuous improvement occurs when performance is measured and quantified. This is accomplished using (a) KPIs, including analysis of data and trends generated from SoCalGas operations activities, and (b) benchmarking with best-in-class companies or standards.

There are numerous lagging, leading, and process KPIs vital to measuring the effectiveness of our operations, risk management, and adequacy of our SMS. Lagging KPIs include incidents involving injuries and property damage. Leading KPIs include measures demonstrating risk reduction, such as corrective actions implemented based on audits, inspections, and incident investigations. Process KPIs show completion or improvement of activities and their supporting processes and procedures. SoCalGas has worked closely with the CPUC within the Safety Mitigation Assessment Phase (S-MAP) framework to identify metrics that would enable us to monitor our safety performance and the CPUC to compare metrics areas across utilities and over time.

SoCalGas maintains a process for identifying, collecting, and analyzing data generated from operations and maintenance, integrity management, audits and evaluations, management reviews, and other relevant sources related to the suitability and effectiveness of our SMS. A dashboard is in place to provide a consistent platform to visualize KPIs including a variety of elements: employee safety, pipeline safety, compliance, and damage prevention, all of which are part of the S-MAP 15 metrics. Also included are other operational dashboards and reports designed to deliver and view KPI and other business reporting metrics for SoCalGas' operations. SoCalGas will continually identify leading and lagging indicators to enhance the safety of our operations and drive our progress towards our goal of zero safety incidents.

We intend to continue evaluating leading safety management system practices in aviation, chemical manufacturing, and nuclear power generation to further enhance our SMS. SoCalGas will take a deliberate and systematic approach to benchmark with other industry standards and gradually integrate relevant improvements to strengthen our SMS and safety culture further.

## D. MANAGEMENT REVIEW

SoCalGas' SMT conducts a documented annual review of our SMS to incorporate results from all other efforts discussed in this chapter, and to determine which conformance and implementation goals have been met and to foster continuous improvement.

Our Management Review Plan documents how SoCalGas reviews our SMS and safety performance to determine whether performance goals and objectives are being met. This document was completed in 2020 and will be updated as necessary as part of continuous improvement efforts. The inaugural SMT SMS annual management review was conducted in January of 2021 and presented a list of continuous improvement opportunities identified across the enterprise. This review set the stage for an action plan to be developed and implemented in 2021 to further mature SMS. SoCalGas' SMT also utilizes its regularly scheduled meetings to focus on key issues impacting safety. At these regular meetings, the SMS organization, in collaboration with the operating units, provides updates/summaries on the progress, challenges, and/or issues with continuous improvement opportunities. Our CSO is responsible for confirming that all follow-up actions as identified in the management review are completed in a timely manner and are reported at the next management review cycle. SoCalGas leadership also periodically evaluates new technology that may enhance safety.



## CHAPTER 11: CONCLUSION

SoCalGas is fully committed to its goal of zero safety incidents. Establishment of its SMS, building a dedicated organization to support it, going beyond pipeline safety and addressing all aspects of safety under one comprehensive SMS framework, inviting industry experts to critically assess and guide our safety efforts, and engaging with our peers to collaborate on sharing and learning from each other are all designed to further enhancing our safe operations, strengthening our safety culture, and improving our overall safety performance, including helping us achieve our goal of zero safety incidents.

Our SMS takes a comprehensive and integrated approach, driven by our safety values – leadership commitment; risk management; employee and stakeholder engagement; competence, awareness and training; emergency preparedness and response; safety and compliance assurance; and continuous improvement.

It follows a robust Plan-Do-Check-Act cycle, which incorporates all seven safety values, from leadership commitment through continuous improvement.

We strive to proactively identify and resolve potential issues to help prevent incidents from occurring. As a result, there is an overall effort to continuously drive process improvements throughout our system and operations to adopt industry best practices.

Through our SMS, SoCalGas builds upon its long-standing tradition of safety and supports the continued safe and reliable operation of our gas system into the future.

**APPENDIX C**  
**SMS RAMP Activity by Workpaper**

**APPENDIX C–  
SMS RAMP Activity by Workpaper**

<b>SAFETY MANAGEMENT SYSTEMS RAMP Activity O&amp;M Forecasts by Workpaper (In 2021 \$)</b>						
<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs (000s)</b>	<b>TY2024 Estimated Total (000s)</b>	<b>TY2024 Estimated Incrementa l (000s)</b>	<b>GRC RSE</b>
2200-2409.000	SCG-CFF-6 - 7	Expand Compliance Assurance Program	399	530	131	0.00*
2200-2473.000	SCG-CFF-6 - 2	Pipeline Safety & Compliance Oversight	294	387	93	0.00*
2200-2473.000	SCG-CFF-6 - 8	Pipeline Safety Self-Assessment	294	329	35	0.00*
2200-2473.000	SCG-CFF-6 - C05	Develop Incident Evaluation Central Database and Further Enhance Causal Analysis Training	294	294	0	0.00*
2200-2551.000	SCG-CFF-6 - 2	Pipeline Safety & Compliance Oversight	209	311	102	0.00*
2200-2551.000	SCG-CFF-6 - 3	Continuous Improvement and Quality Assurance	209	209	0	0.00*
2200-2551.000	SCG-CFF-6 - 5	Develop Incident Evaluation Central Database and Further Enhance Causal Analysis Training	209	325	116	0.00*
2SM000.000	SCG-CFF-6 - 1	SMS Framework	817	2,202	1,385	0.00*
2SM000.000	SCG-Risk-5 - M05	Expanded Safety Culture Assessments	146	146	0	0.00*
2SM001.000	SCG-CFF-3 - 1	Policies & Procedures	161	161	0	0.00*
2SM001.000	SCG-CFF-3 - 2	Training, Exercises and Drills	161	277	116	0.00*

**SAFETY MANAGEMENT SYSTEMS**  
**RAMP Activity O&M Forecasts by Workpaper (In 2021 \$)**

<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs (000s)</b>	<b>TY2024 Estimated Total (000s)</b>	<b>TY2024 Estimated Incrementa l (000s)</b>	<b>GRC RSE</b>
2SM001.000	SCG-CFF-3 - 3	Stakeholder Outreach	161	277	116	0.00*
2SM001.000	SCG-CFF-3 - 4	Incident Command Structure	435	435	0	0.00*
2SM001.000	SCG-CFF-3 - 5	Mutual Assistance	38	38	0	0.00*
2SM001.000	SCG-CFF-3 - 6	After Action Review Program	473	473	0	0.00*
2SM001.000	SCG-CFF-3 - 7	Crisis Communication Technologies	310	360	50	0.00*
2SM001.000	SCG-CFF-3 - 8	Response: Watch Desk	0	508	508	0.00*
2SM002.000	SCG-CFF-3 - C06	After Action Review Program	39	39	0	0.00*
2SM002.000	SCG-CFF-6 - 1	SMS Framework	39	74	35	0.00*
2SM002.000	SCG-CFF-6 - 3	Continuous Improvement and Quality Assurance	475	751	276	0.00*
2SM002.000	SCG-CFF-6 - 6	Expand Quality Assessment Program	338	609	271	0.00*
2SM003.000	SCG-Risk-5 - C01	Employee Health and Safety Programs and Standardized Policies	807	865	58	0.00*
2SM003.000	SCG-Risk-5 - C03	Employee Wellness Programs	191	541	350	5.00
2SM003.000	SCG-Risk-5 - C04	Employee Safety Training and awareness programs	685	708	23	29.00
2SM003.000	SCG-Risk-5 - C05	Safe Driving Programs	304	914	610	19.00
2SM003.000	SCG-Risk-5 - C06	Personal Protection Equipment (PPE)	304	304	0	0.00*

**SAFETY MANAGEMENT SYSTEMS**  
**RAMP Activity O&M Forecasts by Workpaper (In 2021 \$)**

<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs (000s)</b>	<b>TY2024 Estimated Total (000s)</b>	<b>TY2024 Estimated Incrementa l (000s)</b>	<b>GRC RSE</b>
2SM003.000	SCG-Risk-5 - C07	Near Miss, Stop the Job and Jobsite Safety Program	304	327	23	47.00
2SM003.000	SCG-Risk-5 - C08	Safety Culture Programs	495	652	157	11.00
2SM003.000	SCG-Risk-5 - C09	Utilizing Industry Best Practices and Benchmarking	191	191	0	5.00
2SM003.000	SCG-Risk-5 - M02	Industrial Hygiene Program Refresh	0	971	971	0.34
2SM003.000	SCG-Risk-5 - M03	Proactive monitoring for indoor air quality and chemicals of concern	0	74	74	10.00
2SM003.000	SCG-Risk-5 - M04	Creation of a Safety Video Library	0	50	50	25.00
2SM003.000	SCG-Risk-5 - M06	Industrial Hygiene Program Expansion	0	153	153	45.00
2SM003.000	SCG-Risk-7 - C01	Contractor Safety Oversight	188	280	92	71.00
2SM003.000	SCG-Risk-7 - C02	Third Party Administration Tools	188	333	145	14.00
2SM003.000	SCG-Risk-7 - C03	Contractor Engagement	94	94	0	25.00
2SM004.000	SCG-CFF-6 - 1	SMS Framework	621	1,059	438	0.00*
2SM005.000	SCG-CFF-3 - C11	Emergency Management Technology	79	79	0	0.00*
2SM005.000	SCG-CFF-6 - 3	Continuous Improvement and Quality Assurances	158	292	134	0.00*
2SM005.000	SCG-CFF-6 - 4	Technology & Analytics	945	1,618	673	0.00*

**SAFETY MANAGEMENT SYSTEMS**  
**RAMP Activity O&M Forecasts by Workpaper (In 2021 \$)**

<b>Workpaper</b>	<b>RAMP ID</b>	<b>Description</b>	<b>BY2021 Embedded Base Costs (000s)</b>	<b>TY2024 Estimated Total (000s)</b>	<b>TY2024 Estimated Incrementa l (000s)</b>	<b>GRC RSE</b>
2SM005.000	SCG-CFF-6 - C02	Pipeline Safety & Compliance Oversight	79	79	0	0.00*
2SM005.000	SCG-Risk-5 - C05	Safe Driving Programs	79	79	0	19.00
<b>Total</b>			<b>11,545</b>	<b>18,730</b>	<b>7,185</b>	

\* An RSE was not calculated for this activity.

## **Appendix D**

### **Quality Management Plan for Construction SP-1102**



# Quality Management Plan for Construction

**Standard Procedure 1102**

Rev No.	Issue Date	Status	Author	Owner/ Approver	SoCalGas SMS Sr. Director
<b>0</b>	08/01/2021	Issue for Construction	J. Cotton	D. Chanysheva	G. Marelli

**Note: When downloaded or printed this is not a controlled document. Please check QM SharePoint Site for the current version.**



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INTERNAL

## Quality Management Plan for Construction

### 1. Purpose

The purpose of the Quality Management Plan for Construction (QMPC) is to establish a high-level framework for the quality management (QM) of construction and related activities. The QMPC includes the distinction of Construction Quality Management activities performed by the QM Team and the Construction Functional Teams. The foundation of the QMPC is [Gas Standard \(GS\) 192.0026, Records Management for High Pressure Project Closeout](#). The QMPC supports the execution of a project through construction and the record and information management of High Pressure Project Records (HPPR) identified as Life of Asset Records (LOA) in [GS 192.0026, Records Management for High Pressure Project Closeout](#). The QMPC supports Construction by helping to verify LOA records for its projects are Traceable, Verifiable and Complete (TVC).

The QMPC supports the Safety Management System’s (SMS). The QMPC establishes quality metrics and reporting through its quality assessments to strengthen project consistency and to contribute to the continuous improvement process of Construction.

SMS uses the Plan-Do-Check-Act (PDCA) cycle to drive continuous safety performance improvement. It is an integrated approach to improve and enhance safety through employees, policies, procedures, and programs. The QM Team contributes to the “Check” and drives the “Act” portion of the PDCA continuous improvement cycle. The quality assessments performed by the QM Team constitute a check of Gas Standards procedures and processes. Quality assessments lead to corrective actions that subsequently drive the continuous improvement of procedures and processes.

#### 1.1. QMPC Roadmap

The QMPC Roadmap highlights the 4 Ps (Purpose-People-Process-Product). The 4 Ps highlight key sections of importance in the QMPC. It is a snapshot of the quality process for construction.



## Quality Management Plan for Construction

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## 2. Scope

### 2.1. General

Generally, the scope of the QMPC covers:

- The roles and responsibilities of quality management for Construction
- The LOA records retention requirements per [GS 192.0026](#), *Records Management for High Pressure Project Closeout*
- The Construction Functional Team document owner of LOA records
- Quality Assessment Checklists
- Quality Assessment Report process
- Finding's escalation and resolution
- Feedback loop for Quality Assessment Report closure
- Continuous Improvement Process

### 2.2. Work Process

The integral elements of the QMPC work process are the [GS 192.0026](#), *Records Management for High Pressure Project Closeout*, Capital Delivery Manual (CDM), [Attachment 14.5](#) – *Quality Management Construction Responsibility Matrix* and the Quality Assessment Report.

- [GS 192.0026](#), *Records Management for High Pressure Project Closeout* defines the required LOA records to be maintained and retained
- CDM is a comprehensive approach to achieving excellence in the delivery of energy infrastructure projects and programs
- [Attachment 14.5](#) – *Quality Management Construction Responsibility Matrix* identifies the LOA records by category (Non-Bundle, Bundle A and Bundle B) and specifies the responsible person's Quality Assurance/Quality Control (QA/QC) activity from issuance through final approval of LOA records
- Quality Assessment Report documents the results of a quality assessment of a construction project that could lead to continuous improvement

## 3. Terms, Definitions, Abbreviations and Acronyms

### 3.1. Terms and Definitions

**Approved Agency:** An established and recognized agency that is regularly engaged in conducting tests, furnishing inspection services, or furnishing product certification where such agency has been approved by the building official.

## Quality Management Plan for Construction

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**Building Official:** The officer or other designated authority charged with the administration and enforcement of the California Building Code, or a duly authorized representative.

**Continuous Improvement:** The process of establishing objectives and finding opportunities for improvement is a continual process using quality assessment findings and assessment conclusions, analysis of data, management reviews or other means and generally leads to corrective action or preventive action.

**Corrected:** A finding that has been properly mitigated and verified to be in compliance. The Project Team corrected the deficiency and the solution is documented.

**Corrective Action:** An action taken to eliminate the cause(s) of an existing finding or other undesirable situation to prevent recurrence.

**Date of Operation (DOO):** The date an asset becomes available for safe use, even though the asset may not be in use.

**\*Note:** Historically DOO and NOP have been used interchangeably and may be denoted on historical records.

**Finding:** A finding is an unsatisfactory disclosure of a system deficiency that may be the result of a procedure and/or policy deficiency or adherence to said policy. A general lack of control in application that requires a corrective action.

**High Pressure Project Record (HPPR):** A Company record documenting the planning, activity and/or assets on a Company project involving high pressure pipelines and/or pipeline facilities. HPPRs include LOA Records and Supplemental Project Records

**Life of Asset Record (LOA):** Documentation that validates the design, construction, and installation of a pipeline and/or gas facility and is to be retained in accordance with Company policies and regulatory or industry codes and standards.

**Material Traceability:** requires traceable records which can be clearly linked to original information about a pipeline segment or facility per [PP02.018](#), *Material Tracking and Traceability Levels* and [GS 182.0056](#), *Material Traceability for High-Pressure Systems*.

**Nonconformance:** The nonfulfillment of a specified requirement.

**Notice of Operation (NOP):** A formal notification to Plant Accounting of an asset's Date of Operation.

**Not Observed:** An item not reviewed at the time of the quality assessment.

**Not Required:** An item that is not applicable to the work-scope of the project.

**Plan-Do-Check-Act (PDCA):** The PDCA is a four-step iterative cycle designed to achieve continuous improvement and is at the core of many management systems. Its principal aim is to encourage creating strategies and plans, executing those strategies and plans in line with guidelines, checking those actions for conformity, and using those results to adjust the next generation of plans.

**Preventive Action:** An action taken to eliminate the cause(s) of potential nonconformities to prevent future occurrence.

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**Procedure:** The steps in a process, and how the steps are to be performed for the process to fulfill requirements, usually documented.

**Process:** A set of interrelated work activities characterized by a set of specific inputs and value-added tasks which consist of a procedure for a set of specific outputs.

**Quality Management Responsibility Matrix:** Defines who and which team in the organization is responsible for specific work activity and deliverables.

**Quality Assurance (QA):** Comprises those actions necessary to provide adequate confidence that products, processes, or systems comply with requirements such as regulations, internal procedures, and standards. The focus is on providing assurance that processes are adequate and effective.

**Quality Assessment:** A quality assessment is a systematic and independent examination to determine whether the QA and QC activities and documentation comply with procedures and standards to achieve Traceable, Verifiable and Complete (TVC) documentation.

**Quality Assessment Checklist:** A document used as a means for planning and implementing quality assessments to verify whether quality activities and related results comply with planned arrangements and to determine the effectiveness of the quality system. The checklist facilitates that the quality assessment is conducted in a systematic and comprehensive manner, and the proper evidence and documentation are obtained. More specifically, the checklist guides the QM Team and specifies what evidence needs to be obtained to properly sample and document the performance and effectiveness of the company processes and procedures.

**Quality Assessment Closure:** A process designed to produce effective, efficient action to correct problems uncovered by a quality assessment. Quality Assessment resolution, closure, and follow-up are an integral part of good departmental management and are a shared responsibility of program managers and the QM Team.

**Quality Assessment Flowchart:** A depiction of the quality assessment workflow process.

**Quality Assessment Report:** A formal record of items identified as corrected, finding, satisfactory, not observed and/or not required that is distributed by the QM Team as a result of a quality assessment performed on a project.

**Quality Control (QC):** That part of quality assurance which, through checks, reviews, measurements, tests, inspections, verification, and documentation, determines that specifications are met, and the desired level of quality is achieved. The focus is on preventing defective products or services.

**Satisfactory:** Fulfilled of requirements.

**Special Inspections:** Inspection of construction activities that require the expertise of an approved special inspector to confirm compliance with the California Building Code and the approved construction documents.

**Special Inspector:** A qualified person employed or retained by an approved agency and approved by the building official as having the competence necessary to inspect a particular type of construction requiring special inspection as defined in the California Building Code.

**Traceable, Verifiable and Complete (TVC):** **Traceable** records are those which can be clearly linked to original information about a pipeline segment or facility. **Verifiable** records are those in which

## Quality Management Plan for Construction

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information is confirmed by other complementary, but separate, documentation. **Complete** records are those in which the record is finalized as evidenced by a signature, date, or other appropriate marking. TVC records are those that meet all three criteria. Refer to [GS 223.0415, Pipeline and Related Definitions](#) and [GS 167.0200, Data Gathering and Integration](#).

### 3.2. Abbreviations and Acronyms

<b>AFE</b>	Authorization for Expenditure
<b>API</b>	American Petroleum Institute
<b>ASME</b>	American Society of Mechanical Engineers
<b>AWS</b>	American Welding Society
<b>CDS</b>	Construction Document Specialist
<b>CPMC</b>	Construction Project Management Closeout
<b>CDM</b>	Capital Delivery Manual
<b>CFR</b>	Code of Federal Regulations
<b>CNG</b>	Compressed Natural Gas
<b>CSQM</b>	Company Site Quality Manager
<b>CTL</b>	Construction Team Lead
<b>DDS</b>	Design Data Sheet
<b>DIR</b>	Daily Inspection Report
<b>DOO</b>	Date of Operation
<b>EOY</b>	End of Year
<b>EPC</b>	Engineering, Procurement and Construction
<b>FEED</b>	Front End Engineering Design
<b>GIS</b>	Geographic Information Systems
<b>GS</b>	Gas Standard
<b>HPPR</b>	High Pressure Project Record
<b>IFC</b>	Issue for Construction
<b>IPS</b>	Interactive Planning Session
<b>IRC</b>	Internal Review Committee
<b>ITP</b>	Inspection and Test Plan
<b>LAEP</b>	Land Acquisition Execution Plan
<b>LNG</b>	Liquefied Natural Gas
<b>M&amp;E</b>	Material and Equipment
<b>MJR</b>	Miscellaneous Job Report
<b>MQM</b>	Material Quality Management
<b>MSP</b>	Material Specification
<b>MTR</b>	Material Test Report



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<b>NDE</b>	Nondestructive Examination
<b>NOP</b>	Notice of Operation
<b>PA</b>	Process Assurance
<b>PDCA</b>	Plan-Do-Check-Act
<b>PDMS</b>	Pipeline Document Management System
<b>PEP</b>	Project Execution Plan
<b>PI</b>	Pipeline Integrity
<b>PM</b>	Project Manager
<b>PMO</b>	Program Management Office
<b>PO</b>	Purchase Order
<b>PWIR</b>	Project Weld Inspection Report
<b>QA</b>	Quality Assurance
<b>QC</b>	Quality Control
<b>QCII</b>	Quality Control Inspection Instructions
<b>QM</b>	Quality Management
<b>QMPC</b>	Quality Management Plan for Construction
<b>QRCM</b>	Quality Risk & Compliance Manager
<b>RDMS</b>	Records & Document Management Systems
<b>RFC</b>	Request for Clarification
<b>RFI</b>	Request for Information
<b>RFP</b>	Request for Proposal
<b>SAP</b>	Systems, Applications, and Products
<b>SDG&amp;E</b>	San Diego Gas & Electric
<b>SME</b>	Subject Matter Expert
<b>SMS</b>	Safety Management System
<b>TPE</b>	Target Price Estimate
<b>WIP</b>	Windows Information Protection
<b>WBS</b>	Work Breakdown Structure
<b>WOA</b>	Work Order Authorization

## 4. Implementation

### 4.1. Purpose

The purpose of this section is to describe how the QMPC will be implemented and managed to confirm the roles, responsibilities, and requirements of the QMPC are adhered to. This section provides a basic overview of activities that are based upon the principals of the QMPC.

## Quality Management Plan for Construction

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The Quality Risk & Compliance Manager (QRCM) is responsible for the execution and oversight of the QMPC. The QRCM manages the QMPC implementation through the QM Team and its quality assessments of the Construction's Quality Assurance (QA) and Quality Control (QC) processes, activities, and documentation. The QM Team conducts quality assessments to evaluate the effectiveness of the QMPC.

QRCM will provide the QM Team regular training of the QMPC to encourage consistency in the execution of the QMPC.

### 4.1.1. QMPC Maintenance

The QRCM is responsible for the maintenance and timely updates of the QMPC and tools such as the Quality Assessment Reports, Construction QM assessment checklist and Construction QM Responsibility Matrix. The QRCM controls the issue and revision of the QMPC. The revision status should be shown on the Title page of the QMPC.

Requests for revisions shall be submitted to QRCM. QRCM will review the request and determine if the request warrants a revision.

The "Master" copy of the QMPC is to be maintained in a designated site. Once the electronic version of the QMPC has been downloaded or printed from the designated site, it is considered "Uncontrolled". Copies will not be reproduced for controlled distribution.

## 5. Quality Management Organization

### 5.1. Quality Management Team

The QM Team provides Quality Management for Construction. The QM Team is an independent team that performs quality assessments to evaluate the effectiveness of the QMPC. The QM Team conducts quality assessments to monitor the implementation of the Company's processes and GSs, and evaluate documentation defined as a LOA record in [GS 192.0026, Records Management for High Pressure Project Closeout](#). The QM Team may request a subject matter expert (SME) to help conduct an assessment. The QM Team evaluates the LOA records to determine if the records are TVC, and the requirements of the applicable GS were satisfied. The QM supports transparency by publishing the Quality Assessment Checklists within the QMPC.

The QM Team provides oversight of the Construction Quality Program including those activities performed by the Construction Functional Teams. The QM Team will issue Quality Assessment Reports and monitor their timely closure as well as the resulting corrective actions, if any. The QM Team will escalate quality assessment findings that require immediate action and resolution to the project Construction Operations Manager, Construction Pipeline Operations Manager, and/or the Project and Construction Manager, as applicable, and monitor the findings through closure.

The QM Team will track and report metrics from the quality assessments and report items identified as corrected, finding, satisfactory, not observed and/or not required or similar trends.

## Quality Management Plan for Construction

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### 5.1.1. QM Structure and Responsibilities

[Attachment 14.5](#) – *Quality Management Construction Responsibility Matrix* lists the QA and QC activities to be conducted by the Construction Functional Teams. The Portfolio Manager or department equivalent is ultimately responsible and accountable for verifying that LOA records are TVC.

### 5.2. Engineering Analysis Center Teams

Material Quality Management (MQM) Nondestructive Examination (NDE) Program, and Material and Equipment (M&E) Teams are separate Company programs in Gas Engineering and under the umbrella of the QM Team as a matrixed support function. MQM, NDE and M&E provide quality management of material and equipment from manufacturing, procurement, pre-construction, construction, post-construction to closeout. MQM, NDE and M&E include material traceability (records), quality inspections (QA and QC), fabrication inspections (welding, NDE) and performance testing. MQM, NDE and M&E identify hold points and conduct on-site inspections, oversight, witnessing and/or document review. The MQM, NDE and M&E roles and responsibilities include, but are not limited to:

- Pre-Construction, Manufacturing and Fabrication (Procurement):
  - Material Engineering Specifications (see applicable MSPs)
  - Material Vendor Qualification, Approval and Site Auditing (see [GS 107.0004](#), Manufacturer Approval and Quality Audit Standard)
  - Hold Points, Witnessing and QA Inspections: Site Surveillance, Performance Testing, Fabrication (Welding, NDE), [MSP PP02.019](#), Material Quality Assurance (QA) – Procedures and Guidelines)
  - ITP management and Non-Conformance Report (NCR) Resolution and Closure
- Construction, Fabrication, and Installation:
  - Goods Receipt, Staging and QC Inspections (see applicable MSPs, QCIIIs and [GS 182.0056](#), Material Traceability for High-Pressure Systems)
  - Segmenting, Marking and Bar Coding (Stenciling) (see [GS 182.0056](#), Material Traceability for High-Pressure Systems)
  - NDE Oversight of NDE procedures, qualifications, and inspections
  - Inspection Oversight (Welding Inspection, Coating, Utility) procedures, qualifications, and inspection as SMEs
- Post-Construction and Project Closeout
  - Material Traceability (records), Material Reconciliation and Material Closeout (see [GS 182.0056](#), Material Traceability for High-Pressure Systems and [GS 192.0026](#), Records Management for High Pressure Project Closeout)

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The MQM, NDE and M&E Teams' responsibilities are to provide direct project service support, monitor and control, oversee, and audit and provide overall governance for MQM and M&E contractor activities (pre-construction, construction, and post-construction) at the discretion of the Company.

The MQM and M&E programs have separate requirements and are not meant to be detailed in the QMPC. MQM and M&E Company policies are listed within the QMPC and should be supplemented to applicable regulatory and industry codes requirements.

### 6. Construction Management Organization

The Vice President of Construction has oversight of the Construction Functional Teams. Construction integrates QA and QC throughout its Functional Teams' activities. Construction supports the QMPC through its Functional Teams by establishing methods of QA/QC through the maturity of the project (and related records) through project completion (and finalization of records) with oversight from Construction Leadership.

Construction Functional Teams are required to be familiar with the principles of the QMPC and be committed to the proper inclusion and performance of the QA/QC activities and documentation in their project work process. With oversight from the Construction Functional Teams' Managers, the Construction Functional Teams are responsible for providing and/or coordinating the following support:

- Leadership
- Safety
- QA/QC
- Process Assurance
- Construction Document Analyzation
- Continuous Improvements
- Contract Management
- Environmental Management
- Engineering and Design
- Project Management
- Construction Management
- Administrative Permitting
- Project Controls
- Document Control
- Management of Change
- Training & Onboarding

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- Procurement
- Supply Management
- Land Services/Survey & Mapping
- Customer Communications and Outreach
- Lessons Learned

### 6.1. Construction Functional Quality Teams

The Construction Functional Teams directly support the quality efforts through their Process Assurance, Construction Document Specialist (CDS), and Construction Closeout Teams. These teams provide internal quality oversight of the processes and documentation within the Construction organizations.

#### 6.1.1. Process Assurance Team

The Process Assurance (PA) Team in the Construction Program Management Office (PMO) oversees the CDM, which outlines the 5-stage project lifecycle process for all projects with the Construction Organization. The PA Team also acts as SMEs for non-Construction organization teams that utilize CDM or the previous version of CDM (formerly known as Project Management Guide).

The PA Team roles and responsibilities include, but are not limited to:

- Manage implementation of the Capital Delivery Manual (CDM) along with Stage Gate Checklists
- Quality review of Work Orders for consistency and adherence to project naming convention
- Manage the Stage Gate review process and tracking of document completion per CDM requirements
- Manage Document Control submittal requirements and validate key deliverables in OpenText
- Develop and maintain Standard Procedures for the Construction Organization

#### 6.1.2. Construction Document Specialist Team

CDS Team manages and coordinates activities leading to the successful completion of projects within the Construction organization. The CDS Team actively participates in the development, planning, implementation, tracking and close out of pipelines, valves, and appurtenances construction and, pressure testing projects and compliance documentation generated and managed through the Construction organization.

The CDS Team roles and responsibilities include, but are not limited to:

- Project control tracking, planning, documentation, and analysis assistance to Construction Functional Teams and other departments to help facilitate the successful execution of construction projects
- General administrative and technical support to mobile field teams of Construction management
- Initial review and analysis of construction related documents to confirm that critical

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documentation has been executed correctly in accordance with construction procedures and specifications

- Route documentation to the appropriate approvers, destinations, and repositories
- Coordinate and facilitate the resolution to findings identified in quality assessment reports conducted by the QM Team

### 6.1.3. Pipeline Integrity Execution (PI Ex) Closeout Team

The PI Ex Team is responsible for the reconciliation of all high pressure project closeout documentation to confirm documents are traceable, verifiable, and complete in accordance with required Federal, State, and Company requirements/specifications including Gas Standards, Form Instructions, and Material Specifications. PI Ex Closeout is responsible for carrying-out all aspects of high pressure project closeout including:

- Material Closeout
- Interim Turnover
- Stationing Request
- Line/Valve Name Request
- Collaboration with Design/Survey
- Review of Draft Completion Set
- Submission of Bundle A Package
- Preparation and Submission of Bundle B
- Tracking Bundle A/B Submission/Acceptance

### 6.1.4. Construction Project Management Closeout Team

The Construction Project Management Closeout (CPMPC) Team assumes all project management responsibilities relating to material traceability, accounting, document verification, and all other project closeout responsibilities from the project handoff from the Construction Document Advisor Team back to the Project Team. The CPMPC Team confirms all federal/state guidelines are met and coordinate with engineering firms and various internal departments to complete the project reconciliation process. The CPMPC Team coordinates all activities leading to the successful completion of tasks including, scoping, permitting, project governance and design for project closeout, including enforcing project closeout (Bundle A/Bundle B) policies and procedures. The CPMPC Team also reviews material traceability documentation and verify all documents meet the specifications and requirements defined in the Gas Standards. The CPMPC Team is responsible for implementing all aspects of high pressure project closeout and turn-over of [GS 192.0026](#), Records Management for High Pressure Project Closeout required documents to the asset owners including:

- Material Closeout
- Interim Turnover

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- Detail review and analyzation of construction related documents including, but are not limited to:
  - Redline Drawings
  - Design Data Sheet
  - Material Tracking and Reconciliation – producing the Miscellaneous Job Reports (MJR)
- Confirm accuracy of uploaded documents to the appropriate Company repository (OpenText/My Projects/PDMS)
- Assist with submission of Bundle A Package
- Assist with preparation and Submission of Bundle B
- Tracking Bundle A/B Submission/Acceptance
- Track and manage closeout activities for projects in the Construction Organization

### 6.1.5. Gas Transmission Technical Services Closeout Team

The Gas Transmission Technical Services Closeout (GTTS) Team manages project management responsibilities relating to material traceability, document verification, and other project closeout, from project handoff from construction to final archive. The GTTS Team confirms federal/state guidelines are met and coordinates with engineering firms and various internal departments to complete the project reconciliation process. The GTTS Team monitors, reviews, and follow-up as necessary to confirm the completeness and quality of GTTS projects for SoCalGas and SDG&E. The GTTS Team enforces policies and procedures by implementing aspects of high pressure project closeout and turn-over per [GS 192.0026](#), Records Management for High Pressure Project Closeout.

- Support Gas Transmission Compliance with Project Closeout policies and procedures updates to confirm all submitted work is traceable, verifiable, and completed correctly
- Established GTTS High Pressure Reconciliation Processes
- Collaborate with PM's and PM support with project document control and deadlines
- Support team with CPUC Audit Data
- Prepare, validate project documents for internal/external audits
- Assist Transmission Operations with project or document inquiries
- Support internal department with HP documents control date requests to include archived projects and iron mountain
- Manage GTTS and SDG&E workload by creating Technical Services Request (TSR) cases/tasks, reviewing, and running TSR reports
- Assign, review, and audit work completed by contractors in PDMS, My Projects, and TSR
- Track Bundle A Submission/Rejections/Acceptance

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- Bi-weekly meeting with Gas Engineering for Bundle A status'
- Coordinate and assign Bundle B submission to Vendor
- Track Bundle B Submission/Rejections/Acceptance
- Monthly meetings with Data Collections for Bundle B status'
- Oversee contract vendor's project progress, policy adherence, and compliance with timeline expectations.
- Collaborate and attend weekly meetings with the Kaizen team for future HP closeout process improvements
- Support PMG projects by requesting project codes, review documents prior to Stage Gate meetings, attend weekly Stage Gate meetings, then upload approved projects to OpenText
- Track legacy projects and advise on project closeout solution
- Audit review archive projects

## 7. High Pressure Project Stages

There are five (5) stages that describe the life cycle of a High Pressure Project – Initiation and Business Case, Preliminary Design and Option Selection, Detailed Design and Procurement, Construction and Closeout. The general descriptions of the stages include, but are not limited to:

- **Stage 1 - Initiation and Business Case:** The Project Sponsor develops initial business case or project driver/transfer form and accompanying preliminary cost and schedule based on determined requirements with the support of Project Team. Initial funding is submitted to allow preliminary design of options.
- **Stage 2 - Preliminary Design and Option Selection:** Project Team analyzes proposed options and makes selection based on scope, cost, schedule, and risk. Preliminary design, long lead procurement and permitting activities are initiated in this stage. Scope, cost, and schedule are also baselined in this stage. All impacted teams are engaged in key decisions during project lifecycle.
- **Stage 3 – Detailed Design and Procurement:** Project Team obtains funding approval, finalizes design of selected option, secures necessary permits, and completes procurement activities. Project Team submits RFP and awards construction contract.
- **Stage 4 - Construction:** Project Team monitors scope, cost, and schedule. Contractor is mobilized and Project Team confirms safety and quality standards are met. Once construction is complete, the commissioning/startup of asset is achieved, and the Project Team submits NOP.
- **Stage 5 - Closeout:** Once an asset is in service, the Project Team formally initiates final project closeout. The Project team advises relevant stakeholders, gathers, and uploads documentation, and confirms project costs are recorded and finalized. The Project team transmits final project documentation to asset owner.



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The QA, QC, and quality assessment responsibilities are illustrated in the table below.

Function	Project Stages				
	Initiation & Business Case	Preliminary Design & Option Selection	Detailed Design & Procurement	Construction	Closeout
Quality Control (Design)	Technical Design Review Team	Technical Design Review Team	Technical Design Review Team Construction Operations Manager		
Quality Assurance (Design)	Design Reviews Engineering Design Manager	Design Reviews Engineering Design Manager	Design Reviews Engineering Design Manager	Engineering Design Manager	Gas Engineering Manager
Quality Control (Surveying & Mapping)	Survey Quality Coordinator	Survey Quality Coordinator	Survey Quality Coordinator	Survey Quality Coordinator	Survey Quality Coordinator
Quality Assurance (Surveying & Mapping)			Regional Survey Manager	Regional Survey Manager	Regional Survey Manager/GIS Closeout Support SCG
Quality Control (Supply Management)			Quality Assurance Coordinators	Quality Control Coordinators	
Quality Assurance (Supply Management)			Quality Assurance Coordinators	Quality Control Coordinators	
Quality Control (Construction)				Construction Inspectors and Welding Inspectors	

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Quality Assurance (Construction)				Construction Manager/ Contract Administrator	Project Manager
				Construction Team Lead	
				Construction Document Advisor Team Lead	
Quality Assessments				Quality Management Team	Quality Management Team

## 8. High Pressure Project Records

Document Control and Records Management are necessary to verify that activities are planned, monitored, controlled, and completed as part of the design, construction, and installation of a pipeline and/or gas facility. [GS 192.0026, Records Management for High Pressure Project Closeout](#) identifies the required project documentation as LOA records.

These LOA records are required to document activities such as strength/pressure testing, NDE testing and welding to validate the design, construction, and installation of a pipeline and/or gas facility were in accordance with Company policies and regulatory or industry codes and standards. LOA records as defined in [GS 192.0026, Records Management for High Pressure Project Closeout](#), contain compliance documentation that is required to be maintained for the life of the asset plus five years. The following should be verified:

- Documents are legible and correctly identified
- Key fields are completed or marked with Not Applicable (N/A) or similar marking.
- The relevant version of applicable documents and forms is available in a centralized system
- Hierarchy of approval is obtained prior to release of the document
- Availability of the LOA records

Document owners and expected QA/QC activities have been identified in [Attachment 14.5 – Quality Management Construction Responsibility Matrix](#), which are intended to provide guidance for timely completion of LOA records.

LOA records should be TVC. In addition, a quality assessment should be conducted to determine if requirements identified in the applicable GS are satisfied. Furthermore, change order documents, revised drawings during construction, and any document (including digital documents) with signatory of approval should be provided as part of the project record in the Company's approved document repositories.

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[GS 192.0026](#), *Records Management for High Pressure Project Closeout*

### 8.1. Life of Asset Records

Life of Asset Records identify the minimum HPPRs required to document activities such as strength/pressure testing, NDE, inspection and welding to validate the design, construction, and installation of a pipeline and/or gas facility were in accordance with Company policies and regulatory or industry codes and standards.

#### 8.1.1. Environmental Records

The purpose of the environmental records is to document and validate the conformance to environmental and safety requirements during the phases of a project.

#### 8.1.2. Material Traceability Records

The purpose of the material traceability records is to document and manage the material traceability and reconciliation of materials and equipment used in the construction of a project from procurement, through construction and closeout.

#### 8.1.3. Welding Package Records

The purpose of the welding package records is to document the traceability and the reconciliation of welds performed on high pressure facilities operating at a pressure equal to and greater than 60 psig.

The Construction Team will verify that welding documents required in the Welding Package per [GS 192.0026](#), *Records Management for High Pressure Project Closeout* are TVC, and are in accordance with the latest requirements of [GS 187.0175](#), *Inspection and Testing of Welds on Company Steel Piping (SDG&E GS G7815)*, as applicable, and [GS 192.0032](#), *Weld Map*.

Welding procedures in the Welding Package shall match those found in SoCalGas/SDG&E Document Library.

#### 8.1.4. Nondestructive Examination (NDE) Package Records

The purpose of the NDE package records is to document the requirements for examination and the reconciliation of welds performed on high pressure facilities operating at a pressure equal to and greater than 60 psig and welds performed in accordance with other industry recognized standards such as ASME B31.3 – Process Piping, ASME B31.8 – Gas Transmission and Distribution Piping Systems, American Welding Society (AWS) – Structural Welding Code – Steel, etc., as applicable, to assure integrity of the welds and compliance with regulatory requirements.

The Construction Team will verify that NDE documents required in the NDE Package as defined in [GS 192.0026](#), *Records Management for High Pressure Project Closeout* are TVC, and are in accordance with the latest requirements of [GS 187.0200](#), *Radiographic Examination API 1104 (SDG&E GS G7817)*, [GS 182.0049](#), *Liquid Penetrant Examination API 1104 (SDG&E GS G7015)* and [GS 182.0051](#), *Magnetic Particle Examination API 1104 (SDG&E GS G7016)*, and industry recognized standards, as applicable. For welds not performed in accordance with API 1104, refer to the NDE Supplemental Project Requirements provided by the NDE Program Manager.

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### 8.1.5. Strength/Pressure Test Package Records

The purpose of the Strength/Pressure Test Package Records is to document activities of strength/pressure testing performed on new, relocated and reinstated steel pipelines and components are in accordance with [GS 182.0170](#), *Strength Testing - Pipelines and Facilities*, [GS 182.050](#), *Nitrogen Requirements* ([SDG&E GS G7363](#)) and industry recognized standards such as ASME B31.3 – Process Piping and ASME B31.8 – Gas Transmission and Distribution Piping Systems, as applicable. Strength/Pressure Test Package Records are used to validate the strength and integrity of the facility and its safety of operation, and compliance with regulatory requirements.

