



2020 GAS SAFETY PLAN



MARCH 15, 2020



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March 15, 2020

Mr. Fred Hanes, Senior Utilities Engineer
Risk Assessment and Safety Advisory Section, Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue, 2nd Floor
San Francisco, CA 94102

Re: SoCalGas 2020 Gas Safety Plan

Dear Mr. Hanes:

SoCalGas is pleased to submit our 2020 Gas Safety Plan. The Safety Plan summarizes our overarching strategy and approach to safety and affirms SoCalGas' commitment to the safety of our system, customers, employees, contractors, and the communities we serve.

At SoCalGas, safety is a core value and is at the foundation of everything we do. This commitment to safety is embedded in our culture and dedicated employees who safely operate the gas system and serve over twenty-one million consumers in southern California.

SoCalGas' safety culture fosters a work environment where employees at all levels, across work locations and departments are empowered to continuously improve the safety of how we operate. Just as important, our culture and practices encourage employees to raise safety concerns and "stop the job" if someone is uncomfortable with a situation. Very simply, our employees take pride in their work and ownership for safety.

While a strong safety culture exists today, SoCalGas is committed to continuously enhancing the maturity of our culture. To that end, SoCalGas created a dedicated safety management system (SMS) organization that goes beyond pipeline safety and is based on our 7 Safety Values. Our adoption and implementation of SMS is reflected in the Safety Plan.

Per the CPUC's direction, updates to the Gas Safety Plan since the previous submission in 2019 are summarized in the table attached to this letter. Should you have any questions, please contact Troy A. Bauer at (909) 376-7208 or TBauer@semprautilities.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Jimmie I. Cho".

Jimmie I. Cho
Chief Operating Officer

The table below summarizes the portions of the 2020 Gas Safety Plan that are new or have changed, and are included with this submission:

Chapter	New or Changed Element
Chapter 1- Introduction	<ul style="list-style-type: none"> • Added Safety Management System section • Updated Review Cycle Table
Chapter 2 -Senior Management Team Commitment to Safety	<ul style="list-style-type: none"> • Updated Chapter
Chapter 3 - Plan Development & Implementation	<ul style="list-style-type: none"> • Updated Employee Safety Plan Contribution Process section • Updated External Stakeholder Safety Plan Contribution Process section • Updated Contractor Engagement section
Chapter 4 –Safety Systems	<ul style="list-style-type: none"> • Added Facilities Integrity Management Program (FIMP) section • Removed Safety Management System (SMS) section (now in chapter 1) • Updated Transmission Integrity Management Program section (TIMP)
Chapter 5 – Emergency Response	<ul style="list-style-type: none"> • No changes
Chapter 6 –State and Federal Regulations	<ul style="list-style-type: none"> • Updated Regulatory Oversight section • Updated Compliance with General Order 112-F section
Chapter 7 – Continuing Operations	<ul style="list-style-type: none"> • Removed Safety is a Core Value section (Safety Values are now added to Chapter 2) • Removed Patrol Inspections section • Updated Safe and Reliable Storage and Transportation section
Chapter 8 – Emerging Issues	<ul style="list-style-type: none"> • Updated All sections in Chapter
Appendix - Safety Policy Documents	<ul style="list-style-type: none"> • Updated Appendix

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I. INTRODUCTION

1 PUBLIC UTILITIES CODE SECTIONS 956.5, 961, 963, AND CPUC DECISION 12-04-010

California Senate Bill 705 was signed into law on October 7, 2011 and codified as California Public Utilities Code sections 961 and 963. Section 961 requires that each gas corporation in California develop a plan for the safe and reliable operation of its gas pipeline facility and requires that the California Public Utilities Commission (Commission) accept, modify, or reject the plan by year-end 2012. Section 963, among other things, establishes that it is the policy of the State that the Commission and each gas corporation place safety of the public and gas corporation employees as the top priority.

On April 19, 2012, the Commission approved Decision (D.)12-04-010, which amended the scope of the Commission's Pipeline Safety Rulemaking (R.11-02-019) to include complying with the requirements of Public Utilities Code sections 961 and 963. The Commission directed each of the State's gas corporations to submit a proposed natural gas system operator safety plan (Gas Safety Plan), with documentation of the workforce comment process described in the decision, by June 29, 2012.

In addition to Public Utilities Code sections 961 and 963, this Gas Safety Plan addresses the requirements of Assembly Bill 56, chaptered on October 7, 2011, which codified Public Utilities Code section 956.5. Section 956.5 requires operators to review, at least once each calendar year, emergency contingency plans with local fire departments having jurisdiction over the area where intrastate transmission and distribution lines are located.

2 PURPOSE

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." D.12-04-010 at 19. The gas system operator safety plans are to convey the "Executive Officer's" safety performance expectations, policy principles, and goals/objectives for a gas utility's safety performance.

SoCalGas has designed its Gas Safety Plan to satisfy each of these directives, and furthermore to implement "the policy of the state that the commission and each gas corporation place safety of the public and gas corporation employees as the top priority." Pub. Util. Code § 963. This Gas Safety Plan also addresses the implementation of a Safety Management System (SMS). SoCalGas' company-wide implementation of a comprehensive SMS framework furthers the existing strong safety culture.

3 GAS SAFETY PLAN STRUCTURE

This Gas Safety Plan conveys the safety performance expectations of SoCalGas' Senior

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Management Team and describes the SMS and all of the gas safety plans, programs, policies, standards, and procedures that are designed to achieve those expectations. In the hierarchy of SoCalGas documents that communicate its safety program, the Gas Safety Plan and the newly developed SMS Plan¹ are at the top.

Public Utilities Code Sections 961 and 963 require that the gas system operator safety plans establish how the utility will achieve certain specified goals, and the Commission has organized these goals into five overall categories: (1) safety systems, (2) emergency response, (3) state and federal regulations, (4) continuing operations, and (5) emerging issues. This Gas Safety Plan follows this organizational structure as outlined by the Commission and is divided into sections corresponding to these five categories, with each section representing a required Gas Safety Plan element or other significant element or aspect of the Gas Safety Plan. The requirements of section 956.5 are addressed within the category of emergency response.

SoCalGas has numerous existing safety programs, plans, and procedures in place that address specified infrastructure or areas of company activity. The intent of this Gas Safety Plan is not to duplicate these existing safety program components, but to provide an overarching safety strategy that will encompass all the plans, programs, and policies, and affirm SoCalGas' commitment to safety and to implementing SMS.

The Appendix to this Gas Safety Plan provides a listing of the safety program components discussed in the Plan.

4 SAFETY MANAGEMENT SYSTEM

The SoCalGas SMS is a framework designed to enhance SoCalGas' longstanding commitment to safety, which focuses on three primary areas: employee and contractor safety, customer and public safety, and the safety of the gas delivery system. This commitment to safety is embedded in what 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 providing safe and reliable service to our customers.

To further demonstrate our commitment, SoCalGas created a dedicated SMS organization reporting directly to the Chief Operating Officer and Chief Safety Officer depicted below in Figure 1.

¹ The SMS Plan is currently in draft form. SoCalGas expects to formally submit the SMS Plan as the Gas Safety Plan in 2021.

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Figure 1: SoCalGas' SMS Organization

The SMS organization is tasked with the explicit purpose of developing and implementing a comprehensive SMS that goes beyond pipeline safety and is based on our 7 Safety Values:

1. Leadership Commitment
2. Risk Management
3. Employee and Stakeholder Engagement
4. Competence, Awareness and Training
5. Emergency Preparedness and Response
6. Safety and Compliance Assurance
7. Continuous Improvement

These values are integrated into the PLAN-DO-CHECK-ACT model depicted below in Figure 2. Our SMS is about being more deliberate and intentional about what we have been doing and connecting the dots – it is the framework that connects everything we do. The Company’s goal is to continuously strengthen our safety culture by following the values of the SMS. To that end, SoCalGas is also formalizing (1) an internal Standard that clearly defines SoCalGas’ Safety Management System, and (2) SoCalGas’ first annual SMS Plan that assesses how SoCalGas is adhering to safety values, policies, and standards, and how it plans to continue to implement SMS going forward.