The Engineering and Design Team Lead is responsible for planning strength/pressure tests, the Construction Team Lead is responsible for conducting strength/pressure tests and the Engineering and Design Team Lead is responsible for verifying the integrity of strength/pressure tests for new, existing, replaced, and relocated steel gas piping and components that are designed to operate above 60 psig. The Construction Team is responsible for verifying the minimum and maximum test pressure and test duration for strength/pressure tests are in accordance with [GS 182.0170](#), *Strength Testing - Pipelines and Facilities*, [GS 182.050](#), *Nitrogen Requirements* ([SDG&E GS G7363](#)) and industry recognized standards, as applicable.

### 8.1.6. Valve Package Records

The purpose of the Valve Package Records is to document valve testing activities to validate design and functionality requirements are in accordance with Company policies and regulatory or industry codes and standards.

### 8.1.7. Other Required Records

Other Required Records are LOA records that document activities to validate design and functionality requirements are in accordance with Company policies and regulatory or industry codes and standards. For a complete list of LOA records refer to [GS 192.0026](#), *Records Management for High Pressure Project Closeout*.

### 8.1.8. Bundle A Records

The purpose of the Bundle A Records is to document the reconciliation of the Deliverable A1: Completion Drawing Set and Deliverable A2: Survey Data File. Bundle A Records are identified as LOA records in [GS 192.0026](#), *Records Management for High Pressure Project Closeout*.

The Project Manager (PM) facilitates the submission of A1 Drawing Products as Bundle A to Design Drafting for quality review and retention in accordance with [GS 192.0030](#), *Completion Drawing Set Requirements for High Pressure Pipelines*. Bundle A has a target closeout of 120 days or sooner from DOO. Bundle A consists of the Deliverable A1: Completion Drawing Set and Deliverable A2: Survey Data File.

### 8.1.9. Bundle B Records

The purpose of the Bundle B Records is to document the reconciliation Deliverable B1: Pipeline Feature Data Collection and Deliverable B2: Pipeline Database Update Form. Bundle B Records are identified as LOA records in [GS 192.0026](#), *Records Management for High Pressure Project Closeout*.

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The PM facilitates the submission of Bundle B to GIS Management in accordance with [GS 192.0025](#), *GIS Maintenance Requirements for High Pressure Gas Lines*. Bundle B has a target closeout of 180 days or sooner from DOO. Bundle B consists of the deliverables Deliverable B1: Pipeline Feature Data Collection and Deliverable B2: Pipeline Database Update Form.

### 8.2. Supplemental Project Records

Supplemental Project Records are HPPRs that may be produced but not always required as part of the closeout process. Supplemental Project Records such as Daily Inspection Reports in accordance with [GS 191.0025](#), *Inspection and Scoring of Construction Work* and Emergency Incident Reports in accordance with [GS 183.0165](#), *Emergency Incident Reporting* and [GS 183.0110](#), *Field Procedure - Emergency Incidents Transmission* provide evidence and history of activities performed during a project and therefore maintain their primary usefulness during the activity of the high-pressure project. For a complete list of Supplemental Project Records refer to [GS 192.0026](#), *Records Management for High Pressure Project Closeout*.

## 9. Quality Management Assessment Process

The purpose of quality assessments is to validate the effectiveness of the QMPC. The QM Team conducts assessments to provide an independent check of the processes and to determine that LOA records are TVC. The QM Team assessments are intended to determine compliance with construction documentation requirements. The QM Team may use either QM field assessments or QM closeout assessments to validate the effectiveness of the QMPC.

The QM Team selects, prioritize, and conduct unannounced QM field assessments based on the Construction Project Status Snapshot Schedule. QM Team selects projects that are actively in construction and have daily observable tasks as listed in the construction activities column in the Construction Project Status Snapshot Schedule. Unannounced Construction QM field assessments will be conducted without prior notice given to the respective Construction Manager. Projects will be assessed using the standardized Construction QM Field Assessment Report.

The QM Team conducts QM closeouts based on its Closeout Assessment Tracker.

### 9.1. Quality Assessments

The Quality Management Team plans, schedules, and conducts quality assessments. A typical quality assessment may include:

- Identification of required quality assessment milestones based on project size and schedule
- Verification that the correct checklists are in place
- Interviews of project team members to learn status and functions of processes, procedures, and documentation
- Escalation of unresolved findings that require immediate solution to the appropriate Construction Functional Manger and QRCM
- Discussion of findings with QRCM
- Discussion of findings with Portfolio Manager or department equivalent, and Construction

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Functional Team Managers, as appropriate

- Verification that responses to findings in a Quality Assessment Report received from the Project Manager are evaluated

[Attachment 14.1](#) – *Construction Quality Management Virtual Field Assessment Flowchart*, [Attachment 14.2](#) – *Construction Quality Management Field Assessment Flowchart*, and [Attachment 14.3](#) – *Construction Quality Management Closeout Assessment Flowchart* illustrates the life of a quality assessment from initiation to closure. The flowcharts also illustrate when to escalate a finding that requires immediate actions.

### 9.2. Types of Quality Assessments

Quality assessments are classified as either QM virtual field assessments, QM field assessments or QM closeout assessments.

QM virtual field assessments are QM field assessments that are conducted in the office instead of the field.

QM field assessments are conducted in the field to determine whether the documentation of a project (or part thereof) is TVC and maintained in accordance with the applicable GS. The purpose is to determine whether the documentation requirements are being satisfied to facilitate QM closeout assessments.

QM closeout assessments are desktop assessments of documentation of a project. The purpose is to determine whether the documentation is TVC and in accordance with the applicable GS.

#### 9.2.1. Quality Management Virtual Field Assessments

QM virtual field assessments are conducted when it is not practical or safe to conduct the quality assessment in the field. The QM Assessor request the applicable documentation to determine whether the documentation requirements are being satisfied to facilitate QM closeout assessments.

[Attachment 14.6](#) – *Construction Quality Management Field Assessment Checklist* will be the guide to conducting QM virtual field assessments.

QM virtual field assessments will be conducted early enough at the start of construction to allow for revisions if findings are identified. Records of the QM virtual field assessments should be maintained, along with identified findings and the resulting corrective action. Documentation of the resolutions should be maintained in the QM SharePoint Site.

The QM Team should conduct QM virtual field assessments during construction. A typical QM virtual field assessment may include:

- The same as listed for a typical QM field assessment with the exception that the informal interview with Construction Management team members are conducted remotely, if practical.

#### 9.2.2. Quality Management Field Assessments

QM field assessments conducted during material fabrication, strength/pressure testing, construction and installation are essential to evaluating QA/QC activities, processes, and documentation.

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[Attachment 14.6](#) – *Construction Quality Management Field Assessment Checklist* will be the guide to conducting QM field assessments. QM field assessments will be conducted early enough at the start of construction to allow for revisions if findings are identified. Records of the QM field assessments should be maintained, along with identified findings and the resulting corrective action. Documentation of the resolutions should be maintained in the QM SharePoint Site.

The QM Team should conduct QM field assessments during construction. A typical QM field assessment may include:

- Pre-site review of documentation for QM field assessment preparation
- Verification that the correct checklist is in place
- Informal interview with Construction Management team members at project construction site
- Review of key documentation including but not limited to MTRs, Project Weld Inspection Reports (PWIRs), weld maps, NDE reports, Coating Inspection Reports and Strength/Pressure Testing reports
- Escalation of a finding that needs immediate resolution
- Correspondence with Construction Team to resolve findings
- Summary of QM field assessment items identified as corrected, finding, satisfactory, not observed and/or not required

### 9.2.3. Quality Management Closeout Assessments

QM closeout assessments evaluate the processes and procedures, and compliance documentation from Initiation & Feasibility to Closeout.

[Attachment 14.7](#) – *Construction Quality Management Closeout Assessment Checklist* will be the guide to conducting QM closeout assessments. Records of the QM closeout assessments should be maintained, along with identified findings and the resulting corrective action. Documentation of the resolutions should be maintained.

The QM Team will conduct QM closeout assessments as a quality review to document the effectiveness of the various Construction functional-level QA/QC processes and to provide additional oversight that records are TVC. A typical QM closeout assessment may include:

- Evaluation of the applicable LOA records as defined in [GS 192.0026](#), *Records Management for High Pressure Project Closeout*
- Escalation of a finding that needs resolution through corrective action or a justification of the exception or event
- Documentation of items identified as findings for the purpose of continuous improvement(s)
- Facilitation of findings which typically will result in recommendations or new company policy or processes
- Correspondence with Functional Teams to resolve findings through the QM Closeout Assessment

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### Report

- Summary of QM closeout assessment items identified as corrected, finding, satisfactory, not observed and/or not required

## 10. Quality Management Evaluation Process

The means for achieving quality and consistency, demonstrating conformity, and providing documentation are described in the applicable GSs. Teams who perform, manage, or verify work that affects quality of the project are responsible to adhere to the GSs, obtain the required approvals, and verify that the required project documentation at project stages has been bundled, organized, and filed in Company's approved document repository.

The QM evaluation examines the project activities and documentation to determine if the activity satisfies the requirements of the GSs and the documentation is TVC. The QM Team performs quality assessments of the LOA records that are defined in [GS 192.0026 Records Management for High Pressure Project Closeout](#).

### 10.1. Initiation and Business Case

During the Initiation and Business Case Stage, the Phase I Work Order Authorization (WOA) is prepared and submitted for initial funding, project scope is initiated (Business Case or Project Driver/Transfer Form), project team members are assigned, and the project is kicked off. The pre-front end engineering design is complete, if applicable, asset information for preliminary scoping is validated, stakeholders are engaged, and the project scope and developed options are refined. The Class 5 estimate and Level 1 schedule are developed, project site requirements are identified, a high-level environmental review is completed, a preliminary land and right of way (ROW) risk assessment is completed, and a permit project scope and risk assessment are completed. Project drivers such as safety and compliance are identified, and long-term system and operational requirements such as training and ongoing operations and maintenance costs are identified. The regulatory mechanisms are identified, a 5-year investment plan is developed and incorporated, funding is approved, the project continuation (Go/No-Go) is approved, and the decision is documented.

Initiation and Business Case objectives include the following:

- Initiate Project
- Complete Feasibility Study
- Develop Preliminary Cost and Schedule
- Identify High Level Risk Assessment
- Finalize Business Case or Project Driver/Transfer
- Develop Revenue Recovery Strategy
- Conduct Stage Gate

There are no LOA records identified in the Initiation and Business Case Stage. However, there may be Supplementary HPPRs in this stage.



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### 10.2. Preliminary Design and Option Selection

During the Preliminary Design and Option Selection Stage, a job site assessment with key stakeholders is conducted, current asset information and drawings are validated, and potential site risks are identified. The overall cost impact of the project is analyzed, long term operational needs are assessed, opportunities to bundle and coordinate work with other construction projects are identified, if applicable, and selection criteria are documented. A project delivery resource chart is developed, as applicable, the contracting strategy is selected, a Risk Register is developed, materials are identified, a preliminary Environmental Evaluation Plan is developed, a Project Outreach and Communication Plan is developed, the Permit Execution Matrix is updated, a ROW checklist and preliminary land exhibits to develop a Land Acquisition Execution Plan are provided, customer impacts are identified, key milestones are updated, lessons learned from previous projects are incorporated, and risk assessment findings are incorporated into the schedule.

The Front End Engineering Design (FEED) is awarded, if applicable, the design basis is prepared, the Preliminary Traffic Control Plan is obtained, the 30% Drawing Package is completed and reviewed with stakeholders, a Class 3 estimate and contingencies are developed. A cost forecast based on Work Breakdown Structure (WBS) is developed, a schedule based on Stakeholder input and/or at Interactive Planning Session (IPS) is developed, critical path materials are identified, Material Requisition/Reservation in Project Systems (SAP) is initiated and submitted, long lead items are identified, if applicable, necessary change control forms are completed, lessons learned are documented, and the decision is documented.

Preliminary Design and Option Selection objectives include the following:

- Project Site Assessment
- Option Analysis and Selection
- Project Execution Plan (PEP)
- Preliminary Design
- Cost and Schedule Baseline
- Long Lead Procurement, if necessary (6-months or longer)
- Conduct Stage Gate

There are no LOA records identified in the Preliminary Design and Option Selection Stage. However, there may be Supplementary HPPRs in this stage.

### 10.3. Detailed Design and Procurement

During the Detailed Design and Procurement Stage, a Phase II WOA is obtained (within 60 days of Stage Gate 2 approval), the Internal Review Committee (IRC) approval is obtained, if applicable, and the Authorization for Expenditure (AFE) is obtained, if applicable, the RFP for EPC and award is issued, if applicable, the compressed natural gas (CNG) and liquefied natural gas (LNG) need during planning for customer supply during construction are reviewed, blowdown information for evaluation of Blowdown Reduction activities is reviewed, a Gas Handling Plan with the District and/or Region is developed, a 60% drawing package is completed and reviewed with stakeholders. The Environmental

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Permits and Clearances are obtained, Land Right Agreements are negotiated and acquired, and the Land Acquisition Execution Plan (LAEP) is updated, Municipal Encroachment and Building Permits and Approved Traffic Controls Plans are obtained, and the Project Outreach Plan is executed. The Risk Register is updated, the Hydrotest Risk Mitigation Plan is prepared, if required, design basis is finalized, a 90% drawing package is completed and reviewed with stakeholders, Issued for Construction (IFC) Drawings are finalized, a Windows Information Protection (WIP) cloud and notification polygons are created and an initial station request in GIS is submitted, if applicable, and necessary change forms are completed.

The materials and equipment are procured, a material inventory meeting is conducted, stakeholder's feedback is incorporate updated into PEP, permit and jurisdiction requirements are incorporated into PEP, and opportunities to bundle and coordinate work with other construction projects are identified, if applicable. The RFP documentation by function is prepared, as applicable, sourcing event with Supply Management is conducted, a job site bid walk is conducted, lessons learned from previous projects are incorporated, and bids and target price estimate (TPE) are negotiated, and contract is prepared and awarded. The contractor construction schedule with P6 schedule is aligned, the milestone and construction support activity cost are aligned, if re-baseline is necessary, Change Control Board is implemented, the Phase II WOA is Reauthorized/Revised, if necessary, the appropriate stakeholder signatures on checklist prior to Stage Gate are obtained, and lessons learned are documented.

Project Development objectives include the following:

- Obtain Budget Authorization Documentation
- Detailed Design
- Land Rights and Permit Acquisition
- Update Risk Assessment
- Final Design
- Procurement
- Update PEP
- RFP for Construction and award Contract
- Refine Cost and Schedule Baseline, if necessary
- Phase II WOA Reauthorization, if necessary
- Conduct Stage Gate

There are no LOA records identified in the Detailed Design and Procurement Stage. However, there may be Supplementary HPPRs in this stage.

### **10.4. Construction**

During the Construction Stage, a Job Site Safety Plan (JSSP) is completed, the Contractor Operator Qualifications are verified, the preconstruction job book and meeting are prepared and completed, the Construction Kick-Off Meeting with contractors is conducted, contractor's materials and equipment are

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staged, and construction material deliveries are coordinated, District Operations for surveillance and PCMR support are contacted. The alignment with contractor's forecast is scheduled, the Change Control Process such as Request for Information/Request for Clarification (RFI/RFC) is implemented, the Gas Handling Plan with the District is finalized, and testing/tie-in procedures are performed. The start-up tests of completed systems such as Point-to-Point and facilities/equipment acceptance tests are conducted, and gas blown into atmosphere is documented, if required.

The Construction Functional Team collaborates with the district/operations to identify O&M implementation to SAP/Maximo, on-site equipment training with asset owner is conducted, equipment and materials are moved off-site, the Contractor Performance Form ([Form 6350](#)) is completed, and excess construction materials are returned. The Post Construction Impact Survey is conducted, a site review and photograph are conducted, the restoration of vegetation activities are conducted, and the return site to pre-construction as required by permit or agreed to condition is conducted. The NOP is submitted within 30-Days, the updated station request in GIS is submitted, if applicable, risk assessments are reviewed, and lessons learned are documented.

Construction objectives include the following:

- Complete Safety Requirements
- Mobilize Construction Contractor
- Monitor Scope, Cost, Schedule, and Risk
- Commissioning and System Start-Up
- Develop Training Plan and Documentation
- Demobilize Construction Contractor
- Site Restoration and Inspections
- Submit NOP
- Conduct Stage Gate

### **10.4.1. Construction Inspections of High Pressure Pipeline Projects**

The critical activities of the construction field work include, but are not limited to:

- Construction survey staking of the alignment and construction limits
- Excavation and shoring
- Pipe bedding and padding
- Pipe handling, stringing, and lowering piping
- Pipe field welding
- Nondestructive testing of pipe welds
- Strength/Pressure testing of steel piping and components

## Quality Management Plan for Construction

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- Pipe field coating

During construction, the Field Inspectors shall:

- Verify that the construction standards for the activities listed above are satisfied
- Document key construction activities in the Construction Inspector Notes (Daily Inspection Reports (DIR)) that may include labeled photographs of the work. It is recommended that the Chief or Lead Inspector, or Company Representative review the DIR data

During construction, the LOA records requirements listed in the applicable GSs shall be satisfied. Below is a list of some of the LOA records:

- The submission of an approved Tap Application [Form 883](#) [Form 883SD](#) Sections A-F) as required by [GS 182.0165](#), *Tap Requirements*, if applicable
- The signed field welding inspection reports shall be submitted with the final field welding inspection report accompanying the nondestructive examination (NDE) report for the weld inspected
- The NDE reports shall be generated by certified examiners
- The PWIRs shall be signed and dated by the Field Inspector and reviewed, signed, and dated by the Construction Team Lead or Construction Manager/Contract Administrator (Electronic approval process is acceptable)
- The NDE reports shall be signed by certified examiners
- A weld map shall be generated to record and depict the location of each weld recorded on the PWIR data and survey data by the Field Inspectors in accordance with [GS 192.0032](#), *Weld Map*

[GS 187.0055](#), *General Welding Requirements (SDG&E G7803)* and [GS 187.0056](#), *Welding Field Guide (SDG&E G7805)* describe general welding requirements and welding field guidelines. [GS 187.0175](#), *Inspection and Testing of Welds on Company Steel Piping (SDG&E G7815)* describes inspection and testing of welds. [GS 192.0032](#), *Weld Map* describes the minimum requirements for weld maps.

The valve projects shall include inspection and testing, certification, and commissioning documentation of the valves.

The Field Inspectors should generate redlined mark-ups of the IFC drawings. The Survey Team should conduct the as-built field survey in accordance with [GS 167.0253](#), *As-Built Surveys for Construction of High Pressure Pipelines and Pipeline Facilities (SDG&E G8117)*. The redlined mark-ups of the IFC drawings and the as-built field survey should be the basis for the completion drawings.

Field reports, photographs, and documentation shall be routed by the designated Construction Document Advisor via Document Control and retained as describe in [GS 192.0026](#), *Records Management for High Pressure Project Closeout*.

### 10.4.2. Construction Inspections of Strength/Pressure Testing

High pressure pipelines shall be pressure tested in accordance with [GS 182.0170](#), *Strength Testing - High Pressure Pipelines and Facilities* and [GS 182.050](#), *Nitrogen Requirements (SDG&E G7363)*.

## Quality Management Plan for Construction

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Process piping shall be tested in accordance with ASME B31.3 – Process Piping and gas piping shall be tested in accordance with ASME B31.8 – Gas Transmission and Distribution Piping Systems.

An approved Design Data Sheet (DDS) is required for the following piping systems:

- High pressure pipelines in accordance with [GS 182.0170](#), *Strength Testing - High Pressure Pipelines and Facilities* and [GS 182.050](#), *Nitrogen Requirements (SDG&E G7363)*
- Gas pipelines in accordance with ASME B31.8 – Gas Transmission and Distribution Piping Systems
- Categories N, M and K (High Pressure) piping as defined in ASME B31.3 – Process Piping

An approved DDS is not required for the following piping systems:

- Category D piping as defined in ASME B31.3 – Process Piping
- ASME B31.3 – Process Piping not fabricated and tested at Company's facilities

The Construction Team will verify documents required in the Strength/Pressure Test Package as defined in [GS 192.0026](#), *Records Management for High Pressure Project Closeout* and or additional documents for strength/pressure test performed in accordance with industry codes or standards are TVC.

Engineering will validate the technical content is TVC.

Strength/Pressure test activities shall be documented as described above for the strength/pressure test package, signed by the appropriate signatories onsite, immediately after the test. Any revisions to the DDS shall be verified by the SoCalGas/SDG&E Engineering and Design Manager, and the final DDS shall be included in the strength/pressure test package. The signed documents should be photographed at the site, and the original signed copies shall be delivered to the designated Construction Document Advisor.

### 10.4.3. Construction Inspections of Special Activities

Special construction activities are those activities that require inspection and testing to be performed by a special inspector. If special inspections are required, the Construction Manager shall verify an approved agency is employed with experienced personnel educated in conducting, supervising, and evaluating tests and special inspections. The approved agency shall maintain a record of the tests performed. The Construction Manager shall receive and retain copies of tests records and copies of the special inspectors' reports. The records shall provide sufficient detail to verify compliance with the applicable code. The types of construction activities that require special inspections by the approved agency include but are not limited to the following:

- Soils
  - Subgrade inspection and verification that site has been prepared properly
  - Classification and testing of compacted fill materials
  - Verification of proper materials, densities and lift thicknesses during placement and compaction of compacted fill
- Concrete Construction

## Quality Management Plan for Construction

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- Rebar Placement
- Welding of Reinforcing Bars
- Material Tests, if applicable
- Batch Plant Inspection
- Concrete specimens for strength, slump, air content, and temperature tests
- Inspection and Testing of Prestressed Concrete
- Concrete Pre-Placement Inspection
- Composite Construction Cores
- Special Inspections and Tests for Post-Installed Anchors in Concrete
- Masonry Construction
  - Rebar Placement
  - Masonry Placement
  - Mortar and Grout Testing
  - Masonry Core Testing, if applicable
  - Special Inspections and Tests for Post-Installed Anchors in Masonry
- Steel Construction
  - Cold-Formed Steel Deck
  - Open-Web Steel Joists and Joist Girders
  - Inspection and Tests of Structural Welding
  - Special Inspection and Tests of High-Strength Fastener Assemblies
- Sprayed Fire-Resistant Materials
  - Physical and visual tests that include the following:
    - Condition of substrates
    - Thickness of application
    - Density Tests
    - Bond strength adhesion/cohesion tests
    - Condition of finished application
- Driven Deep Foundations
- Cast-In-Place Deep Foundations

## Quality Management Plan for Construction

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- Plumbing, Mechanical and Electrical, as applicable

### 10.4.4. Material Traceability

The purpose of material traceability is to maintain traceability with corresponding documentation of steel pipe, valve and fitting materials installed during construction of pipelines and facilities operating at a pressure greater than 60 psig. The methodology of material traceability shall be applied to the LOA records identified in the Preliminary Design and Option Selection, Project Development and Construction Stages.

The process of verifying that purchased materials conform to specified procedures and requirements, and Suppliers are evaluated and selected based on their ability to supply material and services in accordance with project requirements. [GS 182.0056](#), *Documentation Traceability of Pipeline Materials* describes the tracking of the supply chain process to verify that material ordered is installed and technical standards and compliance documents have been maintained. Material traceability shall be maintained through the progression of the material procurement, inventory, staging, installation, and reconciliation. Material reconciliation documents the material installed, re-entered into inventory, and scrapped. The Material Traceability level of documentation requirements are described in [MSP PP02.018](#), Material Traceability Policy.

### 10.5. Closeout

During the Closeout Stage, key stakeholders are notified, Closeout Interactive Planning Session is conducted, construction documentation is received, Contractor Redlined Drawings are received, a Quality Assurance Assessment is conducted, final Miscellaneous Job Reports (MJR) are submitted, excess materials are reconciled, Bundles A and B are completed, the permitting closeout documentation is obtained, the land and ROW closeout documentation is obtained, the environmental closeout documentation is obtained, the Project Outreach Closeout documentation is obtained, and the Supply Management closeout documentation is obtained. Also, during this Stage, the change control process e.g., RFIs and RFCs are finalized, change orders are processed, project invoices are verified to be submitted and paid, work order sub accounts are closed, lessons learned are documented and finalized, the project/asset documentation package is delivered to the asset owner to be retained and archived, and the O&M Plan is submitted to district/operations to update SAP/Maximo Maintenance Information. The closeout activities are tracked and reported, final documentation is submitted, and a project closeout meeting is conducted.

Closeout objectives include the following:

- Communicate Project Completion
- Finalize Project Documentation
- Material and Equipment Closeout
- Technical and Document Closeout
- Stakeholder Closeout
- Financial and Commercial Closeout
- Lessons Learned

## Quality Management Plan for Construction

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- Asset Document Turnover
- Monitor Closeout Process
- Project Closeout Meeting

During closeout, the requirements for the LOA records identified in Bundle A and Bundle B [GS 192.0026](#), *Records Management for High Pressure Project Closeout* shall be satisfied. Bundle A shall be accepted prior to the submission of Bundle B. Below is a list of the LOA records for closeout:

- The submission and acceptance of Project Closeout Bundle A that includes:
  - Deliverable A1: Completion Drawings with acceptance email from Gas Engineering
  - Deliverable A2: Survey Data File with Coversheet
- The submission and acceptance of Project Closeout Bundle B that includes:
  - Deliverable B1: Pipeline Feature Data Collection Form ([Form 2120](#))
  - Deliverable B2: Pipeline Database Update Form ([Form 2112](#)) with submittal cover sheet

[GS 192.0030](#), *Completion Drawing Set Requirements for High Pressure Pipelines* and [GS 167.0253](#), *As-Built Surveys for Construction of High Pressure Pipelines and Pipeline Facilities* ([SDG&E G8117](#)) procedures support development of the Closeout Stage activities and documentation requirements.

The Project Manager is responsible for having the survey team prepare the final signed and stamped as-built survey for the completion drawings as required by [GS 167.0253](#), *As-Built Surveys for Construction of High Pressure Pipelines and Pipeline Facilities* ([SDG&E G8117](#)). After survey as-built reports and completion drawings have been accepted by Pipeline Integrity, the GIS deliverables are submitted. The GIS deliverables consist of a tabular data deliverable and a completed Pipeline Feature Data Collection Form ([Form 2120](#)) or Pipeline Database Update Form ([Form 2112](#)).

As part of the Construction Closeout, the Project Manager should prepare a complete turnover package and provide it to the appropriate Asset Owner.

## 11. Quality Assessment Reports

The purpose of the Quality Assessment Report is to document the effectiveness of the Construction functional teams' QA/QC processes. The Quality Assessment Reports summarize items identified as corrected, finding, satisfactory, not observed and/or not required. Quality Assessment Reports are used as a basis for initiating corrective and preventative action measures by the Functional Teams and policy owners. Quality assessment results provide objective evidence and guidance as to changes and improvements that may be needed in the QMPC, policy and/or procedure.

### 11.1. Quality Report Structure

The Construction quality assessments are structured to align with the LOA records categories Non-Bundle, Bundle A and Bundle B as defined in [GS 192.0026](#), *Records Management for High Pressure Project Closeout*. QM field assessments are structured to align with key points within the Construction Stage and assess in progress documentation that lead to final LOA records. Examples of in progress documentation are:



## Quality Management Plan for Construction

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- Material Test Reports (MTR) as required by the Material Specifications (MSP)
- Strength/Pressure Test Package (documents are separated)
- The Gas Handling and Tie-in Procedures
- Material Purchase Orders (PO)
- Coating Forms
- Design Data Sheets (DDS)
- Nondestructive Examination Package
- Strength Test Assemblies & Supporting Documentation
- Project Welding Inspection Reports
- Pipe Condition & Maintenance Report
- Odorization Project Plan
- Contractor Redlined Drawings

QM closeout assessments are structured to align with LOA records as described in [GS 192.0026, Records Management for High Pressure Project Closeout](#). Changes to [GS 192.0026, Records Management for High Pressure Project Closeout](#) may result in a change to the quality assessment structure.

### 11.2. Quality Assessment Escalation

#### 11.2.1. Escalation of Critical Findings

The QM Assessor shall escalate QM field assessment findings that are considered critical to the process and/or to the integrity of the asset to the QM Team Lead. QM Team Lead should escalate QM field assessment findings to the Construction Operations Manager, Construction Pipeline Operations Manager, and/or the Project and Construction Manager, as applicable. The appropriate manager is responsible for follow-up and resolution, or a documented response to the finding within the Quality Assessment Report. The appropriate manager should recommend a corrective and/or preventive action to correct and prevent recurrence.

The QM Assessor shall escalate QM closeout assessment findings that are considered critical to the process and/or to the integrity of the asset to the QM Team Lead. QM Team Lead should escalate QM closeout assessment findings to the applicable Construction Functional Quality Team Lead, Construction Operations Manager, Construction Pipeline Operations Manager, and/or the Project and Construction Manager, as applicable. The appropriate manager is responsible for follow-up and resolution, or a documented response to the finding within the QM Closeout Assessment Report. The applicable manager should recommend a corrective and/or preventive action to correct and prevent recurrence.

The QM Team will note the escalated findings within the Quality Assessment Report and monitor other quality activities to minimize recurrence.

## Quality Management Plan for Construction

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[Attachment 12.1](#) – *Construction Quality Management Virtual Field Assessment Flowchart*, [Attachment 14.2](#) – *Construction Quality Management Field Assessment Flowchart*, and [Attachment 14.3](#) – *Construction Quality Management Closeout Assessment Flowchart* illustrates when to escalate a finding that requires immediate actions.

### 11.2.2. Escalation of default to Quality Assessments

The Construction Functional Team is required to respond to a Quality Assessment Report within 14-Days from the date it was distributed.

The QM Assessor should escalate any Quality Assessment Report that has not received a response within 30-Days from the date it was initially distributed or redistributed.

If the QM Assessor has not received a response to a Field Quality Assessment Report within 30-Days, the QM Assessor should escalate the Quality Assessment Report to the QM Team Lead. QM Team Lead should escalate the Quality Assessment Report to the applicable Construction Functional Quality Team Lead, Construction Operations Manager, Construction Pipeline Operations Manager, and/or the Project and Construction Manager, as applicable. The appropriate manager should take necessary actions to have the applicable Function Team provide a response to the Quality Assessment Report.

If the QM Assessor has not received a response to a Closeout Quality Assessment Report within 30-Days, the QM Assessor should escalate the Quality Assessment Report to the QM Team Lead. QM Team Lead should escalate the Quality Assessment Report to the applicable Construction Functional Quality Team Lead, Construction Operations Manager, Construction Pipeline Operations Manager, and/or the Project and Construction Manager, as applicable. The appropriate manager should take necessary actions to have the applicable Function Team provide a response to the Quality Assessment Report.

If the QM Assessor has not received a response to any Quality Assessment Report within 60-Days, the QM Assessor should escalate the Quality Assessment Report to the QM Team Lead. QM Team Lead should escalate the Quality Assessment Report to the applicable Construction Functional Quality Team Lead, Construction Operations Manager, Construction Pipeline Operations Manager, and/or the Project and Construction Manager, as applicable, and the appropriate manager's Director. The Director should take appropriate actions to have the applicable Function Team provide a response to the Quality Assessment Report.

### 11.3. Quality Assessment Report Distribution

The Quality Assessment Report is distributed to the Project Manager. Although the Portfolio Manager or department equivalent is accountable for the Quality Assessment Report resolution, the Project Manager is the primary point of contact. The Construction Team and Engineering and Design Team supports the Project Manager to facilitate resolutions to assessment findings as described below:

- The Construction Team Lead supports the Project Manager to respond to findings identified in the QM field assessments
- Construction Functional Quality Team supports the Project Manager to respond to findings identified in the Construction Stages of QM closeout assessments
- The Project Engineer supports the Project Manager to respond to findings identified in the Closeout Stage of QM closeout assessments

## Quality Management Plan for Construction

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Quality assessments are distributed as defined by [Attachment 14.4 – Quality Management Construction Assessment Distribution Lists](#).

### 11.4. Quality Assessment Responses

For the QM field assessments, the Construction Manager/Contract Administrator has the responsibility to review the items identified as findings and provide an adequate response that satisfies the finding. The Construction Manager/Contract Administrator will make the appropriate corrections or provide a clear and concise detail explanation that must justify acceptance of the finding. Corrected and/or missing documents must be uploaded into Company's approved document repository for review and acceptance by the QM Team.

For QM closeout assessments, the Project Manager has the responsibility to review the findings identified in the Procurement and Closeout Stages of the QM Closeout Assessment Report and provide an adequate response that satisfy the finding. The Construction Document Advisor Team Lead has the responsibility to review the findings identified in the Construction Stage of the Quality Assessment Report and provide an adequate response that satisfy the finding. The Project Manager/Construction Document Advisor Team Lead will make the appropriate corrections or provide a clear and concise detail explanation that must justify acceptance of the finding. Corrected and/or missing documents must be uploaded into Company's approved document repository for review and acceptance by the QM Team.

The QM Team will review the corrected documents. If the QM Team deems the corrections or explanations acceptable, the QM Team will annotate the findings as closed. For corrections considered unacceptable, the QM Team should provide a detail explanation why the correction or explanation was unacceptable and reference the appropriate Company procedures, policies, processes, or industry codes to support the finding. This process will continue until outstanding findings have been resolved.

The Portfolio Manager or department equivalent is accountable for the content of the Quality Assessment Reports. The Portfolio Manager or department equivalent is ultimately responsible to have the Functional Team respond to the quality assessment within the time specified in the quality assessment.

### 11.5. Quality Assessment Report Closure

Prior to the closure of the Quality Assessment Report, the QM Team will verify that outstanding findings have been resolved. After findings are resolved as described in subparagraph 11.4. *Quality Assessment Responses* above, the QM Team will close the Quality Assessment Report. The QM Team will upload a final copy of the Quality Assessment Report in PDF format to OpenText (RDMS) and PDMS, as applicable. The original Quality Assessment Report will be maintained on the QM SharePoint Site.

## 12. Key Quality Indicators

The QM Team should maintain metrics that monitor and track quantity of items identified as findings in quality assessments. The QM Team should maintain a list of items identified as corrected, finding, satisfactory, not observed and/or not required. The QM Team Lead shall escalate repeated findings or similar trends to the QRCM, Construction Operations Manager, Construction Pipeline Operations Manager, and/or the appropriate Project and Construction Manager.

## Quality Management Plan for Construction

The QM Team works closely with the SMS Technology and Analytics Group (TAG) in analyzing Construction Quality Assessment data to identify potential compliance trends, provide quality and risk recommendations, and to assist in the successful completion of construction projects by providing direction to contractors, consultants, and project teams as it relates to data analytics generated from various construction projects and initiatives. With assistance from TAG, the QM Team leverages existing data systems to integrate other key compliance contributors to maximize process improvement effectiveness tracking and predictive measurement. Additionally, TAG assists the QM Team to create metrics and dashboards to be used for stakeholder monitoring, trend analysis, and executive level reporting.

### 13. References

The following documents are referenced and are part of this Quality Plan:

Number	Document Name
	Southern California Gas Standards and Policies
	San Diego Gas & Electric Gas Standards and Policies
	CDM Standard Manual

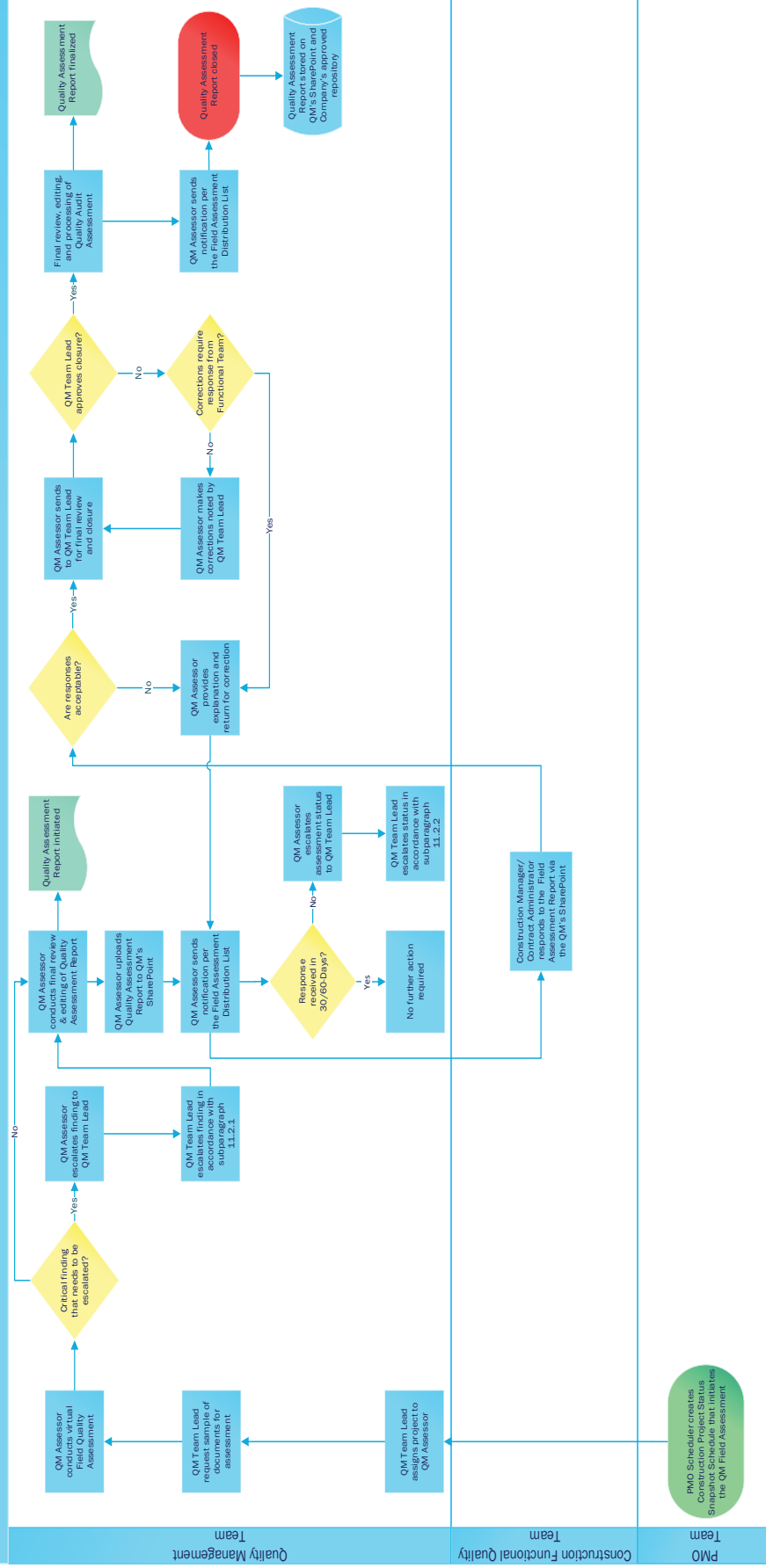
### 14. Attachments

Number	Document Name
14.1	Quality Management Construction Virtual Field Assessment Flowchart
14.2	Quality Management Construction Field Assessment Flowchart
14.3	Quality Management Construction Closeout Assessment Flowchart
14.4	Quality Management Construction Assessment Distribution Lists
14.5	Quality Management Construction Responsibility Matrix
14.6	Quality Management Construction Field Assessment Checklist
14.7	Quality Management Construction Closeout Assessment Checklist

Quality Management Plan for Construction

14.1. Quality Management Construction Virtual Field Assessment Flowchart

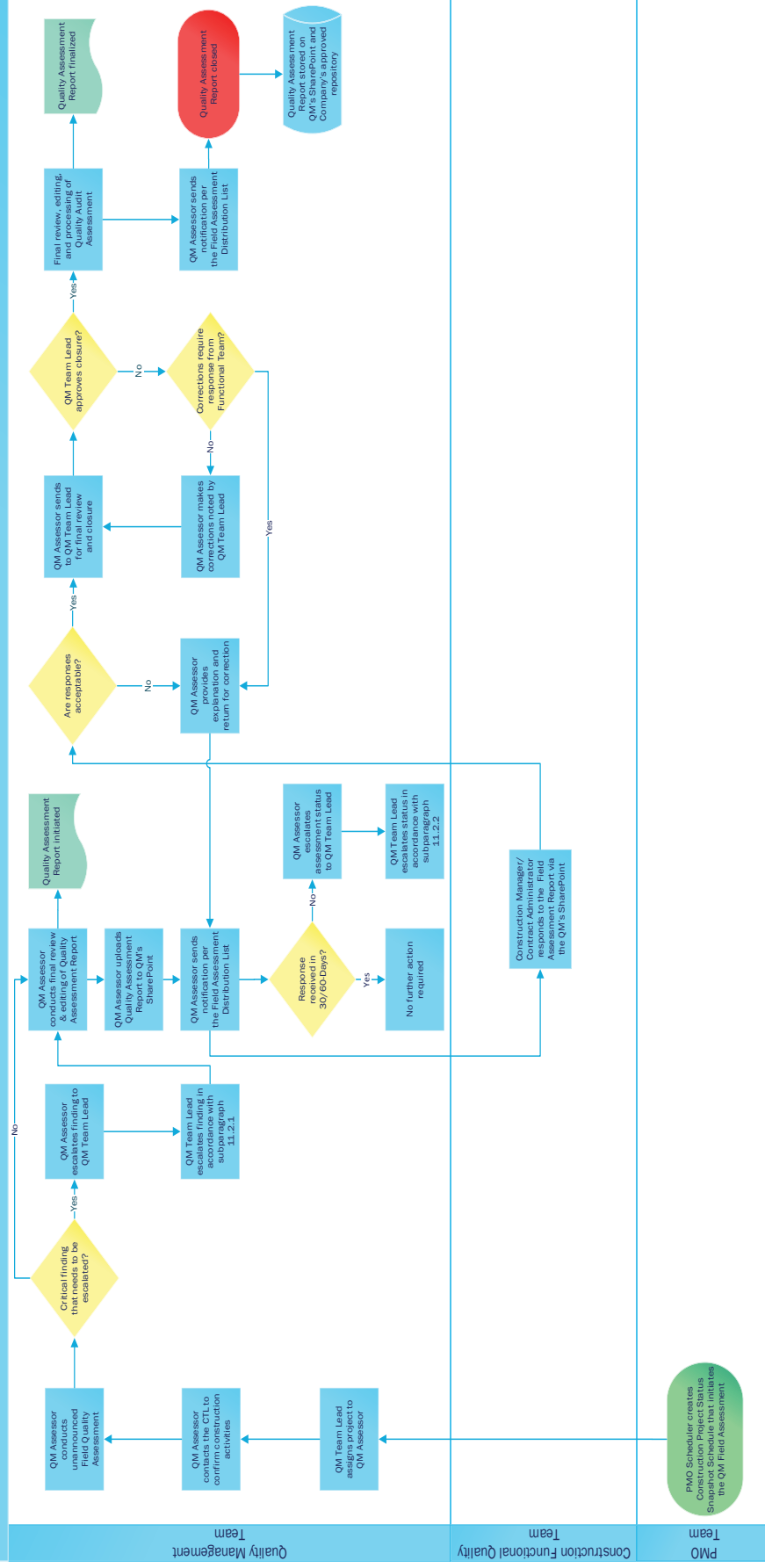
Quality Management Construction Virtual Field Assessment Flowchart



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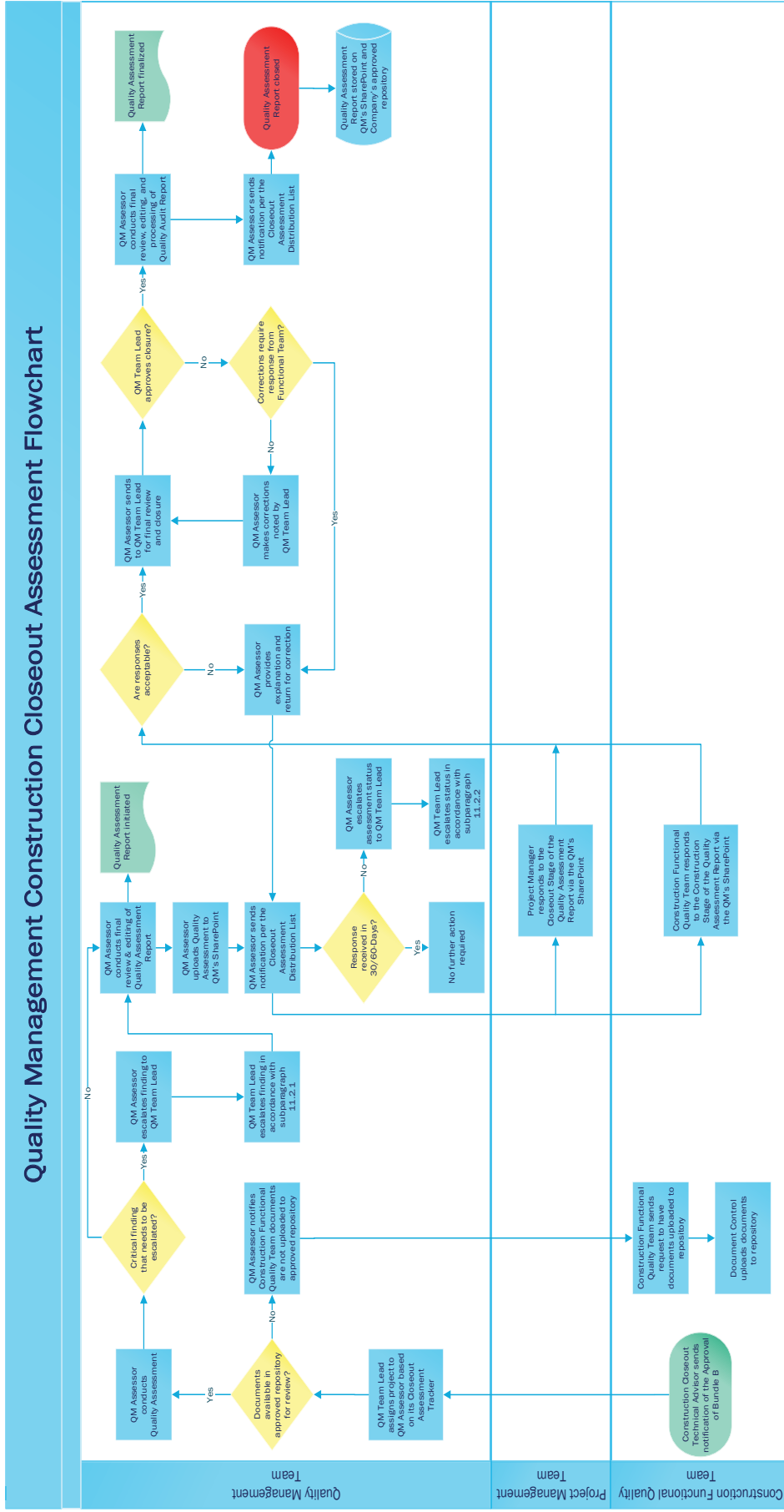
14.2. Quality Management Construction Field Assessment Flowchart

Quality Management Construction Field Assessment Flowchart



Quality Management Plan for Construction

14.3. Quality Management Construction Closeout Assessment Flowchart



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## 14.4. Quality Management Construction Assessment Distribution Lists

QM Field Assessments Distribution List	
<b>Send to:</b>	Cc List:
<b>Project Manager</b>	Quality, and Risk Compliance Manager
<b>Construction Manager/Contract Administrator</b>	Quality Management Team Lead
<b>Construction Team Lead</b>	Construction Operations Manager
<b>Field Engineer/Construction Inspector</b>	Construction Pipeline Operations Manager
<b>Construction Document Advisor</b>	Construction Document Advisor Team Lead

QM Closeout Assessments Distribution List	
<b>Send to:</b>	Cc List:
<b>Project Manager</b>	Quality, and Risk Compliance Manager
<b>Portfolio Manager</b>	Quality Management Team Lead
<b>Construction Document Advisor</b>	Project and Construction Manager
	Construction Operations Manager
	Construction Pipeline Operations Manager
	Construction Team Lead
	Construction Document Advisor Team Lead



Quality Management Plan for Construction

14.5. Quality Management Construction Responsibility Matrix

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
<b>Coating Inspection Form Document Number: 228</b>	Construction Management	Project Coating Inspector	Chief Inspector	Chief Inspector	Coating Inspector Construction Inspector Chief Inspector Construction Team Lead Construction Manager/Contract Administrator	<p>Chief Inspector/Coating Inspector/Construction Team Lead/Construction Manager/Contract Administrator should review the Coating Inspection Form to:</p> <ol style="list-style-type: none"> <li>Verify the Coating Applicator is listed in Veriforce for the specific task(s) in accordance with <a href="#">GS 167.0100</a></li> <li>Observe Coating Activities and record results as required by <a href="#">Form 4005</a></li> <li>Verify that form fields of the Coating Inspection Form have been accurately completed in accordance with the applicable GS</li> <li>Verify the coating surface has been prepared and acceptable per the applicable GS</li> <li>Verify the anchor profile is acceptable per the respective GS</li> <li>Verify the ambient and surface temperatures are acceptable per the applicable GS</li> <li>Verify coating thickness (DFT) is acceptable per the respective GS</li> <li>Verify holidays, if any, have been repaired and acceptable per the applicable GS</li> <li>Verify Coating Non-Conformances and/or Corrective Actions have been resolved</li> </ol>	<p>Quality Management Team should review the Coating Inspection Form to:</p> <ol style="list-style-type: none"> <li>Verify that form fields in Section A: Inspector of the Coating Inspection Form have been completed</li> <li>Verify that Section B: Job Information of the Coating Inspection Form has the correct WOA Number recorded</li> <li>Verify that form fields in Section C: Coating Material Information of the Coating Inspection Form have been completed</li> <li>Verify that form fields in Section D: Inspection Tool Information of the Coating Inspection Form have been completed</li> <li>Verify that form fields in Section E: Ambient Conditions of the Coating Inspection Form have been completed</li> <li>Verify that form fields in Section F: Surface Preparations of the Coating Inspection Form have been completed</li> <li>Verify the Average DFT readings in Section H: Finish Inspection of the Coating Inspection Form are in accordance with the applicable Gas Standard</li> <li>Verify the "Pass/Fail" column in Section H: Finish Inspection of the Coating Inspection Form has "Pass or Fail" recorded for each area tested</li> <li>Verify items identified in Section J: Non-Conformances/Previous NCR Corrective Action has the Dispositioned recorded</li> </ol> <p><b>For a complete list see QM Assessment Checklists</b></p>	<a href="#">Form 4005</a>

Quality Management Plan for Construction

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>CPUC Notification - New and Upgraded Pipelines Document Number: 080</b></p>	<p>Project Execution</p>	<p>Project Engineer</p>	<p>Project Manager Pipeline Safety and Compliance Manager</p>	<p>Project Manager Pipeline Safety and Compliance Manager</p>	<p>Project Manager Pipeline Safety and Compliance Manager</p>	<p>Project Manager reviews the CPUC/PHMSA Notification to: 1. Verify the draft of the PHMSA/CPUC Notification has been completed in accordance with <a href="#">GS 223.0001</a> 2. Verify the draft of the PHMSA/CPUC Notification includes reasons for use of casing or bridging where the minimum cover will be less than required by 49 CFR, Section 192.327, as applicable 3. Verify the draft of the PHMSA/CPUC Notification includes provisions for the protection of the pipeline from hazards as indicated in 49 CFR 192.317 and 192.319, as applicable 4. Verify a draft of the PHMSA/CPUC Notification has been submitted to the Pipeline Safety and Compliance Representative for signature and transmittal and a review copy to the Pipeline Engineering Team in accordance with <a href="#">GS 223.0001</a>, if applicable 5. Verify the draft of the PHMSA/CPUC Notification has been submitted to the Pipeline Safety and Compliance Representative within the time limit specified in <a href="#">GS 223.0001</a></p>	<p>Quality Management Team should review the PHMSA or CPUC Notification as follows: 1. For CPUC Notification for New, Reconstruction, or Reconditioned Pipelines where the total gross expenditures as shown on the WOA are \$3,500,000 or more, verify the CPUC Notification includes: a. The correct Project Name/Line Number 2. For CPUC Notification for Upgrading Pipelines, verify the CPUC Notification includes: a. The new maximum allowable operating pressure 3. For PHMSA Notification for New Facilities with Cost Exceeding \$10 Million OR Construction of 10 or More Miles of New Pipeline, verify the PHMSA Notification includes: a. Anticipated start date of field work activities 4. For CPUC Notification for New PSEP Projects, verify the CPUC Notification includes: a. Construction Start Date 5. For CPUC Notification for Failure of Strength Test of Pipelines Operating at 20% SMYS, verify the CPUC Notification includes: a. The correct Project Name/Line Number 6. For CPUC and PHMSA Notification for New LNG plant or LNG Facility, verify the CPUC/ PHMSA Notification includes: a. Verify the notification was submitted to the PHMSA at least 60 days prior to construction of a new LNG plant or LNG facility</p>	<p>Determine if <a href="#">GS 223.0001</a> requirements apply and were followed with a CPUC notification. CPUC Notification for Upgrading Pipelines are required for: 1. A pipeline operating at or to be operated at a hoop stress of 20 percent or more of the SMYS 2. 2,500 feet or more of distribution main which is to be up rated from a MAOP less than or equal to 60 psig to a MAOP greater than 60 psig</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<p><b>CPUC Notification - New and Upgraded Pipelines Document Number: 080</b></p>	<p>Project Execution</p>	<p>Project Engineer</p>	<p>Project Manager</p>	<p>Project Manager Pipeline Safety and Compliance Manager</p>	<p>Project Manager Pipeline Safety and Compliance Manager</p>	<p>2. Verify that a Pipeline Safety and Compliance Representative has filed a report of the PHMSA/CPUC Notification to the CPUC within the time limit specified in <u>GS 223.0001</u></p>	<p>7. For PHMSA Notification for New Underground Natural Gas Storage Facilities, verify the PHMSA Notification includes: a. Anticipated date of operational start up  <b>For a complete list see QM Assessment Checklists</b></p>	
<p><b>Deadweight Test Pressure Logs Document Number: 062</b></p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Engineering &amp; Design Manager Team Lead</p>	<p>Portfolio Manager Construction Team Lead  Engineering &amp; Design Manager Team Lead  Operations Manager</p>	<p>Portfolio Manager Construction Team Lead  Construction Manager/Contract Administrator</p>	<p>Construction Team Lead/Construction Manager/Contract Administrator reviews the Deadweight Test Pressure Logs verify to: 1. Verify the correct Project Name/Line Number is recorded 2. Verify the Pipe Description data recorded aligns with the DDS 3. Verify the Test Pressure Maximum recorded aligns with the DDS 4. Verify the Test Pressure Minimum recorded aligns with the DDS 5. Verify the instrument serial numbers recorded match serial numbers recorded on the Calibration for Instruments 6. Verify a Spike Test was conducted and held for 30 minutes 7. Verify a Spike Test was conducted and held for 30 minutes 8. If pressure loss occurred during the last hour of the test, verify the test period was extended until 1 hour without a pressure loss was achieved 9. Verify the final test pressure recorded aligns with the DDS 10. Verify the contractor's representative has approved the Deadweight Test Pressure Logs with wet or digital signature</p>	<p>Quality Management Team should review the Deadweight Test Pressure Logs to: 1. Verify the correct Project Name/Line Number is recorded 2. Verify the Pipe Description data recorded aligns with the DDS 3. Verify the Test Pressure Maximum recorded aligns with the DDS 4. Verify the Test Pressure Minimum recorded aligns with the DDS 5. Verify the instrument serial numbers recorded match serial numbers recorded on the Calibration for Instruments 6. Verify a Spike Test was conducted and held for 30 minutes 7. If pressure loss occurred during the last hour of the test, verify the test period was extended until 1 hour without a pressure loss was achieved 8. Verify the final test pressure recorded aligns with the DDS 9. Verify the contractor's representative has approved the Deadweight Test Pressure Logs with wet or digital signature 10. Verify the Company's representative has approved the Deadweight Test Pressure Logs with wet or digital signature</p>	

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix							
Non-Bundle Records – 90 Days Post DOO							
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional OA/QC Responsible QA/QC	Functional QA/QC Activity Description	
						<p><b>Quality Management Team QA Activity Description</b></p>	<p><b>Reference</b></p>

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<p><b>Design Data Sheet</b> (with final signatures Verifying Installation &amp; Testing) Document Number: 039</p>	<p>Project Execution</p>	<p>Project Engineer</p>	<p>Construction Manager/Contract Administrator Field Engineer</p>	<p>Engineering and Design Manager</p>	<p>Portfolio Manager Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Reviewers/Approvers reviews the Design Data Sheet to: 1. Verify the accuracy of DDS General Information data 2. Verify the accuracy of DDS Pipe &amp; Welded Fittings data 3. Verify the accuracy of DDS Rated Fittings &amp; Standard Designs data 4. Verify the accuracy of DDS Branch Connections data 5. Verify the accuracy of Qualification data (Test Medium, Minimum Test Duration, Minimum Test Pressure, &amp; Maximum Test Pressure) 6. Verify the DDS has the Preparer's name and company phone number 7. Verify the DDS has the Approval Engineer's name and approval date 8. For all hydrotests, verify Spike Test requirements are satisfied, if applicable 9. Verify the DDS has the Company Representative's signature that verifies the pipeline was installed and Tested as Shown 10. Verify the information on the DDS correlates with the information provided on the Strength/Pressure Testing Procedure, Hydro/Pneumatic Test Report and Test Logs</p>	<p>Quality Management Team should review the Design Data Sheet to: 1. Verify the Pipe &amp; Welded Fittings section has been completed and includes the material grade and MSP Number 2. Verify the Rated Fittings &amp; Standard Designs section has been completed and includes MSP Number, Maximum Test Pressure and Design Pressure for each component 3. Verify the Branch Connections section has been completed (required for components &gt; 2") and includes the size, material grade, Yield Pressure and Design Pressure for each component, if applicable 4. Verify the Qualification section has been completed and includes all four parameters (Test Medium, Minimum Test Duration, Minimum Test Pressure &amp; Maximum Test Pressure) 5. Verify the Actual Test Duration is recorded 6. Verify the Actual Test Pressure is recorded, and it satisfies the Minimum Test Pressure &amp; Maximum Test Pressure requirement 7. Verify the DDS has the Preparer's name and company phone number 8. Verify the DDS has the Approval Engineer's name and approval date 9. Verify the DDS has the Company Representative's signature that verifies the pipeline was installed and Tested as Shown  For a complete list see QM Assessment Checklists</p>	<p>The maximum test pressure is limited to the lowest maximum test pressure of all components in the test.</p>
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Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

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<p><b>Drying/Dewatering Log Document Number: 287</b></p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Engineering &amp; Design Manager Team Lead</p>	<p>Portfolio Manager Construction Team Lead</p> <p>Engineering &amp; Design Manager Team Lead</p> <p>Operations Manager</p>	<p>Portfolio Manager Construction Team Lead</p> <p>Construction Manager/Contract Administrator</p>	<p>Construction Team Lead/Construction Manager/Contract Administrator reviews the Deadweight Test Pressure Logs verify to:</p> <ol style="list-style-type: none"> <li>1. Verify the dewatering and drying operations were performed in accordance with the Strength/Pressure Test Plan</li> <li>2. Verify the correct Project Name/Line Number is recorded</li> <li>3. Verify the Pipe Description data recorded aligns with the DDS</li> <li>4. Verify the time and pig number of each pig/swab that exited the receiving end until all free-standing water was removed</li> <li>5. Verify that the time and dew point readings were noted throughout the drying process until the required dew point (dp: -40°F), was achieved</li> <li>6. Verify the contractor's representative has approved the Deadweight Test Pressure Logs with wet or digital signature</li> <li>7. Verify the Company's representative has approved the Deadweight Test Pressure Logs with wet or digital signature</li> </ol>	<p>Quality Management Team should review the Drying/Dewatering Log to:</p> <ol style="list-style-type: none"> <li>1. Verify the correct Project Name/Line Number is recorded</li> <li>2. Verify the Pipe Description data recorded aligns with the DDS</li> <li>3. Verify the time and pig number of each pig/swab that exited the receiving end until all free-standing water was removed</li> <li>4. Verify that the time and dew point readings were noted throughout the drying process until the required dew point (dp: -40°F), was achieved</li> <li>5. Verify the contractor's representative has approved the Drying/Dewatering with wet or digital signature</li> <li>6. Verify the Company's representative has approved the Drying/Dewatering with wet or digital signature</li> </ol>	<p>Reference <a href="#">GS 192.0026</a> and <a href="#">GS 182.0170</a>.</p>
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Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

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<p><b>Environmental Clearance Form Document Number: 212</b></p>	<p>Major Projects Environmental</p>	<p>Environmental Project Manager Environmental Consultant Consultant Specialist Construction Manager/Contract Administrator</p>	<p>Environmental Project Manager Major Projects Environmental Team Lead Environmental Consultant Construction Manager/Contract Administrator Project Execution Project Manager</p>	<p>Environmental Project Manager Major Projects Environmental Team Lead Project Execution Project Manager</p>	<p>Environmental Consultant Environmental Project Manager Major Projects Environmental Team Lead</p>	<p>Reviewers/Approvers reviews the Environmental Clearance Form to: 1. Verify the Environmental Clearance Form is complete and accurate 2. Verify the Environmental Clearance Form has the required signatures</p>	<p>Quality Management Team should review the Environmental Clearance Form to: 1. Form has the correct Project Name/Line Number recorded 2. Verify the Environmental Clearance Form has the correct I/O Number recorded 3. Verify the Environmental Clearance Form has the correct WOA Number recorded 4. Verify the Environmental Clearance Form has the required signatures (digital or wet signatures)</p>
<p><b>Environmental Permits Document Number: 087</b></p>	<p>Major Projects Environmental</p>	<p>Environmental Project Manager Environmental Consultant Consultant Specialist Construction Manager/Contract Administrator</p>	<p>Environmental Project Manager Major Projects Environmental Team Lead Environmental Consultant Construction Manager/Contract Administrator Project Execution Project Manager</p>	<p>Environmental Project Manager Major Projects Environmental Team Lead Project Execution Project Manager</p>	<p>Environmental Consultant Environmental Project Manager Major Projects Environmental Team Lead</p>	<p>Reviewers/Approvers reviews the Environmental Permits to: 1. Verify the correct Project Name/Line Number is recorded 2. Verify the Environmental Permits and Plans are complete and accurate 3. Verify the Environmental Permits and Plans have the required signatures, as applicable 3. Verify receipt of Acceptance Email/Letter</p>	<p>Quality Management Team should review the Environmental Permits to: 1. Verify the Environmental Permits have the correct Project Name/Line Number is recorded 2. Verify the Environmental Permits have the required signatures, as applicable (digital or wet signatures) 3. Verify the Acceptance Email/Letter has been uploaded to Company's approved document repository</p>

Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

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<p><b>Environmental Training Records</b> Document Number: 206</p>	<p>Major Projects Environmental</p>	<p>Environmental Project Manager Environmental Consultant Specialist Construction Manager/Contract Administrator</p>	<p>Environmental Project Manager Major Projects Environmental Team Lead Environmental Consultant Construction Manager/Contract Administrator Project Execution Project Manager</p>	<p>Environmental Project Manager Major Projects Environmental Team Lead Project Execution Project Manager</p>	<p>Environmental Consultant Environmental Project Manager Major Projects Environmental Team Lead</p>	<p>Reviewers/Approvers reviews the Environmental Training Records to: 1. Verify required training is in accordance with <u>GS 104.0001, Environmental Training</u>. 2. Verify the Environmental Training Records are complete 3. Verify the Environmental Training Records are specific to the project, as applicable</p>	<p>Quality Management Team should review the Environmental Training Records to: 1. Verify the Environmental Training Records have the correct Project Name/Line Number recorded</p>
<p><b>Gas Handling or Tie-in Procedure</b> Document Number: 113</p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Gas Operations Manager</p>	<p>Gas Operations Manager</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>The Construction Team Lead/Construction Manager/Contract Administrator reviews the Gas Handling Procedure to: 1. Verify the Gas Handling/Tie-in Procedures are signed in accordance with Delegation of Authority 2. Verify feasibility 3. Verify the Gas Handling Procedure is implemented as planned 4. Verify the Supervisor has signed the Supervisor Sign-Off Form that acknowledges the Supervisor has reviewed the Gas Handling/Shutdown Plan with his/her crew 5. Verify the Crew has signed the Crew Sign-Off Form that acknowledges the Supervisor has reviewed the Gas Handling/Shutdown Plan with them 6. That involved multiple Departments, verify <u>Form 2865</u> was completed in accordance with the Form Instructions</p>	<p>Quality Management Team should: 1. For Field Assessments, Verify the Gas Handling/Tie-in Procedures are onsite 2. Verify the Gas Handling/Tie-in Procedures references the correct Project Name/Line Number or Asset Number 3. For Gas Handling/Tie-in Procedures that involved multiple Departments, verify <u>Form 2865</u> was completed in accordance with the Form Instructions 4. Verify <u>Form 2865</u> has the Date &amp; Time the O.C. Was Notified recorded 5. Verify <u>Form 2865</u> has the Created By and Reviewed By names recorded 6. Verify <u>Form 3506</u> references the correct Project Name/Line Number 7. Verify <u>Form 3506</u> has the Shutdown/Operations dates &amp; times are recorded and align with the Serial Number 8. Verify <u>Form 3506</u> has the "Location" recorded 9. Verify <u>Form 3506</u> has the "Valves To Be Operated" are recorded</p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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<b>Gas Handling or Tie-in Procedure Document Number: 113</b>	Construction Management	Project Manager	Gas Operations Manager	Gas Operations Manager	Construction Team Lead Construction Manager/Contract Administrator	7. Verify <a href="#">Form 3506</a> is completed in accordance with the Form Instructions	10. Verify <a href="#">Form 3506</a> was completed in accordance with the Form Instructions <b>For a complete list see QM Assessment Checklists</b>	Reference <a href="#">GS 192.0026</a> and <a href="#">GS 182.0170</a> .
<b>Hydrotest Report Document Number: 062</b>	Construction Management	Project Manager	Engineering & Design Manager Team Lead	Portfolio Manager Construction Team Lead Engineering & Design Manager Team Lead Operations Manager	Portfolio Manager Construction Team Lead Construction Manager/Contract Administrator	Reviewers/Approvers reviews the Hydrotest Report to: 1. Verify the Test Summary data is accurate and complete 2. Verify the Test Summary data is in accordance with <a href="#">GS 182.0170</a> 3. Verify the Test Log data is accurate and complete 4. Very no pressure lost occurred during the last hour of an 8-hour test or the last 15 minutes of a 1-hour test 5. Verify the Test Log has the required signatures and dates signed recorded 6. Prior to conducting the test, verify the Calibration for Instruments Certificate is current 7. Verify that a Calibration for Instruments Certificate exist for each gage or measuring device used to record test data 8. Verify the Serial Number recorded on the Calibration for Instruments Certificate matches the Serial Number recorded on the Recording Charts, Test Logs, and Pressure Volume (PV) Log/Plot, as applicable 9. Verify the Calibration for Instruments Certificate has been maintained and calibrated in accordance with <a href="#">GS 107.0310</a> , <i>Approved Measurement Standards - Use, Maintenance and Calibration</i>	Quality Management Team should review the Hydrotest Report to: 1. Verify the Test Summary references the correct Project Name/Line Number 2. Verify the Test Log references the correct Project Name/Line Number 3. Verify the Test Log references the correct WOA Number 4. Very no pressure lost occurred during the last hour of an 8-hour test or the last 15 minutes of a 1-hour test 5. Verify the Test Log has the Company's representative signature and date signed recorded 6. Verify that a Certificate of Calibration exist for the Recording Chart – Pressure: 7. Verify that a Certificate of Calibration for the Recording Chart – Pressure was current during the time the test was performed 8. Verify that a Certificate of Calibration exist for the Data Logger (Crystal Gauge), if applicable 9. Verify that a Certificate of Calibration exist for the Psychrometer: 10. Verify that a Certificate of Calibration for the Psychrometer was current during the time the test was performed <b>For a complete list see QM Assessment Checklists</b>	Reference <a href="#">GS 192.0026</a> and <a href="#">GS 182.0170</a> .

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

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<p><b>Material Certificate of Conformance/Compliance Document Number: Doc 257</b></p>	<p>Material Quality Management Supply Management</p>	<p>Vendor</p>	<p>Project Engineer Project Manager</p>	<p>Project Manager</p>	<p>Principal Material Engineer Construction Manager/Contract Administrator</p>	<p>Principal Material Engineer/ Construction Manager/Contract Administrator should review the Material Certificate of Conformance/Compliance (COC) to: 1. Verify the COC is in accordance with <a href="#">GS 182.0056, MSP PP02.018</a> and <a href="#">MSP PP02.019</a>, as applicable  The Construction Manager/Contract Administrator should to: 1. Confirm material traceability is maintained throughout installation and reconciliation 2. Confirm the Material Traceability record matches the issued material. 3. Confirm the material has correct markings and maintains markings and field applied markings throughout installation. 4. Confirm the material is free of damage and corresponds with the IFC drawing or similar project design requirements.  The Project Manager should 1. Confirm material traceability is maintained throughout entirety of project</p>	<p>Quality Management Team should review the Material Certificate of Conformance/Compliance (COC) to: 1. Verify COCs (as required per MSP) are provided for material listed in the IFC BOM 2. Verify COC reference the PO Number and PO Line Item number 3. Verify the PO Number and PO Line Item Number recorded on the COC matches a PO Number and PO Line Item Number that has been uploaded into the Company's repository 4. Verify the description recorded on the COC matches the description on PO and PO Line Item Number that has been uploaded into the Company's repository 5. Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturers QC representative (Stamp or Signature)</p>	<p><a href="#">GS 182.0056, MSP PP02.018</a> &amp; <a href="#">MSP PP02.019</a></p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix							
Non-Bundle Records – 90 Days Post DOO							
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Quality Management Team QA Activity Description	Reference

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<p><b>Material Field Requisition Document Number: 032</b> or <b>Bill of Materials (BOM) Document Number: 191</b></p>	<p>Supply Management</p>	<p>Project Engineer</p>	<p>Project Manager Construction Manager/Contract Administrator</p>	<p>Portfolio Manager</p>	<p>Project Engineer reviews the Material Field Requisition to: 1. Verify the Material Field Requisition is consistent with DDS and MSPs 2. Verify the information is accurate and to approve the Material Field Requisition  Project Manager reviews the Material Field Requisition to: 1. Verify the Material Field Requisition aligns with the DDS 2. Verify the information is accurate and to approve the Material Field Requisition.  Construction Manager/Contract Administrator reviews the Material Field Requisition to: 1. Verify the Material Field Requisition aligns with the DDS 2. Verify the information is accurate and to approve the Material Field Requisition</p>	<p>Quality Management Team should review the Material Field Requisition to: 1. Verify the Material Field Requisition has the correct WOA Number recorded 2. Verify the Material Field Requisition has the correct IO Number recorded 3. Verify the description recorded on the Material Field Requisition matches the description on PO that has been uploaded into the Company's repository 4. Verify the Material Field Requisition has the MSP Number recorded and the MSP matches the MSP Number on PO that has been uploaded into the Company's repository 5. Verify that the material description listed on Material Field Requisition aligns with the material description listed on the applicable DDS and/or BOM 6. Verify the Material Field Requisition includes the Project Engineer's name, signature and date signed recorded 7. Verify the Material Field Requisition includes the Project Manager's name, signature and date signed recorded 8. Verify the Material Field Requisition includes the Construction Manager/Contract Administrator's name, signature and date signed recorded</p>	<p>Also submit corresponding BOM native excel file to Management submittal portal on Company's approved document repository</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

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<p><b>Material Invoice Document Number: 074</b></p>	<p>Supply Management</p>	<p>Vendor</p>	<p>Project Manager Supply Management</p>	<p>Portfolio Manager Supply Management</p>	<p>Project Manager Construction Manager/Contract Administrator Supply Management</p>	<p>Supply Management should perform an administrative review of Material Invoice. This should include:</p> <ol style="list-style-type: none"> <li>General contract compliance (rates, terms, etc.)</li> <li>Contract and accounting information is correct</li> <li>Confirmation that applicable supporting documentation is attached</li> </ol> <p>Construction Manager/Contract Administrator should:</p> <ol style="list-style-type: none"> <li>Perform a preliminary review of supporting documentation to confirm that deliverables and milestone achievements align with labor charges being invoiced</li> </ol> <p>Project Manager should:</p> <ol style="list-style-type: none"> <li>Perform a review and analysis of each invoice and supporting documentation to validate prior reviews and verification that project budgets can support invoiced amount.</li> </ol>	<p>Quality Management Team should review the Material Invoice to:</p> <ol style="list-style-type: none"> <li>Verify the material description listed on Material Invoice aligns with the material description listed on the DDS</li> <li>Verify the material description listed on Material Invoice aligns with the material description listed on the Material Field Requisition</li> <li>Verify the material description listed on Material Invoice aligns with the material description listed on the IFC BOM</li> <li>Verify the Material Invoice aligns with the Material Transfer Order and MJR, as applicable</li> <li>Verify the Material Invoice contains MSPs that align with the MSPs record on the Material Transfer Order</li> <li>Verify the Material Invoice contains MSPs that align with the MSPs record on the MJR</li> <li>Verify the Material Invoice contains MSPs that align with the MSPs record on the Material Requisitions</li> </ol>	<p>Material Invoice is required if the Material PO is absent. Includes consideration of field material procurements and can be in the form of Bill of Sale, Receipt, etc.</p> <p>POs for bulk orders should contain highlighted line items for its respective project use/destination.</p>
<p><b>Material Purchase Order (applicable in Detailed Design &amp; Procurement Stage for non-inventory process) Document Number: 116</b></p>	<p>Supply Management</p>	<p>Project Buyer</p>	<p>Project Engineer Material Coordinator</p>	<p>Project Manager Supply Management Manager</p>	<p>Project Engineer Material Coordinator Project Manager</p>	<p>Project Engineer/Material Coordinator reviews the Material Purchase Order to:</p> <ol style="list-style-type: none"> <li>Verify the Material Purchase Order matches the approved material requisition package.</li> </ol> <p>Project Manager reviews the Material Purchase Order to:</p> <ol style="list-style-type: none"> <li>Approve the Material Purchase Order or revised PO, if the original material requisition package must be modified.</li> </ol>	<p>Quality Management Team should review the Material Purchase Order to:</p> <ol style="list-style-type: none"> <li>Verify the material description listed on Material Purchase Order aligns with the material description listed on the IFC BOM</li> <li>Verify the Material Purchase Order aligns with the Material Transfer Order and MJR, as applicable</li> </ol> <p><b>For a complete list see QM Assessment Checklists</b></p>	<p>Includes project material procured, transferred and/or installed during planning, field changes and reconciliation.</p> <p>POs for bulk orders should contain highlighted line items for its respective project use/destination.</p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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<p><b>Material Requisition or Release (for non-inventory process)</b>  <b>Document Number: 075</b>  <b>or signed Bill of Materials (BOM)</b>  <b>Document Number: 191</b></p>	<p>Project Manager Project Engineer</p>	<p>Project Engineer</p>	<p>Project Manager</p>	<p>Portfolio Manager</p>	<p>Project Manager Project Buyer Supply Management</p>	<p>Project Engineer reviews the Material Requisition or signed BOM to:            1. Review, approve and verify the material requisition package is consistent with DDS and MSPs (material specifications)             Project Buyer reviews the Material Requisition or signed BOM to:            1. Verify it has been approved by Engineering &amp; Design             Project Manager reviews the Material Requisition or signed BOM to:            1. Review and approve material requisition package.</p>	<p>Quality Management Team should review the Material Requisition or BOM to:            1. Verify that the Material Requisition aligns with the applicable DDS and/or BOM            2. Verify the material matches the description on the Purchase Orders/Reservation Numbers and aligns with the BOM            3. Spot check that the appropriate MSP numbers are included in the material requisition package</p>	<p>Also submit corresponding BOM native excel file to Management submittal portal on Company's approved document repository</p>
<p><b>Material Source Inspection Report</b>  <b>Document Number: 068</b></p>	<p>Supply Management</p>	<p>Supplier Surveillance Inspector</p>	<p>Supplier Surveillance Coordinator</p>	<p>Supplier Surveillance Manager</p>	<p>Project Manager</p>	<p>Project Manager/Supplier Surveillance Coordinator reviews the Material Source Inspection Report to:            1. Verify the Inspection Report is complete and accurate, and includes the inspector's signature and date signed recorded            2. Verify the Inspection Report includes associated traceability documents, as applicable            3. Verify the report included a Certificate of Release with the inspector's name, signature and date signed recorded            4. Verify NCRs, if any, have been resolved</p>	<p>Quality Management Team should review the Material Source Inspection Report to:            1. Verify the Inspection Report references the correct Project Name/Line Number            2. Verify the Inspection Report includes the inspector's signature and date signed recorded            3. Verify the Release Certification includes the inspector's name, signature and date signed recorded            4. Verify the Non-Conformance Reports, if any, includes resolution and approval from the Portfolio Manager   <b>For a complete list see QM Assessment Checklists</b></p>	<p><a href="#">GS 182.0056</a> &amp; <a href="#">MSP PP02.018</a></p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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<p><b>Material Test Reports (MTRs)</b> <b>Document Number: 077</b></p>	<p>Material Quality Management Supply Management</p>	<p>Approved Manufacturer</p>	<p>Supply Surveillance Quality Control Inspector</p>	<p>Principal Material Engineer</p>	<p>Supply Surveillance Coordinator Principal Material Engineer Construction Manager/Contract Administrator</p>	<p>Principal Material Engineer/Construction Manager/Contract Administrator should review the Material Test Reports (MTRs) to: 1. Verify the MTR is in accordance with <a href="#">GS 182.0056</a> and <a href="#">MSP PP02.019</a>, as applicable The Construction Manager/Contract Administrator should to: 1. Confirm material traceability is maintained throughout installation and reconciliation 2. Confirm the Material Traceability record matches the issued material. 3. Confirm the material has correct markings and maintains markings and field applied markings throughout installation. 4. Confirm the material is free of damage and corresponds with the IFC drawing or similar project design requirements.</p>	<p>Quality Management Team should review the Approve Material Test Reports to: 1. Verify that the Heat Number recorded on the MTR matches a Heat Number/Lot Number recorded on PWIR 2. Verify MTRs for Pipe per MSP 41.06.1 Pipe -Steel, Grades B through X65 have been signed by an authorized MTR approver 3. Verify MTRs for Fittings per MSP 52.96 Fittings, Butt Weld Steel Grade Y42 have been signed by an authorized MTR approver</p>	<p><a href="#">GS 182.0056</a> &amp; <a href="#">MSP PP02.019</a></p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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<b>Material Transfer Order Document Number: 076</b>	Project Execution	Project Engineer Material Coordinator	Supply Surveillance Coordinator Supply Surveillance Manager Material Advisor Project Manager	Project Manager	Project Manager Project Engineer Material Coordinator Material Advisors Construction Manager/Contract Administrator Field Engineer	Project Engineer should: 1. Initiates request for material transfer to other project to Material Coordinator/Supply Surveillance Coordinator.  Material Coordinator should: 1. Issue and validate Material Transfer Order. This includes reviewing the accuracy with Purchase Order (PO)  Material Advisor should: 1. Perform a visual inspection on material to verify that material integrity remains at or above Gas Standard requirements, if requested by the Project Manager  Project Manager should approve the MTO and review the MTO to confirm the following: 1. Compliance with Gas Standards 2. Verification that the Material Coordinator has reviewed and approved the MTO	Quality Management Team should review the Material Transfer Order to: 1. Verify the Material Transfer Order has the correct Project Name/Line Number recorded on the project receiving the material 2. Verify material matches the description on Purchase Order, MJR and IFC BOM 3. Verify the Material Transfer Order Number matches the Material Transfer Order Number recorded on the MJR 4. Verify the quantity of the item(s) recorded on the Material Transfer Order matches the Quantity Received on Job Site recorded on the MJR 5. Verify the Material Transfer Order has been signed by the Project Manager sending the material 6. Verify the Material Transfer Order has been signed by the Project Manager receiving the material  <b>For a complete list see QM Assessment Checklists</b>	Includes project material transferred during planning, construction, or reconciliation.  <b>Applicable for non-inventory process</b>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix							
Non-Bundle Records – 90 Days Post DOO							
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Miscellaneous Job Report (MJR)</b> <b>Document Number: 079</b></p>	<p>Project Execution</p>	<p>Construction Manager/Contract Administrator Field Engineer</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Project Manager</p>	<p>Construction Team Lead Project Manager Construction Manager/Contract Administrator</p>	<p>Construction Team Lead should review the Miscellaneous Job Report (MJR) to:</p> <ol style="list-style-type: none"> <li>1. Verify that materials have been inventoried. Inventoried materials have either been:             <ol style="list-style-type: none"> <li>a. Installed - No further action</li> <li>b. Are determined to be excess. Excess materials are re-inventoried or scrapped in accordance with <a href="#">GS 182.0056</a> for material traceability</li> </ol> </li> </ol> <p>The Construction Manager/Contract Administrator is responsible for documenting, editing, and/or updating any field changes or similar project changes so that the final material reconciliation reflects the actual installation and Completion Drawing, and identifies the status of any excess material (Return to Inventory, Scrap or Transfer)</p> <p>The Construction Manager/Contract Administrator should review the MJR to:</p> <ol style="list-style-type: none"> <li>1. Verify the MJR is in accordance with <a href="#">GS 182.0056</a></li> <li>2. Verify the MJR has the correct Material Code recorded</li> <li>3. Confirm material traceability is maintained throughout installation and reconciliation</li> <li>4. Confirm the Material Traceability record matches the issued material.</li> </ol>	<p>Quality Management Team should review the Miscellaneous Job Report to:</p> <ol style="list-style-type: none"> <li>1. Verify the MJR has the correct WOA Number recorded</li> <li>2. Verify the MJR has the correct I/O Number recorded</li> <li>3. Verify the MJR includes the Project Manager's name and date recorded</li> <li>4. Verify the description recorded on the MJR matches the description on PO that has been uploaded into the Company's repository</li> <li>5. Verify the MJR has the MSP Number recorded and the MSP matches the MSP Number on PO that has been uploaded into the Company's repository</li> <li>6. Verify that the material description listed on MJR aligns with the material description listed on the applicable DDS and/or BOM</li> <li>7. Verify the total quantity of materials recorded as installed, returned, used, transferred out and/or junked/scrapped equals the total amount of materials received</li> <li>8. Verify the MJR master material list reconciles with the MJR procured, installed and MJR excess (transferred, testing, scrapped, returned) lists</li> <li>9. DOO date matches the date recorded on the NOP Form</li> </ol>	<p>Reconciled MJR</p> <p>Documents material procured and used as well as their excess. Excess can be scrapped, returned to inventory, or transferred.</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