Figure 2: SoCalGas’s Integrated Plan-Do-Check-Act Model

SoCalGas’s journey of developing its SMS began more than a decade ago when it first implemented a management system related to safety and environmental compliance, the Environmental & Safety Compliance Management Program (ESCMP). ESCMP is conceptually based on the International Standards Organization (ISO) 14001 Environmental Management Systems standard and includes safety components that are unique to SoCalGas. SoCalGas’s integrity management programs are another form of SMS that were instituted to manage and enhance the integrity of our pipeline system.

These programs have been refined, improved, matured and are in place company wide. SoCalGas has leveraged this knowledge and experience to create its SMS to further enhance our safe operations, strengthen our safety culture, and improve our safety performance associated with employees, contractors, infrastructure assets, operations and activities.

5 PROGRAM REVIEW AND MODIFICATIONS

Public Utilities Code section 961 establishes that gas corporations shall periodically review and update their gas system operator safety plans. This Gas Safety Plan shall be reviewed at an annual frequency period not to exceed 15 months. The program owners must provide justification for any deviation from this review schedule.

All components of this Gas Safety Plan must be reviewed and updated per their scheduled review period listed in the following table:

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Document Type	Review Cycle
Gas Safety Plan (to be replaced by the SMS Plan in 2021)	Annually (not to exceed 15 months)
Gas Standards	At least every 5 years
TIMP SIMP O&M Control Room Management	At least annually
DIMP	At least every 5 years
Form Instructions	Every 5 years
Environmental	Every 5 years
Information Bulletins	At least annually

If changes are needed, they shall be made as soon as practicable through the Request to Publish process, and not deferred until the next scheduled review.

II. SENIOR MANAGEMENT TEAM COMMITMENT TO SAFETY

1 INTRODUCTION

At SoCalGas, the safety of our customers, employees/contractors, and communities is the foundation of our business and our fundamental core value. Our tradition of safety spans more than 150 years and is the basis for company programs, policies, procedures, guidelines and best practices.

SoCalGas is committed to having a culture where leadership sets the example and demonstrates safe behaviors expected of employees. SoCalGas' leadership team is committed to championing people, doing the right thing, shaping the future, and executing on operational excellence; for example, all executives are Occupational Safety and Health Administration (OSHA) -10 Hour certified and have received Incident Command Structure (ICS) 100, 200, and 700 certifications to manage and oversee incidents.

SoCalGas' safety-focused culture and supporting organizational structure enables the Company to be proactive and accountable in the safe delivery of natural gas and associated business operations. The Company continuously fosters a work environment where employees and contractors are encouraged to raise gas infrastructure, customer safety, and personal safety concerns and offer suggestions for improvement, as further described below.

2 GOALS AND OBJECTIVES

SoCalGas Leadership and all levels of management have the authority, accountability, and responsibility to appropriately support, implement, and oversee the elements of safety that are the direct responsibility of their organizations. This includes all aspects of safety relevant to SoCalGas' business, including employee safety, contractor safety, customer safety, and public safety. They demonstrate leadership commitment to enhancing safety performance by communicating to their organizations the importance of safety and fostering responsibility to enhance it.

3 SAFETY VALUES

SoCalGas has developed Safety Values and integrated them throughout our new SMS to improve and enhance safety through our people, policies, procedures and programs. Our focus is to make sure the values translates into and guides what employees do every day. It is a living set of policies and documents that embodies the Company's values.

1. Leadership Commitment

GAS SAFETY PLAN

SENIOR MANAGEMENT TEAM COMMITMENT TO SAFETY	SoCALGAS: SP.2-SC
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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, 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 as well as 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 Company policy. Each SoCalGas officer embraces and endorses the Company’s commitment to safety and supports the SMS. The following attestation reflects each Officer’s commitment and support of the SMS.



GAS SAFETY PLAN

SENIOR MANAGEMENT TEAM COMMITMENT TO SAFETY

SOCALGAS: SP.2-SC

DATED: March 15th, 2020

/s/ Bret Lane

Bret Lane
Chairman and Chief Executive Officer
(CEO)

/s/ Maryam Brown

Maryam Brown
President

/s/ Jimmie I. Cho

Jimmie I. Cho
Chief Operating Officer & Chief Safety Officer

/s/ David J. Barrett

David J. Barrett
Vice President and General Counsel

/s/ David L. Buczkowski

David L. Buczkowski
Vice President
Gas Distribution

/s/ Mia DeMontigny

Mia DeMontigny
Vice President, Chief Financial Officer,
Controller, Chief Accounting Officer and
Treasurer

/s/ Angelica Espinosa

Angelica Espinosa
Vice President
Chief Risk Officer

/s/ Paul M. Goldstein

Paul M. Goldstein
Vice President
Customer Services

/s/ Ben W. Gordon

Ben W. Gordon
Vice President
Technology Operations and Infrastructure
Management

/s/ Sandra K. Hrna

Sandra K. Hrna
Vice President
Human Resource, Diversity and
Inclusion

/s/ Jawaad Malik

Jawaad Malik
Vice President
Gas Acquisition

/s/ Eugene Mitchell

Eugene "Mitch" Mitchell
Vice President
Legislative and External Affairs

/s/ Neil Navin

Neil Navin
Vice President
Gas Transmission and Storage

/s/ Gina Orozco

Gina Orozco
Vice President
Gas Engineering and System Integrity

/s/ Rodger R. Schwecke

Rodger R. Schwecke
Senior Vice President
Gas Operations and Construction

/s/ Dan Skopec

Dan Skopec
Vice President
Regulatory Affairs

/s/ Sharon Tomkins

Sharon Tomkins
Vice President
Strategy and Engagement and Chief
Environmental Officer

/s/ Jeff Walker

Jeff Walker
Vice President
Customer Solutions

/s/ Cedric L. Williams

Cedric L. Williams
Vice President
Construction

/s/ Denita A. Willoughby

Denita A. Willoughby
Vice President
Supply Management and Logistics

/s/ Gillian Wright

Gillian Wright
Senior Vice President
Customer Services

III. PLAN DEVELOPMENT & IMPLEMENTATION

1 CALIFORNIA PUBLIC UTILITIES CODE § 961(e)

In D.12-04-010, the Commission identified the topic of workforce participation in plan development to meet the requirements of California Public Utilities Code section 961(e). This section requires that the gas safety plan achieve the following:

The commission and gas corporation shall provide opportunities for meaningful, substantial, and ongoing participation by the gas corporation workforce in the development and implementation of the plan, with the objective of developing an industry wide culture of safety that will minimize accidents, explosions, fires, and dangerous conditions for the protection of the public and the gas corporation workforce.

2 CPUC DIRECTIVES ON WORKFORCE PARTICIPATION

To comply with section 961(e) directives and General Order 112-F Subpart G Section 301, the Commission has explained that natural gas system operators need to take the following actions:

1. The operator must make its safety plan available to its workforce, and provide for comments and suggestions from the workforce;
2. Gas system operators shall retain a log of the comments and suggestions, including the disposition of the comment or suggestion, with a summary of the rationale for the disposition;
3. Gas system operators shall also inform their employees that any employee who perceives a breach of safety requirements may inform the Commission of the breach, and that the Commission will keep the identity of the employee confidential; and
4. Each gas operator shall provide its workforce with the address of the Director of the Commission's Consumer Protection and Enforcement Division and the designation "Safety Breach Notification from Gas System Operator Employee-Confidentiality Requested" to seek confidential treatment.