	Construction Management	Project Manager	Construction Manager/Contract Administrator Chief Inspector Construction Inspector	Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector	Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector	<p>The Project Manager should review the MJR to:</p> <ol style="list-style-type: none"> <li>Confirm material traceability is maintained throughout entirety of project</li> <li>Verify quantities against materials and equipment purchased for the project</li> <li>Verify that accounting for material closeout or transfer has been completed</li> </ol>		
<p><b>NDE Op Quals Document Number: 217</b></p>							<p>Reviewers/Approvers reviews NDE Operator's Qualification Documents to:</p> <ol style="list-style-type: none"> <li>Verify the NDE Operator is qualified to perform the required covered task(s) prior to the start of the task(s)</li> <li>Verify the NDE Operator's Qualifications include Veriforce that has been verified, signed, and dated by Company Representative</li> <li>Verify NDE Operator Qualifications include a Company Blue Card that has been signed by a Company Representative</li> <li>Verify the NDE Operator's Qualifications are current and available for review onsite</li> </ol>	<p>Quality Management Team should review NDE Operator's Qualification Documents to:</p> <ol style="list-style-type: none"> <li>Verify NDE Operator's Qualifications are current and available for review</li> <li>Verify the Level II NDE Technician's company certification and visual acuity were current at the time of examination</li> <li>Verify NDE Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative</li> <li>Verify NDE Operator Qualifications include a Company Blue Card that has been signed by a Company Representative</li> <li>Verify NDE Operator's Qualifications are included with final documentation</li> </ol> <p><b>For a complete list see OM Assessment Checklists</b></p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional OA/OC Responsible QA/OC	Functional OA/OC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>NDE Liquid Penetrant Examination Data Report</b> <b>Document Number: 245</b></p>	<p>Construction Management</p>	<p>NDE Contractor Field Inspector</p>	<p>Construction Team Lead Construction Manager/Contract Administrator NDE Oversight Contractor</p>	<p>Construction Team Lead NDE Oversight Contractor</p>	<p>Construction Manager/Contract Administrator Construction Team Lead</p>	<p>Reviewers/Approvers reviews the Liquid Penetrant Examination Data Report (PT) to:</p> <ol style="list-style-type: none"> <li>Verify the fields ticket matches the PT Report(s) listed</li> <li>Verify the testing is done in accordance with <a href="#">GS 187.0175</a>, <a href="#">GS 182.0049</a>, as applicable, and the applicable API Code</li> <li>Verify the project information and date are correct</li> <li>Verify PT reports are completed for welds recorded on the PWIR</li> <li>Verify the PT Report(s) is/are complete</li> <li>Verify the weld numbers match the PWIR and weld map</li> <li>Verify 100% of welds were tested and accepted are identified on the PT Report(s)</li> <li>Verify the disposition of welds tested are noted on the PT Report(s)</li> <li>Verify the PT Report(s) was/were signed</li> <li>Verify weld numbers listed on the PT Report(s) match the weld numbers listed on the PWIRs (<a href="#">Form 3917</a>) and weld maps</li> </ol> <p>The Project Manager, Construction Manager, Company Representative or Welding Inspector shall:</p> <ol style="list-style-type: none"> <li>Coordinate the NDE with the Company NDE Program Group</li> </ol>	<p>Quality Management Team should review the PT Report to:</p> <ol style="list-style-type: none"> <li>Verify the PT Report references the current edition of API 1104 as the acceptance criteria</li> <li>Verify the PT Report references Gas <a href="#">Standard 182.0049</a>, Liquid Penetrant Examination API 1104 or SDG&amp;E G7015, as applicable</li> <li>Verify the applicable technique box is checked (Visible or Fluorescent) on the PT Report</li> <li>Verify the surface temperature is in accordance with Gas <a href="#">Standard 182.0049</a> Liquid Penetrant Examination API 1104 or SDG&amp;E G7015, as applicable. Normal temperature penetrant examinations are <math>\geq 40^{\circ}\text{F}</math> <math>\leq 125^{\circ}\text{F}</math>. High temperature penetrant examinations are <math>\geq 125^{\circ}\text{F}</math> <math>\leq 500^{\circ}\text{F}</math></li> <li>Verify the PT Reports are completed for all welds recorded on the PWIRs that require Liquid Penetrant Examination</li> <li>Verify the Level II Liquid Penetrant Technician (Examiner) printed, signed, and dated the PT Report(s)</li> <li>Verify the Level II Liquid Penetrant Technicians company certification and visual acuity were current at the time of examination</li> </ol> <p><b>For a complete list see QM Assessment Checklists</b></p>	
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<p><b>NDE Magnetic Particle Examination Data Report (not required for abandonments)</b> <b>Document Number: 245</b></p>	<p>Construction Management</p>	<p>NDE Contractor Field Inspector</p>	<p>Construction Team Lead Construction Manager/Contract Administrator NDE Oversight Contractor</p>	<p>Construction Team Lead NDE Oversight Contractor</p>	<p>Construction Manager/Contract Administrator Construction Team Lead</p>	<p>Reviewers/Approvers reviews the Magnetic Particle Examination Report (MT) to:  <ol style="list-style-type: none"> <li>Verify the fields ticket matches the NDE Report(s) listed</li> <li>Verify the testing is done in accordance with <a href="#">GS 187.0175</a>, <a href="#">GS 182.0051</a>, and the applicable API Code</li> <li>Verify the project information and date are correct</li> <li>Verify the NDE Report(s) is/are complete</li> <li>Verify the weld numbers match the PWIR and weld map</li> <li>Verify 100% of welds were tested and accepted are identified on the NDE Report(s)</li> <li>Verify the disposition of welds tested are noted on the NDE Report(s)</li> <li>Verify the NDE Report(s) was/were signed</li> <li>Verify weld numbers listed on the NDE Report(s) match the weld numbers listed on the PWIRs (<a href="#">Form 3917</a>) and weld maps</li> </ol> <p>The Project Manager, Construction Manager, Company Representative or Welding Inspector shall:  <ol style="list-style-type: none"> <li>Coordinate the NDE with the Company NDE Program Group</li> </ol></p> </p>	<p>Quality Management Team should review the Magnetic Particle Examination Report to:  <ol style="list-style-type: none"> <li>Verify the applicable method box is checked (Visible, Fluorescent, Dry Particle, or Wet Particle) on the MT Report</li> <li>Verify the type of light used aligns with the technique (visible or fluorescent) used in the Liquid Penetrant Examination. <b>White lights (e.g., flashlights, drop lights etc. should provide a minimum of 100 foot-candles (FC) at the surface of the part being inspected. UV black lights should provide a minimum of 1000 µW/cm2 at 15 inches from the surface of the part being examined</b></li> <li>Verify the Magnetic Particle Examination results are accepted</li> <li>Verify all unacceptable weld results are recorded on a separate Magnetic Particle Examination Report Form</li> <li>Verify the MT Reports are completed for all welds recorded on the PWIRs that require Magnetic Particle Examination</li> <li>Verify the Level II Magnetic Particle Technician (Examiner) printed, signed, and dated the MT Report(s)</li> <li>Verify the Level II Magnetic Particle Technician is certified by his or her company to perform magnetic particle examinations</li> </ol> <p><b>For a complete list see QM Assessment Checklists</b></p> </p>	<ul style="list-style-type: none"> <li>NDE Magnetic Particle Examination Data Report</li> <li>Verify the trade name of materials are from one manufacturer and the same type of Magnetic Particle systems and/or families. Using a mixture of trade names, manufacturers, and Magnetic Particle systems and/or families is prohibited</li> </ul>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>NDE Radiographic Examination Data Report</b> <b>Document Number: 245</b></p>	<p>Construction Management</p>	<p>NDE Contractor Field Inspector</p>	<p>Construction Team Lead Construction Manager/Contract Administrator NDE Oversight Contractor</p>	<p>Construction Team Lead Construction Manager/Contract Administrator NDE Oversight Contractor</p>	<p>Construction Manager/Contract Administrator Construction Team Lead</p>	<p>Reviewers/Approvers reviews the Radiographic Examination Data Report (RT) to: 1. Verify the fields ticket matches the NDE Report(s) listed 2. Verify the testing is done in accordance with <a href="#">GS 187.0175</a>, <a href="#">GS 187.0200</a>, and the applicable API Code 3. Verify the project information and date are correct 4. Verify the NDE Report(s) is/are complete 5. Verify the weld numbers match the PWIR and weld map 6. Verify 100% of welds were tested and accepted are identified on the NDE Report(s) 7. Verify the disposition of welds tested are noted on the NDE Report(s) 8. Verify the NDE Report(s) was/were signed 9. Verify weld numbers listed on the NDE Report(s) match the weld numbers listed on the PWIRs (<a href="#">Form 3917</a>) and weld maps  The Project Manager, Construction Manager, Company Representative or Welding Inspector shall: 1. Coordinate the NDE with the Company NDE Program Group</p>	<p>Quality Management Team should review the RT Report to: 1. Verify IQI Type is in accordance with <a href="#">GS 187.0200</a> or SDG&amp;E <a href="#">GS G7817</a>, as applicable 2. Verify IQI material group is in accordance with <a href="#">GS 187.0200</a> or SDG&amp;E <a href="#">GS G7817</a>, as applicable 3. Verify essential wire diameter is in accordance with <a href="#">GS 187.0200</a> or SDG&amp;E <a href="#">GS G7817</a>, as applicable 4. Verify the number of IQIs used is in accordance with <a href="#">GS 187.0200</a> or SDG&amp;E <a href="#">GS G7817</a> 5. Verify film size is in accordance with <a href="#">GS 187.0200</a> or SDG&amp;E <a href="#">GS G7817</a>, as applicable. Film shall be a minimum of 4.5 inches wide and be in standard lengths of 7", 10" or 17" 6. Verify the number of exposures are in accordance with <a href="#">GS 187.0200</a> or SDG&amp;E <a href="#">GS G7817</a>, as applicable 7. Verify the density range of the area of interest is in accordance with <a href="#">GS 187.0200</a> or SDG&amp;E <a href="#">GS G7817</a>, as applicable. Minimum density should be 1.8 and maximum should be 4.0 8. Verify the Level II Radiography Technician printed, signed, and dated the Radiographic Report(s) 9. Verify the Level II Film Interpreter printed, signed, and dated the Radiographic Report(s)</p> <p><b>For a complete list see QM Assessment Checklists</b></p>	<p>NDE Magnetic Particle Examination Data Report</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>NDE Radiography Field Checklist</b> Document Number: 245</p>	<p>Construction Management</p>	<p>NDE Contractor Field Inspector</p>	<p>Construction Team Lead Construction Manager/Contract Administrator NDE Oversight Contractor</p>	<p>Construction Team Lead NDE Oversight Contractor</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Reviewers/Approvers reviews the Radiography Field Checklist to: 1. Verify the project information are correct 2. Verify that each weld recorded on the Radiographic Examination Data Report is recorded on the Radiography Field Checklist 3. Verify the NDE Oversight Contractor has accepted weld density for each weld 4. Verify the weld numbers recorded on the Radiography Weld Tracking Log aligns with the weld numbers recorded on the Radiographic Examination Data Report The NDE Oversight Contractor completed the Radiography Field Checklist <a href="#">Form 4003</a> in accordance with Company Form Instruction - Radiography Field Checklist</p>	<p>Quality Management Team should review the Radiography Field Checklist to: 1. Verify the Line Number aligns with the Line Number recorded on the Radiographic Examination Data Report 2. Verify the Line Number aligns with the Line Number recorded on the WOA. 3. Verify the weld numbers recorded on the Radiography Weld Tracking Log aligns with the weld numbers recorded on the Radiographic Examination Data Report 4. The NDE Oversight Contractor completed the Radiography Field Checklist <a href="#">Form 4003</a> in accordance with Company Form Instruction - Radiography Field Checklist</p>
<p><b>Notice of Operation (NOP)</b> Document Number: 081</p>	<p>Project Execution</p>	<p>Project Engineer</p>	<p>Project Manager</p>	<p>Project Manager Portfolio Manager</p>	<p>Portfolio Manager Project Manager</p>	<p>Project Manager reviews the Notice of Operation prepared by the Project Engineer to: 1. Verify the NOP has the correct accounting information 2. Verify the NOP has the correct Date of Operation or abandonment recorded 3. Verify the NOP has been completed correctly in accordance with <a href="#">GS 191.0092</a></p>	<p>Quality Management Team should review the NOP: 1. Verify the NOP has the correct WOA Number and/or Internal Order Number recorded 2. Verify the NOP has the Date of Operation recorded 3. Verify the NOP has been submitted to Plant Accounting within 30 days of the date of operation</p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/OC Responsible QA/OC	Functional QA/OC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Odor Conditioning (Gas Seasoning) Project Plan Document Number: 176</b></p>	<p>Project Execution</p>	<p>Project Engineer</p>	<p>Project Manager</p>	<p>District Operations Manager Region Engineer Project Engineer</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Project Manager</p>	<p>Project Manager should: 1. Confirm that the Odor Conditioning Project Plan has been completed in accordance with <a href="#">GS 189.002</a>. Approvers of the Odor Conditioning Project Plan must validate the following: 1. Odor Conditioning Project Plan is properly prepared and completed 2. Odor Conditioning Project Plan is approved 3. Odor Conditioning Project Odor Intensity Tests are scheduled 4. Odor Conditioning Project Odor Intensity Tests are completed (Weekly for one Month).</p>	<p>Quality Management Team should review the Odor Conditioning (Gas Seasoning) Project Plan &amp; Required Follow up Statement to: 1. Verify the Odor Conditioning Project Plan references the correct Project Name/Line Number 2. Verify the Odor Conditioning Project Plan has the Prepared By name recorded 3. Verify the Odor Conditioning Project Plan is signed and complete <b>For a complete list see QM Assessment Checklists</b></p>	<p><a href="#">Form 3991</a> or equivalent Local field personnel must conduct four consecutive weekly follow-up odor intensity tests at the end or downstream of a new pipeline segment and new laterals branching off it. Test results are to be recorded on <a href="#">Form 3991</a>. Odor Intensity Test Report (Appendix B) or equivalent approved electronic form such as the form available in "Click Mobile."</p>
<p><b>Pipe Condition &amp; Maintenance Report (PCMR) Document Number: 089</b></p>	<p>Construction Management</p>	<p>Project Engineer</p>	<p>Project Manager</p>	<p>District Operations Manager Pipeline Integrity Manager Construction Team Lead</p>	<p>Construction Manager/Contract Administrator Pipeline Integrity Manager Construction Team Lead</p>	<p>Construction Manager/Contract Administrator reviews the Pipe Condition &amp; Maintenance Report (PCMR) to: 1. Confirm that the Pipe Condition &amp; Maintenance Report has been completed on-site and in accordance with <a href="#">Form Instructions 677-1</a> - Pipe Condition &amp; Maintenance Report Pipeline Integrity Manager reviews the PCMR to: 1. Verify the condition of the pipe segment is suitable for service. Reviewers/Approvers reviews the PCMR to: 1. Verify appropriate project location description 2. Verify condition data is completed 3. Verify PCMR Form completed by approved person</p>	<p>Quality Management Team should review the PCMR to: 1. Verify the PCMR has the Line Number recorded and/or Facility recorded 2. Verify the PCMR has the Specific Location recorded 3. Verify the PCMR has the C&amp;O Center Code checked, if applicable 4. Verify the PCMR has the Reason for Work or Inspection checked 5. Verify the PCMR has the Time Summary recorded 6. Verify the PCMR includes the Completed By person's signature and date Completed 7. Verify the PCMR includes the Reviewed By person's signature and date Reviewed <b>For a complete list see QM Assessment Checklists</b></p>	<p><a href="#">Form 677-1</a>, Pipeline Condition and Maintenance Report is to be completed anytime a high-pressure pipeline (greater than 60 psig) is exposed. These pipelines may be managed by Transmission, Storage or Distribution organizations. <a href="#">Form 677-1</a>, Pipeline Condition and Maintenance Report is to be completed to document and report any right-of-way encroachments identified during pipeline patrol. See <a href="#">Standard 223.0065</a>, Pipeline Patrol and Unstable Earth Inspections and <a href="#">Standard 106.0019</a>, Land &amp; Right of Way Encroachments.</p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Management of Change – Request &amp; Approval (Pipeline MAOP Upgrade Procedure) Form 2111</b> <b>Document Number: 092</b></p>	<p>Project Execution</p>	<p>Project Engineer Field Ops Manager Project Manager</p>	<p>Project Manager Project Engineer Pipeline Design/Engineering</p>	<p>Pipeline Integrity Pipeline Design Pipeline Engineering</p>	<p>Pipeline Design &amp; Engineering</p>	<p>Pipeline Design &amp; Engineering reviews the Management of Change – Request &amp; Approval Form to: 1. Verify Form 2111 was required for an upgrade or Derate within the scope of the project for an Upgrade or Derate 2. Verify applicable fields are properly completed per Form Instructions 2111 3. Review change for design and engineering acceptance. 4. Verify the Technical Review and Impact Analysis of the change (Impacts/Concerns) 5. Verify the required Initiator, Technical Reviewer and Change Approver signatures are recorded</p>	<p>Quality Management Team should review the Management of Change – Request &amp; Approval Form to: 1. Verify the correct Line Number/Equipment Number is recorded 2. Verify the required Initiator, Technical Reviewer and Change Approver have printed, signed, and dated the form</p>	<p>Job Aid: <a href="#">Form Instruction 2111</a></p>
<p><b>Pressure Volume (PV) Log/Plot</b> Also referred to as the <b>Stroke/Pressure Log</b> <b>Document Number: 118</b></p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Engineering &amp; Design Manager Team Lead</p>	<p>Portfolio Manager Construction Team Lead Engineering &amp; Design Manager Team Lead Operations Manager</p>	<p>Portfolio Manager Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Reviewers/Approvers reviews the Pressure Volume (PV) Log/Plot (Stroke/Pressure Log) to: 1. Verify the Pressure Volume (PV) Log/Plot is accurate and complete 2. Verify the Pressure Volume (PV) Log/Plot is in accordance with <a href="#">GS 182.0170</a> 3. Verify the Pressure Volume (PV) Log/Plot has the required signatures and dates signed recorded</p>	<p>Quality Management Team should review the Pressure Volume (PV) Log/Plot (Stroke/Pressure Log) to: 1. Verify the Pressure Volume (PV) Log/Plot references the correct Project Name/Line Number 2. Verify the Pressure Volume (PV) Log/Plot has the contractor's representative signature and date signed recorded 3. Verify the Pressure Volume (PV) Log/Plot has the Company's representative signature and date signed recorded</p>	<p><b>Only required for Hydrostatic Tests</b></p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<p><b>Redline (As-Built) Drawing Document Number: 009</b></p>	<p>Project Manager Construction Management Project Engineer</p>	<p>Project Manager Construction Management Project Engineer</p>	<p>Project Manager Construction Team Lead Construction Manager/Contract Administrator Project Engineer</p>	<p>Project Manager Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Project Manager Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Construction Manager/Contract Administrator shall:            1. Document changes on Construction Drawing/Sketches (redline mark-ups) during construction that will be used to record changes on Completion Drawings/Sketches            2. Verify the weld designations match PWIRs and Weld Maps             Project Manager reviews the Contractor Redlined Drawings (IFC Revisions) and shall:            1. Verify the accuracy of redlined drawing information            2. Request any missing information such as tags, valve names, stationing, etc. per <a href="#">GS 192.0030</a>            3. Submit redline mark-ups, to Design Drafting or to a vendor for design services for updating the IFC drawings to completion set            4. Compare changes with other documents such as PO's, DDS, weld maps, PIDs, survey.            5. Confirm Survey is complete, and report is generated per <a href="#">GS 167.0253</a>             Project Manager/Project Engineer shall:            1. Review all redline mark-ups, and resulting PDFs related to Completion Drawing Sets and other AI Drawing Products, as applicable</p>	<p>Quality Management Team should review the Redline (As-Built) Drawing to:            1. Verify the Redlined Drawings reference the correct Project Name/Line Number            2. Verify the Redlined Drawings have the correct WOA Number recorded</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference



Quality Management Plan for Construction

<p><b>Recording Chart – Pressure Document Number: 099</b></p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Engineering &amp; Design Manager Team Lead</p>	<p>Portfolio Manager Construction Team Lead Engineering &amp; Design Manager Team Lead Operations Manager</p>	<p>Portfolio Manager Construction Team Lead Construction Manager/Contract Administrator Field Engineer</p>	<p>Construction Team Lead/Construction Manager/Contract Administrator/Field Engineer reviews the Recording Chart – Pressure to: 1. Verify the Recording Chart – Pressure is appropriate for the maximum test pressure and duration of the test 2. Verify the face of the Recording Chart – Pressure references the correct Project Name/Line Number 3. Verify the face of the Recording Chart – Pressure references the correct WOA Number 4. Verify the face of the Recording Chart – Pressure references the correct Test Segment 5. Verify the face of the Recording Chart – Pressure has the contractor's representative signatures 6. Verify the stamp located on the back of the Recording Chart – Pressure aligns with the DDS Name/Line Number 7. Verify the stamp located on the back of the Recording Chart – Pressure references the correct Project Name/Line Number 8. Verify the data recorded on the back of the Recording Chart – Pressure aligns with the data recorded on the face of the Recording Chart – Pressure and DDS 9. Verify the stamp located on the back of the Recording Chart – Pressure has the Company's representative signature</p>	<p>Quality Management Team should review the Recording Chart – Pressure to: 1. Verify the face of the Recording Chart – Pressure references the correct Project Name/Line Number 2. Verify the face of the Recording Chart – Pressure references the correct WOA Number 3. Verify the face of the Recording Chart – Pressure references the correct Test Segment 4. Verify the face of the Recording Chart – Pressure has the contractor's representative signatures 5. Verify the test pressures recorded on the face of the Recording Chart – Pressure aligns with the DDS 6. Verify the back of the Recording Chart – Pressure has the required Stamp per <a href="#">GS 182.0170</a> 7. Verify the stamp located on the back of the Recording Chart – Pressure references the correct Project Name/Line Number 8. Verify the data recorded on the back of the Recording Chart – Pressure aligns with the data recorded on the face of the Recording Chart – Pressure and DDS 9. Verify the stamp located on the back of the Recording Chart – Pressure has the Company's representative signature</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

<p style="text-align: center;"><b>Quality Management Construction Responsibilities Matrix</b> Non-Bundle Records – 90 Days Post DOO</p>							
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Recording Chart – Temperature (Ambient)</b> <b>Document Number: 099</b></p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Engineering &amp; Design Manager Team Lead</p>	<p>Portfolio Manager Construction Team Lead</p> <p>Engineering &amp; Design Manager Team Lead</p> <p>Operations Manager</p>	<p>Portfolio Manager Construction Team Lead</p> <p>Construction Manager/Contract Administrator</p> <p>Field Engineer</p>	<p>Construction Team Lead/Construction Manager/Contract Administrator/Field Engineer reviews the Recording Chart – Temperature (Ambient) to:</p> <ol style="list-style-type: none"> <li>Verify the Recording Chart – Temperature (Ambient) is appropriate for the maximum test temperature and duration of the test</li> <li>Verify the face of the Recording Chart – Temperature (Ambient) references the correct Project Name/Line Number</li> <li>Verify the face of the Recording Chart – Temperature (Ambient) references the correct WOA Number</li> <li>Verify the face of the Recording Chart – Temperature (Ambient) references the correct Test Segment</li> <li>Verify the face of the Recording Chart – Temperature (Ambient) has the contractor's representative signatures</li> <li>Verify the test pressures recorded on the face of the Recording Chart – Temperature (Ambient) align with the DDS</li> <li>Verify the back of the Recording Chart – Temperature (Ambient) has the required Stamp per <a href="#">GS 182.0170</a></li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Ambient) references the correct Project Name/Line Number</li> <li>Verify the data recorded on the back of the Recording Chart – Temperature (Ambient) aligns with the data recorded on the face of the Recording Chart – Ambient and DDS</li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Ambient) has the Company's representative signature</li> </ol>	<p>Quality Management Team should review the Recording Chart – Temperature (Ambient) to:</p> <ol style="list-style-type: none"> <li>Verify the face of the Recording Chart – Temperature (Ambient) references the correct Project Name/Line Number</li> <li>Verify the face of the Recording Chart – Temperature (Ambient) references the correct WOA Number</li> <li>Verify the face of the Recording Chart – Temperature (Ambient) references the correct Test Segment</li> <li>Verify the face of the Recording Chart – Temperature (Ambient) has the contractor's representative signatures</li> <li>Verify the test pressures recorded on the face of the Recording Chart – Temperature (Ambient) align with the DDS</li> <li>Verify the back of the Recording Chart – Temperature (Ambient) has the required Stamp per <a href="#">GS 182.0170</a></li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Ambient) references the correct Project Name/Line Number</li> <li>Verify the data recorded on the back of the Recording Chart – Temperature (Ambient) aligns with the data recorded on the face of the Recording Chart – Ambient and DDS</li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Ambient) has the Company's representative signature</li> </ol>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional OA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<p><b>Recording Chart – Temperature (Pipe)</b> <b>Document Number: 099</b></p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Engineering &amp; Design Manager Team Lead</p>	<p>Portfolio Manager Construction Team Lead</p>	<p>Portfolio Manager Construction Team Lead</p>	<p>Construction Team Lead/Construction Manager/Contract Administrator/Field Engineer reviews the Recording Chart – Temperature (Pipe) to:</p> <ol style="list-style-type: none"> <li>Verify the Recording Chart – Temperature (Pipe) is appropriate for the maximum test temperature and duration of the test</li> <li>Verify the face of the Recording Chart – Temperature (Pipe) references the correct Project Name/Line Number</li> <li>Verify the face of the Recording Chart – Temperature (Pipe) references the correct WOA Number</li> <li>Verify the test pressures recorded on the face of the Recording Chart – Temperature (Pipe) align with the contractor's representative signatures</li> <li>Verify the test pressures recorded on the face of the Recording Chart – Temperature (Pipe) align with the DDS Temperature (Pipe)align with the DDS Temperature (Pipe)</li> <li>Verify the back of the Recording Chart – Temperature (Pipe) has the required Stamp per <a href="#">GS 182.0170</a></li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) references the correct Project Name/Line Number</li> <li>Verify the data recorded on the back of the Recording Chart – Temperature (Pipe) aligns with the data recorded on the face of the Recording Chart – Temperature (Pipe) and DDS</li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) has the Company's representative signature</li> </ol>	<p>Quality Management Team should review the Recording Chart – Temperature (Pipe) to:</p> <ol style="list-style-type: none"> <li>Verify the face of the Recording Chart – Temperature (Pipe) references the correct Project Name/Line Number</li> <li>Verify the face of the Recording Chart – Temperature (Pipe) references the correct WOA Number</li> <li>Verify the face of the Recording Chart – Temperature (Pipe) references the correct Test Segment</li> <li>Verify the face of the Recording Chart – Temperature (Pipe) has the contractor's representative signatures</li> <li>Verify the test pressures recorded on the face of the Recording Chart – Temperature (Pipe)align with the DDS Temperature (Pipe)</li> <li>Verify the back of the Recording Chart – Temperature (Pipe) has the required Stamp per <a href="#">GS 182.0170</a></li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) references the correct Project Name/Line Number</li> <li>Verify the data recorded on the back of the Recording Chart – Temperature (Pipe) aligns with the data recorded on the face of the Recording Chart – Temperature (Pipe) and DDS</li> <li>Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) has the Company's representative signature</li> </ol>	<p>Reference <a href="#">GS 192.0026</a> and <a href="#">GS 182.0170</a>.</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix						
Non-Bundle Records – 90 Days Post DOO						
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description
Quality Management Team QA Activity Description	Reference					

Quality Management Plan for Construction

<p><b>Special Inspection Report</b> Document Number: 283</p>	<p>Construction Management</p>	<p>Special Inspector</p>	<p>Construction Manager/Contract Administrator Chief Inspector Construction Inspector</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector</p>	<p>Reviewers/Approvers reviews the Special Inspection Report to: 1. Verify the Special Inspector is certified in accordance with the International Code Council to perform the required special inspection prior to the start of inspection 2. Verify the Special Inspector is certified with the local municipality, if applicable 3. Verify the Special Inspector holds the certifications as listed below and performs the following duties, as applicable: a. Reinforced Concrete Special Inspector i. Holds valid ACI Certification ii. Responsible for enforcing the construction details contained in the approved plans and specifications for concrete structural elements of the building iii. Verifies that concrete construction is installed as shown and as specified in the approved plans and specifications for formwork, concrete quality, reinforcement, and placement iv. Performs inspection of Epoxy Adhesives v. Collects concrete samples for testing b. Prestressed Concrete Special Inspector i. Holds a valid Reinforced Concrete Special Inspector</p>	<p>Quality Management Team should review the Special Inspection Report to: 1. Verify the Special Inspection Report is applicable to the project 2. Verify the Special Inspector signed the Special Inspection Report 3. Verify a Company representative acknowledged the Special Inspection Report with signature, as applicable</p>	
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional OA/OC Responsible QA/OC	Functional OA/OC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Special Inspection Report</b> <b>Document Number: 283</b> (Continued)</p>	<p>Construction Management</p>	<p>Special Inspector</p>	<p>Construction Manager/Contract Administrator Chief Inspector Construction Inspector</p>	<p>Construction Manager/Contract Administrator Construction Team Lead</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector</p>	<p>ii. Holds valid ACI Certification iii. Responsible for enforcing the construction details contained in the approved plans and specifications for prestressed concrete structural elements of the building iv. Verifies that prestressed elements and prestressing of concrete are installed as shown and as specified in the approved plans and specifications for concrete quality, verification of concrete strength, prestressing operations, grouting, reinforcement, placement, and formwork v. Collects concrete samples for testing c. Structural Steel and Bolting i. Responsible for enforcing the construction details contained in the approved plans and specifications for high-strength bolting of steel framing and structural steel elements of a building ii. Verifies that high-strength bolting is installed as shown and as specified in the approved plans and specifications iii. Performs material sampling and required tests</p>		
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<p><b>Special Inspection Report</b>  <b>Document Number: 283</b>          (Continued)</p>	<p>Construction Management</p>	<p>Special Inspector</p>	<p>Construction Manager/Contract Administrator          Chief Inspector          Construction Inspector</p>	<p>Construction Manager/Contract Administrator          Construction Team Lead</p>	<p>Construction Manager/Contract Administrator          Construction Team Lead          Chief Inspector          Construction Inspector</p>	<p>d. Structural Welding Special Inspector          i. Responsible for enforcing the construction details contained in the approved plans and specifications for welding of structural steel elements of a building.          ii. Verifies that welding is done as shown and as specified in the approved plans and specifications          iii. Performs material sampling and required tests          e. Structural Masonry Special Inspector          i. Responsible for enforcing the construction details contained in the approved plans and specifications for structural masonry elements of the building          ii. Verifies that structural masonry materials and placement of masonry, reinforcement, and grout are installed as shown and as specified in the approved plans and specifications          iii. Collects mortar samples for testing</p>		
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Special Inspection Report</b>  <b>Document Number: 283</b>          (Continued)</p>	<p>Construction Management</p>	<p>Special Inspector</p>	<p>Construction Manager/Contract Administrator          Chief Inspector          Construction Inspector</p>	<p>Construction Manager/Contract Administrator          Construction Team Lead</p>	<p>Construction Manager/Contract Administrator          Construction Team Lead          Chief Inspector          Construction Inspector</p>	<p>f. Spray-applied Fireproofing Special Inspector          i. Responsible for enforcing the construction details contained in the approved plans and specifications for sprayed fire-resistant materials          ii. Verifies sprayed fire-resistant materials applied to structural members of the building comply with the plans and specifications, as well as the preparation, application, and testing of these materials.          g. Soils Special Inspector          i. Responsible for enforcing the earthwork construction details contained in the approved plans and specifications for a building site          ii. Verifies the classification of the soils at the building site, performs required soil tests, monitors site preparation, grading, and fill placement to verify compliance with plans and specifications          4. Verify a copy of the Special Inspector's certifications are included with the report</p>		
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Strength Test Assemblies &amp; Supporting Documentation Layout Document Number: 144</b></p>	<p>Construction Management</p>	<p>Project Inspector Field Engineer</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Construction Manager/Contract Administrator Project Manager</p>	<p>Construction Manager/Contract Administrator should: 1. Review Strength Test Assemblies &amp; Supporting Documentation Layout form with the Strength Test Documentation Package to verify data fields are complete and accurate, and the sketch includes correct material designations and dimensions  Project Manager should: 1. Review the Strength Test Assemblies &amp; Supporting Documentation Layout form for accuracy and completeness</p>	<p>Quality Management Team should review the Strength Test Assemblies &amp; Supporting Documentation Layout to: 1. Verify the Strength Test, Assemblies &amp; Supporting Documentation Layout Name/Line Number 2. Verify information in title block matches the Final DDS and test chart (Operator's Name, &amp; Company Name responsible for test, Test Medium Used, Test Pressure, Time, Date, Duration, Elevation variations, Leaks &amp; Failures noted, if any, and disposition)</p> <p><b>For a complete list see QM Assessment Checklists</b></p>
<p><b>Strength/Pressure Test OpQual Documents Document Number: 217</b></p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Construction Manager/Contract Administrator Chief Inspector Construction Inspector</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector</p>	<p>Reviewers/Approvers reviews the Strength/Pressure Test Operator's Qualification Documents to: 1. Verify the Strength/Pressure Test Operator is qualified to perform the required covered task(s) prior to the start of the task(s) 2. Verify Strength/Pressure Test Operator's Qualifications include Veriforce that has been verified, signed, and dated by Company Representative 3. Verify Strength/Pressure Test Operator Qualifications include a Company Blue Card that has been signed by a Company Representative, if applicable 4. Verify Strength/Pressure Test Operator's Qualifications are current and available for review onsite</p>	<p>Quality Management Team should review the Strength/Pressure Test Operator's Qualification Documents to: 1. Verify Strength/Pressure Test Operator's Qualifications are current and available for review 2. Verify Strength/Pressure Test Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative 3. Verify Strength/Pressure Test Operator Qualifications include a Company Blue Card that has been signed by a Company Representative, if applicable 4. Verify Strength/Pressure Test Operator's Qualifications are included with final documentation</p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<p><b>Strength/Pressure Test Procedure</b> Document Number: 145</p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Engineering &amp; Design Manager Team Lead</p>	<p>Portfolio Manager Construction Team Lead  Engineering &amp; Design Manager Team Lead  Operations Manager</p>	<p>Portfolio Manager Construction Team Lead  Construction Manager/Contract Administrator</p>	<p>Reviewers/Approvers reviews the Strength/Pressure Test Procedure to: 1. Verify the procedure includes: a. Authorization of Procedure with signatures b. Scope c. Pre-Fill Sequence of Operations d. Fill Sequence of Operations e. Test Sequence of Operations, f. Dewatering Sequence of Operations, if applicable g. Drying Sequence of Operations, if applicable h. Schematics 2. Verify the procedure satisfies <a href="#">GS 182.0170</a> Requirements 3. Verify the procedure is accurate and complete</p>	<p>Quality Management Team should review the Strength/Pressure Test Procedure to: 1. Verify Strength/Pressure Test Procedure references the correct Project Name/Line Number 2. Verify the Strength/Pressure Test Procedure (Hydrostatic/Nitrogen) has been approved with signatures 3. Verify the Data on the Strength/Pressure Test Procedure aligns with the data on the Design Data Sheet (DDS) 4. For hydrostatic tests, verify the Strength/Pressure Test Procedure includes a Dewatering Sequence of Operations, if applicable 5. For hydrostatic tests, verify the Strength/Pressure Test Procedure includes a Drying Sequence of Operations, if applicable</p>	<p>Reference <a href="#">GS 192.0026</a> and <a href="#">GS 182.0170</a></p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix						
Non-Bundle Records – 90 Days Post DOO						
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description
						Quality Management Team QA Activity Description
						Reference

Quality Management Plan for Construction

<p><b>Tap Application Form 883 Document Number: 148</b></p>	<p>Project Execution</p>	<p>Project Engineer</p>	<p>Project Manager</p>	<p>Distribution: Technical Services Transmission: Technical Services</p>	<p>Project Manager The Region/District Distribution: Technical Services Transmission: Technical Services Gas System Operations</p>	<p>Project Manager reviews the Tap Application to: 1. Verify the Project Engineer has completed the Tap Application in accordance with SoCalGas Form 883 and GS 182.0165. This is the final review prior to submitting to the Region for approval Gas Transmission Planning and Gas Transmission/Distribution Technical Services should: 1. Review the Tap Application request to determine if a tap is required per GS 182.0165 2. Evaluates service from the distribution system for those customers requesting a transmission tap that do not meet the minimum demand requirement (applicable only to Transmission) Gas Transmission Planning and Distribution Region Engineering Teams should: 1. Perform 1st level capacity planning to determine capacity needs, engineering analysis and scope of request (localized analysis) Distribution/Transmission Technical Services should: 1. Review Request for Engineering form for maintenance impacts and constructability (coordinated with District) Gas System Operations should: 1. Approve and document the tap installation</p>	<p>Quality Management Team should review the Tap Application to: 1. Verify the Tap Application has the correct WOA Number recorded 2. In Section A, verify the Tap Application has the name of the person who requested the Engineering Reviewed and date recorded 3. In Section B, verify the Tap Application has BTU District Number adjacent to the tap location and signature of the authorized person who assigned the number and date recorded 4. In Section C, verify the Tap Application has the Requesting Distribution Region Engineer's signature and date recorded 5. Verify the Tap is installed in the location (side of main or top of main) on the Drawing Number noted in Section F 6. In Section F, verify the Tap Application has the signature of the person who completed the work and date job was completed recorded 7. In Section F, verify the Tap Application has the signature of the responsible supervisor and date recorded 8. Verify sections A-F are complete per GS 182.0165</p>	<p><b>If required</b></p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<p><b>Valve Certificate of Compliance / Hydrotest Document Number: 257</b></p>	<p>Project Execution Supply Management</p>	<p>Vendor</p>	<p>Project Engineer Project Manager</p>	<p>Project Engineer Project Manager Construction Manager/Contract Administrator</p>	<p>Project Engineer Project Manager Construction Manager/Contract Administrator Field Engineer</p>	<p>The Project Manager/Project Engineer/Construction Manager/Contract Administrator/Field Engineer reviews the Valve Certificate of Compliance / Compliance with Hydrotest to:</p> <ol style="list-style-type: none"> <li>Verify the Valve Certificate of Compliance / Compliance with Hydrotest include Mill Test parts, as applicable per MSP</li> <li>Verify the Valve Certificate of Compliance / Compliance with Hydrotest are in accordance with <a href="#">GS 182.0056</a>, <a href="#">MSP PP02.018</a>, <a href="#">MSP PP02.019</a>, as applicable</li> <li>Verify the Valve Certificate of Compliance / Compliance with Hydrotest include the required documentation such as MTRs, COCs, pressure test etc., as applicable per MSP</li> <li>Verify Pressure Test was performed and meets applicable MSP requirements, as applicable per MSP</li> </ol>	<p>Quality Management Team should review the Valve Certificate of Compliance / Compliance with Hydrotest to:</p> <ol style="list-style-type: none"> <li>Verify the Valve Certificate of Compliance / Compliance with Hydrotest include Mill Test parts, as applicable per MSP</li> <li>Verify the Valve Certificate of Compliance / Compliance with Hydrotest include COC with Vendor Drawings, as applicable per MSP</li> <li>Verify COC contains the PO Number and PO Line Item number</li> <li>Verify the Valve Certificate of Compliance / Compliance with Hydrotest include certification that the valve has passed required pressure tests, as applicable per MSP</li> <li>Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturers QC representative (Stamp or Signature)</li> </ol> <p><b>For a complete list see QM Assessment Checklists</b></p>	<p>Per MSP</p>
<p><b>Valve Commissioning Form Document Number: 258</b></p>	<p>Project Execution</p>	<p>Project Manager</p>	<p>Project Engineer Project Manager Construction Manager/Contract Administrator</p>	<p>Project Engineer Project Manager Construction Manager/Contract Administrator</p>	<p>Project Manager reviews the Valve Commissioning/Point to Point Form to:</p> <ol style="list-style-type: none"> <li>Verify the Valve Commissioning/Point to Point Form has been completed and the data is accurate</li> <li>Verify the Valve Commissioning/Point to Point Form has the final authorization signatures.</li> </ol>	<p>Quality Management Team should review the Valve Commissioning/Point to Point Form to:</p> <ol style="list-style-type: none"> <li>Verify the valve serial number(s) recorded on the Valve Commissioning/Point to Point Form aligns with the valve serial number(s) recorded on the Completion Drawings</li> <li>Verify the Valve Commissioning/Point to Point Form has the District Representative Supervisor and Valve Commissioning Team Lead's signatures and dates signed recorded</li> </ol>	<p>For automated valves only</p>	