3 EMPLOYEE SAFETY PLAN CONTRIBUTION PROCESS

When it comes to safety, all SoCalGas employees are internal stakeholders. Communication begins with top management through our leadership commitment and cascades to all employee levels. Our 7 Safety Values that are the foundation of our SMS includes a specific value dedicated to employee and stakeholder engagement, which is critical in providing clarity to employees, so the policies, goals, objectives, and procedures of SMS are understood.

Employees play a critical role in SoCalGas' pipeline safety and have been an important contributor to developing this Gas Safety Plan. SoCalGas recognizes that employees raising

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concerns to management and making recommendations for pipeline safety are necessary for continuous improvement as it gathers regular and substantial safety-related input from its employees.

To promote a culture of trust and increase the likelihood of reporting known pipeline safety or occupational safety risks, the Company is committed to enabling its employees to participate in the continuous improvement of this Gas Safety Plan. The Gas Safety Plan is posted on the Company intranet site for easy access by all employees. The intranet site includes a summary of the plan content, a link to the document, hotline phone number and address for direct notification to the CPUC, and an electronic form for submitting pipeline and occupational safety risks and ideas for improvement. The purpose of the site is to provide employees a forum for reporting issues outside of the normal supervisor-reporting hierarchy. Employees can report anonymously if they desire.

Periodic broadcasts are made via Company communication channels to remind employees of the site's availability and the importance of reporting known issues and improvement ideas. The importance of reporting pipeline and occupational safety risks is included in employee training course materials.

SoCalGas expects employees to identify risks and elevate them to management pursuant to the IIPP. Employee feedback, suggestions, and recommendations are necessary to mitigate risk and enhance safety through continuous improvement. This is accomplished through multiple platforms and processes to gather and analyze employee safety feedback. These include:

- Regularly scheduled meetings with employees to gather input and ensure we are addressing issues or concerns related to our commitment to safety.
- Regular employee safety council meetings, including executive safety councils.
- Annual Safety Congresses across the Regions.
- Submission of suggestions via written notification, online, or by phone. Utilizing the online platform Safety Observation and Reporting (SOAR), employees are able to submit a safety suggestion as it relates to the safety of our systems and processes.

When a suggestion is received, it is assigned to the advisor who reviews the submittal and assigns the suggestion to the appropriate department for thorough evaluation and resolution. SoCalGas takes the receipt of input very seriously and acts with a sense of urgency in the investigation of all input received. The target timeframe for initially reviewing and assigning a suggestion is as soon as possible and no longer than 5 business days. During evaluations, employees are often contacted for additional clarification and to determine the appropriate follow-up actions. This follow-up may simply include discussions with the employee who submitted the input to explain how the Company is currently meeting or exceeding the objective of their suggestion. The follow-up could also entail the re-training of field personnel or the revision of training materials, best practices and/or gas standards.

SoCalGas strives to determine disposition of all evaluations as quickly as possible;

however, the ultimate goal is to complete a thorough evaluation, which means that an issue might not find closure for several weeks as enhancements are planned and implemented. The basis for accepting or rejecting a suggestion is the extent to which the suggestion improves the safety of our system and processes, which assists meeting all regulatory requirements and industry best practices while maintaining optimal operating efficiencies for our customers. Employees will be periodically reminded and encouraged through various communication channels to submit their input through this process to support the company's goal in capturing all ideas and suggestions related to pipeline safety.

The online Gas Safety Plan is available to all employees and is reviewed and updated periodically.

4 EXTERNAL STAKEHOLDER SAFETY PLAN CONTRIBUTION PROCESS

SoCalGas manages engagement with external stakeholders primarily through its Public Awareness Plan. The goal of the Public Awareness Plan is to enhance public safety and property protection through improved public awareness and to comply with Federal Regulations 49 CFR 192.616 and 196.12. SoCalGas supports a more informed public who will contribute to a reduction in pipeline emergencies and releases. The plan has executive sponsorship, who endorses and provides the necessary resources to achieve its goals and objectives.

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; and
- Steps that should be taken for public safety in the event of a pipeline release and procedures to report such an event.

The only key external stakeholders that are not fully covered by the plan are the regulatory agencies who oversee SoCalGas in various safety areas, such as pipeline safety, employee safety, and public safety. These include the CPUC, Department of Transportation (DOT)/ Pipeline and Hazardous Materials Safety Administration (PHMSA), Cal OSHA, Environmental Protection Agency (EPA), and Air Quality Management District (AQMD). SoCalGas engages with these regulatory agencies through its regulatory affairs group, pipeline safety and compliance group, safety group and environmental group.

The plan follows the general guidance provided in the American Petroleum Institute

PLAN DEVELOPMENT & IMPLEMENTATION	SoCALGAS: SP.3-SC
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Recommended Practice (API RP) 1162 - Public Awareness Programs for Pipeline Operators. Specifically, the plan identifies the audiences to be considered for targeted communications, the frequency of messages, the messages to be delivered to each audience, and the methods and vehicles for delivering the messages. Furthermore, SoCalGas has specific measures to evaluate the effectiveness of our program and materials. It identifies communications for sharing pipeline safety risk information with those residing near the pipelines and defines a mechanism whereby the public can report pipeline safety risk issues to SoCalGas. It includes:

- Customers and Public
- Contractors
- City/County/Municipal Officials
- First Responders/Emergency Officials
- State or Federal Regulatory Agencies
- Damage Prevention Program (8-1-1)

Contractor Engagement

An important element of our new SMS stakeholder engagement is including feedback from contractors who have direct knowledge of operations and supporting activities. Contractors' input is highly valued and is critical to supporting continuous improvement, which is done through the following platforms:

- SOAR
- Gold Shovel Standard
- ISNetworld (ISN)
- Veriforce
- Contractor Safety Manual
- Capital Project Outreach
- Quarterly Contractor Meetings
- Annual Contractor Safety Congress

IV. SAFETY SYSTEMS

1 SAFETY SYSTEMS AND CALIFORNIA PUBLIC UTILITIES CODE §§ 961(d)(1) and (d)(2)

In D-12-04-010, the Commission identified the topic of safety systems to meet the requirements in California Public Utilities Code sections 961 (d)(1) and (d)(2). These sections require that the gas safety plan achieve the following:

- “Identify and minimize hazards and systemic risks in order to minimize accidents, explosions, fires, and dangerous conditions, and protect the public and gas corporation workforce.” § 961(d)(1).
- “Identify the safety-related systems that will be deployed to minimize hazards, including adequate documentation of the commission-regulated gas pipeline facility history and capability.” § 961(d)(2).

SoCalGas has a number of plans and programs that identify and minimize hazards and systemic risks in the pipeline infrastructure and promote public safety and property protection. These plans and programs are an integral part of our SMS.

- Transmission Integrity Management Program (TIMP)
- Distribution Integrity Management Program (DIMP)
- Storage Integrity Management Program (SIMP)
- Facilities Integrity Management Program (FIMP)
- Operation and Maintenance Plan
- Pipeline Safety Enhancement Plan (PSEP)

Pipeline integrity risk evaluations are designed to improve pipeline safety performance and are conducted per the schedule listed in the TIMP, DIMP, and SIMP programs. Included in these risk assessments are lessons learned from internal and external gas pipeline incidents. Risk assessments are reviewed at least annually, and updated as warranted, using data and information gained from operations and maintenance, inspection and testing, integrity-related work, and incident investigations. SIMP was established to mitigate safety-related risks associated with underground gas storage by implementing a storage integrity program – modeled after TIMP and DIMP – to enhance and validate well integrity using enhanced risk management activities, processes, and procedures. In addition, SoCalGas implemented its Pipeline Safety Enhancement Plan (PSEP) to address transmission infrastructure.

Company-wide, risk to operations related to loss of experienced and knowledgeable employees is managed through resource allocation and may be supported by our Knowledge Management programs which work with local management to develop succession planning for critical job functions.

Each of these programs are subject to continuous improvement efforts and changes are made

when warranted to further protect the public and SoCalGas workforce.

2 TRANSMISSION INTEGRITY MANAGEMENT PROGRAM

The Transmission Integrity Management Program (TIMP) is an ongoing program that was developed in accordance with the requirements of the Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration (PHMSA), specifically Subpart O – “Gas Transmission Pipeline Integrity Management” of Part 192 of Title 49 of the Code of Federal Regulations.

The TIMP written plan describes how SoCalGas complies with the requirements of 49 C.F.R. pt. 192, subpart O. The written plan outlines the approach to implementing the requirements of the Rule and the referenced industry standards, including the API RP 1173, ASME B31.8S and NACE SP0502-2008. The document includes a description of each required program element and identifies or references the procedures and processes for completing those requirements. The TIMP written plan has sixteen chapters that are the policy documents for compliance with the gas transmission pipeline integrity requirements.

DOT-covered segments risk evaluations are designed to improve pipeline safety performance and are conducted per the schedule in the TIMP risk assessment requirements.

The TIMP is designed to provide assessments and integrity improvements on transmission pipelines by outlining responsible parties, timelines for each process element, incorporating lessons learned, and a best practices methodology. Processes are aimed at identifying threats through data gathering and routine testing, assessing materials integrity, and determining remediation, preventive and mitigation steps for those threats.

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 management 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 capable of assessing an identified threat and appropriate, it is SoCalGas’ preferred assessment method. These evaluations address the efficiency of the systems in place to maintain the safe operation of the transmission pipeline, including corrosion control and damage prevention programs. PHMSA’s final rule amending 49 C.F.R. 191 and 192 (“Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments”) will take effect on July 1, 2020 and SoCalGas will enhance the TIMP accordingly.

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

The TIMP written plan is reviewed each calendar year as part of the continuous improvement process, with modifications made as necessary.

3 DISTRIBUTION INTEGRITY MANAGEMENT PROGRAM

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

SoCalGas' DIMP focuses on potential threats 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’ written DIMP plan has eight chapters and requires the integration of data from many sources for analysis and subsequent action based upon that analysis.

The DIMP includes certain activities SoCalGas performs, and it requires the continuous development of a more formal and structured approach toward the Company's traditional core regulatory pipeline integrity-related obligations.

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

SoCalGas’ DIMP is reviewed, at minimum, every five calendar years as part of the periodic improvement process, with modifications being made whenever necessary.

4 STORAGE INTEGRITY MANAGEMENT PROGRAM

The Storage Integrity Management Program (SIMP) was established to mitigate safety-related risks and validate and enhance well integrity using enhanced risk management activities, processes, and procedures. SIMP activities consists of threat identification, well assessment, well remediation, mitigation development and records maintenance. Since its initial development, many 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 Interim Final Rule (IFR) as defined in 49 CFR 192 subpart A.

The SIMP written plan identifies potential threats and hazards to well and reservoir integrity; assesses risks based on potential severity and estimated likelihood of occurrence of each threat; identifies the preventive and monitoring processes employed to mitigate the risk associated with each threat; and specifies a process for periodic review and reassessment of the risk assessment and prevention protocols.

The SIMP written plan is divided into chapters, with each chapter representing a required element or other significant function of the SIMP. The SIMP written plan calls for storage assets to be

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generally addressed in four categories: (1) Wells, (2) Reservoir, (3) Surface Assets, and (4) Laterals (where applicable). The SIMP written plan focuses on storage wells (and includes other wells that penetrate the storage reservoir), reservoir, and fluid management for the functional integrity of design, construction, operation, modification, maintenance, monitoring, and documentation practices.

Storage design, construction, operation, and maintenance includes activities in risk management, site security, safety, emergency preparedness, and procedural documentation and training to embed human and organizational competence in the management of storage facilities.

SIMP is designed to address Federal and State regulatory standards as well as applicable industry standards set forth for underground natural gas storage.

SoCalGas will evaluate and update (as needed) the SIMP written plan at a frequency not to exceed three (3) years in response to changing conditions or new regulatory requirements.

5 FACILITIES INTEGRITY MANAGEMENT PROGRAM

The Facilities Integrity Management Program (FIMP) is a program based on principles developed by the Canadian Energy Pipeline Association (CEPA) and the Pipeline Research Council International (PRCI). SoCalGas is currently in the preliminary stages of organizing and modeling this program. It is not intended to duplicate any systems, processes, or information that may already exist; rather, it is intended to supplement the already existing programs (e.g., SIMP, TIMP, and DIMP) to enhance the safety and integrity of an integrated gas pipeline system. FIMP is a documented program, specific to the facilities portion of a pipeline system, which will establish additional activities and performance indicators in support of SoCalGas' safety systems.

6 OPERATION AND MAINTENANCE PLAN

SoCalGas' Operation and Maintenance (O&M) plan is a compendium of over 150 policies that meet the requirements 49 C.F.R. § 192.605 "Procedural manual for operations, maintenance, and emergencies." This O&M plan includes policies that address:

- Operating, maintaining, and repairing the pipeline and its components;
- Controlling corrosion;
- Availability of construction records, maps, and operating history;
- Start up and shut down of the pipeline;
- Maintenance and operation of compressor stations;
- Review of procedures to determine effectiveness and adequacy;
- Safety procedures for excavation; and
- Control room management.

The O&M plan is reviewed annually to verify that the included policies and procedures remain in compliance with the requirements of the relevant sections of Title 49 of the Code of Federal Regulations. The included policies and procedures are updated throughout the year in response to new information or regulations, technology, or other items that drive improvement.

Individual documents referenced by the O&M plan undergo full functional reviews at least every five years. Training programs are reviewed in the same timeframe as associated gas standards, so employees are aware of and perform tasks according to the current requirements. To help employees remain knowledgeable of critical policies and procedures, including those related to safety, SoCalGas provides annual review training for all operating employees.

The documents referenced by the O&M plan identify and prescribe activities whose purpose is to minimize pipeline systemic risks and document its history through meeting and documenting code/regulation compliance, ensuring system safety and operational excellence, and minimizing the potential for and consequences associated with unplanned events such as equipment failure or operator error.

7 PIPELINE SAFETY ENHANCEMENT PLAN

SoCalGas submitted its Pipeline Safety Enhancement Plan (PSEP) with the Commission in August of 2011 in response to the Commission's directive that all gas corporations subject to the Commission's jurisdiction develop and implement a plan to replace or pressure test all transmission pipelines that have not been tested to modern standards. The Commission also required that gas corporations include in their safety enhancement plans proposals for automating shutoff valves.

The PSEP's key elements include:

- A two-phased approach and prioritization process for the pressure testing or replacement of transmission pipeline segments that were not tested to modern standards.
- Criteria for determining whether to pressure test or replace pipeline segments.
- A proposal for enhancing SoCalGas' valve infrastructure. This proposal includes installing additional remote control and automated shutoff valves and installing supporting equipment and system features on transmission pipelines.

All testing, replacement, valve work and other infrastructure activities completed as part of the PSEP shall be completed in accordance with this Gas Safety Plan.

PSEP also offers proposals to enhance the pipeline system beyond measures required by the Commission through retrofitting pipelines with existing and emerging technologies to provide advance warning of potential pipeline failure and decrease the time to identify, investigate, prevent, remedy or manage the effects of such an event.