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Non-Bundle Records – 90 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Valve Factory Acceptance Test (FAT)</b> <b>Document Number: 255</b></p>	<p>Construction Management</p>	<p>Vendor</p>	<p>Project Engineer Project Manager</p>	<p>Project Engineer Project Manager</p>	<p>Project Engineer Project Manager Construction Manager/Contract Administrator</p>	<p>The Project Manager &amp; Project Engineer reviews the Factory Acceptance Test to:          1. Verify factory acceptance test was performed and results are accurately recorded on the FAT Form          2. Verify the FAT procedures were followed          3. Verify the FAT results are accurate and recorded          4. Verify the FAT validated with the Tech Advisor &amp; Team Lead's signatures recorded</p>	<p>Quality Management Team should review the Factory Acceptance Test to:          1. Verify the valve serial number(s) recorded on the FAT aligns with the valve serial number(s) recorded on the Completion Drawings          2. Verify the Tech Advisor initialed and dated each page, where applicable          3. Verify the Task Acceptance Sign-Off has the Inspector's name, signature, initials, and date signed recorded          4. Verify the Review Sign-Off has the Team Lead's name, signature, initials, and date signed recorded</p>	<p>Approved Valves Actuator Component Data Sheet (FAT)          Applicable for valve automation          The FAT is a process that is performed by the manufacturer, at their facility, that evaluates the product during and after assembly by verifying that it is built and operating in accordance with the designated design specification (and Company MSP). This includes recording and documenting deviations or abnormalities observed during testing, via a Non-Conformance Report (NCR), which shall be corrected prior to shipment. These tests are usually observed by the Company.</p>
<p><b>Valve Site Acceptance Testing (SAT)</b> <b>Document Number: 256</b></p>	<p>Project Execution</p>	<p>Project Manager</p>	<p>Project Manager Portfolio Manager</p>	<p>Project Manager Portfolio Manager Construction Manager/Contract Administrator</p>	<p>Project Manager reviews the Valve Site Acceptance Testing (SAT) Form to:          1. Verify the site acceptance test was performed and results are accurately recorded on the SAT Form          2. Verify the SAT procedures were followed          3. Verify the SAT results are accurate and recorded          4. Verify the SAT validated with signatures in accordance with the Delegation of Authority</p>	<p>Quality Management Team should review the Valve Site Acceptance Testing (SAT) Form to:          1. Verify the valve serial number(s) recorded on the SAT aligns with the valve serial number(s) recorded on the Completion Drawings          2. Verify the Inspector initialed and dated each page, where applicable          3. Verify the Task Acceptance Sign-Off has the Inspector's name, signature, initials, and date signed recorded          4. Verify the Review Sign-Off has the Reviewer's name, signature, initials, and date signed recorded</p>	<p>Quality Management Team should review the Valve Site Acceptance Testing (SAT) Form to:          1. Verify the valve serial number(s) recorded on the SAT aligns with the valve serial number(s) recorded on the Completion Drawings          2. Verify the Inspector initialed and dated each page, where applicable          3. Verify the Task Acceptance Sign-Off has the Inspector's name, signature, initials, and date signed recorded          4. Verify the Review Sign-Off has the Reviewer's name, signature, initials, and date signed recorded</p>	<p>Approved Valves Actuator Component Data Sheet (FAT)          Applicable for valve automation          The FAT is a process that is performed by the manufacturer, at their facility, that evaluates the product during and after assembly by verifying that it is built and operating in accordance with the designated design specification (and Company MSP). This includes recording and documenting deviations or abnormalities observed during testing, via a Non-Conformance Report (NCR), which shall be corrected prior to shipment. These tests are usually observed by the Company.</p>

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Valve Traceability Documents</b> Document Number: 271</p>	<p>Project Execution Supply Management</p>	<p>Vendor</p>	<p>Project Engineer Project Manager</p>	<p>Project Engineer Project Manager</p>	<p>Project Engineer Project Manager Construction Manager/Contract Administrator</p>	<p>The Project Manager/Project Engineer/Construction Manager/Contract Administrator should review the Valve Traceability Documents to:</p> <ol style="list-style-type: none"> <li>1. Verify the Valve Traceability Documents are in accordance with <a href="#">GS 182.0056</a>, <a href="#">MSP PP02.018</a>, <a href="#">MSP PP02.019</a>, as applicable</li> <li>2. Verify the Valve Traceability Documents include the required documentation such as MTRs, COCs, pressure test etc., as applicable per MSP</li> <li>3. Verify Pressure Test was performed and meets applicable MSP requirements, as applicable per MSP</li> </ol>	<p>Quality Management Team should review the Valve Traceability Documents to:</p> <ol style="list-style-type: none"> <li>1. Verify the Valve Traceability Documents include Mill Test Certification for pressure containing parts, as applicable per MSP</li> <li>2. Verify COC contains the PO Number and PO Line Item number</li> <li>3. Verify the PO Number and PO Line COC matches the description on PO Number and PO Line Item Number that has been uploaded into the Company's repository</li> <li>4. Verify the Valve Traceability Documents include a copy of NDE reports, as applicable per MSP</li> <li>5. Verify the Valve Traceability Documents include certification that the valve has passed required pressure tests, as applicable per MSP</li> </ol> <p><b>For a complete list see QM Assessment Checklists</b></p>	<p><a href="#">GS 182.0056</a>, <a href="#">MSP PP02.018</a>, <a href="#">MSP PP02.019</a> and other applicable MSPs</p>
<p><b>Vendor Equipment Drawing</b> Document Number: 157</p>	<p>Project Execution Gas Engineering</p>	<p>Gas Engineering Vendor</p>	<p>Project Manager Project Engineer Facility Manager</p>	<p>Project Manager Project Engineer Gas Transmission &amp; Gas Engineering</p>	<p>Project Engineer should:</p> <ol style="list-style-type: none"> <li>1. Review vendor equipment drawings with appropriate SoCal Gas SME(s) in Gas Transmission and Gas Engineering departments</li> </ol> <p>Gas Transmission and Gas Engineering should:</p> <ol style="list-style-type: none"> <li>1. Perform a review of vendor equipment drawings to confirm compliance with Gas Standards for design and maintenance requirements.</li> </ol>	<p>Quality Management Team should review the Vendor Equipment Drawing to:</p> <ol style="list-style-type: none"> <li>1. Verify the description of the item listed on Vendor Equipment Drawings aligns with the material description listed on the IFC BOM</li> </ol>		

**14.5. Quality Management Construction Responsibilities Matrix (Continued)**

**Quality Management Construction Responsibilities Matrix**

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional OA/OC Responsible QA/OC	Functional QA/OC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Project Weld Inspection Report (PWIR)</b> Document Number: 114</p>	<p>Construction Management</p>	<p>Field Inspector</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Construction Team Lead Construction Manager/Contract Administrator Project Manager</p>	<p>Construction Team Lead or Construction Manager/Contract Administrator should review the PWIRs to:</p> <ol style="list-style-type: none"> <li>1. Verify the PWIR is completed in accordance with Company Form Instruction <a href="#">3917, Project Weld Inspection Report</a></li> <li>2. Verify the information recorded on the PWIR is accurate and correct</li> <li>3. Verify that NDE Report data matches the PWIR data</li> <li>4. Verify welds recorded on the PWIRs that have had NDE performed are also recorded on an NDE Report with the disposition of the NDE results</li> <li>5. Verify the material information is correct (heat numbers, size, wall thickness, etc.)</li> <li>6. Verify the data matches the weld map and reader sheet data</li> <li>7. Verify welder identification, certifications and operation qualification cards are current</li> <li>8. Verify the welder is listed in accordance with <a href="#">GS 167.0100</a></li> <li>9. Verify the Welding Inspector is listed in Veriforce for the specific task(s) in accordance with <a href="#">GS 167.0100</a></li> <li>10. Verify the PWIR has been completed and reviewed in accordance with the applicable Company Form Instructions</li> </ol>	<p>Quality Management Team should review the PWIRs to:</p> <ol style="list-style-type: none"> <li>1. For SDG&amp;E PWIRs, verify each sampled PWIR has the correct DPSS/IO Number recorded</li> <li>2. Verify each sampled PWIR has the Location and City recorded</li> <li>3. Verify each sampled PWIR has the Station Number or Location recorded</li> <li>4. Verify each sampled PWIR has the Joining Info recorded</li> <li>5. Verify each sampled PWIR has the Weld Procedure Specification (WPS) Number recorded</li> <li>6. Verify that all WPSs are available for review and are still active (have not been deleted)</li> <li>7. Verify each sampled PWIR has the Welder's Identification for each weld layer recorded</li> <li>8. Verify the NDE Results status (A for Approved or R for Rejected) is recorded</li> <li>9. Verify the status of repaired welds (A for Accepted or R for Rejected) is recorded</li> <li>10. If a weld was cutout, verify the new weld number is recorded, if applicable</li> <li>11. For SDG&amp;E PWIRs, verify each sampled PWIR has Welding Parameters recorded</li> <li>12. For SDG&amp;E PWIRs, verify each sampled PWIR has the NDE Report Number recorded</li> <li>13. Verify each sampled PWIR has the PO Number recorded</li> </ol> <p><b>For a complete list see QM Assessment Checklists</b></p>	<p><a href="#">Welding Specifications Library</a> (not required for abandonments)</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Non-Bundle Records – 90 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Weld Map (not required for abandonments)</b> Document Number: 190</p>	<p>Construction Management</p>	<p>Field Inspector</p>	<p>Construction Team Lead Construction Manager/Contract Administrator</p>	<p>Construction Team Lead Construction Manager/Contract Administrator Project Manager</p>	<p>Construction Team Lead or Construction Manager/Contract Administrator perform a review of the Weld Map to: 1. Verify the information recorded is accurate and correct 2. Verify the Weld Map align with redlined drawings 3. Verify the NDE reports match weld reports 4. Verify the material information is correct (heat numbers, size, wall thickness, etc.) 5. Verify the data matches the PWIR 6. Verify the Weld Map conforms with the requirements of <a href="#">GS 192.0032</a></p>	<p>Quality Management Team should review the Weld Map to: 1. Verify permanent welds (as indicated on the PWIR) are captured on the Weld Map 2. Verify a Weld Number is recorded for each weld listed on the Weld Map in accordance with <a href="#">GS 192.0032</a></p>	<p><a href="#">Welding Specifications Library</a></p>
<p><b>Welding OpQual Documents</b> Document Number: 217</p>	<p>Construction Management</p>	<p>Project Manager</p>	<p>Construction Manager/Contract Administrator Chief Inspector Construction Inspector</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector</p>	<p>Reviewers/Approvers reviews the Welding Operator's Qualification Documents to: 1. Verify the Welding Operator is qualified to perform the required covered tasks 1.4-0801 – Welding Operations and 10.3 - Making Permanent Field Repair of Welds on Transmission Lines/High Pressure Distribution Lines prior to the start of the tasks 2. Verify Welding Operator's Qualifications include Veriforce that has been verified, signed, and dated by Company Representative 3. Verify Welding Operator Qualifications include a Company Blue Card that has been signed by a Company Representative 4. Verify Welding Operator's Qualifications are current and available for review onsite</p>	<p>Quality Management Team should review the Welding Operator's Qualification Documents to: 1. Verify Welding Operator's Qualifications are current and available for review 2. Verify the Welding Operator is qualified to perform the required covered tasks 1.4-0801 – Welding Operations and 10.3 - Making Permanent Field Repair of Welds on Transmission Lines/High Pressure Distribution Lines prior to the start of the tasks 3. Verify Welding Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative 4. Verify Welding Operator Qualifications include a Company Blue Card that has been signed by a Company Representative 5. Verify Welding Operator's Qualifications are included with final documentation</p>	

14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix							
Non-Bundle Records – 90 Days Post DOO							
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Approver	Functional QA/OC Responsible QA/OC	Functional QA/OC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>Welding Procedures Document Number: 159</b></p>	<p>Project Execution</p>	<p>Principal Materials Engineer</p>	<p>Project Engineer Engineering Quality Manager Construction Team Lead Project Manager</p>	<p>Principal Materials Engineer SDGE Representative</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Principal Materials Engineer</p>	<p>Project Engineer/Engineering Quality Manager performs a review to validate the welding procedure specifications are consistent with the material specified in the DDS. Construction Team Lead performs a constructability review: 1. Does it represent current ambient conditions of field site (weather, humidity, time of day/high) 2. Does it represent operational conditions when welding will occur (pressure, flowrate) 3. Does rod size, ampere setting, etc. reflect welder skill level, ambient conditions and/or operational conditions Principal Materials Engineer performs a final review of the Weld Procedure Specification to validate the following: 1. It is consistent with <a href="#">GS 187.0055</a> &amp; <a href="#">GS 187.0056</a> 2. primary criteria: a. rod size b. ampere (kJ) c. pre-heat requirements d. material composition satisfies the metallurgy requirements Construction Manager/Contract Administrator verifies that Weld Procedure Specifications have been reviewed and approved, and that they match the project joint, grade, diameter, and wall thickness design.</p>	<p>Quality Management Team should review the Welding Procedures to: 1. Verify the WPSs listed in PWIRs are still active (have not been deleted) 2. Verify the WPSs are applicable to the size and thickness of the components welded 3. Verify the Weld Procedure Specifications match the material listed in IFC BOM</p>	<p>Project specific welding procedures based on pipe grade, diameter, etc. SoCalGas WPSs in Document library are approved versions with or without typed name or signature. <a href="#">Welding Specifications library</a></p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

<p style="text-align: center;"><b>Quality Management Construction Responsibilities Matrix</b> Non-Bundle Records – 90 Days Post DOO</p>							
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
<p style="text-align: center;">(This table contains no data rows)</p>							



Quality Management Plan for Construction

<p><b>Welding Inspection Field Surveillance Report</b> Document Number: N/A</p>	<p>Construction Management Engineering Analysis Center Inspection Quality &amp; Oversight Program</p>	<p>Project Manager</p>	<p>Construction Manager/Contract Administrator Chief Inspector Construction Inspector Inspection Quality &amp; Oversight Supervisor or Technical Advisor</p>	<p>Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector Inspection Quality &amp; Oversight Supervisor or Technical Advisor</p>	<p>Project Manager Construction Manager/Contract Administrator Construction Team Lead Chief Inspector Construction Inspector Inspection Quality &amp; Oversight Supervisor or Technical Advisor</p>	<p>Reviewers/Approvers reviews the Welding Inspection Field Surveillance Report to: The Project Manager, Construction Manager, Company Representative or Welding Inspector shall: 1. Coordinate the NDE with the Company NDE Program Group Inspection Quality &amp; Oversight Supervisor or Technical Advisor shall: 1. Perform random and independent oversight surveillances of both Oversight Technician and the contracted NDE Technician. 2. Verify that Oversight Technician and the contracted NDE Technician are performing their duties in accordance with the applicable Gas Standard(s) 3. Verify the items listed in Welding Elements Checklist section of the Welding Inspection Field Surveillance Report are completed and results recorded. 4. Sign and date the Welding Inspection Field Surveillance Report</p>	<p>Quality Management Team should review the Welding Inspection Field Surveillance Report to: 1. Verify the Welding Inspection Field Surveillance Report references the correct Project Name/Line Number 2. Verify each sampled Welding Inspection Field Surveillance Report has the correct WOA Number recorded 3. Verify each sampled Welding Inspection Field Surveillance Report has the correct I/O Number recorded 4. Verify each sampled Welding Inspection Field Surveillance Report has the correct Project Information recorded 5. Verify each sampled Welding Inspection Field Surveillance Report has the correct Welding Project Mode recorded 6. Verify each sampled Welding Inspection Field Surveillance Report has the correct Surveillance Details recorded, as applicable 7. Verify each sampled Welding Inspection Field Surveillance Report has the correct Recommendation/Finding Items recorded, as applicable 8. Verify the Welding Inspection Field Surveillance Report has the Auditor's Name, signature, and date signed recorded</p>	
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix							
Bundle A Records – 120 Days Post DOO							
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Approver	Functional QA/OC Responsible QA/OC	Functional QA/OC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>A1: Completion Drawing (with acceptance email from Gas Engineering) Document Number: 018</b></p>	<p>Project Execution</p>	<p>Engineering Design – Design Drafting Design Subcontractor</p>	<p>Project Engineer GIS Department Gas Engineering</p>	<p>GIS Department Gas Engineering</p>	<p>Construction Team Lead Project Manager GIS Department Gas Engineering</p>	<p>Engineering Design – Design Drafting reviews the Completion Drawings to: 1. Verify the Completion Drawings were created in accordance with <a href="#">GS 192.00310</a> 2. Verify the layers, symbology, CAD requirements and Gas Standards have been included as required. Construction Team Lead reviews the Completion Drawings to: 1. Verify the field redlines were incorporated and that as-builts match what was installed 2. Verify 100% of pipeline features are identified e.g., Pipe Diameter; Line Number; Wall Thickness; Grade and Pipe Longitudinal Seam Project Manager reviews the Completion Drawings to: 1. Perform a final review of the project as-builts to check that issued for Construction drawings have been modified with the approved drawing revisions and construction redline drawings to accurately reflect field conditions. 2. Verify the necessary documents have been provided to the vendor and/or Design Drafting to facilitate the updating of the Completion Drawings 3. Verify the required information pertinent to the project has been transferred and updated from the Construction Drawing/Sketch to the Completion Drawing/Sketch as defined by governing Standards 4. Verify the accuracy of supporting source documentation and redline information to be incorporated into the Completion Drawings</p>	<p>Quality Management Team should review the Completion Drawings to: 1. Verify the Completion Drawings reference the correct Project Name/Line Number 2. Verify the Completion Drawings have the correct WOA Number recorded 3. Verify the Completion Drawings identify pipeline features e.g., Pipe Diameter; Line Number; Wall Thickness; Grade and Pipe Longitudinal Seam 4. Verify the Completion Drawings have the correct dimensions circled in red, incorrect dimensions crossed out and replaced by a field verified dimension, as applicable 5. Verify BOM is available for review within the Completion Drawings 6. Verify BOM aligns with the DDS Engineering exist 7. Verify deactivated, removed, or sectionalized segments of pipe are identified</p>	<p>Deliverable A1: Completion Drawing Set Also includes Completion Sketch Set and Service As-built (Form 211.4). See <a href="#">GS 192.0030</a></p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Bundle A Records – 120 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference
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Quality Management Plan for Construction

<b>A2: Survey Data File Document Number: 005</b>	Survey & Mapping Field Surveys GIS Management	Surveying Subcontractor Field Surveys	Regional Survey Manager Survey Closeout Manager	Regional Survey Manager Survey Closeout Manager GIS Closeout Support Construction Manager/Contract Administrator SoCalGas/SDGE GPS Manager	Regional Survey Manager reviews the A2: Survey Data File to: 1. Scheduled an As-built Survey by a Licensed Land Surveyor/Qualified GPS Personnel/Contractor per the requirements of <a href="#">GS 167.0253</a> , <i>Surveys of As-built Records for Construction of High-Pressure Pipelines and Pipeline Facilities</i> 2. Submit measurement results of the survey to Design Drafting in Gas Engineering as part of the Bundle A as outlined in Standard <a href="#">GS 192.0026</a> , <i>Records Management for High Pressure Project Closeout</i> 3. Received any unsatisfactory survey data that contains identifiable errors or omissions back from Design Drafting in Engineering Design and work with the surveyor to rectify the data 4. Verify the integration of the measurement results from the As-built Survey into the completion sketches or drawings per the requirements outlined in <a href="#">GS 192.0026</a> and <a href="#">GS 192.0030</a> 5. Provide the x,y coordinates of key assets, including, but not limited to, valves, regulators and other facilities that are scheduled for inspection, for integration in MAXIMO for Transmission and Storage pipeline facilities and SAP for Distribution facilities and SAP for Distribution facilities and SAP for Distribution facilities Project Planners & Designers should: 1. Reference the survey data and measurements to update drawings and sketches	Quality Management Team should review the A2: Survey Data File to: 1. Verify the A2: Survey Data File has the Type of Survey (PLS – Licensed Land Surveyor; Internal or External Qualified GPS Personnel) recorded 2. Verify the A2: Survey has the survey company's name recorded 3. Verify the A2: Survey has the Lead Surveyor/Personnel's Name and PLS Number recorded 4. Verify the A2: Survey has the date the survey was conducted recorded 5. Verify the A2: Survey Data File has the Horizontal Datum data (Datum, State Plane, Epoch and Scale factor, if applicable) of points collected recorded 6. Verify the A2: Survey Data File has the Vertical Datum of points collected recorded (Not required for Qualified GPS Personnel/Contractor) 7. Verify the A2: Survey Data File has the Postprocessing Personnel's name recorded 8. Verify the A2: Survey Data File has the length of project recorded (Not required for Licensed Land Surveyor surveys) 9. Verify the A2: Survey Data File has the extents of project (e.g., Street X to Street Y) recorded  <b>For a complete list see QM Assessment Checklists</b>	Deliverable A2: Survey Data File • Only required for pipelines 3 inches or greater in diameter. • The Excel file shall contain a minimum of three sheets. The first sheet shall contain the metadata (coversheet), the second sheet shall contain the pipeline data and the third or last sheet shall contain the land data. Each sheet shall exist under a separate tab with a defining, differentiating label. If survey/GPS data is collected on multiple pipelines, the file shall contain a separate tab for each pipeline. • See <a href="#">GS 167.0253</a> , <i>Surveys of As-built Records for Construction of High-Pressure Pipelines and Pipeline Facilities</i> .
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Bundle A Records – 120 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>A2: Survey Data File Document Number: 005</b></p>	<p>Survey &amp; Mapping Field Surveys GIS Management</p>	<p>Surveying Subcontractor Field Surveys</p>	<p>Regional Survey Manager Survey Closeout Manager</p>	<p>Regional Survey Manager Survey Closeout Manager GIS Closeout Support Construction Manager/Contract Administrator</p>	<p>Regional Survey Manager Survey Quality Manager Survey &amp; Mapping Manager GIS Closeout Support SoCalGas/SDGE GPS Manager</p>	<p>GIS Management Team should: 1. Establish minimum requirements for As-built Survey as specified in <a href="#">GS 167.0253</a>. 2. Collaborate with Design Drafting in Gas Engineering as needed on reviewing and validating survey data files before submitting to the PM as part of the Bundle A. 3. Upload the approved survey data file into the Pipeline Database Management System as defined by <a href="#">GS 192.0026</a>. 4. Integrate the approved survey data into Company GIS systems and mapping products as defined in <a href="#">GS 192.0025</a>, <a href="#">GIS Maintenance Requirements for High Pressure Gas Lines</a>, and <a href="#">GS 223.0020, High Pressure Pipeline Database Editing Standard</a>. 5. Verify the file has been prepared in accordance with <a href="#">GS 167.0253</a>, <a href="#">Surveys of As-built Records for Construction of High-Pressure Pipelines and Pipeline Facilities</a>. In addition, reviews and confirms survey data captures 100% of elements of field installation.</p> <p>Survey Closeout Manager should: 1. Perform review of data for completeness, based on the design documents, as well as surveyor signature and stamp.</p> <p>Party Chief/Field Survey Lead should: 1. Review data to verify match of stationing, joints, taps, tees, etc. with other required field documentation.</p>				
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix

Bundle A Records – 120 Days Post DOO

Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>A2: Survey Data File</b> <b>Document Number: 005</b></p>	<p>Survey &amp; Mapping Field Surveys GIS Management</p>	<p>Surveying Subcontractor Field Surveys</p>	<p>Regional Survey Manager Survey Closeout Manager</p>	<p>Regional Survey Manager Survey Closeout Manager GIS Closeout Support Construction Manager/Contract Administrator</p>	<p>Regional Survey Manager Survey Quality Manager Survey &amp; Mapping Manager GIS Closeout Support SoCalGas/SDGE GPS Manager</p>	<p>Survey &amp; Mapping Manager should: 1. Pre-Final review and approval of the file prior to transmittal to Sempra GPS Department.  SoCalGas/SDGE/GPS Manager should: 1. Perform a final review and validation of the pipeline survey as-builts to confirm system compatibility.  Project Engineer should: 1. Review vendor equipment drawings with appropriate SoCal Gas SME(s) in Gas Transmission and Gas Engineering departments  Gas Transmission and Gas Engineering should: 1. Perform a review of vendor equipment drawings to verify compliance with Gas Standards for design and maintenance requirements. Approves.</p>		
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix								
Bundle B Records – 180 Days Post DOO								
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description	Quality Management Team QA Activity Description	Reference

Quality Management Plan for Construction

<p><b>B1: Pipeline Feature Database Collection (PFDC)</b> <b>Form 2120</b> <b>Document Number: 059</b> <b>or</b></p>	<p>Project Execution</p>	<p>Project Engineer</p>	<p>Project Manager</p>	<p>Pipeline Integrity Manager</p>	<p>Project Manager Pipeline Integrity Manager</p>	<p>Project Manager should perform a final review of <a href="#">Form 2120</a> as prepared by the Project Engineer to confirm the following: 1. Supporting documentation accurately reflects the changes in the pipeline feature that will be updated in the high-pressure pipeline database 2. Has been completed in accordance with <a href="#">Form Instruction 2120</a>  Pipeline Integrity Manager should perform a review of <a href="#">Form 2120</a> to: 1. Verify that supporting documentation supports the request for update 2. Approve <a href="#">Form 2120</a>  Pipeline Integrity Manager should approve the <a href="#">Form 2120</a> via email</p>	<p>Quality Management Team should review the Pipeline Feature Data Collection Form to: 1. Verify Bundle A has been approved prior to Bundle B submittal 2. Verify <a href="#">Form 2120</a> has the correct Project Name/Line Number recorded 3. Verify stationing points on the Completion Drawings have been reviewed/approved 4. Verify <a href="#">Form 2120</a> approval email from PI Data Acceptance</p>	<p><a href="#">Form Instruction 2120</a> <a href="#">Form 2120</a> shall be used to document: • Pipe and facility attribute information from new installation activities. • Pipe and facility attribute additions as a result of historical data mining of existing pipeline. • Pipe and facility attribute additions due to changes from pipeline replacements or alterations activities • Installations that are not part of the final operational installation are to be excluded e.g., abandoned facilities, temporary installations.</p>
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14.5. Quality Management Construction Responsibilities Matrix (Continued)

Quality Management Construction Responsibilities Matrix						
Bundle B Records – 180 Days Post DOO						
Compliance Document	Responsible Functional Department	Functional Execution Preparer	Functional Execution Reviewer	Functional Execution Approver	Functional QA/QC Responsible QA/QC	Functional QA/QC Activity Description
Quality Management Team	QA Activity Description					
Reference	Quality Management Team					

Quality Management Plan for Construction

<p><b>B2: Pipeline Database Update Form 2112 Document Number: 238</b></p>	Project Execution	Project Engineer	Project Manager	Pipeline Integrity Manager	Project Manager Pipeline Integrity Manager	<p>Project Manager performs a final review of <a href="#">Form 2112</a> as prepared by the Project Engineer to:</p> <ol style="list-style-type: none"> <li>Verify supporting documentation accurately reflects:               <ol style="list-style-type: none"> <li>Updates to pipeline information that is maintained in the High-Pressure Pipeline Database</li> <li>Unusual Conditions/Identified Site changes for existing pipelines</li> <li>MAOP changes and construction related pressure testing information on existing and new pipelines</li> </ol> </li> <li>Verify <a href="#">Form 2112</a> has been completed in accordance with <a href="#">Form Instruction 2112</a></li> </ol> <p>Pipeline Integrity Manager reviews <a href="#">Form 2112</a> to:</p> <ol style="list-style-type: none"> <li>Verify that supporting documentation supports the request for update</li> <li>Approve <a href="#">Form 2112</a></li> </ol>	<p>Quality Management Team should review the Pipeline Database Update Form to:</p> <ol style="list-style-type: none"> <li>Verify <a href="#">Form 2112</a> has the correct Project Name/Line Number recorded</li> <li>Verify the first section of <a href="#">Form 2112</a> is completed (100% of Fields Required)</li> <li>Verify <a href="#">Form 2112</a> has the name and title of the person who approved the form and that date the form was approved</li> </ol>	<p><a href="#">Form Instruction 2112</a></p> <p><a href="#">Form 2112</a> applies to all high-pressure pipelines operating at a pressure over 60 psig. These pipelines may be managed by Transmission, Distribution or Storage organizations.</p> <p><a href="#">Form 2112</a> shall be used for any change to one or more pipeline attribute, pipeline feature, or Unusual Condition/Identified Site location.</p>
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14.6. Quality Management Construction Field Assessment Checklist

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days	S	<i>Site Safety Assessment</i>	N/A	Safety	A						
						Verify that the assigned Medical Facility									

**Quality Management Plan for Construction**


**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

Quality Management Construction Field Assessment Checklist																
Non-Bundle Records – 90 Days Post DOO																
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date	
					I	Coating Inspection Form	Doc. 228									
				Non-Bundle Records - 90 Days	1.1	Verify that form fields in Section A: Inspector of the Coating Inspection Form have been completed		Documentation	A							



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Post DOO											
				Non-Bundle Records - 90 Days Post DOO	1.2	Verify that Section B: Job Information of the Coating Inspection Form has the correct Line Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.3	Verify that Section B: Job Information of the Coating Inspection Form has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.4	Verify that the Job Description in Section B: Job Information of the Coating Inspection Form list the specific items coated recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.5	Verify that form fields in Section C: Coating Material Information of the Coating Inspection Form have been completed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.6	Verify the Manufacturer – Coating Name recorded in Section C: Coating Material Information is an approved coating material in accordance with the applicable Gas Standard		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.7	Verify that form fields in Section D: Inspection Tool Information of the Coating Inspection Form have been completed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.8	Verify the calibration of the test tool recorded in Section D: Inspection Tool Information was current when the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.9	Verify that form fields in Section E: Ambient Conditions of the Coating Inspection Form have been completed		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	1.10	Verify that form fields in Section F: Surface Preparations of the Coating Inspection Form have been completed		Documentation	A						

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Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	1.11	Verify the Anchor Profile readings recorded in Section F: Surface Preparations of the Coating Inspection Form are in accordance with the applicable Gas Standard		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.12	Verify the "Pass/Fail" column in Section F: Surface Preparations of the Coating Inspection Form has "Pass or Fail" recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.13	Verify that form fields in Section G: Application of the Coating Inspection Form have been completed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.14	Verify Section G: Application of the Coating Inspection Form, list the specific areas that were coated		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.15	Verify the "Are Conditions Ok to Proceed?" column in Section G: Application of the Coating Inspection Form has "Yes" recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.16	Verify Section H: Finish Inspection of the Coating Inspection Form, list the specific areas that were coated		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.17	Verify Section H: Finish Inspection of the Coating Inspection Form, has overall appearance is visual results such i.e., "acceptable", "needs repairs", "excessive imperfections", etc. recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.18	Verify the Average DFT readings in Section H: Finish Inspection of the Coating Inspection Form are in accordance with the applicable Gas Standard		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	1.19	Verify the "Pass/Fail" column in Section H: Finish Inspection of the Coating Inspection Form has "Pass or Fail" recorded for each area tested		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO		Verify the areas that failed in Section H: Finish Inspection of the Coating									

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	OM Assessor's Initial Comments	Distribution Date
				Days Post DOO	1.20	Inspection Form have been Accepted in Section I: Repairs of the Coating Inspection Form, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO		Verify items identified as "Fail" in Section H: Finish Inspection are listed in the Holiday Re-Test column of Section I: Repairs, and the dispositioned recorded as "Accept or Reject"		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.21	Verify items identified in Section J: Non-Conformances/Previous NCR Corrective Action has the Dispositioned recorded		Documentation	A						
					3	<b>Deadweight Test Pressure Logs</b>	<i>Doc. 062</i>								
				Non-Bundle Records - 90 Days Post DOO	3.1	Verify the correct Project Name/Line Number is recorded		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.2	Verify the Pipe Description data recorded aligns with the DDS		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.3	Verify the Test Pressure Maximum recorded aligns with the DDS		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.4	Verify the Test Pressure Minimum recorded aligns with the DDS		Test	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records - 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	OM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	3.5	Verify the instrument serial numbers recorded match serial numbers recorded on the Calibration for Instruments		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.6	Verify a Spike Test was conducted and		Test	A						

## Quality Management Plan for Construction


## 14.6. Quality Management Construction Field Assessment Checklist (Continued)

## Quality Management Construction Field Assessment Checklist

## Non-Bundle Records – 90 Days Post DOO

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	4.4	Verify the Pipe & Welded Fittings section has been completed and includes the material grade and MSP Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.5	Verify the Rated Fittings & Standard Designs section has been completed and includes MSP Number, Maximum Test		Documentation	A						

Quality Management Plan for Construction


14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	4.13	Verify the DDS has the Company Representative's signature that verifies the pipeline was Installed and Tested as Shown		Documentation	A						
					5	<i>Drying / Dewatering Log</i>	<i>Doc. 287</i>								



Quality Management Plan for Construction

										Documentation	A								
		Non-Bundle Records - 90 Days Post DOO	6.1.4	Verify the Environmental Clearance Form has the required signatures (digital or wet signatures)		Doc. 212													
				<b>Review the Environmental Permits and Plans to:</b>															
		Non-Bundle Records - 90 Days Post DOO	6.2	Verify the Environmental Permits and Plans have the correct Project Name/Line Number is recorded						Documentation	A								
		Non-Bundle Records - 90 Days Post DOO	6.2.1	Verify the Environmental Permits and Plans have the required signatures, as applicable (digital or wet signatures)						Documentation	A								
		Non-Bundle Records - 90 Days Post DOO	6.2.2	Verify the Acceptance Email/Letter has been uploaded to Company's approved document repository						Documentation	A								
		Non-Bundle Records - 90 Days Post DOO	6.3.3	Review the Environmental Training Records to:		Doc. 212 Doc. 206				Documentation	A								
		Non-Bundle Records - 90 Days Post DOO	6.4	Verify the Environmental Training Records have the correct Project Name/Line Number is recorded						Test	A								

Quality Management Plan for Construction

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	7	<i>Gas Handling or Tie-in Procedure</i>	<i>Doc. 113</i>								
				Non-Bundle Records - 90 Days Post DOO	7.1	For Field Assessments, Verify the Gas Handling/Tie-in Procedures are onsite		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.2	Verify the Gas Handling/Tie-in Procedures references the correct Project Name/Line Number or Asset Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.3	Verify the Gas Handling/Tie-in Procedures are signed in accordance with Delegation of Authority		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.4	Verify the Supervisor has signed the Supervisor Sign-Off Form that acknowledges the Supervisor has reviewed the Gas Handling/Shutdown Plan with his/her crew		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.5	Verify the Crew has signed the Crew Sign-Off Form that acknowledges the Supervisor has reviewed the Gas Handling/Shutdown Plan with them		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.6	For Gas Handling/Tie-in Procedures that involved multiple Departments, verify Form 2865 was completed in accordance with the Form Instructions		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.7	Verify Form 2865 references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.8	Verify Form 2865 has the Operations Coordinator (O.C.) Name recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.9	Verify Form 2865 references the correct I/O Number		Documentation	A						



Quality Management Plan for Construction

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	7.10	Verify Form 2865 has the Departments Involved (checked) recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.11	Verify Form 2865 has the Name, Email Address, Phone Number and Position of the employee to contact recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.12	Verify Form 2865 has the Handoff Sequence, DEPT Initiating Handoff and Gas Handling/Shutdown Ref. Step# are recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.13	Verify Form 2865 has the Date & Time the O.C. Was Notified recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.14	Verify Form 2865 has the employee's name who notified the O.C. recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.15	Verify Form 2865 has the Date & Time O.C. Notified Next Dept recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.16	Verify Form 2865 has the Dept. Name the O.C. notified recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.17	Verify Form 2865 has the employee's name the O.C. notified recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.18	Verify Form 2865 indicates the O.C. sent an Email Follow Up to the employee he/she notified that briefly summarizes their phone conversation		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.19	Verify Form 2865 has the Created By and Reviewed By names recorded		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Field Assessment Checklist																
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date	
				Non-Bundle Records - 90 Days Post DOO	7.20	In the Comments Section, verify <a href="#">Form 2865</a> has the Date, Comments (i.e., Handoff Sequence, locations etc.) and the person's name who approved the comment recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.21	Verify <a href="#">Form 3506</a> references the correct Project Name/Line Number		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.22	Verify the Serial Number of <a href="#">Form 3506</a> has the correct facility code, start date of shutdown, and start time of shutdown in accordance with the Form Instructions		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.23	Verify <a href="#">Form 3506</a> has the Facility, District/Region and correct Work Order Number recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.24	Verify <a href="#">Form 3506</a> has the Issue By Name(s), Phone Number(s) and Date Issued are recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.25	Verify <a href="#">Form 3506</a> has the Confirming Conversation With Gas Control Supervisor's name and date of conversation are recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.26	Verify <a href="#">Form 3506</a> has the Shutdown/Operations dates & times are recorded and align with the Serial Number		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.27	Verify <a href="#">Form 3506</a> has the "Location" recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.28	Verify the PURPOSE section of <a href="#">Form 3506</a> identifies the pipeline asset subjected to the shutdown (i.e., Line Number, Compressor Unit, etc.)		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	7.29	Verify <a href="#">Form 3506</a> has the "Valves To Be Operated" are recorded		Documentation	A							

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	7.30	If Gas Control will be requested to modify pressure/flows (the YES Box is checked), verify Form 3506 has the notes recorded in the REMARKS section		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.31	If Customer Service & Gas Distribution Regions are affected, verify Form 3506 has the affected Customer Service & Gas Distribution Regions recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.32	If Transmission or Storage District/Stations are affected, verify Form 3506 has the affected Transmission or Storage District/Stations recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.33	If Taps are affected, verify Form 3506 has the affected Tap Number(s) recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.34	Verify Form 3506 has the Shutdown/Operation Completion date and time are recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.35	Verify Form 3506 was completed in accordance with the Form Instructions		Documentation	A						
					8	<i>Hydrates Report</i>	<i>Doc. 062</i>								
				Non-Bundle Records - 90 Days Post DOO	8.1	Verify the Test Summary references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.2	Verify the Test Summary General Information references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.3	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the Final DDS		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	8.4	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the Pressure Recording Chart		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.5	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the T Test Log		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.6	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the Pressure Volume (PV) Log/Plot		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.7	Verify Test Summary Elevation Data aligns with the Test Log		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.8	Verify Test Summary Temperature Data aligns with the Pipe & Ambient Temperature Recording Charts and Test Log.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.9	Verify Test Summary Duration Data aligns with the Final DDS, Pressure Recording Chart, and Test Log, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.10	Verify the Test Log references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.11	Verify the Test Log references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.12	Verify the start time & pressure and end time & pressure aligns with the Pressure Volume (PV) Log/Plot, Final DDS and Pressure Recording Chart, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.13	For hydrostatic tests, verify the Spike Test start time & pressure and end time & pressure aligns with the Final DDS and Pressure Recording Chart, if applicable		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Field Assessment Checklist															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	8.14	Very no pressure lost occurred during the last hour of an 8-hour test or the last 15 minutes of a 1-hour test		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.15	Verify the Test Log Section Accepted has the "Yes" box checked		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.16	Verify the Test Log has the Contractor's representative signature and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.17	Verify the Test Log has the Company's representative signature and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.18	Verify that a Certificate of Calibration exist for the Recording Chart – Pressure;		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.19	Verify that a Certificate of Calibration exist for the Recording Chart – Pressure was current during the time the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.20	Verify that a Certificate of Calibration exist for the Recording Chart – Temperature (Ambient);		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.21	Verify that a Certificate of Calibration for the Recording Chart – Temperature (Ambient) was current during the time the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.22	Verify that a Certificate of Calibration exist for the Recording Chart – Temperature (Pipe);		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.23	Verify that a Certificate of Calibration for the Recording Chart – Temperature (Pipe) was current during the time the test was performed		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Field Assessment Checklist															
Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	8.24	Verify that a Certificate of Calibration exist for the Deadweight Gauge, if applicable:		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.25	Verify that a Certificate of Calibration for the Deadweight Gauge was current during the time the test was performed, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.26	Verify that a Certificate of Calibration exist for the Data Logger (Crystal Gauge), if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.27	Verify that a Certificate of Calibration for the Data Logger (Crystal Gauge) was current during the time the test was performed, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.28	Verify that a Certificate of Calibration exist for the Psychrometer:		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.29	Verify that a Certificate of Calibration for the Psychrometer was current during the time the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.30	Verify the Serial Number recorded on the Calibration for Instruments Certificates matches the Serial Number recorded on the Recording Charts, Test Logs, and Pressure Volume (PV) Log/Plot, as applicable		Documentation	A						
					9	<b>Material Certificate of Conformance / Compliance</b>	<i>Doc. 257</i>								
				Non-Bundle Records - 90 Days Post DOO	9.1	Verify COCs (as required per MSP) are provided for material listed in the IFC BOM		Materials	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Plan for Construction

**Quality Management Construction Field Assessment Checklist**

**Non-Bundle Records – 90 Days Post DOO**

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	9.2	Verify COC reference the PO Number and PO Line Item Number		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	9.3	Verify the PO Number and PO Line Item Number recorded on the COC matches a PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	9.4	Verify the description recorded on the COC matches the description on PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	9.5	Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturer's QC representative (Stamp or Signature)		Materials	A						
					<b>10</b>	<b>Material Field Requisition or Bill of Materials (BOM)</b>	<b>Doc. 032 Doc. 191</b>								
				Non-Bundle Records - 90 Days Post DOO	10.1	Verify the Material Field Requisition has the correct WOA Number recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.2	Verify the Material Field Requisition has the correct I/O Number recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.3	Verify the description recorded on the Material Field Requisition matches the description on PO that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.4	Verify the Material Field Requisition has the MSP Number recorded and the MSP matches the MSP Number on PO that has been uploaded into the Company's repository		Materials	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

Quality Management Plan for Construction

Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	OM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	10.5	Verify that the material description listed on Material Field Requisition aligns with the material description listed on the applicable DDS and/or BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.6	Verify the Material Field Requisition includes the Project Engineer's name, signature and date signed recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.7	Verify the Material Field Requisition includes the Project Manager's name, signature and date signed recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.8	Verify the Material Field Requisition includes the Construction Manager/Contract Administrator's name, signature and date signed recorded		Materials	A						
					11	<i>Material Invoices</i>	<i>Doc. 074</i>								
				Non-Bundle Records - 90 Days Post DOO	11.1	Verify the material description listed on Material Invoice aligns with the material description listed on the DDS		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.2	Verify the material description listed on Material Invoice aligns with the material description listed on the Material Field Requisition		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.3	Verify the material description listed on Material Invoice aligns with the material description listed on the IFC BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.4	Verify the Material Invoice aligns with the Material Transfer Order and MJR, as applicable		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.5	Verify the Material Invoice contains MSPs that align with the MSPs record on the Material Transfer Order		Materials	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	11.6	Verify the Material Invoice contains MSPs that align with the MSPs record on the MJR.		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.7	Verify the Material Invoice contains MSPs that align with the MSPs record on the Material Requisitions		Materials	A						
					<b>12</b>	<b>Material Purchase Order</b>	<b>Doc. 116</b>								
				Non-Bundle Records - 90 Days Post DOO	12.1	Verify the material description listed on Material Purchase Order aligns with the material description listed on the DDS		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.2	Verify the material description listed on Material Purchase Order aligns with the material description listed on the Material Field Requisition		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.3	Verify the material description listed on Material Purchase Order aligns with the material description listed on the IFC BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.4	Verify the Material Purchase Order aligns with the Material Transfer Order and MJR, as applicable		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.5	Verify the Material Purchase Order contains MSPs that align with the MSPs record on the Material Transfer Order, MJR, Material Field Requisition, IFC BOM and DDS, as applicable		Materials	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	13	<i>Material Requisition or Release or signed Bill of Materials (BOM)</i>	<i>Doc. 075 Doc. 191</i>								
				Non-Bundle Records - 90 Days Post DOO	13.1	Verify that the Material Requisition aligns with the applicable DDS and/or BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	13.2	Verify the material matches the description on the Purchase Orders/Reservation Numbers and aligns with the BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	13.3	Spot check that the appropriate MSP numbers are included in the material requisition package		Materials	A						
					15	<i>Material Test Reports (MTRs)</i>	<i>Doc. 077</i>								
				Non-Bundle Records - 90 Days Post DOO	15.1	Verify that the Heat Number recorded on the MTR matches a Heat Number/Lot Number recorded on PWIR		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	15.2	Verify MTRs for all Pipe per MSP 41.06.1 Pipe -Steel, Grades B through X65 have been signed by an authorized MTR approver		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	15.3	Verify MTRs for Fittings per MSP 52.96 Fittings, Butt Weld Steel material that is equal to or greater than Grade Y42 have been signed by an authorized MTR approver		Materials	A						
					18	<i>NDE Operator Qualification Documents</i>	<i>Doc. 217</i>								
				Non-Bundle Records - 90 Days Post DOO	18.1	Verify NDE Operator's Qualifications are current and available for review onsite		Documentation	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

**Non-Bundle Records – 90 Days Post DOO**

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	18.2	Verify the Level II NDE Technician is certified by his or her company to perform liquid penetrant examinations, magnetic particle examinations and/or radiography examinations, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.3	Verify that each Level II NDE Technician's company certification and visual acuity were current at the time of examination		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.4	Verify NDE Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.5	Verify NDE Operator Qualifications include a Company Blue Card that has been signed by a Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.6	Verify NDE Operator's Qualifications are included with final documentation		Documentation	A						
					19	<b>Non-Destructive Testing (NDE) Package (not required for abandonments) For Liquid Penetrant Examination Data Reports, verify the following:</b>	<b>Doc. 245</b>								
				Non-Bundle Records - 90 Days Post DOO	19.1	Verify the PT Report references the correct WOA Number and IO Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.2	Verify the PT Report references the current approved edition of API 1104 as the acceptance criteria		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.3	Verify the PT Report references Gas Standard <a href="#">182.0049</a> Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	19.4	Verify the applicable technique box is checked (Visible or Fluorescent) on the PT Report. Verify the type of light used aligns with the technique (visible or fluorescent) used in the Magnetic Particle Examination. <b>White lights (e.g., flashlights, drop lights etc.) should provide a minimum of 100 foot-candles (FC) at the surface of the part being inspected. UV black lights should provide a minimum of 1000 µW/cm<sup>2</sup> at 15 inches from the surface of the part being examined.</b>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.5	Penetrant Examination API 1104 or SDG&E G7015, as applicable. Normal temperature penetrant examinations are ≥40°F ≤125°F. High temperature penetrant examinations are ≥125°F ≤500°F		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.6	Verify the penetrant dwell time is in accordance with Gas <a href="#">Standard 182.0049</a> Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.7	Verify the development time recorded is in accordance with Gas <a href="#">Standard 182.0049</a> Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.8	Verify the surface temperature aligns with the penetration time and development time as required per Gas <a href="#">Standard 182.0049</a> Liquid Penetrant Examination API 1104 or SDG&E or G7015, as applicable.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.9			Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	19.10	Verify the material brand name and type for the cleaner, penetrant, remover and developer recorded on the PT Report are listed in Gas Standard 182.0049 Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.11	Verify the Liquid Penetrant Examination results are accepted		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.12	Verify all unacceptable weld results are recorded on a separate PT Report Form		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.13	Verify the PT Reports are completed for all welds recorded on the PWIRs that require Liquid Penetrant Examination		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.14	Verify the Level II Liquid Penetrant Technician (Examiner) printed, signed, and dated the PT Report(s)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.15	Verify the Level II Liquid Penetrant Technician is certified by his or her company to perform liquid penetrant examinations		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.16	Verify the Level II Liquid Penetrant Technicians company certification and visual acuity were current at the time of examination		Documentation	A						
					20	<b>Non-Destructive Testing (NDE) Package (not required for abandonments) For Magnetic Particle Examination Data Reports, verify the following:</b>	Doc. 245								
				Non-Bundle Records - 90 Days Post DOO	20.1	Verify the MT Report references the correct WOA Number and IO Number.		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	20.2	Verify the MT Report references the current approved edition of API 1104 as the acceptance criteria		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.3	Verify the MT Report references Gas Standard 182.0051 Magnetic Particle Examination API 1104 or SDG&E G7016, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.4	Verify the applicable method box is checked (Visible, Fluorescent, Dry Particle, or Wet Particle) on the MT Report		Documentation	A						
					20.5	Verify the type of light used aligns with the technique (visible or fluorescent) used in the Magnetic Particle Examination. <b>White lights (e.g., flashlights, drop lights etc.) should provide a minimum of 100 foot-candles (FC) at the surface of the part being inspected. UV black lights should provide a minimum of 1000 µW/cm<sup>2</sup> at 15 inches from the surface of the part being examined</b>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.6	Verify the Magnetic Particle Examination results are accepted		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.7	Verify all unacceptable weld results are recorded on a separate Magnetic Particle Examination Report Form		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.8	Verify the MT Reports are completed for all welds recorded on the PWIRs that require Magnetic Particle Examination		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.9	Verify the Level II Magnetic Particle Technician (Examiner) printed, signed, and dated the MT Report(s)		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	20.10	Verify the Level II Magnetic Particle Technician is certified by his or her company to perform magnetic particle examinations		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.11	Verify the Level II Magnetic Particle Technician's company certification and visual acuity were current at the time of examination		Documentation	A						
					21	<b>Non-Destructive Testing (NDE) Package (not required for abandonments)</b>	<i>Doc. 245</i>								
					21.1	<b>For Radiographic Examinations Data Reports, verify the following:</b>									
				Non-Bundle Records - 90 Days Post DOO	21.1.1	Verify the RT Report references the correct WOA Number and IO Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.2	Verify the RT Report references the current approved edition of API 1104 as the acceptance criteria		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.3	Verify the RT Report references <a href="#">GS 187.0200 Radiographic Examination API 1104</a> or <a href="#">SDG&amp;E G7817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.4	Verify weld thickness is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E G7817</a> , as applicable. Weld thickness is pipe wall thickness plus weld reinforcement. Maximum internal reinforcement is 0.0625" and 0.125" for external reinforcement		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.5	Verify IQI Type is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E G7817</a> , as applicable		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	21.1.1.6	Verify IQI material group is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E 67817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.7	Verify essential wire diameter is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E 67817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.8	Verify the number of IQIs used is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E 67817</a>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.9	Verify film size is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E 67817</a> , as applicable. Film shall be a minimum of 4.5 inches wide and be in standard lengths of 7", 10" or 17"		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.10	Verify the number of exposures are in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E 67817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.11	Verify the Geometric Unsharpness (Ug) is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E 67817</a> as applicable. Ug should not exceed 0.020" for thickness ≤ 2". (Ug Formula: Source Size (F) x Specimen Thickness (t) / Source to object Distance (D))		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.12	If the weld is rejected and requires repair, only the repair area needs to be radiographed provided the repair radiography is performed the same day as the original radiography. If the repair radiography fails, the weld must be cutout, otherwise a band or reinforcing sleeve		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.13	Verify all unacceptable weld results and views are recorded on a separate Radiographic Report Form		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date	
				Non-Bundle Records - 90 Days Post DOO	21.1.1.14	Verify the Radiographic reports are completed for all welds recorded on the PWIRs that require radiography		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	21.1.1.15	Verify the disposition and discontinuity information is recorded for each weld view, per <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	21.1.1.16	Verify the density range of the area of interest is in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable. Minimum density should be 1.8 and maximum should be 4.0		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	21.1.1.17	Verify the Level II Radiography Technician printed, signed, and dated the Radiographic Report(s)		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	21.1.1.18	Verify the Level II Film Interpreter printed, signed, and dated the Radiographic Report(s)		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	21.1.1.19	Verify the Company Level II/III printed, signed, and dated the Radiographic Report(s)		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	21.1.1.20	Verify the Company Representative (person who performed oversight) printed, signed, and dated the Radiographic Report(s)		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	21.1.1.21	Verify the radiographic film has been submitted to EAC (Pico Rivera Facility), per <a href="#">GS 187.0200</a>		Documentation	A							

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	21.2	<i>Non-Destructive Testing (NDE) Package (not required for abandonments) For Radiographic Examinations Field Checklist, verify the following:</i>	<i>Doc. 345</i>								
				Non-Bundle Records - 90 Days Post DOO	21.2.1	Verify the Line Number aligns with the Line Number recorded on the Radiographic Examination Data Report		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	21.2.2	Verify the Line Number aligns with the Line Number recorded on the WOA.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.2.3	Verify the weld numbers recorded on the Radiography Weld Tracking Log aligns with the weld numbers recorded on the Radiographic Examination Data Report		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.2.4	The NDE Oversight Contractor completed the Radiography Field Checklist Form 4003 in accordance with Company Form Instruction - Radiography Field Checklist		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23	<i>Odor Conditioning (Gas Seasoning) Project Plan &amp; Required Follow up Statement</i>	<i>Doc. 176</i>								
				Non-Bundle Records - 90 Days Post DOO	23.1	Verify the Odor Conditioning Project Plan references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.2	Verify the Odor Conditioning Project Plan has the Prepared By name recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.3	Verify the Odor Conditioning Project Plan has the reviewed by signature from the Transmission Technical Services designated personnel or Distribution Region Engineer recorded		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	23.4	Verify the Odor Conditioning Project Plan has the approved by signature from the local Operations Manager recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.5	Verify the Odor Conditioning Project Plan is signed and complete		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.6	Verify the Follow-up Order Intensity Report - Form 3991 is available, if required <i>(Use for weekly follow-up odorant intensity test report for new steel main installations)</i>		Documentation	A						
					24	<b>Pipe Condition &amp; Maintenance Report (PCMR)</b>	<i>Doc. 089</i>								
				Non-Bundle Records - 90 Days Post DOO	24.1	Verify the PCMR has the Line Number recorded and/or Facility recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.2	Verify the PCMR has the Specific Location recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.3	Verify the PCMR has the Installation WO Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.4	Verify the PCMR has the Transmission District/Storage Field or Distribution District checked, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.5	Verify the PCMR has the C&O Center Code checked, if applicable		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	24.6	Verify the PCMR has the Reason for Work or Inspection checked		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.7	Verify the PCMR has the Time Summary recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.8	Verify the PCMR includes the Completed By person's signature and date Completed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.9	Verify the PCMR includes the Reviewed By person's signature and date Reviewed		Documentation	A						
					<b>26</b>	<b>Pressure Volume (PV) Log / Plot</b>	<b>Doc. 092</b>								
				Non-Bundle Records - 90 Days Post DOO		Verify the Pressure Volume (PV) Log/Plot references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	26.1	Verify the Pressure Volume (PV) Log/Plot has the contractor's representative signature and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	26.2	Verify the Pressure Volume (PV) Log/Plot has the Company's representative signature and date signed recorded		Documentation	A						
					<b>27</b>	<b>Redline (As-Built) of IFC Drawings</b>	<b>Doc. 009</b>								
				Non-Bundle Records - 90 Days Post DOO	27.1	Verify the Redlined Drawings reference the correct Project Name/Line Number		Documentation	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	27.2	Verify the Redlined Drawings have the correct WOA Number recorded		Documentation	A						
					<b>28</b>	<b>Recording Chart - Pressure</b>	<b>Doc. 099</b>								
				Non-Bundle Records - 90 Days Post DOO	28.1	Verify the face of the Recording Chart - Pressure references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.2	Verify the face of the Recording Chart - Pressure references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.3	Verify the face of the Recording Chart - Pressure references the correct Test Segment		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.4	Verify the face of the Recording Chart - Pressure has the contractor's representative signatures		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.5	Verify the test pressures recorded on the face of the Recording Chart - Pressure aligns with the DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.6	Verify the back of the Recording Chart - Pressure has the required Stamp per <a href="#">GS 182.0170</a>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.7	Verify the stamp located on the back of the Recording Chart - Pressure references the correct Project Name/Line Number		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	28.8	Verify the data recorded on the back of the Recording Chart – Pressure aligns with the data recorded on the face of the Recording Chart – Pressure and DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.9	Verify the stamp located on the back of the Recording Chart – Pressure has the Company's representative signature		Documentation	A						
					29	<b>Recording Chart - Temperature (Ambient)</b>	<i>Doc. 099</i>								
				Non-Bundle Records - 90 Days Post DOO	29.1	Verify the face of the Recording Chart – Temperature (Ambient) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.2	Verify the face of the Recording Chart – Temperature (Ambient) references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.3	Verify the face of the Recording Chart – Temperature (Ambient) references the correct Test Segment		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.4	Verify the face of the Recording Chart – Temperature (Ambient) has the contractor's representative signatures		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.5	Verify the test pressures recorded on the face of the Recording Chart – Temperature (Ambient) align with the DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.6	Verify the back of the Recording Chart – Temperature (Ambient) has the required Stamp per <a href="#">GS 182.0170</a>		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	29.7	Verify the stamp located on the back of the Recording Chart – Temperature (Ambient) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.8	Verify the data recorded on the back of the Recording Chart – Temperature (Ambient) aligns with the data recorded on the face of the Recording Chart – Ambient and DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.9	Verify the stamp located on the back of the Recording Chart – Temperature (Ambient) has the Company's representative signature		Documentation	A						
					30	<b>Recording Chart - Temperature (Pipe)</b>	<i>Doc. 099</i>								
				Non-Bundle Records - 90 Days Post DOO	30.1	Verify the face of the Recording Chart – Temperature (Pipe) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.2	Verify the face of the Recording Chart – Temperature (Pipe) references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.3	Verify the face of the Recording Chart – Temperature (Pipe) references the correct Test Segment		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.4	Verify the face of the Recording Chart – Temperature (Pipe) has the contractor's representative signatures		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.5	Verify the test pressures recorded on the face of the Recording Chart – Temperature (Pipe) align with the DDS		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	30.6	Verify the back of the Recording Chart – Temperature (Pipe) has the required Stamp per GS.182.0170		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.7	Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.8	Verify the data recorded on the back of the Recording Chart – Temperature (Pipe) aligns with the data recorded on the face of the Recording Chart – Temperature (Pipe) and DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.9	Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) has the Company's representative signature		Documentation	A						
					31	<i>Special Inspection Report</i>	<i>Doc. 283</i>								
				Non-Bundle Records - 90 Days Post DOO	31.1	Verify the Special Inspection Report is applicable to the project		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	31.2	Verify the Special Inspector signed the Special Inspection Report		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	31.3	Verify a Company representative acknowledged the Special Inspection Report with signature		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	32	<i>Strength Test Assemblies &amp; Supporting Documentation Layout</i> Verify the Strength Test Assemblies & Supporting Documentation Layout references the correct Project Name/Line Number	<i>Doc. 144</i>	Test	A						
				Non-Bundle Records - 90 Days Post DOO	32.1	Verify the Strength Test Assemblies & Supporting Documentation has been reviewed and signed-off or that approval documentation exists from the Construction Team Lead and Construction Manager/Contract Administrator									
				Non-Bundle Records - 90 Days Post DOO	32.2	Verify information in title block matches the Final DDS and test chart (Operator's Name, & Company Name responsible for test, Test Medium Used, Test Pressure, Time, Date, Duration, Elevation variations, Leaks & Failures noted, if any, and disposition)		Test	A						
				Non-Bundle Records - 90 Days Post DOO	32.3			Test	A						
				Non-Bundle Records - 90 Days Post DOO	33	<i>Strength/Pressure Test Operator Qualification Documents</i> Verify Strength/Pressure Test Operator's Qualifications are current and available for review	<i>Doc. 217</i>	Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	33.1	Verify Strength/Pressure Test Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	33.2	Verify Strength/Pressure Test Operator Qualifications include a Company Blue Card that has been signed by a Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	33.3			Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	33.4	Verify Strength/Pressure Test Operator's Qualifications are included with final documentation		Documentation	A						
					<b>34</b>	<b>Strength/Pressure Test Procedure</b>	<b>Doc. 145</b>								
				Non-Bundle Records - 90 Days Post DOO	34.1	Verify the Strength/Pressure Test Procedure references the correct Project Name/Line Number		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.2	Verify the Strength/Pressure Test Procedure (Hydrostatic/Nitrogen) has been approved with signatures		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.3	Verify the Data on the Strength/Pressure Test Procedure aligns with the data on the Design Data Sheet (DDS)		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.4	For hydrostatic tests, verify the Strength/Pressure Test Procedure includes a Dewatering Sequence of Operations, if applicable		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.5	For hydrostatic tests, verify the Strength/Pressure Test Procedure includes a Drying Sequence of Operations, if applicable		Test	A						
					<b>35</b>	<b>Tap Application Form 3.6.3 (Sections A-F) (If required)</b>	<b>Doc. 148</b>								
				Non-Bundle Records - 90 Days Post DOO	35.1	Verify the Tap Application has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.2	In Section A, verify the Tap Application references the correct Project Name/Line Number		Documentation	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	35.3	In Section A, verify the Tap Application has the name of the person who requested the Engineering Reviewed and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.4	In Section B, verify the Tap Application has the engineer's name who conducted the Engineering Review and approved the Tap Application and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.5	In Section B, verify the Tap Application has BTU District Number adjacent to the tap location and signature of the authorized person who assigned the number and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.6	In Section C, verify the Tap Application has the Requesting Distribution Region Engineer's signature and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.7	In Section D, verify the Tap Application has the engineer's name from the Supplying Organization who reviewed and approved the Tap Application and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.8	Verify the Tap is installed in the location (side of main or top of main) on the Drawing Number noted in Section F		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.9	In Section F, verify the Tap Application has the signature of the person who completed the work and date job was completed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.10	In Section F, verify the Tap Application has the signature of the responsible supervisor and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.11	Verify sections A-F are complete per <a href="#">GS 182.0165</a>		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
					36	<i>Valve Certificate of Conformance / Compliance with Hydrotest</i>	<i>Doc. 257</i>								
				Non-Bundle Records - 90 Days Post DOO	36.1	Verify the Valve Certificate of Conformance / Compliance with Hydrotest include Mill Test Certification for pressure containing parts, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.2	Verify the Valve Certificate of Conformance / Compliance with Hydrotest include COC with Vendor Drawings, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.3	Verify COC contains the PO Number and PO Line Item number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.4	Verify the PO Number and PO Line Item Number recorded on the COC matches a PO Number and PO Line Item Number that has been uploaded into the Company's repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.5	Verify the description recorded on the COC matches the description on PO Number and PO Line Item Number that has been uploaded into the Company's repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.6	Verify the Valve Traceability Documents include a copy of NDE reports, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.7	Verify the Valve Traceability Documents include certification that the valve has passed required pressure tests, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.8	Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturer's QC Representative (Stamp or Signature)		Documentation	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

**Non-Bundle Records – 90 Days Post DOO**

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	37	<i>Valve Commissioning Form</i> Verify the valve serial number(s) recorded on the Valve Commissioning/Point to Point Form aligns with the valve serial number(s) recorded on the Completion Drawings.	<i>Doc. 258</i>	Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	37.1	Verify the Valve Commissioning/Point to Point Form has the District Representative Supervisor and Valve Commissioning Team Lead's signatures and dates signed recorded.		Documentation							
				Non-Bundle Records - 90 Days Post DOO	37.2			Documentation	A						
					38	<i>Valve Factory Acceptance Test (FAT) for line break controls</i> Verify the valve serial number(s) recorded on the FAT aligns with the valve serial number(s) recorded on the Completion Drawings.	<i>Doc. 255</i>								
				Non-Bundle Records - 90 Days Post DOO	38.1			Materials	A						
				Non-Bundle Records - 90 Days Post DOO	38.2	Verify the Tech Advisor initiated and dated each page, where applicable.		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	38.3	Verify the Task Acceptance Sign-Off has the Inspector's name, signature, initials, and date signed recorded.		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	38.4	Verify the Review Sign-Off has the Team Lead's name, signature, initials, and date signed recorded.		Materials	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	39	Valve Site Acceptance Testing (SAT) Report and Point to Point Acceptance (PTP) Report	Doc. 256								
				Non-Bundle Records - 90 Days Post DOO	39.1	Verify the valve serial number(s) recorded on the SAT aligns with the valve serial number(s) recorded on the Completion Drawings		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	39.2	Verify the Inspector initialed and dated each page, where applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	39.3	Verify the Task Acceptance Sign-Off has the Inspector's name, signature, initials, and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	39.4	Verify the Review Sign-Off has the Reviewer's name, signature, initials, and date signed recorded		Documentation	A						
					40	Valve Traceability Documents	Doc. 271								
				Non-Bundle Records - 90 Days Post DOO	40.1	Verify the Valve Traceability Documents include Mill Test Certification for each pressure containing parts, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.2	Verify the Valve Traceability Documents include COC with Vendor Drawings, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.3	Verify COC contains the PO Number and PO Line Item number		Materials	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	40.4	Verify the PO Number and PO Line Item Number recorded on the COC matches a PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.5	Verify the description recorded on the COC matches the description on PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.6	Verify the Valve Traceability Documents include a copy of NDE reports, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.7	Verify the Valve Traceability Documents include certification that the valve has passed required pressure tests, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.8	Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturer's QC representative (Stamp or Signature)		Materials	A						
					41	<i>Vendor Equipment Drawing</i>	<i>Doc. 157</i>								
				Non-Bundle Records - 90 Days Post DOO	41.1	Verify the description of the item listed on Vendor Equipment Drawings aligns with the material description listed on the IFC BOM		Documentation	A						
					42	<i>Project Weld Inspection Report PWIR's (not required for abandonments)</i>	<i>Doc. 114</i>								
				Non-Bundle Records - 90 Days Post DOO	42.1	Verify each sampled PWIR has the Job Description recorded		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.2	Verify each sampled PWIR has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.3	For SDG&E PWIRs, verify each sampled PWIR has the correct DPSS/IO Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.4	Verify each sampled PWIR has the Location and City recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.5	Verify each sampled PWIR has the name of the contractor executing the job recorded. If the project is executed by Company crews, verify that SCG/SDG&E is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.6	Verify each sampled PWIR has the Date of Visual Inspection recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.7	Verify each sampled PWIR has the Weld Number recorded and formatted in accordance with <a href="#">GS 192.0032</a>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	43.8	Verify each sampled PWIR has the Station Number or Location recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.9	Verify each sampled PWIR has the Joining Info recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.10	Verify that each Heat Number recorded on the PWIR matches a Heat Number/Lot Number recorded on either an MTR or COC that has been uploaded in the Company's approved repository		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.11	Verify the Weld Design Type recorded on the PWIR aligns with the Joint Design recorded on the WPS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.12	For SDG&E PWIRs, verify each sampled PWIR has the In-Servicing Welding Procedure Number recorded, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.13	Verify each sampled PWIR has the Weld Procedure Specification (WPS) Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.14	Verify that all WPSs are available for review and are still active (have not been deleted)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.15	For seal welds, verify the sampled PWIR has "GS 187.0056" recorded as the Weld Procedure Specification Number. This is required per Company Form Instruction 3917 - Project Weld Inspection Report		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.16	Verify each sampled PWIR has the Welder's Identification for each weld layer recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.17	Verify each sampled PWIR has the Weld Inspection data recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.18	Verify the Visual Inspection status (A for Approved or R for Rejected) is recorded. For SCG PWIRs, verify the Inspector's ID is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.19	Verify the NDE Method is recorded. For SCG PWIRs, verify the Date the NDE was Performed is recorded		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.20	Verify the NDE Results status (A for Approved or R for Rejected) is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.21	Verify the status of repaired welds (A for Accepted or R for Rejected) is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.22	If a weld was cutout, verify the new weld number is recorded, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.23	For SDG&E PWIRs, verify each sampled PWIR has Welding Parameters recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.24	For SDG&E PWIRs, verify each sampled PWIR has the NDE Report Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.25	Verify each sampled PWIR has the PO Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.26	For rejected welds including those rejected by visual inspection, verify an explanation for the type of reject and type of defect are recorded in the Comments/Observations column		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.27	Verify each sampled PWIR has the Heat Numbers recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.28	Verify each sampled PWIR has/have the name(s) of the person(s) who conducted the visual weld inspection, date the PWIR was being filled out, and the title and company of the person(s) who conducted the visual inspection recorded		Documentation	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.29	Verify each sampled PWIR has the name of the person who reviewed the PWIR, date the review was conducted, and the title and company of the person who conducted the review recorded		Documentation	A						
					<b>43</b>	<b>Weld Map (not required for abandonments)</b>	<b>Doc. 190</b>								
				Non-Bundle Records - 90 Days Post DOO	43.1	Verify permanent welds (as indicated on the PWIR) are captured on the Weld Map		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	43.2	Verify each sampled Weld Map includes the following: Weld Number are listed for welds recorded on the Weld Map in accordance with GS 192.0032.		Documentation	A						
					<b>44</b>	<b>Welding Operator Qualification Documents</b>	<b>Doc. 217</b>								
				Non-Bundle Records - 90 Days Post DOO	44.1	Verify Welding Operator's Qualifications are current and available for review		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	44.2	Verify the Welding Operator is qualified to perform the required covered tasks 1.4-0801 – Welding Operations and 10.3 – Making Permanent Field Repair of Welds on Transmission Lines/High Pressure Distribution Lines prior to the start of the tasks		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	44.3	Verify Welding Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative		Documentation	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

**Non-Bundle Records – 90 Days Post DOO**

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	44.4	Verify Welding Operator Qualifications include a Company Blue Card that has been signed by a Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	44.5	Verify Welding Operator's Qualifications are included with final Documentation		Documentation	A						
					45	<i>Welding Procedures</i>	<i>Doc. 155</i>								
				Non-Bundle Records - 90 Days Post DOO	45.1	Verify the WPSs listed in PWIRs are still active (have not been deleted)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	45.2	Verify the WPSs are applicable to the size and thickness of the components welded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	45.3	Verify the Weld Procedure Specifications match the material listed in IFC BOM		Documentation	A						
					46	<i>Welding Inspection Field Surveillance Report</i>	<i>N/A</i>								
				Non-Bundle Records - 90 Days Post DOO	46.1	Verify Welding Inspection Field Surveillance Report Checklist is on file, if applicable.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.2	Verify the Welding Inspection Field Surveillance Report references the correct Project Name/Line Number recorded		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	46.3	Verify each sampled Welding Inspection Field Surveillance Report has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.4	Verify each sampled Welding Inspection Field Surveillance Report has the correct I/O Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.5	Verify each sampled Welding Inspection Field Surveillance Report has the correct Project Information recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.6	Verify each sampled Welding Inspection Field Surveillance Report has the correct Welding Project Mode recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.7	Verify each sampled Welding Inspection Field Surveillance Report has the Surveillance Details recorded, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.8	Verify each sampled Welding Inspection Field Surveillance Report has the Recommendation/Finding Items recorded, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.9	Verify the Welding Inspection Field Surveillance Report has the Auditor's Name, signature, and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.10	Verify that any non-conforming items have been resolved, if applicable.		Documentation	A						

14.6. Quality Management Construction Field Assessment Checklist (Continued)

Quality Management Construction Field Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
					51	<i>Welding Inspection</i>	N/A								
					51.1	<i>If welding is being performed, verify Welding Inspector's Qualifications are current and available for review:</i>									
				Non-Bundle Records - 90 Days Post DOO	51.1.1	Verify the Inspectors have task 1.5-0811 Inspection of Welds - 49 CFR 192.225, 227, 229, 231, 235 & 241, Inspections and Test of Welds.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.1.2	Verify Welding Inspector Qualifications include Veriforce that has been verified, signed, and dated by Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.1.3	Verify Welding Inspector Qualifications include a Gas Qualification Card (Blue Card) that has been signed by a Company Representative. <b>Contractors Only</b>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.1.4	Verify the Welding Inspector's Visual Acuity is current and on file		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.1.5	Verify IQI Type is in accordance with GS 187.0200 or SDG&E GS G7817, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.1.6	Verify the Welding Inspectors have the applicable WPS on site, and it is current.		Documentation	A						
					51.2	<i>If welding is being performed, is the Welding Inspector present during critical sequence operation:</i>									
				Non-Bundle Records - 90 Days Post DOO	51.2.1	Is the Welding Inspector present during fit up?		Documentation	A						

**14.6. Quality Management Construction Field Assessment Checklist (Continued)**

**Quality Management Construction Field Assessment Checklist**

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	51.2.2	Is the Welding Inspector present during back welding?		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.2.3	Is the Welding Inspector present during root pass welding?		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.1.4	Is the Welding Inspector present for visual acceptance of the final weld per API 1104?		Documentation	A						
					51.3	<i>If welding is being performed, is the Welding Inspector periodically observing welding operation:</i>									
				Non-Bundle Records - 90 Days Post DOO	51.3.1	Is the Welding Inspector periodically observing welding during the fill?		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.3.2	Is the Welding Inspector periodically observing welding during the cover pass?		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	51.3.3	Is the Welding Inspector periodically observing welding during the fill?		Documentation	A						

Quality Management Plan for Construction

14.7. Quality Management Construction Closeout Assessment Checklist

Quality Management Construction Closeout Assessment Checklist																
Non-Bundle Records – 90 Days Post DOO																
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date	
				Non-Bundle Records - 90 Days Post DOO	1	Coating Inspection Form	Doc. 228									
				Non-Bundle Records - 90 Days Post DOO	1.1	Verify that form fields in Section A: Inspector of the Coating Inspection Form have been completed		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.2	Verify that Section B: Job Information of the Coating Inspection Form has the correct Line Number recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.3	Verify that Section B: Job Information of the Coating Inspection Form has the correct WOA Number recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.4	Verify that the Job Description in Section B: Job Information of the Coating Inspection Form list the specific items coated recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.5	Verify that form fields in Section C: Coating Material Information of the Coating Inspection Form have been completed		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.6	Verify the Manufacturer – Coating Name recorded in Section C: Coating Material Information is an approved coating material in accordance with the applicable Gas Standard		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.7	Verify that form fields in Section D: Inspection Tool Information of the Coating Inspection Form have been completed		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.8	Verify the calibration of the test tool recorded in Section D: Inspection Tool Information was current when the test was performed		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.9	Verify that form fields in Section E: Ambient Conditions of the Coating Inspection Form have been completed		Documentation	A							



Quality Management Plan for Construction

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist																
Non-Bundle Records – 90 Days Post DOO																
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date	
				Non-Bundle Records - 90 Days Post DOO	1.10	Verify that form fields in Section F: Surface Preparations of the Coating Inspection Form have been completed		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.11	Verify the Anchor Profile readings recorded in Section F: Surface Preparations of the Coating Inspection Form are in accordance with the applicable Gas Standard		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.12	Verify the "Pass/Fail" column in Section F: Surface Preparations of the Coating Inspection Form has "Pass or Fail" recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.13	Verify that form fields in Section G: Application of the Coating Inspection Form have been completed		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.14	Verify Section G: Application of the Coating Inspection Form, list the specific areas that were coated		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.15	Verify the "Are Conditions Ok to Proceed?" column in Section G: Application of the Coating Inspection Form has "Yes" recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.16	Verify Section H: Finish Inspection of the Coating Inspection Form, list the specific areas that were coated		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.17	Verify Section H: Finish Inspection of the Coating Inspection Form, has overall appearance is visual results such i.e., "acceptable", "needs repairs", "excessive imperfections", etc. recorded		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	1.18	Verify the Average DFT readings in Section H: Finish Inspection of the Coating Inspection Form are in accordance with the applicable Gas Standard		Documentation	A							

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Closeout Assessment Checklist															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	1.19	Verify the "Pass/Fail" column in Section H: Finish Inspection of the Coating Inspection Form has "Pass or Fail" recorded for each area tested		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.20	Verify the areas that failed in Section H: Finish Inspection of the Coating Inspection Form have been Accepted in Section I: Repairs of the Coating Inspection Form, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.21	Verify items identified as "Fail" in Section H: Finish Inspection are listed in the Holiday Re-Test column of Section I: Repairs, and the dispositioned recorded as "Accept or Reject"		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	1.22	Verify items identified in Section J: Non-Conformances/Previous NCR Corrective Action has the Dispositioned recorded		Documentation	A						
					2	<b>CPLC and PHMSA Notification - Major New and Up-rated Pipelines and Pressure Test Failure of Pipelines</b>	<b>Doc. 080</b>								
					2.1	<b>For New, Reconstruction, or Reconditioned Pipelines where the total gross expenditures as shown on the WOA are \$3,500,000 or more, verify the CPLC Notification includes:</b>									
				Non-Bundle Records - 90 Days Post DOO	2.1.1	The correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.1.2	Verify the planner and/or the project manager submitted the project information to the Pipeline Safety and Compliance Representative a minimum of 75 days prior to the proposed beginning of construction		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Closeout Assessment Checklist																
Non-Bundle Records – 90 Days Post DOO																
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date	
				Non-Bundle Records - 90 Days Post DOO	2.1.3	Verify the notification was submitted to the CPUC at least 60 days prior to the construction of a new pipeline, or the reconstruction or reconditioning of an existing pipeline		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.1.4	Route map segregating incorporated areas, class locations, design factors and showing the high and low elevation points		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.1.5	A terrain profile sketch indicating maximum and minimum elevations for each test section		Documentation	A							
					2.1.6	<i>A completed PSC SCG-SDGE Reporting Template excel form that includes:</i>										
				Non-Bundle Records - 90 Days Post DOO	2.1.6.1	A description and the purpose of the proposed pipeline		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.1.6.2	When applicable, reasons for use of casing or bridging where the minimum cover will be less than required by 49 CFR, Section 192.327, if applicable		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.1.6.3	Pipe length, diameter, wall thickness, grade and the proposed MAOP		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.1.6.4	Number of test sections, test medium, test duration and minimum and maximum test pressures		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.1.6.5	Means of protection from external corrosion		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.1.6.6	Estimated date construction will begin		Documentation	A							

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Plan for Construction

Quality Management Construction Closeout Assessment Checklist																
Non-Bundle Records – 90 Days Post DOO																
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date	
				Non-Bundle Records - 90 Days Post DOO	2.2	<i>For CPUC Notification for Upgrading Pipelines, verify the CPUC Notification includes:</i>										
				Non-Bundle Records - 90 Days Post DOO	2.2.1	The correct Project Name/Line Number		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.2.2	Verify the planner and/or the project manager submitted the project information to the Pipeline Safety and Compliance Representative a minimum of 45 days prior to the proposed date of upgrading		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.2.3	Verify the notification was submitted to the CPUC at least 30 days prior to an increase in the maximum allowable operating pressure (MAOP) of a pipeline		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.2.4	The new maximum allowable operating pressure		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.2.5	The reasons for the change		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.2.6	The steps taken to determine the capability of the pipeline to withstand such an increase		Documentation	A							
				Non-Bundle Records - 90 Days Post DOO	2.3	<i>For PHMSA Notification for New Facilities with Cost Exceeding \$10 Million OR Construction of 10 or More Miles of New Pipeline, verify the PHMSA Notification includes:</i>										
				Non-Bundle Records - 90 Days Post DOO	2.3.1	The correct Project Name/Line Number		Documentation	A							