V. EMERGENCY RESPONSE

1 EMERGENCY RESPONSE AND CALIFORNIA PUBLIC UTILITIES CODE §§ 961(d)(5), (d)(6) and (d)(8)

In D.12-04-010, the Commission identified the topic of emergency response to meet the requirements of California Public Utilities Code section 961 (d)(5), (d)(6) and (d)(8). These sections require that the Gas Safety Plan achieve the following:

- “Provide for appropriate and effective system controls, with respect to both equipment and personnel procedures, to limit the damage from accidents, explosions, fires, and dangerous conditions.” § 961(d)(5).
- “Provide timely response to customer and employee reports of leaks and other hazardous conditions and emergency events, including disconnection, reconnection, and pilot-lighting procedures.” § 961(d)(6).
- “Prepare for, or minimize damage from, and respond to, earthquakes and other major events.” § 961(d)(8).

In response to the Safety and Enforcement Division’s inquiry into options to implement Public Utilities Code section §956.5, SoCalGas has included section §956.5 as a requirement of the Gas Safety Plan:

- “Owners and operators of intrastate transmission and distribution lines, at least once each calendar year, shall meet with each local fire department having fire suppression responsibilities in the area where those lines are located to discuss and review contingency plans for emergencies involving the intrastate transmission and distribution lines within the jurisdiction of the local fire department.” § 956.5.

SoCalGas has several programs, policies, standards and procedures in place so that the Company and its employees are prepared to respond to emergencies. These activities are intended to limit damage from accidents and provide timely response to customer and employee reports of leaks, hazardous conditions, and emergency events such as earthquakes.

2 THE GAS EMERGENCY MANAGEMENT PREPAREDNESS AND RESPONSE POLICY

Gas Emergency Management Preparedness and Response Policy (ER.1) documents how SoCalGas aligns with the emergency response requirements specified by SMS and complies with the Public Utilities Code sections 961(d)(5), (6) and (8), as well as the emergency response procedures required by 49 C.F.R. § 192.615. This plan covers the following emergency response elements:

- SoCalGas’ Emergency Response Organization, including positions and responsibilities of the Emergency Operations Centers identification of response resources and interfaces,

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- including local emergency responders;
- Emergency preparedness/Exercises;
 - Business Resumption Planning;
 - Mutual assistance; and
 - Policy maintenance.

The policy incorporates by reference SoCalGas procedures and documents that collectively comply with the various requirements of 49 C.F.R. § 192.615, including:

- The responsibility of customer contact centers, which receive customer reports of emergencies and leaks;
- The responsibility of dispatch offices, which act as the central point for receiving and recording information on reportable incidents, emergencies, and natural disasters affecting the Company, and which also process internal gas incident notifications;
- The Emergency Incident Tracking System used to record reports of damage to SoCalGas pipelines or facilities and to log, track, and notify field personnel and others within the Company about emergency situations; and
- Establishing and maintaining liaison with appropriate First Responders.

The Gas Emergency Management Preparedness and Response Policy is designed to provide for the safety of customers, employees and communities and the protection of property in the event of a major emergency related to gas pipeline operations safety, health, and environmental protection processes.

SoCalGas prepares and maintains written plans and standards that address emergency or disaster situations, including earthquake response. As part of these plans and standards, employees are trained and equipped to respond promptly; direct their actions toward protecting people first and then property; maintain gas service to customers where possible; and restore the affected pipeline system and Company operations to normal status following an emergency or disaster.

These plans and standards may include written gas-handling plans, alternative gas handling plans and various considerations when performing gas handling/pressure control, including the operation of critical valves, control equipment and instrumentation. Employees are to adhere to these plans and standards when performing these duties and to take precautions to prevent outages, over-pressurization, errors in mapping or planning and other safety concerns. Employees performing specified tasks must be trained on the policies and procedures to complete their duties safely. Business Resumption plans address continuity planning to ensure organizational stability in the event of a major business disruption so that critical functions can continue during and after a disaster with minimal disruption.

Incident Response

SoCalGas' emergency management organization is modeled after the Federal Emergency Management Agency (FEMA) Incident Command System (ICS), which allows for a multi-level emergency response organization. The Incident Command System is a nationally recognized standardized approach to incident management that provides responders an integrated organizational structure that matches the complexities and demands of the incident and can

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expand or contract to meet incident needs. This integrated structure outlines communication standards for inter-functional (e.g., Transmission, Distribution) and inter-agency (e.g., fire, police, emergency officials) cooperation during an emergency incident and responsibilities within the Company to facilitate a unified command recognition and use of Unified Command/Incident Command Structure.

SoCalGas has two levels of emergency management support:

- Field response for isolated local emergencies or incidents (e.g., third-party dig-ins) managed with district/area resources.
- Regional Emergency Operations Centers (EOC) support larger emergencies and significant events (e.g., earthquakes, mudslides, wild fires) that may involve a large number of customers across regions or an event that may require the coordination and communication with multiple internal and/or external organizations (e.g., fire, police, etc.), including mutual assistance.

Plans for routine emergencies differ from a major emergency in that Company personnel respond to and address the incident with limited interaction with other first responder agencies. The Company responds immediately to all emergencies. Non-emergency conditions that may be potentially hazardous are evaluated based upon the information reported to the Company. Response times of less than four hours, less than fourteen hours, and same day have been established for these non-emergency conditions.

Training

SoCalGas conducts regular emergency preparedness drills and exercises to promote employee proficiency in emergency assignments and to validate the effectiveness of its emergency plans. These exercises may include external agencies and cover a wide range of emergencies, including threats to employee, public, and pipeline safety. The effectiveness of the response is evaluated following these emergency exercises via an after-action report or improvement plans where lessons learned are identified and corrective actions are taken, which may include plan or process revisions, training and drills, including involvement of external agencies and organizations and lessons learned and improvement process.

Additionally, SoCalGas emergency responders are required to complete FEMA training consistent with their assigned responsibilities. This training may include Incident Command System and/or “First Responder” training for field management personnel that may respond to emergencies.

Communication and Stakeholder Outreach

SoCalGas conducts a robust outreach program with first responders on a routine basis. Staff, in conjunction with regional public affairs, conducts outreach to meet 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 or observers.

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SoCalGas' service territory encompasses twelve counties, each with designated emergency County Coordinators. On an annual basis, a representative from Emergency Management or a delegate will meet with each County Coordinator to discuss pipeline safety and awareness.

SoCalGas maintains a public awareness program to inform and educate customers, affected public, pertinent public officials, and persons engaged in excavation-related activities about the prevention and recognition of gas pipeline emergencies. This program also includes the process for reporting an incident to SoCalGas and the appropriate public officials including first responders.

Mutual Assistance Support

Mutual assistance is an essential part of a utility restoration process and contingency planning. Mutual assistance agreements (MAAs) and other types of arrangements to provide assistance before, during, and after an emergency event facilitate the rapid mobilization of personnel, equipment, and supplies. Participation in MAAs is seen as an important component of the federal National Incident Management System (NIMS), which is intended to provide a systematic approach to guide governments at all levels, non-governmental organizations, and the private sector in collaborative emergency preparedness and response activities.¹ The mutual assistance network is a cornerstone of a utility's operations during emergencies.

The Company maintains an agreement for mutual assistance with various non-profit organizations, utilities and certain municipalities such as the California Utilities Emergency Association (CUEA), Western Regional Mutual Aid Group (WRMAG) and the American Gas Association (AGA).

These Agreements cover the rights and obligations of those who respond to requests for assistance, as well as guidelines concerning control of the work of personnel involved in the response.

A requesting utility having a major emergency and in need of the Company's assistance may make a request for assistance. Emergency Management will facilitate and coordinate the activation of mutual assistance with the approval of the Executive Officer On-Call, Incident Commander, the Chief Operations Officer, and/or an authorized Officer of the Company. The Emergency Management department maintains checklists and other documents for requesting and responding to requests for mutual assistance.

The individual procedures, policies and programs associated with this chapter are listed in the Appendix.

The appropriate level of leadership participates in and reviews the scheduling and findings of emergency preparedness activities.