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Quality Management Plan for Construction

Non-Bundle Records – 90 Days Post DOO															
Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	OM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	2.3.2	Pipeline Safety and Compliance Representative a minimum of 75 days prior to any construction activities or any planned rehabilitation, replacement, modification, upgrade, update, or update of a facility (excluding line of pipe) with a cost greater than \$10 million. OR		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.3.3	Verify the notification was submitted to the PHMSA at least 60 days prior to the construction		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.3.4	Anticipated start date of field work activities		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.3.5	Anticipated date of operational start up, if applicable Indicate whether or not the pipeline will be operated under the alternative MAOP <i>(applicable only to construction activities of 10 or more miles of new or replacement pipeline segment)</i>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.3.6	Approximate number of regulated pipeline miles acquired or constructed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.3.7	A brief and general description of the newly constructed pipeline or facility		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.3.8	<i>For CPUC Notification for New PSEP Projects, verify the CPUC Notification includes:</i>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.4	The correct Project Name/Line Number		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	2.4.2	Verify the planner and/or the project manager submitted the project information to the Pipeline Safety and Compliance Representative a minimum of 45 days prior to the proposed beginning of construction		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.4.3	Verify the notification was submitted to the CPUC at least 30 days prior to the start of construction on any new PSEP project		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.4.4	A description of the proposed PSEP pipeline work		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.4.5	The location of the proposed pipeline work		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.4.6	Construction Start Date		Documentation	A						
					2.5	<i>For CPUC Notification for Failure of Strength Test of Pipelines Operating at 20% SMYS, verify the CPUC Notification includes:</i>									
				Non-Bundle Records - 90 Days Post DOO	2.5.1	The correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.5.2	Verify the notification for Failure of Pressure Test was submitted to a Pipeline Safety and Compliance Representative as soon as practicable per <a href="#">GS 223.0001</a> , if applicable		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	2.5.3	Verify the notification for Failure of Pressure Test was submitted to the CPUC as soon as practicable (Preferably Same Day it was submitted to a Pipeline Safety and Compliance Representative) per GS 223.0001, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.6	<i>For CPUC and PHMSA Notification for New LNG plant or LNG Facility, verify the CPUC Notification includes:</i>									
				Non-Bundle Records - 90 Days Post DOO	2.6.1	The correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.6.2	Verify the planner and/or the project manager submitted the project information to the Pipeline Safety and Compliance Representative at least 120 days prior to construction of a new LNG plant or LNG facility		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.6.3	Verify the notification was submitted to the CPUC at least 90 days prior to construction of a new LNG plant or LNG facility		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.6.4	Verify the notification was submitted to the PHMSA at least 60 days prior to construction of a new LNG plant or LNG facility		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.6.5	Plant/Facility Name		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.6.6	Anticipated start date of field work activities		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.6.7	Anticipated date of operational start up		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	2.6.8	A brief and general description of the new constructed plant or facility.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.7	<i>For PHMSA Notification for New Underground Natural Gas Storage Facilities, verify the PHMSA Notification includes:</i>									
				Non-Bundle Records - 90 Days Post DOO	2.7.1	The correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.7.2	Verify a Storage Field Engineer submitted the project information to a Storage Compliance Reporting Representative at least 75 days prior to construction of underground natural gas storage facilities		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.7.3	Verify the notification was submitted to the CPUC/PHMSA at least 60 days prior to construction of a new underground natural gas storage facility		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.7.4	Facility/Well head name		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.7.5	Anticipated start date of field work activities		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.7.6	Anticipated date of operational start up		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	2.7.7	A brief and general description of the new constructed storage facilities		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	3	<i>Deadweight Test Pressure Logs</i>	<i>Doc. 062</i>								
				Non-Bundle Records - 90 Days Post DOO	3.1	Verify the correct Project Name/Line Number is recorded		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.2	Verify the Pipe Description data recorded aligns with the DDS		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.3	Verify the Test Pressure Maximum recorded aligns with the DDS		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.4	Verify the Test Pressure Minimum recorded aligns with the DDS		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.5	Verify the instrument serial numbers recorded match serial numbers recorded on the Calibration for Instruments		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.6	Verify a Spike Test was conducted and held for 30 minutes		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.7	If pressure loss occurred during the last hour of the test, verify the test period was extended until 1 hour without a pressure loss was achieved		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.8	Verify the final test pressure recorded aligns with the DDS		Test	A						
				Non-Bundle Records - 90 Days Post DOO	3.9	Verify the contractor's representative has approved the Deadweight Test Pressure Logs with wet or digital signature		Test	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	3.10	Verify the Company's representative has approved the Deadweight Test Pressure Logs with wet or digital signature		Test	A						
					<b>4</b>	<b>Design Data Sheet (DDS)</b>	<b>Doc. 039</b>								
				Non-Bundle Records - 90 Days Post DOO	4.1	Verify the General Information (top section) has been completed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.2	Verify the DDS references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.3	Verify the DDS references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.4	Verify the Pipe & Welded Fittings section has been completed and includes the material grade and MSP Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.5	Verify the Rated Fittings & Standard Designs section has been completed and includes MSP Number, Maximum Test Pressure and Design Pressure for each component		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.6	Verify the Branch Connections section has been <b>completed (required for components &gt; 2')</b> and includes the size, material grade, Yield Pressure and Design Pressure for each component, if applicable									
				Non-Bundle Records - 90 Days Post DOO	4.7	Verify the Qualification section has been completed and includes all four parameters (Test Medium, Minimum Test Duration, Minimum Test Pressure & Maximum Test Pressure)		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	4.8	Verify the Actual Test Duration is recorded.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.9	Verify the Actual Test Pressure is recorded, and it satisfies the Minimum Test Pressure & Maximum Test Pressure requirement		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.10	Verify the DDS has the Preparer's name and company phone number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.11	Verify the DDS has the Approval Engineer's name and approval date		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.12	For all hydrotests, verify Spike Test requirements are satisfied, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	4.13	Verify the DDS has the Company Representative's signature that verifies the pipeline was Installed and Tested as Shown		Documentation	A						
					5	<i>Drying / Dewatering Log</i>	<i>Doc. 287</i>								
				Non-Bundle Records - 90 Days Post DOO	5.1	Verify the correct Project Name/Line Number is recorded		Test	A						
				Non-Bundle Records - 90 Days Post DOO	5.2	Verify the Pipe Description data recorded aligns with the DDS		Test	A						
				Non-Bundle Records - 90 Days Post DOO	5.3	Verify the time and pig number of each pig/swab that exited the receiving end until all free-standing water was removed		Test	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	5.4	Verify that the time and dew point readings were noted throughout the drying process until the required dew point (dp: -40°F) was achieved		Test	A						
				Non-Bundle Records - 90 Days Post DOO	5.5	Verify the contractor's representative has approved the Drying/Dewatering with wet or digital signature		Test	A						
				Non-Bundle Records - 90 Days Post DOO	5.6	Verify the Company's representative has approved the Drying/Dewatering with wet or digital signature		Test	A						
					6	<b>Environmental Documents</b>	<b>Doc. 212</b>								
					6.1	<b>Review the Completed Environmental Clearance to:</b>	<b>Doc. 212</b>								
				Non-Bundle Records - 90 Days Post DOO	6.1.1	Verify the Environmental Clearance Form has the correct Project Name/Line Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	6.1.2	Verify the Environmental Clearance Form has the correct IO Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	6.1.3	Verify the Environmental Clearance Form has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	6.1.4	Verify the Environmental Clearance Form has the required signatures (digital or wet signatures)		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	6.2	<i>Review the Environmental Permits and Plans to:</i> Verify the Environmental Permits and Plans have the correct Project Name/Line Number is recorded	<i>Doc. 212</i>	Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	6.2.1	Verify the Environmental Permits and Plans have the required signatures, as applicable (digital or wet signatures)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	6.2.2	Verify the Acceptance Email/Letter has been uploaded to Company's approved document repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	6.3.3			Documentation	A						
					6.4	<i>Review the Environmental Training Records to:</i>	<i>Doc. 212 Doc. 206</i>								
				Non-Bundle Records - 90 Days Post DOO	6.4.1	Verify the Environmental Training Records have the correct Project Name/Line Number is recorded		Test	A						
					7	<i>Gas Handling or Tie-in Procedure</i>	<i>Doc. 113</i>								
				Non-Bundle Records - 90 Days Post DOO	7.1	For Field Assessments, Verify the Gas Handling/Tie-in Procedures are onsite		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.2	Verify the Gas Handling/Tie-in Procedures reference the correct Project Name/Line Number or Asset Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.3	Verify the Gas Handling/Tie-in Procedures are signed in accordance with Delegation of Authority		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	7.4	Verify the Supervisor has signed the Supervisor Sign-Off Form that acknowledges the Supervisor has reviewed the Gas Handling/Shutdown Plan with his/her crew		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.5	Verify the Crew has signed the Crew Sign-Off Form that acknowledges the Supervisor has reviewed the Gas Handling/Shutdown Plan with them		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.6	For Gas Handling/Tie-in Procedures that involved multiple Departments, verify Form 2865 was completed in accordance with the Form Instructions		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.7	Verify Form 2865 references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.8	Verify Form 2865 has the Operations Coordinator (O.C.) Name recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.9	Verify Form 2865 references the correct I/O Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.10	Verify Form 2865 has the Departments Involved (checked) recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.11	Verify Form 2865 has the Name, Email Address, Phone Number and Position of the employee to contact recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.12	Verify Form 2865 has the Handoff Sequence, DEPT Initiating Handoff and Gas Handling/Shutdown Ref. Step# are recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.13	Verify Form 2865 has the Date & Time the O.C. Was Notified recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	7.14	Verify <a href="#">Form 2865</a> has the employee's name who notified the O.C. recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.15	Verify <a href="#">Form 2865</a> has the Date & Time O.C. Notified Next Dept recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.16	Verify <a href="#">Form 2865</a> has the Dept. Name the O.C. notified recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.17	Verify <a href="#">Form 2865</a> has the employee's name the O.C. notified recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.18	Verify <a href="#">Form 2865</a> indicates the O.C. sent an Email Follow Up to the employee he/she notified that briefly summarizes their phone conversation		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.19	Verify <a href="#">Form 2865</a> has the Created By and Reviewed By names recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.20	<a href="#">2865</a> has the Date, Comments (i.e., Handoff Sequence, locations etc.) and the person's name who approved the comment recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.21	Verify <a href="#">Form 3506</a> references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.22	Verify the Serial Number of <a href="#">Form 3506</a> has the correct facility code, start date of shutdown, and start time of shutdown in accordance with the Form Instructions		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.23	Verify <a href="#">Form 3506</a> has the Facility, District/Region and correct Work Order Number recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	7.24	Verify Form 3506 has the Issue By Name(s), Phone Number(s) and Date issued are recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.25	Verify Form 3506 has the Confirming Supervisor's name and date of conversation are recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.26	Verify Form 3506 has the Shutdown/Operations dates & times are recorded and align with the Serial Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.27	Verify Form 3506 has the "Location" recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.28	Verify the PURPOSE section of Form 3506 identifies the pipeline asset subjected to the shutdown (i.e., Line Number, Compressor Unit, etc.)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.29	Verify Form 3506 has the "Valves To Be Operated" are recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.30	If Gas Control will be requested to modify pressure/flows (the YES Box is checked), verify Form 3506 has the notes recorded in the REMARKS section		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.31	If Customer Service & Gas Distribution Regions are affected, verify Form 3506 has the affected Customer Service & Gas Distribution Regions recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.32	If Transmission or Storage District/Stations are affected, verify Form 3506 has the affected Transmission or Storage District/Stations recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.33	If Taps are affected, verify Form 3506 has the affected Tap Number(s) recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	7.34	Verify Form 3506 has the Shutdown/Operation Completion date and time are recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	7.35	Verify Form 3506 was completed in accordance with the Form Instructions		Documentation	A						
					8	<i>Hydratest Report</i>	<i>Doc. 062</i>								
				Non-Bundle Records - 90 Days Post DOO	8.1	Verify the Test Summary references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.2	Verify the Test Summary General Information references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.3	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the Final DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.4	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the Pressure Recording Chart		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.5	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the Test Log		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.6	Verify Test Summary General Information (material type & size, stationing, and pipeline length) aligns with the Pressure Volume (PV) Log/Plot		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.7	Verify Test Summary Elevation Data aligns with the Test Log		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	8.8	Verify Test Summary Temperature Data aligns with the Pipe & Ambient Temperature Recording Charts and Test Log.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.9	Verify Test Summary Duration Data aligns with the Final DDS, Pressure Recording Chart, and Test Log, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.10	Verify the Test Log references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.11	Verify the Test Log references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.12	Verify the start time & pressure and end time & pressure aligns with the Pressure Volume (PV) Log/Plot, Final DDS and Pressure Recording Chart, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.13	For hydrostatic tests, verify the Spike Test start time & pressure and end time & pressure aligns with the Final DDS and Pressure Recording Chart, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.14	Verify no pressure lost occurred during the last hour of an 8-hour test or the last 1.5 minutes of a 1-hour test		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.15	Verify the Test Log Section Accepted has the "Yes" box checked		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.16	Verify the Test Log has the Contractor's representative signature and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.17	Verify the Test Log has the Company's representative signature and date signed recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	8.18	Verify that a Certificate of Calibration exist for the Recording Chart – Pressure;		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.19	Verify that a Certificate of Calibration for the Recording Chart – Pressure was current during the time the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.20	Verify that a Certificate of Calibration exist for the Recording Chart – Temperature (Ambient);		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.21	Verify that a Certificate of Calibration for the Recording Chart – Temperature (Ambient) was current during the time the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.22	Verify that a Certificate of Calibration exist for the Recording Chart – Temperature (Pipe);		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.23	Verify that a Certificate of Calibration for the Recording Chart – Temperature (Pipe) was current during the time the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.24	Verify that a Certificate of Calibration exist for the Deadweight Gauge, if applicable;		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.25	Verify that a Certificate of Calibration for the Deadweight Gauge was current during the time the test was performed, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.26	Verify that a Certificate of Calibration exist for the Data Logger (Crystal Gauge), if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.27	Verify that a Certificate of Calibration for the Data Logger (Crystal Gauge) was current during the time the test was performed, if applicable		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	8.28	Verify that a Certificate of Calibration exist for the Psychrometer.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	8.29	Verify that a Certificate of Calibration for the Psychrometer was current during the time the test was performed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO		Verify the Serial Number recorded on the Calibration for Instruments Certificates matches the Serial Number recorded on the Recording Charts, Test Logs, and Pressure Volume (PV) Log/Plot, as applicable		Documentation	A						
					9	<b>Material Certificate of Conformance/ Compliance</b>	<i>Doc. 257</i>								
				Non-Bundle Records - 90 Days Post DOO	9.1	Verify COCs (as required per MSP) are provided for material listed in the IFC BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	9.2	Verify COC reference the PO Number and PO Line Item Number		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	9.3	Verify the PO Number and PO Line Item Number recorded on the COC matches a PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	9.4	Verify the description recorded on the COC matches the description on PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	9.5	Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturers QC representative (Stamp or Signature)		Materials	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	10	<i>Material Field Requisition or Bill of Materials (BOM)</i>	<i>Doc. 032 Doc. 191</i>								
				Non-Bundle Records - 90 Days Post DOO	10.1	Verify the Material Field Requisition has the correct WOA Number recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.2	Verify the Material Field Requisition has the correct I/O Number recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.3	Verify the description recorded on the Material Field Requisition matches the description on PO that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.4	Verify the Material Field Requisition has the MSP Number recorded and the MSP matches the MSP Number on PO that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.5	Verify that the material description listed on Material Field Requisition aligns with the material description listed on the applicable DDS and/or BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.6	Verify the Material Field Requisition includes the Project Engineer's name, signature and date signed recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.7	Verify the Material Field Requisition includes the Project Manager's name, signature and date signed recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	10.8	Verify the Material Field Requisition includes the Construction Manager/Contract Administrator's name, signature and date signed recorded		Materials	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	11	<b>Material Invoices</b>	<i>Doc. 074</i>								
				Non-Bundle Records - 90 Days Post DOO	11.1	Verify the material description listed on Material Invoice aligns with the material description listed on the DDS		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.2	Verify the material description listed on Material Invoice aligns with the material description listed on the Material Field Requisition		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.3	Verify the material description listed on Material Invoice aligns with the material description listed on the IFC BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.4	Verify the Material Invoice aligns with the Material Transfer Order and MJR, as applicable		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.5	Verify the Material Invoice contains MSPs that align with the MSPs record on the Material Transfer Order		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.6	Verify the Material Invoice contains MSPs that align with the MSPs record on the MJR		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	11.7	Verify the Material Invoice contains MSPs that align with the MSPs record on the Material Requisitions		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12	<b>Material Purchase Order</b>	<i>Doc. 116</i>								
				Non-Bundle Records - 90 Days Post DOO	12.1	Verify the material description listed on Material Purchase Order aligns with the material description listed on the DDS		Materials	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	12.1	Verify the material description listed on Material Purchase Order aligns with the material description listed on the Material Field Requisition		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.2	Verify the material description listed on Material Purchase Order aligns with the material description listed on the IFC BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.3	Verify the Material Purchase Order aligns with the Material Transfer Order and MTR, as applicable		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.4	Verify the Material Purchase Order contains MSPs that align with the MSPs record on the Material Transfer Order, MJR, Material Field Requisition, IFC BOM and DDS, as applicable		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	12.5	Verify the Material Purchase Order aligns with the Material Transfer Order and MTR, as applicable		Materials	A						
					<b>13</b>	<b>Material Requisition or Release or signed Bill of Materials (BOM)</b>	<b>Doc. 075 Doc. 191</b>								
				Non-Bundle Records - 90 Days Post DOO	13.1	Verify that the Material Requisition aligns with the applicable DDS and/or BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	13.2	Verify the material matches the description on the Purchase Orders/Reservation Numbers and aligns with the BOM		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	13.3	Spot check that the appropriate MSP numbers are included in the material requisition package		Materials	A						
					<b>14</b>	<b>Material Source Inspection Report</b>	<b>Doc. 068</b>								
				Non-Bundle Records - 90 Days Post DOO	14.1	Verify the Inspection Report references the correct Project Name/Line Number		Materials	A						

**14.7. Quality Management Construction Closeout Assessment Checklist (Continued)**

**Quality Management Construction Closeout Assessment Checklist**

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	14.2	Verify the PO Number and Line Item Number(s) and Item Description recorded on the Inspection Report matches the PO Number(s), Line Item Number(s) and the Line Item Description recorded on the PO that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	14.3	Verify the Inspection Report includes the inspector's signature and date signed recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	14.4	Verify the Release Certification references the PO Number recorded in the "Inspection Release Certificate Issued" section of the Inspection Report		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	14.5	Verify the Release Certification includes the inspector's name, signature and date signed recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	14.6	Verify the Non-Conformance Reports, if any, includes resolution and approval from the Portfolio Manager		Materials	A						
					15	<i>Material Test Reports (MTRs)</i>	<i>Doc. 077</i>								
				Non-Bundle Records - 90 Days Post DOO	15.1	Verify that the Heat Number recorded on the MTR matches a Heat Number/Lot Number recorded on PWIR		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	15.2	Verify MTRs for all Pipe per MSP 41.06.1 Pipe - Steel, Grades B through X65 have been signed by an authorized MTR approver		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	15.3	Verify MTRs for Fittings per MSP 52.96 Fittings, Butt Weld Steel material that is equal to or greater than Grade Y42 have been signed by an authorized MTR approver		Materials	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	16	<i>Material Transfer</i> Verify the Material Transfer Order has the correct Project Name/Line Number recorded on the project receiving the material	<i>Doc. 076</i>	Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.1	Verify the Material Transfer Order has the correct WOA Number and IO Number of the receiving project recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.2	Verify material matches the description on Purchase Order, MJR and IFC BOM		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.3	Verify the Material Code Number matches the M & S Code Number recorded on the MJR		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.4	Verify the Material Transfer Order Number matches the Material Transfer Order Number recorded on the MJR		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.5	Verify the quantity of the item(s) recorded on the Material Transfer Order matches the Quantity Received on Job Site recorded on the MJR		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.6	Verify the PO Number(s) and Line Item Number(s) and Item Description recorded on the Material Transfer Order matches the PO Number(s), Line Item Number(s) and the Line Item Description recorded on the PO that has been uploaded into the Company's repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.7	Verify the Material Transfer Order has been signed by the Project Manager sending the material		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	16.8			Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	16.9	Verify the Material Transfer Order has been signed by the Project Manager receiving the material		Documentation	A						
					<b>17</b>	<b>Miscellaneous Job Report (MJR)</b>	<b>Doc. 079</b>								
				Non-Bundle Records - 90 Days Post DOO	17.1	Verify the MJR has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	17.2	Verify the MJR has the correct I/O Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	17.3	Verify the MJR includes the Project Manager's name and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	17.4	Verify the description recorded on the MJR matches the description on PO that has been uploaded into the Company's repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	17.5	Verify the MJR has the MSP Number recorded and the MSP matches the MSP Number on PO that has been uploaded into the Company's repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	17.6	Verify that the material description listed on MJR aligns with the material description listed on the applicable DDS and/or BOM		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	17.7	Verify the total quantity of materials recorded as installed, returned, used, transferred out and/or junked/scrapped equals the total amount of materials received		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	17.8	Verify the MJR master material list reconciles with the MJR Procured, installed and MJR excess (transferred, testing, scrapped, returned) lists		Documentation	A						

**14.7. Quality Management Construction Closeout Assessment Checklist (Continued)**

**Quality Management Construction Closeout Assessment Checklist**

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	17.9	DOO date matches the date recorded on the NOP Form		Documentation	A						
					<b>18</b>	<b>NDE Operator Qualification Documents</b>	<b>Doc. 217</b>								
				Non-Bundle Records - 90 Days Post DOO	18.1	Verify NDE Operator's Qualifications are current and available for review onsite.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.2	Verify the Level II NDE Technician is certified by his or her company to perform liquid penetrant examinations, magnetic particle examinations and/or radiography examinations, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.3	Verify that each Level III NDE Technician's company certification and visual acuity were current at the time of examination		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.4	Verify NDE Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.5	Verify NDE Operator Qualifications include a Company Blue Card that has been signed by a Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	18.6	Verify NDE Operator's Qualifications are included with final documentation		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	19	<i>Non-Destructive Testing (NDE) Package (not required for abandonments) For Liquid Penetrant Examination Data Reports, verify the following:</i>	<i>Doc. 245</i>								
				Non-Bundle Records - 90 Days Post DOO	19.1	Verify the PT Report references the correct WOA Number and IO Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.2	Verify the PT Report references the current approved edition of API 1104 as the acceptance criteria		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.3	Verify the PT Report references Gas Standard 182.0049 Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.4	Verify the applicable technique box is checked (Visible or Fluorescent) on the PT Report		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.5	Verify the type of light used aligns with the technique (visible or fluorescent) used in the Magnetic Particle Examination. <b>White lights (e.g., flashlights, drop lights etc.) should provide a minimum of 100 foot-candles (FC) at the surface of the part being inspected. UV black lights should provide a minimum of 1000 µW/cm<sup>2</sup> at 15 inches from the surface of the part being examined</b>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.6	Penetrant Examination API 1104 or SDG&E G7015, as applicable. Normal temperature penetrant examinations are ≥40°F ≤125°F. High temperature penetrant examinations are ≥125°F ≤500°F		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	19.7	Verify the penetrant dwell time is in accordance with Gas Standard 182.0049 Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.8	Verify the development time recorded is in accordance with Gas Standard 182.0049 Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.9	Verify the surface temperature aligns with the penetration time and development time as required per Gas Standard 182.0049 Liquid Penetrant Examination API 1104 or SDG&E or G7015, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.10	Verify the material brand name and type for the cleaner, penetrant, remover and developer recorded on the PT Report are listed in Gas Standard 182.0049 Liquid Penetrant Examination API 1104 or SDG&E G7015, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.11	Verify the Liquid Penetrant Examination results are accepted		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.12	Verify all unacceptable weld results are recorded on a separate PT Report Form		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.13	Verify the PT Reports are completed for all welds recorded on the PWIRs that require Liquid Penetrant Examination		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.14	Verify the Level II Liquid Penetrant Technician (Examiner) printed, signed, and dated the PT Report(s)		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	19.15	Verify the Level II Liquid Penetrant Technician is certified by his or her company to perform liquid penetrant examinations		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	19.16	Verify the Level II Liquid Penetrant Technicians company certification and visual acuity were current at the time of examination		Documentation	A						
					20	<b>Non-Destructive Testing (NDE) Package (not required for abandonments) For Magnetic Particle Examination Data Reports, verify the following:</b>	<b>Doc. 245</b>								
				Non-Bundle Records - 90 Days Post DOO	20.1	Verify the MT Report references the correct WOA Number and IO Number.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.2	Verify the MT Report references the current approved edition of API 1104 as the acceptance criteria		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.3	Verify the MT Report references Gas Standard 1.82.0051 Magnetic Particle Examination API 1104 or SDG&E G7016, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.4	Verify the applicable method box is checked (Visible, Fluorescent, Dry Particle, or Wet Particle) on the MT Report		Documentation	A						
					20.5	Verify the type of light used aligns with the technique (visible or fluorescent) used in the Magnetic Particle Examination. <b>White lights (e.g., flashlights, drop lights etc.) should provide a minimum of 100 foot-candles (FC) at the surface of the part being inspected. UV black lights should provide a minimum of 1000 µW/cm2 at 15 inches from the surface of the part being examined</b>									

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	20.6	Verify the Magnetic Particle Examination results are accepted		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.7	Verify all unacceptable weld results are recorded on a separate Magnetic Particle Examination Report Form		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.8	Verify the MT Reports are completed for all welds recorded on the PWIRs that require Magnetic Particle Examination		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.9	Verify the Level II Magnetic Particle Technician (Examiner) printed, signed, and dated the MT Report(s)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.10	Verify the Level II Magnetic Particle Technician is certified by his or her company to perform magnetic particle examinations		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	20.11	Verify the Level II Magnetic Particle Technician's company certification and visual acuity were current at the time of examination		Documentation	A						
					21	<b>Non-Destructive Testing (NDE) Package (not required for abandonments)</b>	Doc. 245								
					21.1	<b>For Radiographic Examinations Data Reports, verify the following:</b>									
				Non-Bundle Records - 90 Days Post DOO	21.1.1	Verify the RT Report references the correct WOA Number and IO Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.2	Verify the RT Report references the current approved edition of API 1104 as the acceptance criteria		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	21.1.3	Verify the RT Report references <a href="#">GS 187.0200</a> Radiographic Examination API 1104 or SDG&E <a href="#">G7817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.4	Verify weld thickness is in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable. Weld thickness is pipe wall thickness plus weld reinforcement. Maximum internal reinforcement is 0.0625" and 0.125" for external reinforcement		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.5	Verify IQI Type is in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.6	Verify IQI material group is in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.7	Verify essential wire diameter is in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.8	Verify the number of IQIs used is in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.9	Verify film size is in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable. Film shall be a minimum of 4.5 inches wide and be in standard lengths of 7", 10" or 17"		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.10	Verify the number of exposures are in accordance with <a href="#">GS 187.0200</a> or SDG&E <a href="#">G7817</a> , as applicable		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	21.1.1.11	Verify the Geometric Unsharpness (Ug) is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E G7817</a> , as applicable. Ug should not exceed 0.020" for thickness ≤ 2". (Ug Formula: Source Size (F) x Specimen Thickness (t) / Source to object Distance (DD)) If the weld is rejected and requires repair, only the repair area needs to be radiographed provided the repair radiography is performed the same day as the original radiography. If the repair radiography fails, the weld must be cutout, otherwise a band or reinforcing sleeve		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.12	Verify all unacceptable weld results and views are recorded on a separate Radiographic Report Form		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.13	Verify the Radiographic reports are completed for all welds recorded on the PWIRs that require radiography		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.14	Verify the disposition and discontinuity information is recorded for each weld view, per <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E G7817</a> , as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.15	Verify the density range of the area of interest is in accordance with <a href="#">GS 187.0200</a> or <a href="#">SDG&amp;E G7817</a> , as applicable. Minimum density should be 1.8 and maximum should be 4.0		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.16	Verify the Level II Radiography Technician printed, signed, and dated the Radiographic Report(s)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.17	Verify the Level II Film Interpreter printed, signed, and dated the Radiographic Report(s)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.1.18	Verify the Level II Film Interpreter printed, signed, and dated the Radiographic Report(s)		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	21.1.19	Verify the Company Level II/III printed, signed, and dated the Radiographic Report(s)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.20	Verify the Company Representative (person who performed oversight) printed, signed, and dated the Radiographic Report(s)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.1.21	Verify the radiographic film has been submitted to EAC (Peco Rivera Facility), per GS 187.0200		Documentation	A						
					21.2	<b>Non-Destructive Testing (NDE) Package (not required for abandonments) For Radiographic Examinations Field Checklist, verify the following:</b>	<i>Doc. 245</i>								
				Non-Bundle Records - 90 Days Post DOO	21.2.1	Verify the Line Number aligns with the Line Number recorded on the Radiographic Examination Data Report		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	21.2.2	Verify the Line Number aligns with the Line Number recorded on the WOA.		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.2.3	Verify the weld numbers recorded on the Radiography Weld Tracking Log aligns with the weld numbers recorded on the Radiographic Examination Data Report		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	21.2.4	The NDE Oversight Contractor completed the Radiography Field Checklist <i>Form 4003</i> in accordance with Company Form Instruction - Radiography Field Checklist		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	22	<i>Notice of Operation (NOP)</i>	<i>Doc. 081</i>								
				Non-Bundle Records - 90 Days Post DOO	22.1	Verify the NOP has the correct WOA Number and/or Internal Order Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	22.2	Verify the NOP has the Date of Operation recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	22.3	Verify the NOP has been submitted to Plant Accounting within 30 days of the date of operation		Documentation	A						
					23	<i>Odor Conditioning (Gas Seasoning) Project Plan &amp; Required Follow up Statement</i>	<i>Doc. 176</i>								
				Non-Bundle Records - 90 Days Post DOO	23.1	Verify the Odor Conditioning Project Plan references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.2	Verify the Odor Conditioning Project Plan has the Prepared By name recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.3	Verify the Odor Conditioning Project Plan has the reviewed by signature from the Transmission Technical Services designated personnel or Distribution Region Engineer recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.4	Verify the Odor Conditioning Project Plan has the approved by signature from the local Operations Manager recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	23.5	Verify the Odor Conditioning Project Plan is signed and complete		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO		Verify the Follow-up Odor Intensity Report - <a href="#">Form 3991</a> is available, if required <i>(Use for weekly follow-up odorant intensity test report for new steel main installations)</i>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	23.6			Documentation	A						
					24	<i>Pipe Condition &amp; Maintenance Report (PCMR)</i>	<i>Doc. 089</i>								
				Non-Bundle Records - 90 Days Post DOO	24.1	Verify the PCMR has the Line Number recorded and/or Facility recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.2	Verify the PCMR has the Specific Location recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.3	Verify the PCMR has the Installation WO Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.4	Verify the PCMR has the Transmission District/Storage Field or Distribution District checked, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.5	Verify the PCMR has the C&O Center Code checked, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.6	Verify the PCMR has the Reason for Work or Inspection checked		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	24.7	Verify the PCMR has the Time Summary recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.8	Verify the PCMR includes the Completed By person's signature and date Completed		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	24.9	Verify the PCMR includes the Reviewed By person's signature and date Reviewed		Documentation	A						
					25	<b>Management of Change - Request &amp; Approval (Pipeline MAOP Uprate Procedure)</b> <i>(Annex 21.1)</i>	<i>Doc. 092</i>								
				Non-Bundle Records - 90 Days Post DOO	25.1	Verify the correct Line Number/Equipment Number is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	25.2	Verify the required Initiator, Technical Reviewer and Change Approver have printed, signed, and dated the form		Documentation	A						
					26	<b>Pressure Volume (PV) Log / Plot</b>	<i>Doc. 092</i>								
				Non-Bundle Records - 90 Days Post DOO	26.1	Verify the Pressure Volume (PV) Log/Plot references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	26.2	Verify the Pressure Volume (PV) Log/Plot has the contractor's representative signature and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	26.3	Verify the Pressure Volume (PV) Log/Plot has the Company's representative signature and date signed recorded		Documentation	A						

**14.7. Quality Management Construction Closeout Assessment Checklist (Continued)**

**Quality Management Construction Closeout Assessment Checklist**

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	27	<i>Redline (As-Built) of IFC Drawings</i> Verify the Redlined Drawings reference the correct Project Name/Line Number	<i>Doc. 009</i>	Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	27.1	Verify the Redlined Drawings reference the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	27.2	Verify the Redlined Drawings have the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28	<i>Recording Chart - Pressure</i> Verify the face of the Recording Chart - Pressure references the correct Project Name/Line Number	<i>Doc. 099</i>								
				Non-Bundle Records - 90 Days Post DOO	28.1	Verify the face of the Recording Chart - Pressure references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.2	Verify the face of the Recording Chart - Pressure references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.3	Verify the face of the Recording Chart - Pressure references the correct Test Segment		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.4	Verify the face of the Recording Chart - Pressure has the contractor's representative signatures		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.5	Verify the test pressures recorded on the face of the Recording Chart - Pressure aligns with the DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.6	Verify the back of the Recording Chart - Pressure has the required Stamp per GS 182.0170		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	28.7	Verify the stamp located on the back of the Recording Chart – Pressure references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.8	Verify the data recorded on the back of the Recording Chart – Pressure aligns with the data recorded on the face of the Recording Chart – Pressure and DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	28.9	Verify the stamp located on the back of the Recording Chart – Pressure has the Company's representative signature		Documentation	A						
					29	<i>Recording Chart - Temperature (Ambient)</i>	<i>Doc. 099</i>								
				Non-Bundle Records - 90 Days Post DOO	29.1	Verify the face of the Recording Chart – Temperature (Ambient) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.2	Verify the face of the Recording Chart – Temperature (Ambient) references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.3	Verify the face of the Recording Chart – Temperature (Ambient) references the correct Test Segment		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.4	Verify the face of the Recording Chart – Temperature (Ambient) has the contractor's representative signatures		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.5	Verify the test pressures recorded on the face of the Recording Chart – Temperature (Ambient) align with the DDS		Documentation	A						

Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	29.6	Verify the back of the Recording Chart - Temperature (Ambient) has the required Stamp per <a href="#">GS 182.0170</a>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.7	Verify the stamp located on the back of the Recording Chart - Temperature (Ambient) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.8	Verify the data recorded on the back of the Recording Chart - Temperature (Ambient) aligns with the data recorded on the face of the Recording Chart - Ambient and DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	29.9	Verify the stamp located on the back of the Recording Chart - Temperature (Ambient) has the Company's representative signature		Documentation	A						
					<b>30</b>	<b>Recording Chart - Temperature (Pipe)</b>	<i>Doc. 099</i>								
				Non-Bundle Records - 90 Days Post DOO	30.1	Verify the face of the Recording Chart - Temperature (Pipe) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.2	Verify the face of the Recording Chart - Temperature (Pipe) references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.3	Verify the face of the Recording Chart - Temperature (Pipe) references the correct Test Segment		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.4	Verify the face of the Recording Chart - Temperature (Pipe) has the contractor's representative signatures		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	30.5	Verify the test pressures recorded on the face of the Recording Chart – Temperature (Pipe) align with the DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.6	Verify the back of the Recording Chart – Temperature (Pipe) has the required Stamp per GS182.0170		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.7	Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) references the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.8	Verify the data recorded on the back of the Recording Chart – Temperature (Pipe) aligns with the data recorded on the face of the Recording Chart – Temperature (Pipe) and DDS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	30.9	Verify the stamp located on the back of the Recording Chart – Temperature (Pipe) has the Company's representative signature		Documentation	A						
					<b>31</b>	<b>Special Inspection Report</b>	<b>Doc. 283</b>								
				Non-Bundle Records - 90 Days Post DOO	31.1	Verify the Special Inspection Report is applicable to the project		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	31.2	Verify the Special Inspector signed the Special Inspection Report		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	31.3	Verify a Company representative acknowledged the Special Inspection Report with signature		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	32	<i>Strength Test Assemblies &amp; Supporting Documentation Layout</i> Verify the Strength Test Assemblies & Supporting Documentation Layout references the correct Project Name/Line Number	<i>Doc. 144</i>	Test	A						
				Non-Bundle Records - 90 Days Post DOO	32.1	Verify the Strength Test Assemblies & Supporting Documentation has been reviewed and signed-off or that approval documentation exists from the Construction Team Lead and Construction Manager/Contract Administrator									
				Non-Bundle Records - 90 Days Post DOO	32.2	Verify information in title block matches the Final DDS and test chart (Operator's Name, & Company Name responsible for test, Test Medium Used, Test Pressure, Time, Date, Duration, Elevation variations, Leaks & Failures noted, if any, and disposition)		Test	A						
				Non-Bundle Records - 90 Days Post DOO	32.3			Test	A						
				Non-Bundle Records - 90 Days Post DOO	33	<i>Strength/Pressure Test Operator Qualification Documents</i> Verify Strength/Pressure Test Operator's Qualifications are current and available for review onsite	<i>Doc. 217</i>	Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	33.1	Verify Strength/Pressure Test Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	33.2	Verify Strength/Pressure Test Operator Qualifications include a Company Blue Card that has been signed by a Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	33.3			Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	33.4	Verify Strength/Pressure Test Operator's Qualifications are included with final documentation		Documentation	A						
					<b>34</b>	<b>Strength/Pressure Test Procedure</b>	<b>Doc. 145</b>								
				Non-Bundle Records - 90 Days Post DOO	34.1	Verify the Strength/Pressure Test Procedure references the correct Project Name/Line Number		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.2	Verify the Strength/Pressure Test Procedure (Hydrostatic/Nitrogen) has been approved with signatures		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.3	Verify the Data on the Strength/Pressure Test Procedure aligns with the data on the Design Data Sheet (DDS)		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.4	For hydrostatic tests, verify the Strength/Pressure Test Procedure includes a Dewatering Sequence of Operations, if applicable		Test	A						
				Non-Bundle Records - 90 Days Post DOO	34.5	For hydrostatic tests, verify the Strength/Pressure Test Procedure includes a Drying Sequence of Operations, if applicable		Test	A						
					<b>35</b>	<b>Tap Application Form 3.63</b>	<b>Doc. 148</b>								
				Non-Bundle Records - 90 Days Post DOO	35.1	Verify the Tap Application has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.2	In Section A, verify the Tap Application references the correct Project Name/Line Number		Documentation	A						