¹ U.S. Dept. of Homeland Security. National Incident Management System (December 2008).

VI. STATE AND FEDERAL REGULATIONS

1 STATE AND FEDERAL REGULATIONS AND CALIFORNIA PUBLIC UTILITIES CODE §§ 961(c), (d)(7), and (d)(9)

In D.12-04-010, the Commission identified the topic of State and federal regulations to meet the requirements California Public Utilities Code 961(c), (d)(7) and (d)(9). These sections require that the Gas Safety Plan achieve the following:

- “The plan developed, approved, and implemented pursuant to subdivision (b) shall be consistent with best practices in the gas industry and with federal pipeline safety statutes as set forth in Chapter 601 (commencing with Section 60101) of Subtitle VIII of Title 49 of the United States Code and the regulations adopted by the United States Department of Transportation pursuant to those statutes.” § 961(c).
- “Include appropriate protocols for determining maximum allowable operating pressures on relevant pipeline segments, including all necessary documentation affecting the calculation of maximum allowable operating pressures.” § 961(d)(7).
- “Meet or exceed the minimum standards for safe design, construction, installation, operation, and maintenance of gas transmission and distribution facilities prescribed by regulations issued by the United States Department of Transportation in Part 192 (commencing with Section 192.1) of Title 49 of the Code of Federal Regulations.” § 961(d)(9).

This chapter describes how SoCalGas complies with these directives.

2 REGULATORY OVERSIGHT

SoCalGas’ transmission and distribution pipelines and facilities are operated and maintained primarily pursuant to PHMSA regulations at the federal level, and Commission regulations and requirements at the state level. The Commission is a state partner of PHMSA and is certified by PHMSA for the intrastate regulatory, inspection, and enforcement responsibilities of the transportation of natural gas.

The State of California’s rules governing the design, construction, testing, operation, and maintenance of gas transmission and distribution piping systems are specified in the Commission’s General Order 112-F.²

Title 49 of the Code of Federal Regulations (49 CFR), Parts 191, 192, 193, and 199, which govern the design, construction, testing, operation, and maintenance of Gas Piping Systems are

² On June 25, 2015, the California Public Utilities Commission issued the Final Decision Adopting GO 112-F which replaced GO 112-E. GO 112-F sought to clarify and extend existing regulations and cover gaps in federal regulations. It went into effect on January 1, 2017.

incorporated into the Commission's General Order 112-F.

This Gas Safety Plan and related documents shall remain consistent with industry best practice, General Order 112-F, and the applicable Parts of Title 49 of the Code of Federal Regulations.

SoCalGas' gas standards, including O&M procedures, are developed to comply with federal and State pipeline safety regulations. To meet new laws, rules, and regulations, the Pipeline Safety and Compliance department is designated to monitor and track changes to legislation and regulatory requirements. When new regulations are adopted, the department coordinates the implementation of new requirements and documents them so that policies, standards, practices, and training materials are updated, as appropriate.

SoCalGas stays current with regulations and requirements by monitoring legislative and regulatory activities and participating in industry associations, such as the American Gas Association (AGA). As an example, some of the past and current activities SoCalGas has initiated from its participation in industry organizations can be seen in Figures A and B, at the end of this chapter.

The Company also updates procedures, standards and audit programs and keeps required documentation (e.g., leak survey records, patrols, cathodic protection reads, meter and regulation inspection forms, test data, and other documents) for a specified time period to demonstrate compliance.

SoCalGas will continue these activities to comply with all regulations and requirements.

3 COMPLIANCE WITH GENERAL ORDER 112-F

In accordance with General Order 112-F and, by incorporation, 49 CFR Part 192, SoCalGas has implemented and follows policies, procedures and programs that govern the design, construction, testing, installation, operation, maintenance and determination of maximum allowable operating pressure for gas transmission and distribution facilities. These policies, procedures and programs are updated in a timely manner as appropriate in response to changes in regulation, safety advisories, and other safety information.

The individual procedures, policies and programs associated with this Section are listed in the Appendix.

These policies, procedures and programs have been developed to comply with the code requirements and are summarized as follows:

- 3.1 Design: 49 CFR Part 192, Subparts B, C, and D specify the minimum requirements for the material selection and design of pipe and pipeline components. SoCalGas' transmission and distribution pipelines and facilities are designed with approved materials that have sufficient wall thickness and/or adequate protection to withstand anticipated external pressures and loads that will be imposed on the pipe after installation. The pipelines and facilities are also designed with materials of sufficient strength to contain internal pressures plus appropriate design and/or safety factors. Components, including valves, flanges, and fittings meet the minimum prescribed requirements specified in the regulations. The design also includes

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pressure relief or other protective devices to prevent accidental over-pressurization as further described in the maintenance section. SoCalGas implements defined procurement processes that facilitate materials traceability.

- 3.2 Construction: 49 CFR Part 192, Subparts E, F, G and J specify the minimum requirements for the construction and testing of transmission and distribution facilities, including the welding and joining of pipe and components as well as the protection of pipe and facilities from hazards such as unstable soil, landslides, and other hazards that may cause the pipe to move or sustain abnormal loads. SoCalGas' transmission and distribution pipelines and facilities are to be constructed in accordance with these requirements.

- 3.3 Installation: 49 CFR Part 192, Subpart H specifies the minimum requirements for the installation of distribution service lines, service regulators, and customer meters. These requirements include specifications pertaining to the location of this infrastructure, protection from damage, and valve requirements. SoCalGas' service lines, service regulators, and customer meters are to be installed in accordance with these requirements.

- 3.4 Maintenance: 49 CFR Part 192, Subparts M and I specify the minimum requirements for the maintenance of transmission and distribution pipe facilities along with the associated corrosion protection facilities. Maintenance activities include the patrolling of pipeline, performing leakage surveys, monitoring performance of corrosion protection systems, making repairs, inspection and testing of pressure limiting and regulating equipment, and valve and vault inspection and upkeep. SoCalGas maintains its pipelines and facilities in accordance with these requirements.

- 3.5 Operations: 49 CFR Part 192, Subparts L and K specify the minimum requirements for the operation of transmission and distribution pipeline facilities. Operational activities are included in the O&M plan described in Chapter 4 and included the Emergency Response Plan described in Chapter 5 of this Gas Safety Plan. The operation of the pipeline also includes requirements for a public awareness program, damage prevention program, control room management procedures, odorization of gas, identification of changes in population density along certain transmission lines, and the determination of maximum allowable operating pressure, including requirements for increasing the maximum allowable operating pressure.

Industry Participation

The following is a non-exhaustive list of industry groups in which SoCalGas participates:

- American Gas Association
- American National Standards Institute
- The American Petroleum Institute
- The American Society of Mechanical Engineers technical committees (B31Q, B31.8, B31)
- California Regional Common Ground Alliance
- California Utilities Emergency Association
- Common Ground Alliance
- Dig Alert (Southern California one-call)
- The Gas Technology Institute

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- Inter-Utility Coordination Committee
- Inter-Utility Working group
- National Association of Corrosion engineers
- NYSEARCH – National Gas RD&D
- USA North (Northern California and Nevada one-call)
- Pipeline Research Council International
- Pipeline SMS
- The Western Energy Institute

Figure A

Figure A identifies activities that SoCalGas is in the process of implementing as a result of its participation in industry groups including the American Gas Association (AGA).

Current Activities	
Industry Actions	Implementation Type & Responsible Organization
Develop technology to electronically track leak survey routes and map the location of found leaks with spatial coordinates and link other data such as level of leakage found.	In progress Gas Operations - Policies Tools & Strategies
Implement a system that links geographic information systems (GIS) with locate and mark data from KorTerra (a ticket management software) to rank the highest risk Underground Service Alert (USA) tickets for prioritized routing and monitoring.	In progress Gas Operations - Policies Tools & Strategies
Remote methane sensing pilot program to use SoCalGas' Advanced Meter communications system to provide alarming and other notification when measured methane-in air-concentration levels exceed pre-set acceptable limits at a monitoring site.	In progress PSEP
Install fiber optic cabling on all new or replacement pipelines that are over a mile long, at least 12 inches in diameter and intended to operate at or above 20 percent of their specified minimum yield strength. Will allow for remote monitoring of leaks in real time and identification of non-native ground movements.	In progress Gas Engineering
Research and development project to evaluate the feasibility of using small unmanned aircraft systems (drones), to conduct various pipeline/facilities inspections and/or survey on difficult-to-access pipeline segments.	In progress Research and Materials Strategic Programs

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Figure B

Figure B identifies activities that SoCalGas has implemented as a result of its participation in industry groups, including the American Gas Association (AGA). Most of the activities are processes that have been initiated and implemented as a regular and routine element of SoCalGas’ operations. Activities noted as “adopted” have been incorporated as part of the normal course of business. The other activities are one-time events that were completed and are noted as “completed.”

Industry Actions	Implementation Type & Responsible Organization
Confirm the established MAOP of transmission pipelines.	Completed Pipeline Integrity
Review and revise as necessary established construction procedures to provide for appropriate (risk-based) oversight of contractor installed pipeline facilities.	Adopted Gas Operation Services
Under DIMP, evaluate risk associated with trenchless pipeline techniques and implement initiatives to mitigate risks.	Adopted Sewer Lateral Inspection Program Gas Operations Support
Under DIMP, identify distribution assets where increased leak surveys may be appropriate.	Adopted Pipeline Integrity
Integrate applicable provisions of AGA’s emergency response white paper and checklist into emergency response procedures.	Adopted Emergency Services
Extend Operator Qualification program to include tasks related to new main and service line construction.	Adopted Pipeline Safety & Compliance
Expand EFV installation beyond single family residential homes.	Adopted Pipeline Integrity
Incorporate an Incident Command System (ICS) type of structure into emergency response protocols.	Adopted Emergency Services
Extend transmission integrity management principles outside of HCAs using a risk-based approach.	Adopted Pipeline Integrity
Implement applicable portions of AGA’s technical guidance documents: 1) Oversight of new construction tasks to ensure quality; 2) Ways to improve engagement between operators and excavators.	Adopted Gas Operations Services
Begin risk-based evaluation on the use of ASVs, RCVs or equivalent technology on transmission block valves in	Adopted Gas Engineering
Implement appropriate meter set protection practices identified through the Best Practices Program.	Adopted Gas Infrastructure Protection Program (GIPP) Gas Operations Support
Upgrades for aging equipment used to locate underground pipelines and facilities have been purchased and deployed. The standardized training has been developed and completed.	Adopted Gas Operations Services

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Industry Actions	Implementation Type & Responsible Organization
Member of the Gold Shovel Standard and all Company Prime Contractors are enrolled therein.	<p style="color: blue;">Completed</p> Gas Operations Services
Utilize algorithms in SoCalGas' Advanced Meter program that detect subtle changes in consumption and leaks on the customer side of the meter. These algorithms also find water leaks from excessive consumption on water heaters.	<p style="color: blue;">Adopted</p> Advanced Meter

VII. CONTINUING OPERATIONS

1 CONTINUING OPERATIONS AND CALIFORNIA PUBLIC UTILITIES CODE § 963 (b)(3) and §§961 (d)(3), (d)(4), and (d)(10)

In D.12-04-010, the Commission identified the topic of continuing operations to meet the requirements in California Public Utilities sections 963 (b)(3) and 961 (d)(3), (d)(4), and (d)(10). These sections require that SoCalGas' Gas Safety Plan achieve the following:

- “It is the policy of the state that the commission and each gas corporation place safety of the public and gas corporation employees as the top priority. The commission shall take all reasonable and appropriate actions necessary to carry out the safety priority policy of this paragraph consistent with the principle of just and reasonable cost-based rates.” § 963(b)(3).
- “Provide adequate storage and transportation capacity to reliably and safely deliver gas to all customers consistent with rules authorized by the commission governing core and noncore reliability and curtailment, including provisions for expansion, replacement, preventive maintenance, and reactive maintenance and repair of its commission-regulated gas pipeline facility.” § 961(d)(3).
- “Provide for effective patrol and inspection of the commission-regulated gas pipeline facility to detect leaks and other compromised facility conditions and to effect timely repairs.” § 961(d)(4).
- “Ensure an adequately sized, qualified, and properly trained gas corporation workforce to carry out the plan.” § 961(d)(10).

2 SAFE AND RELIABLE STORAGE AND TRANSPORTATION

SoCalGas has designed its integrated gas transportation and storage system to meet design standards established by the Commission for core and noncore customer service. The SoCalGas gas system is designed to provide service to core customers during a 1-in-35-year peak day condition, under which noncore transportation service is curtailed.

The system is also designed to provide for continuous forecasted noncore transportation service under a 1-in-10-year cold day condition. SoCalGas utilizes detailed hydraulic models of the gas system to evaluate its capacity to meet these design standards and identify improvements as necessary. Both design standards are expected to occur during the winter operating season when core customers' gas usage is the greatest.

Information about transportation and storage capacities are available through the ENVOY electronic bulletin board. The ENVOY bulletin board is located at: <https://scgenvoy.sempra.com>.

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In accordance with SoCalGas’ policies, the Gas Transmission Planning and Region Engineering departments continuously monitor customer demand on SoCalGas’ transmission and distribution system using both actual customer service requests and our long-term demand forecast. Any changes in customer demand are evaluated against the appropriate CPUC-mandated design standards for service to ensure adequate capacity is available. Depending upon the customer class, SoCalGas has a variety of Commission-approved means to address any capacity deficiencies. When a deficiency is identified, possible solutions are considered, evaluated, and implemented according to SoCalGas rules and tariffs. For example, a facility improvement that is required to serve a single noncore customer and which provides no benefit to other customers is funded entirely by that customer.

Additionally, in D.06-09-039, the Commission established a common design standard for SoCalGas and Pacific Gas & Electric Company (PG&E) for “slack capacity,” or reserve margin, on their backbone transmission systems. Per this decision, the Gas Transmission Planning Department shall “plan and maintain intrastate natural gas backbone transmission systems sufficient to serve all system demand on an average day in a one-in-ten cold and dry-hydroelectric year.” D.06-09-039 at 184 (Ordering Paragraph No. 1).

SoCalGas shall expand storage capacity and operational capability (inventory, injection and withdrawal) in the event the SoCalGas/SDG&E core customer reliability is in jeopardy without such an expansion.

Finally, SoCalGas continuously monitors its system to meet current customer demand. Per SoCalGas Rule 41, Utility System Operation, the mission of the Utility Gas System Operator is to maintain system reliability and integrity. This rule provides information on the responsibilities performed to maintain system reliability by each of the SoCalGas departments that contribute to the System Operator function.

SoCalGas will continue to perform operating and maintenance activities and make capital investments to support the Company's pipeline system, maintain and enhance the operational efficiency and responsiveness of storage operations, and comply with applicable regulatory and environmental regulations.

3 SOCALGAS WORKFORCE SIZE, TRAINING AND QUALIFICATIONS

3.1.1 Workforce Size

SoCalGas takes into consideration multiple factors in determining appropriate staffing levels to preserve the safety and integrity of its gas delivery system. In connection with this process, SoCalGas addresses elements of a workforce planning mitigation plan through workforce planning, knowledge transfer, training and succession planning.