**14.7. Quality Management Construction Closeout Assessment Checklist (Continued)**

**Quality Management Construction Closeout Assessment Checklist**

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	35.3	In Section A, verify the Tap Application has the name of the person who requested the Engineering Reviewed and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.4	In Section B, verify the Tap Application has the engineer's name who conducted the Engineering Review and approved the Tap Application and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.5	In Section B, verify the Tap Application has BTU District Number adjacent to the tap location and signature of the authorized person who assigned the number and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.6	In Section C, verify the Tap Application has the Requesting Distribution Region Engineer's signature and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.7	In Section D, verify the Tap Application has the engineer's name from the Supplying Organization who reviewed and approved the Tap Application and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.8	Verify the Tap is installed in the location (side of main or top of main) on the Drawing Number noted in Section F		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.9	In Section F, verify the Tap Application has the signature of the person who completed the work and date job was completed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.10	In Section F, verify the Tap Application has the signature of the responsible supervisor and date recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	35.11	Verify sections A-F are complete per GS 182.0165		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	36	<i>Valve Certificate of Conformance / Compliance with Hydrotest</i>	<i>Doc. 257</i>								
				Non-Bundle Records - 90 Days Post DOO	36.1	Verify the Valve Certificate of Conformance / Compliance with Hydrotest include Mill Test Certification for pressure containing parts, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.2	Verify the Valve Certificate of Conformance / Compliance with Hydrotest include COC with Vendor Drawings, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.3	Verify COC contains the PO Number and PO Line Item number		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.4	Verify the PO Number and PO Line Item Number recorded on the COC matches a PO Number and PO Line Item Number that has been uploaded into the Company's repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.5	Verify the description recorded on the COC matches the description on PO Number and PO Line Item Number that has been uploaded into the Company's repository		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.6	Verify the Valve Traceability Documents include a copy of NDE reports, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.7	Verify the Valve Traceability Documents include certification that the valve has passed required pressure tests, as applicable per MSP		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	36.8	Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturers QC Representative (Stamp or Signature)		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	37	<i>Valve Commissioning Form</i> Verify the valve serial number(s) recorded on the Valve Commissioning/Point to Point Form aligns with the valve serial number(s) recorded on the Completion Drawings.	<i>Doc. 258</i>	Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	37.1	Verify the Valve Commissioning/Point to Point Form has the District Representative Supervisor and Valve Commissioning Team Lead's signatures and dates signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	37.2	Verify the Valve Commissioning/Point to Point Form has the District Representative Supervisor and Valve Commissioning Team Lead's signatures and dates signed recorded		Documentation	A						
					38	<i>Valve Factory Acceptance Test (FAT) for line break controls</i> Verify the valve serial number(s) recorded on the FAT aligns with the valve serial number(s) recorded on the Completion Drawings	<i>Doc. 255</i>								
				Non-Bundle Records - 90 Days Post DOO	38.1	Verify the valve serial number(s) recorded on the FAT aligns with the valve serial number(s) recorded on the Completion Drawings		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	38.2	Verify the Tech Advisor initiated and dated each page, where applicable		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	38.3	Verify the Task Acceptance Sign-Off has the Inspector's name, signature, initials, and date signed recorded		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	38.4	Verify the Review Sign-Off has the Team Lead's name, signature, initials, and date signed recorded		Materials	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	39	<i>Valve Site Acceptance Testing (SAT) Report and Point to Point Acceptance (PTP) Report</i>	<i>Doc. 256</i>								
				Non-Bundle Records - 90 Days Post DOO	39.1	Verify the valve serial number(s) recorded on the SAT aligns with the valve serial number(s) recorded on the Completion Drawings		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	39.2	Verify the Inspector initialed and dated each page, where applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	39.3	Verify the Task Acceptance Sign-Off has the Inspector's name, signature, initials, and date signed recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	39.4	Verify the Review Sign-Off has the Reviewer's name, signature, initials, and date signed recorded		Documentation	A						
					40	<i>Valve Traceability Documents</i>	<i>Doc. 271</i>								
				Non-Bundle Records - 90 Days Post DOO	40.1	Verify the Valve Traceability Documents include Mill Test Certification for each pressure containing parts, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.2	Verify the Valve Traceability Documents include COC with Vendor Drawings, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.3	Verify COC contains the PO Number and PO Line item number		Materials	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	40.4	Verify the PO Number and PO Line Item Number recorded on the COC matches a PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.5	Verify the description recorded on the COC matches the description on PO Number and PO Line Item Number that has been uploaded into the Company's repository		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.6	Verify the Valve Traceability Documents include a copy of NDE reports, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.7	Verify the Valve Traceability Documents include certification that the valve has passed required pressure tests, as applicable per MSP		Materials	A						
				Non-Bundle Records - 90 Days Post DOO	40.8	Verify the COC has evidence of approval and/or Statement of Conformance from Manufacturer's QC representative (Stamp or Signature)		Materials	A						
					41	<i>Vendor Equipment Drawing</i>	<i>Doc. 157</i>								
				Non-Bundle Records - 90 Days Post DOO	41.1	Verify the description of the item listed on Vendor Equipment Drawings aligns with the material description listed on the IFC BOM		Documentation	A						
					42	<i>Project Weld Inspection Report PWIR's (not required for abandonments)</i>	<i>Doc. 114</i>								
				Non-Bundle Records - 90 Days Post DOO	42.1	Verify each sampled PWIR has the Job Description recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.2	Verify each sampled PWIR has the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.3	For SDG&E PWIRs, verify each sampled PWIR has the correct DPSS/IO Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.4	Verify each sampled PWIR has the Location and City recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.5	Verify each sampled PWIR has the name of the contractor executing the job recorded. If the project is executed by Company crews, verify that SCG/SDG&E is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.6	Verify each sampled PWIR has the Date of Visual Inspection recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.7	Verify each sampled PWIR has the Weld Number recorded and formatted in accordance with <a href="#">GS 192.0032</a>		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	43.8	Verify each sampled PWIR has the Station Number or Location recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.9	Verify each sampled PWIR has the Joining Info recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.10	Verify that each Heat Number recorded on the PWIR matches a Heat Number/Lot Number recorded on either an MTR or COC that has been uploaded in the Company's approved repository		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.11	Verify the Weld Design Type recorded on the PWIR aligns with the Joint Design recorded on the WPS		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.12	For SDG&E PWIRs, verify each sampled PWIR has the In-Servicing Welding Procedure Number recorded, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.13	Verify each sampled PWIR has the Weld Procedure Specification (WPS) Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.14	Verify that all WPSs are available for review and are still active (have not been deleted)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.15	For seal welds, verify the sampled PWIR has "GS 187.0056" recorded as the Weld Procedure Specification Number. This is required per Company Form Instruction 3917 - Project Weld Inspection Report		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.16	Verify each sampled PWIR has the Welder's Identification for each weld layer recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.17	Verify each sampled PWIR has the Weld Inspection data recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.18	Verify the Visual Inspection status (A for Approved or R for Rejected) is recorded. For SCG PWIRs, verify the Inspector's ID is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.19	Verify the NDE Method is recorded. For SCG PWIRs, verify the Date the NDE was Performed is recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.20	Verify the NDE Results status (A for Approved or R for Rejected) is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.21	Verify the status of repaired welds (A for Accepted or R for Rejected) is recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.22	If a weld was cutout, verify the new weld number is recorded, if applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.23	For SDG&E PWIRs, verify each sampled PWIR has Welding Parameters recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.24	For SDG&E PWIRs, verify each sampled PWIR has the NDE Report Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.25	Verify each sampled PWIR has the PO Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.26	For rejected welds including those rejected by visual inspection, verify an explanation for the type of reject and type of defect are recorded in the Comments/Observations column		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.27	Verify each sampled PWIR has the Heat Numbers recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	42.28	Verify each sampled PWIR has/have the name(s) of the person(s) who conducted the visual weld inspection, date the PWIR was being filled out, and the title and company of the person(s) who conducted the visual inspection recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records - 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	42.29	Verify each sampled PWIR has the name of the person who reviewed the PWIR, date the review was conducted, and the title and company of the person who conducted the review recorded		Documentation	A						
					<b>43</b>	<b>Weld Map (not required for abandonments)</b>	<b>Doc. 190</b>								
				Non-Bundle Records - 90 Days Post DOO	43.1	Verify permanent welds (as indicated on the PWIR) are captured on the Weld Map		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	43.2	Verify each sampled Weld Map includes the following: Weld Number are listed for welds recorded on the Weld Map in accordance with GS 192.0032		Documentation	A						
					<b>44</b>	<b>Welding Operator Qualification Documents</b>	<b>Doc. 217</b>								
				Non-Bundle Records - 90 Days Post DOO	44.1	Verify Welding Operator's Qualifications are current and available for review		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	44.2	Verify the Welding Operator is qualified to perform the required covered tasks 1.4-0801 – Welding Operations and 10.3 – Making Permanent Field Repair of Welds on Transmission Lines/High Pressure Distribution Lines prior to the start of the tasks		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	44.3	Verify Welding Operator Qualifications include Veriforce that has been verified, signed, and dated by Company Representative		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	44.4	Verify Welding Operator Qualifications include a Company Blue Card that has been signed by a Company Representative		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	44.5	Verify Welding Operator's Qualifications are included with final Documentation		Documentation	A						
					45	<b>Welding Procedures</b>	<i>Doc. 155</i>								
				Non-Bundle Records - 90 Days Post DOO	45.1	Verify the WPSs listed in PWIRs are still active (have not been deleted)		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	45.2	Verify the WPSs are applicable to the size and thickness of the components welded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	45.3	Verify the Weld Procedure Specifications match the material listed in IFC BOM		Documentation	A						
					46	<b>Welding Inspection Field Surveillance Report</b>	<i>N/A</i>								
				Non-Bundle Records - 90 Days Post DOO	46.1	Verify the Welding Inspection Field Surveillance Report references the correct Project Name/Line Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.2	Verify each sampled Welding Inspection Field Surveillance Report has the correct WOA Number recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Non-Bundle Records – 90 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 90 Days Post DOO	46.3	Verify each sampled Welding Inspection Field Surveillance Report has the correct I/O Number recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.4	Verify each sampled Welding Inspection Field Surveillance Report has the correct Project Information recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.5	Verify each sampled Welding Inspection Field Surveillance Report has the correct Welding Project Mode recorded		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.6	Verify each sampled Welding Inspection Field Surveillance Report has the correct Surveillance Details recorded, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.7	Verify each sampled Welding Inspection Field Surveillance Report has the Recommendation/Finding Items recorded, as applicable		Documentation	A						
				Non-Bundle Records - 90 Days Post DOO	46.8	Verify the Welding Inspection Field Surveillance Report has the Auditor's Name, signature, and date signed recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Bundle A Records – 120 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
					47	<i>All Completion Drawings</i>	<i>Doc. 018</i>								
				Non-Bundle Records - 120 Days Post DOO	47.1	Verify the Completion Drawings reference the correct Project Name/Line Number		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	47.2	Verify the Completion Drawings have the correct WOA Number recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	47.3	Verify the Completion Drawings identify pipeline features e.g., Pipe Diameter; Line Number; Wall Thickness; Grade and Pipe Longitudinal Seam		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	47.4	Verify the Completion Drawings have the correct dimensions circled in red, incorrect dimensions crossed out and replaced by a field verified dimension, as applicable		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	47.5	Verify BOM is available for review within the Completion Drawings		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	47.6	Verify BOM aligns with the DDS Verify Acceptance Email from Gas Engineering exist		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	47.7	Verify deactivated, removed, or sectionalized segments of pipe are identified		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Bundle A Records – 120 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 120 Days Post DOO	48	A2 Survey Data File	Doc. 005								
				Non-Bundle Records - 120 Days Post DOO	48.1	Verify the A2: Survey Data File references the correct WOA Number		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.2	Verify the A2: Survey Data File references the correct Project Name/Line Number of the pipeline surveyed		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.3	Verify the A2: Survey Data File has the Type of Survey (PLS – Licensed Land Surveyor, Internal or External Qualified GPS Personnel) recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.4	Verify the A2: Survey has the survey company's name recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.5	Verify the A2: Survey has the Lead Surveyor/Personnel's Name and PLS Number recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.6	Verify the A2: Survey has the names of additional members of survey team, if applicable, recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.7	Verify the A2: Survey has the make, model and if applicable the antenna of the Survey/GPS equipment used to conduct the survey recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.8	Verify the A2: Survey has the date the survey was conducted recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Bundle A Records – 120 Days Post DOO



Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 120 Days Post DOO	48.9	Verify the A2: Survey Data File has the Horizontal Datum data (Datum, State Plane, Epoch and Scale factor; if applicable) of points collected recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.10	Verify the A2: Survey Data File has the Vertical Datum of points collected recorded (Not required for Qualified GPS Personnel/Contractor)		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.11	Verify the A2: Survey Data File has the horizontal control monuments used to validate points collected recorded (Not required for Qualified GPS Personnel/Contractor)		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.12	Verify the A2: Survey Data File has the vertical control (or Benchmark) monuments used to validate points collected recorded (Not required for Qualified GPS Personnel/Contractor)		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.13	Verify the A2: Survey Data File has any sort of boundary control used, including monuments and maps, if applicable, recorded (Not required for Qualified GPS Personnel/Contractor)		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.14	Verify the A2: Survey Data File has the Source of Control data used including the previous project Info, Work Order Number, and date, if applicable, recorded (Not required for Qualified GPS Personnel/Contractor)		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.15	Verify the A2: Survey Data File has the Postprocessing Personnel's name recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.16	For PLS type surveys, verify the A2: Survey Data File has the Licensed Land Surveyor's scanned signature, scanned stamp, and Licensed Number recorded		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Bundle A Records – 120 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Doc. #	Category	Risk Category	Inquiry Status	Score	Occurrences	QM Assessor	QM Assessor's Initial Comments	Distribution Date
				Non-Bundle Records - 120 Days Post DOO	48.17	Verify the A2: Survey Data File has the most recent Company GPS training date (Qualified GPS Personnel/Contractor only) recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.18	Verify the A2: Survey Data File has the Land Surveyor's digital signature recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.19	Verify the A2: Survey Data File has the length of project recorded (Not required for Licensed Land Surveyor surveys)		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.20	Verify the A2: Survey Data File has the extents of project (e.g., Street X to Street Y) recorded		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.21	Verify the A2: Survey Data File includes the list of Survey Data of Pipe Features (Page 2 of the A2: Survey Data File)		Documentation	A						
				Non-Bundle Records - 120 Days Post DOO	48.22	Verify the A2: Survey Data File includes the list of Survey Data of Land/Control Features (Page 3 or last page of the A2: Survey Data File)		Documentation	A						

14.7. Quality Management Construction Closeout Assessment Checklist (Continued)

Quality Management Construction Closeout Assessment Checklist

Bundle B Records – 180 Days Post DOO

Quality Management Plan for Construction

Project Name	Project Manager	Construction Manager	Date	Stage	Item #	Assessment Inquiries	Category	Risk Category	Finding Status	Score	Occurrences	QM Team Member	QM Team Member's Initial Comments	Distribution Date
					49	<b>B1 Pipeline Feature Data Collection (PFDC) Form 2120 (Bundle B) (GIS Tabular Data)</b>	<i>Doc. 059</i>							
				Non-Bundle Records - 180 Days Post DOO	49.1	Verify Bundle A has been approved prior to Bundle B submittal.	Documentation	A						
				Non-Bundle Records - 180 Days Post DOO	49.2	Verify Form 2120 has the correct Project Name/Line Number recorded	Documentation	A						
				Non-Bundle Records - 180 Days Post DOO	49.3	Verify stationing points on the Completion Drawings have been reviewed/approved	Documentation	A						
				Non-Bundle Records - 180 Days Post DOO	49.4	Verify Form 2120 approval email from PI Data Acceptance	Documentation	A						
					50	<b>B2 Pipeline Database Update Form 2112</b>	<i>Doc. 238</i>							
				Non-Bundle Records - 180 Days Post DOO	50.1	Verify Form 2112 has the correct Project Name/Line Number recorded	Documentation	A						
				Non-Bundle Records - 180 Days Post DOO	50.2	Verify the first section of Form 2112 is completed (100% of Fields Required)	Documentation	A						
				Non-Bundle Records - 180 Days Post DOO	50.3	Verify Form 2112 has the name and title of the person who approved the form and that date the form was approved	Documentation	A						

Quality Management Plan for Construction

NOTE: Do not alter or add any content from this page down; the following content is automatically generated.

**Brief:** The purpose of the Quality Management Plan for Construction (QMPC) is to establish a high-level framework for the quality management (QM) of construction and related activities. The QMPC includes the distinction of Construction Quality Management activities performed by the QM Team and the Construction Functional Teams. The foundation of the QMPC is Gas Standard (GS) 192.0026, Records Management for High Pressure Project Closeout. The QMPC supports the execution of a project through construction and the record and information management of High Pressure Project Records (HPPR) identified as Life of Asset Records (LOA) in GS 192.0026, Records Management for High Pressure Project Closeout. The QMPC supports Construction by helping to verify LOA records for its projects are Traceable, Verifiable and Complete (TVC).

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**Appendix E**  
**Stakeholder Engagement Plan**



# 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

## Safety Value: Employee & Stakeholder Engagement

*“SoCalGas encourages and expects employees to take ownership and actively engage in safety practices, and openly share and receive information with one another, contractors and external stakeholders to continuously enhance safety practices.”*

## **1. PURPOSE**

Successful execution of our Safety Management System (SMS) is critically dependent on the actions of our employees and external stakeholders. We rely on them to identify and resolve safety risks and adopt and implement safety practices to strengthen and protect SoCalGas infrastructure.

This Stakeholder Engagement Plan is a plan for communication and engagement with internal and external stakeholders regarding risk identification and management, safety performance, and as appropriate, other SMS values. The Plan identifies the purpose, organization’s stakeholders, both internal and external, the communication responsibilities of personnel, the types of information to be shared, and how it is valuable in improving safety. The Plan also includes a process for employees and contractor personnel to raise concerns to management and make recommendations for improvements in risk identification, prevention, and mitigation. The Plan is reviewed and updated periodically to keep it current. It follows the SoCalGas SMS framework in supporting Safety Value #3 Employee & Stakeholder Engagement as stated above.

SoCalGas has implemented a comprehensive SMS based on the iterative Plan-Do-Check-Act cycle and designed to help SoCalGas continually reduce safety risks and improve its safety performance and culture. In the near term, SoCalGas strives to continuously reduce safety incidents associated with its employees, infrastructure assets, operations, and activities. In the long term, SoCalGas aspires to have zero safety incidents associated with its infrastructure, and for every task, every job, every day.

It is critical that every stakeholder understands their roles and responsibilities to support and sustain strong safety performance.

## **2. BACKGROUND**

### **SoCalGas Safety Values**

SoCalGas has a strong culture of safety excellence, teamwork, and committed service. The maturity of our culture hinges on the individual attitudes and behaviours of every person working for or on behalf of SoCalGas.



## 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

Employees are encouraged and expected to take ownership and actively engage in safe work behaviours. As appropriate, employees are also encouraged to openly share and receive information with one another, our contractors, and external stakeholders to continuously enhance our processes.

The SoCalGas SMS is articulated in the following seven safety values. These values promote the safe operation of our business as well as the safety of our employees, contractors, the public, and our pipeline system.

### ***Leadership Commitment***

*SoCalGas leadership is fully committed to safety as a core value. SoCalGas's Executive Leadership is responsible for overseeing reported safety concerns and promoting a strong, positive safety culture and an environment of trust that includes empowering employees to identify risks and to "Stop the Job."*

### ***Employee and Stakeholder Engagement***

*Employees are encouraged and expected to take ownership and actively engage in safety practices and openly share and receive information with one another, our contractors, and external stakeholders to continuously enhance our safety practices.*

### ***Risk Management***

*SoCalGas manages risk through a structured, data driven approach that identifies threats and hazards, assesses and prioritizes risks, implements mitigation efforts, and engages in assessments and reviews to understand risk mitigation effectiveness.*

### ***Safety and Compliance Assurance***

*SoCalGas maintains operational policies and procedures that document safety practices and standards and compliance with applicable regulations and follows a "management of change" process to structure change when new policies and procedures are implemented.*

### ***Continuous Improvement***

*SoCalGas strives to continuously improve and strengthen its safety performance and culture by setting clear and measurable goals, assessing safety performance through audits and self-assessments, inviting employee feedback, and applying lessons learned from incidents and near miss events. SoCalGas also shares safety best practices with peer gas utilities and best in class companies in other industries.*

### ***Emergency Preparedness & Response***

*SoCalGas maintains readiness to promptly respond to emergency incidents and events through an Incident Command System that incorporates response planning, training and equipping of personnel and coordination with first responders and external stakeholders.*

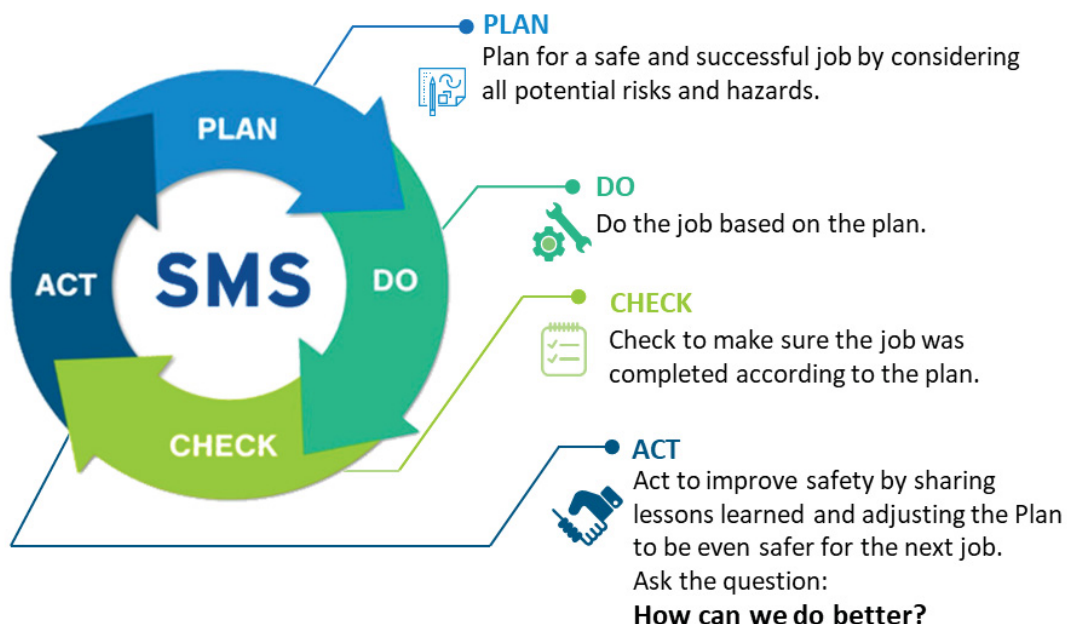
## 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

### *Competence, Awareness & Training*

*SoCalGas is committed to providing employees the proper tools, resources, training, and oversight to promote safe operations. This includes training tailored to specific roles and educating employees on why our training, policies, and procedures are important to safety.*

### Plan, Do, Check, Act (PDCA) Methodology:

Plan, Do, Check, Act is the method how individuals and teams can put the SMS framework into action. Employees can apply PDCA to every aspect of work.



### Risk Impact Categories

All employees must consider applicable risk factors involved when making decisions and performing work. Job-specific risk factors and mitigation guidelines can be found in applicable departmental gas standards.

The following are a list of general risk categories to consider. This list is not all inclusive and is meant to provide general guidance related to understanding risk.





## 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

- **Health, Safety & Environmental** – Risk(s) that endanger workplace or public safety and or creates long term, medium term, or short-term negative impact(s) to the surrounding environment.
- **Operational and Reliability** – Risk(s) that cause disruption to company operations that could impact customers; may be measured in quantity of impacted customers, critical locations, loss of energy flows, and/or duration.
- **Financial** – Risk of potential financial loss, including disallowance, legal actions or fines, replacement energy, remediation, damage to 3rd party properties, etc.
- **Regulatory, Legal & Compliance** – Risk of diminishing relationship and increased scrutiny by regulators or government agencies; ongoing media coverage that forces outreach to policy makers/regulators; increasing stakeholder revolt or objections leading to increased oversight; loss of license, exclusivity, or monopoly.

Additional detail on risk factors can be found in the [Sempra Energy Utilities Risk Management Guide](#).

### 3. OBJECTIVES

- a. Outline stakeholder roles and responsibilities
- b. Identify risk factors and describe how stakeholder roles affect the safety of the Company’s business operations
- c. Outline processes for stakeholders to raise concerns and make recommendations for improvements in risk identification, prevention and mitigation
- d. Define key metrics to measure and ensure the effectiveness of the Stakeholder Engagement Plan

### 4. 2020 ENGAGEMENT GOAL

The 2020 milestone goal for engagement is “awareness”. By YE2020, all SoCalGas internal stakeholders and pipeline construction contractors should have a general understanding of SoCalGas Safety Values and SMS framework, understand why SMS is important, and understand how SMS applies to employee and contractor work activities and company operations.



## 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

The table below outlines the major areas of focus that drive SMS awareness for 2020.

Awareness Track	Supporting Efforts
<b>SMS Awareness for Management Employees</b>	<ul style="list-style-type: none"> <li>Department Presentations</li> <li>Open Forum Webinars</li> <li>Outreach with Value Champions</li> </ul>
<b>SMS Awareness for Represented Employees</b>	<ul style="list-style-type: none"> <li>SMS video overview for use by Managers/Supervisors</li> <li>Provide Train the Trainer sessions for frontline Supervisors</li> <li>Self-guided eLearning on LMS</li> </ul>
<b>Safety Values Awareness</b>	<ul style="list-style-type: none"> <li>Safety Values Videos (1 video for each Safety Value)</li> <li>Posters, Digi board, Info to Go promotions/links</li> <li>SMS Badge Cards, Desk tents, SMS Decal</li> </ul>
<b>SMS Plan Awareness</b>	<ul style="list-style-type: none"> <li>Letter from Jimmie to all employees providing access to the SMS Plan</li> <li>Link SMS Plan in Document Library/SMS SharePoint</li> <li>Virtual Townhall to provide awareness of SMS</li> </ul>
<b>Self-guided learning videos on LMS</b>	<ul style="list-style-type: none"> <li>30min SMS Video general awareness</li> <li>Plan, Do, Check, Act (PDCA) methodology</li> <li>Management of Change</li> </ul>
<b>SMS SharePoint Site</b>	<ul style="list-style-type: none"> <li>Open employee access for all SMS organizational resources including safety reporting platforms</li> <li>Links to SMS Plan and other pertinent documents</li> </ul>
<b>Pipeline Construction Contractors</b>	<ul style="list-style-type: none"> <li>Open employee access for all SMS organizational resources including safety reporting platforms</li> <li>Links to SMS Plan and other pertinent documents</li> </ul>
<b>Regulatory Agencies</b>	<ul style="list-style-type: none"> <li>Share SMS journey and progress made with CPUC (Gas Safety Plan, SMS Plan)</li> </ul>
<b>Peer Companies</b>	<ul style="list-style-type: none"> <li>Share SMS journey and best practices with American Gas Association, Western Energy Institute, American Petroleum Institute member companies</li> </ul>



## 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

### 5. EXTERNAL ENGAGEMENT:

#### a) Public Awareness Plan

Pipeline safety communication with external stakeholders is primarily managed through the “Public Awareness Plan – PA1.

**The primary objectives of the plan are to:**

- Enhance public safety through increased public awareness and knowledge;
- Reduce third party damage to pipeline facilities; and,
- Provide better understanding of pipeline emergency response.

**These objectives are achieved by educating the public on:**

- The existence and purpose of pipelines;
- Use of a one-call notification system prior to excavation and other damage prevention activities.
- Possible hazards associated with unintended releases from a pipeline facility.
- Physical indications that such a release may have occurred.
- Steps that should be taken for public safety in the event of a pipeline release and procedures to report such an event.

The SoCalGas Public Awareness Plan document in its entirety can be found in the SoCalGas document library at <http://doclib.sempra.com/socalgas/default.aspx>.

#### b) Capital Projects Outreach

SoCalGas also engages with the public through Capital Projects Outreach (CPO). The CPO organization provides proactive and transparent, two-way communications with affected stakeholders to help foster public confidence and increase awareness about the investments the company is making to provide safe, reliable and affordable natural gas service to customers. The goal is to manage expectations and reinforce SoCalGas’ commitment to safety during planned construction projects and maintenance activities.

Additional information can be found in the [CPO Guidelines](#) and the [Capital Projects Outreach SharePoint](#).

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### c) External Website and Social Media

The external website (currently [socalgas.com](http://socalgas.com)) includes publicly accessible documents as well as safety information for customers and the general public. SoCalGas also uses available social media platforms to promote safety messaging.

### d) Pipeline Contractors

- **Annual:** SoCalGas hosts an annual Contractor Safety Congress where our primary construction contractors gather to share knowledge and best practices regarding safety management and incident evaluation.
- **Quarterly:** SoCalGas meets quarterly with our primary pipeline contractors to provide them updates on operational requirements and safety standards, including the SoCalGas SMS.
- **Ongoing:** SoCalGas engages in ongoing communications with primary pipeline contractors, keeping them up to date and engaged with progress and requirements of the SoCalGas SMS.

**Contractor Safety** guidelines for contractors and employees are defined in the [Contractor Safety Manual](#) and the [Contractor Safety Standard](#) respectively.

### e) Regulatory Bodies:

Regulatory agencies who oversee various safety areas, such as pipeline safety, employee safety, and public safety include the California Public Utilities Commission (CPUC), Federal Energy Regulatory Commission (FERC), Department of Transportation (DOT)/ Pipeline and Hazardous Materials Safety Administration (PHMSA), California Geological Energy Management Division (CalGEM) and California Occupational Health & Safety Administration (CalOSHA).

SoCalGas engages with these regulatory agencies through the following internal departments:

- Regulatory Affairs: CPUC, FERC
- Pipeline Safety & Compliance: CPUC, PHMSA, DOT
- Safety Management: Cal OSHA, DOT
- Integrity Management & Strategic Planning: CalGEM

### f) First Responders and Public Officials:

SoCalGas maintains liaison with emergency first responders such as local fire departments, police departments and other public officials through Field Services organizations, Regional Public Affairs, Corporate Security, and Emergency Management organization.



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Internal policy for engagement with first responders and appropriate public officials is outlined in the Contact with [Fire and Police Departments and Public Agencies Gas Standard 183.0030](#). The policy is being driven by DOT Regulation CFR 192.615(c), California Public Utilities Commission Code 956.5 and API 1162 First Edition, December 2003.

### 6. INTERNAL ENGAGEMENT

#### Communications Plan

SoCalGas has established an internal employee communications plan that describes communication methods and schedule. It includes the following objectives.

#### **Objectives:**

1. Increase awareness and alignment on essential elements of the SoCalGas Safety Management System (SMS).
2. Emphasize the guiding principle that *every* employee has a role to play in safety
3. Identify key stakeholders, key messages, communication channels, frequency, and responsible SoCalGas departments/personnel.
4. Communicate safety messages and information within the context of company values

#### **Key SMS Messaging**

- SoCalGas’s Safety Management System or SMS is built on seven Safety Values.
- SMS is **not** a new program; it is based on our values. It is a framework that puts all areas of safety under a unified structure and helps us to be more deliberate in measuring and improving safety performance.
- We have a dedicated Chief Safety Officer and an internal SMS organization responsible for driving our SMS framework.
- The Safety Values and the SMS framework helps us to be more deliberate and intentional about what we do.
- Open communication about safety concerns, risks, and lessons learned is encouraged and expected.
- SoCalGas is committed to operational excellence and the SMS framework is the next natural step in our journey.
- Employees have the authority to **Stop the Job** when conditions are unsafe. Stop the work, evaluate your conditions, take appropriate action to address the concern, then share lessons learned.
- **Plan, Do, Check, Act (PDCA)** is how individuals can apply SMS methodology to their regular work.



# 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

## 7. INTERNAL ROLES AND RESPONSIBILITIES

### Safety Management System (SMS) Organization

The SMS organization has primary oversight, responsibility and authority to implement the structure, requirements, processes, systems, and policies that drive SoCalGas’ SMS.

Each department in the SMS organization supports major areas of the SMS framework

- **SMS Strategy** develops company standards, engages with stakeholders, and drives SMS adoption and integration across the company.
- **Continuous Improvement** evaluates operational processes and makes recommendations based on the results of detailed data analytics, quality assessments and employee feedback.
- **Emergency Management** prepares the company to immediately respond to emergency incidents.
- **Pipeline Safety & Compliance** responds to inquiries from regulatory agencies regarding the safety and integrity of our pipeline system.
- **Safety Management** ensures adherence to state and federal requirements regarding the health and safety of employees and contractors.
- **Technology & Analytics** manages the software solutions, reporting platforms, and performance metrics related to SMS.

The table below outlines the major internal stakeholder ongoing engagement methods utilized by the SMS organization.

Engagement Method	Stakeholder Audience	Purpose	Frequency
<b>SMS General Overview</b>	All SoCalGas Employees	Live presentations to raise general awareness of the Safety Values and SMS framework.	As needed
<b>Regional Safety Congress</b>	SoCalGas Employees	Assemble internal safety leaders from across the company to increase awareness and share safety best practices.	Annual
<b>SMS Knowledge Refresher</b>	SMS Organization	Increase and aids in retaining knowledge of SMS framework, SMS organization and the Safety Values	Ongoing
<b>Electronic Version of the SoCalGas Safety Values</b>	All SoCalGas Employees	Visual reminder of the Safety Values distributed to internal stakeholders.	As needed
<b>SMS functional teams working sessions</b>	SMS Organization	Support the SMS team in connecting processes to the SMS framework and applying PDCA framework to existing processes	As needed



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<b>Safety Stand Down</b>	SMS Organization	Cover important safety topics and build organizational alignment on SMS	Monthly
<b>Internal Newsletter</b>	SMS Organization	Provides information on key metrics, organizational updates, best practices, and lessons learned	Monthly
<b>Safety Conference Calls</b>	SoCalGas Operational Leaders	Stakeholders share knowledge, make recommendations for improvement, identify potential risks as well as discuss prevention and mitigation measures.	Weekly
<b>SMS Mindset badge holder cards</b>	SoCalGas employees	A physical two-sided card that serves a reminder of the Safety Values and the PDCA process.	As needed
<b>SMS Value Champion Meetings</b>	SoCalGas internal subject matter experts	SoCalGas subject matter experts and leaders who support business functions discuss implementing, sustaining and improving the SoCalGas SMS	Ongoing
<b>SharePoint Intranet Site</b>	All SoCalGas Employees	Provides SMS-related information and resources for internal stakeholders	Ongoing

### SoCalGas Management

All levels of management have the authority, accountability, and responsibility to appropriately support, implement, and oversee elements of the SMS that are the direct responsibility of their organizations by demonstrating leadership commitment to SMS and enhancing safety performance. Also communicating to their organizations by setting the expectation about the importance of SMS and fostering responsibility to execute it.

Management Employees are also responsible for providing guidance, oversight, and coaching so that employees know and understand how their roles support SMS and impact the safe operation of the business. Management Employees must also promote a non-punitive culture encouraging employees to openly share ideas, concerns, and suggestions to continuously enhance our safety practices.

#### Example Scenarios:

- **With your team:** Begin team meetings with a Safety Moment (5-10minutes). Share a personal story of how you applied PDCA to a work-related task or process and encourage team members to do the same.
- **Among peers:** Share lessons learned and best practices across departments.
- **For employees:** Look for opportunities to recognize and reward employees/teams who demonstrate behaviors and habits in support of our Safety Values.

The table below describes primary engagement methods for Managers and Supervisors.



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Engagement Method	Purpose	How to utilize
<b>Safety Meetings</b>	Provides up to date information to employees and facilitates a forum for employees to ask questions, raise concerns, and provide suggestions.	<p>Safety meetings are to be conducted every 10 days for Field Construction employees, monthly for Field and non-construction employees who spend 50% or less of their time in the field.</p> <p>Supervisors should hold as many safety meetings as necessary to ensure employees are fully trained and understand how to perform their jobs safely, per <a href="#">IIPP.2 guidelines</a>.</p>
<b>Job Safety Observations</b>	<p>Job Observations help supervisors identify and measure safe and at-risk employee behaviors compared to established criteria.</p> <p><a href="#">Job Observation Scoring Criteria</a></p> <p><a href="#">Job Observation Info</a></p>	<p>Job safety observations should be performed as often as the supervisor deems necessary to be confident employees work in a safe manner.</p> <p>Supervisors must correct safety rule violations, at-risk behaviors, improper use of (or the absence of) required personal protective equipment (PPE), violations of good housekeeping practices etc. Further guidance can be found in <a href="#">IIPP.2</a>.</p>
<b>Defensive Driving</b>	FleetDefence AlertDriving® training is required (mandatory) for all “frequent” Company drivers. A frequent driver is an employee who drives a Company or personal vehicle as a requirement of their job, or who drives more than 3,000 business miles per year. Frequent drivers must complete the initial assessment and complete the monthly continuing training.	Supervisors are responsible for ensuring that employees are enrolled in the FleetDefence AlertDriving® program and that they complete the monthly supplemental trainings.
<b>Safety Information Management System (SIMS)</b>	Utilize the Safety Information Management System (SIMS) for reporting and managing all required information related to employee injuries, incidents and facility safety inspections.	<p>Online via the Safety intranet site.</p> <p><a href="http://safety.sempra.com/SIMSLanding.cfm">http://safety.sempra.com/SIMSLanding.cfm</a></p>
<b>Management of Change (MOC)</b>	Whenever a <b>technical, procedural, organizational, or operational</b> change occurs that has the potential to adversely impact the safety and reliability of the system.	<p>Employees are to report potential technical, organizational, or operational changes to their direct supervisor/manager prior to executing.</p> <ul style="list-style-type: none"> <li>• MOC must happen before a change is executed</li> </ul>





## 2020 SAFETY MANAGEMENT SYSTEM STAKEHOLDER ENGAGEMENT PLAN

		<ul style="list-style-type: none"> <li>• MOC must track and document the evolution of a change</li> <li>• All business units must process MOC the same way, using the same platform/tool.</li> <li>• Deviations must trigger MOC.</li> </ul>
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### Frontline Employees

SoCalGas employees have the responsibility to know to work safely when performing any job task and to **“Stop-The-Job”** when required. Employees are also responsible to identify and elevate errors and gaps in company operating procedures for resolution and lessons learned. SoCalGas expects employees to identify risks and elevate them to management pursuant to the Injury and Illness Prevention Program (IIPP).

Employee feedback, suggestions, and recommendations are necessary to mitigate risk and enhance safety through continuous improvement.

The table below outlines engagement methods and procedures applicable for employees. These methods and procedures also apply to all levels of management:

Engagement Method	Purpose	How to utilize
<b>Close Calls/Near Miss Reporting</b>	Report Close Calls/ Near Misses after an unplanned event that did not result in injury, illness, or damage — but had the potential to do so.	Online via the Safety intranet site: <a href="http://safety.sempra.com/Nearmiss_closecall_SCG.cfm">http://safety.sempra.com/Nearmiss_closecall_SCG.cfm</a>  Via paper form filled out and mail to SIMS admin  Refer to IIPP.4 for additional information

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<b>Stop the Job</b>	Stop the Job when employees encounter unsafe conditions, actions, or are unsure about a Gas Standard or how to correctly perform a job task that could potentially endanger themselves, employees, contractors, customers, the public, equipment, or facilities, every employee has the responsibility and authority to <b>immediately stop work.</b>	Report STJ occurrences to your direct supervisor/manager.  Supervisor capture online via the Safety Website: <a href="http://safety.sempra.com/StopTheJob_SCG.cfm">http://safety.sempra.com/StopTheJob_SCG.cfm</a>  Supervisor can also fill out a paper STJ form and mail to SIMS admin  Refer to IIPP.4 for additional information
<b>Safety Observation and Reporting (SOAR)</b>	SOAR is an online platform to report safety concerns and suggestions related to our <b>assets, data and policies.</b> Employees and contractors should submit safety observations when potential	Report safety observations and concerns to your direct supervisor/manager.  Online via GasLines, the SOAR Mobile App, or <a href="https://SOAR-SMS.com">https://SOAR-SMS.com</a>  Call the Safety Management System hotline at (213) 244-4156
<b>Management of Change (MOC)</b>	Whenever a <b>technical, procedural, organizational, or operational</b> change occurs that has the potential to adversely impact the safety and reliability of the system.	Employees must report potential technical, organizational, or operational changes to your direct supervisor/manager prior to executing. Your supervisor/manager will determine whether a formal MOC process is necessary.  Further guidance can be found in the SoCalGas Management of Change (MOC) Plan.
<b>SMS Badge Card</b>	The card is a visual reminder of the PDCA methodology and the Safety Values	Employees refer to the card as needed.
<b>Safety Moments</b>	Local Employees	Employees discuss safety-related topics.
<b>Safety Meetings</b>	Local Employees	Local meeting to build alignment and share knowledge on safety best practices.

### **8. SMS INTERNAL STAKEHOLDER ENGAGEMENT METRICS:**

The reduction/increase of safety incidents is the primary measure of SMS performance. The following supplementary key performance indicators and metrics will be used to measure effectiveness of our engagement with internal stakeholders.



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1. Utilization metrics of safety reporting platforms i.e., Stop the Job, Close Call Reporting, and Safety Observation and Reporting (SOAR).
2. Utilization metrics of the Management of Change (eMOC) platform and process.
3. Results from SMS Knowledge refreshers and internal surveys.

### 9. DEFINITIONS

**Stakeholder:** The SoCalGas SMS defines “stakeholder” or “stakeholders” as: A person or Organization (internal or external) who participates in and/or benefits from the processes established to implement and execute a successful SMS.

#### 4.1 Internal Stakeholder

All SoCalGas Employees including Employee Contractors (EC) are considered Internal SMS Stakeholders.

#### 4.2 External Stakeholder:

External stakeholders include Customers, Contractors, Regulatory Bodies, First Responders, and Representatives of the public.

**Risk:** The potential for the occurrence of an event that would be desirable to avoid; often expressed in terms of a combination of various outcomes of an adverse event and their associated probabilities. Defined in the [Sempra Energy Utilities Risk Management Guide](#).

**Pipeline System:** The physical infrastructure of in-service gas-delivering materials, parts, and/or equipment operated and maintained by SoCalGas.