Annual baseline employee staffing levels are determined during the annual business planning process and contracts are maintained with qualified service providers to complete work and address variability in work demand throughout the year. As part of the planning process, local district management reviews its projected work and workforce to adequately fulfill safety, compliance, maintenance, and construction obligations. If local management cannot fulfill these obligations, they raise the need as part of the resource allocation and funding process. During the year, as resource

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vacancies occur or as work levels significantly change, local management reassesses the need for the workforce and submits a request to fill the vacancies or add to staff. Resource allocation decisions consider both employee levels and contractor availability.

Verification of appropriate staffing levels is determined by monitoring specified performance metrics and workloads. These performance metrics include meeting emergency response goals (A1 response within 30-45 minutes) and compliance with distribution pipeline leakage code response times consistent with Company policy. The performance metrics used are reviewed monthly by Senior Management. If SoCalGas falls below performance goals, appropriate resource adjustments would be made.

Employees in safety-sensitive positions are trained to handle emergencies. Employees are cross trained as needed in various assignments to perform a variety of duties that allow a flexible workforce to meet sudden changes in work demands. The Company assesses its workforce requirements on an ongoing basis (such as an annual planning exercise) to develop hiring and development plans and budgets to supplement or replenish the workforce as necessary to sustain the safety and integrity of its system.

The Company uses contractors, as necessary and in compliance with bargaining agreements, so that sufficient overall resources are deployed to address maintenance and construction. SoCalGas shall continue to require that contractor employees undergo training and meet specific compliance requirements to perform work on Company pipelines and facilities. Contractors shall be monitored to see that they perform their responsibilities consistent with Company standards and contract requirements.

3.1.2 Gas Operations Training

Safety is rooted in all phases of training provided by Gas Operations Training and Development. It starts with the formalized training that employees receive when they begin their career, emphasized on the job, and then re-emphasized during training they receive as they advance to new jobs.

Training courses are delivered to each function/classification in all field job progressions and vary from two to seven weeks for entry-level positions. Courses are taught utilizing various training methods and delivery by a centralized Gas Operations Training and Development team, with most of the instructors having gained practical experience on the job. These instructors convey consistent safety messages and confirm the understanding of the classroom training by observing employees perform in simulated field situations at SoCalGas' training complex in Pico Rivera.

Integrated in the training courses are the Operator Qualification tasks, as required by 49 CFR Part 192. The documentation for these qualifications and records are closely monitored and employees are re-trained, re-qualified or updated whenever significant changes occur in a task regulation or when they are required to re-qualify as prescribed by PHMSA.

Emergency response is covered within the training courses for classifications that have any activities or functions in this area. The classifications include Lead Construction

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Technician, Energy Technician Residential and Distribution, Construction Technician, Pipeline Technician, and Dispatch Specialist. Employees are required to annually review policies and procedures so that they understand emergency response guidelines and procedures, including when to contact Corporate Security to address certain threats.

SoCalGas has a training curriculum that tests employees' skills in identifying and repairing gas leaks and other real-life emergency situations through simulation exercises. These exercises are also included in first responder training. In addition, the Company implemented a technical skills training class to help employees new to management become more effective in addressing these situations as supervisors and managers.

As part of the Company's continuing education effort, a hands-on training course for supervisors on high-pressure gas pipeline work has been developed and is being taught to new supervisors.

SoCalGas participates in industry forums, validates that training activities are consistent with regulatory requirements, and identifies when new training opportunities exist.

Training course materials are updated on a regular basis. Root causes of safety incidents, findings and near miss investigations are a significant part of course discussion/instruction in order to sustain and improve overall employee, system, and public safety.

3.1.3 Qualification of Pipeline Personnel

All gas pipeline operators are required to have a written Operator Qualification program to establish compliance policies for the DOT Operator Qualification Program as required by Subpart N – “Qualification of Pipeline Personnel” of Part 192 of Title 49 of the Code of Federal Regulations to qualify employees and contractors performing DOT-covered tasks. The Company's Operator Qualification Program applies to all individuals who perform covered tasks, whether they are employed by the Company, a contractor, a sub-contractor or any other entity performing covered tasks on behalf of the Company. Such programs are reviewed by the Operator Qualification department prior to performing work on pipelines or pipeline facilities.

The Operator Qualification Program requires that employees are trained, initially qualified and subsequently re-qualified every one, three or five years depending on the task. SoCalGas' training frequency conforms to these requirements and the results of the evaluations are recorded -- demonstrating employees' knowledge of and skills and abilities in accordance with the job requirements, and that they are qualified to perform the required tasks. If employees don't pass, they are not allowed to perform that activity until they have been successfully re-trained and re-qualified. Essentially, any employee who performs a covered task -- ranging from meter readers to customer services field, distribution and transmission personnel -- must be qualified to perform Operator Qualification tasks.

The Operator Qualification Program also requires that contractors' knowledge, training and skills conform to the job requirements and that they are qualified to perform the

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required tasks. An external vendor, who is one of the nation’s leaders in regulatory compliance for Operator Qualification, has been retained to provide training, testing, Operator Qualification, and record retention for our pipeline contractors.

4 ANTI-DRUG AND ALCOHOL MISUSE PREVENTION PLAN

The purpose of the Anti-Drug and Alcohol Misuse Prevention Plan is to prevent accidents that could result from the use of controlled substances and misuse of alcohol, thereby reducing fatalities, injuries and property damage. The Company’s plan and policies are designed to comply with State and federal law.

If performing DOT-covered functions, employees undergo pre-employment drug and alcohol testing and are entered into the random drug testing program. Contractors are also required to have an Anti-Drug and Alcohol Misuse Prevention Program or work with a third-party to enforce the program in compliance with DOT regulations, specifically, 49 CFR Parts 40, 199 and/or 382. Contractors are required to ensure their employees have a negative pre-employment test on file before their first performance of safety-sensitive functions and are entered in their (the contractor’s) random testing pool.

VIII. EMERGING ISSUES

1 EMERGING ISSUES AND CALIFORNIA PUBLIC UTILITIES CODE § 961 (d)(11)

In D.12-04-010, the Commission identified the topic of emerging issues to meet the requirements California Public Utilities sections 961(d)(11). This section requires that the gas safety plan include the following:

- “Any additional matter that the commission determines should be included in the plan.”

2 SOCALGAS AND EMERGING ISSUES

SoCalGas stays current on emerging issues within the industry through active participation in industry associations and open communication with legislative and regulatory groups. Chapter 6 of this Gas Safety Plan identifies the on-going safety enhancement actions the industry has committed to and SoCalGas’ targeted date of implementation.

SoCalGas is continuing to address the emerging issues of the grandfathering of provisions in Title 49 of the Code of Federal Regulation (49 CFR) Part 192 and the installation of remote-controlled and automatic shutoff valves as part of its Pipeline Safety Enhancement Plan (PSEP) as discussed in Chapter 4 of this Gas Safety Plan. Similarly, SoCalGas is addressing the replacement of pipe, including polyethylene made with Aldyl-A resin, as part of its Distribution Integrity Management Program.

3 COLLABORATION WITH THE CALIFORNIA PUBLIC UTILITIES COMMISSION

SoCalGas shall continue to work in collaboration with the Commission and other regulatory authorities, and stay abreast of industry best practices, in order to address those emerging issues that pose hazards and are not yet covered by this Gas Safety Plan.

- Senate Bill 1371 “Natural Gas Leakage Abatement”
- CARB Oil and Gas Rule
- Risk Management
- Climate Change Adaptation and Resiliency
- Enhanced Use of Satellite and Aerial Monitoring for Damage Assessments
- New Fiber Optic System for Pipeline Damage Prevention and Leak Detection
- Renewable Gas Connections and Hydrogen Blending
- Material Traceability

Senate Bill 1371 “Natural Gas Leakage Abatement”

Senate Bill (SB) 1371 requires the adoption of rules and procedures to reduce methane emission from Commission-regulated natural gas pipeline facilities consistent with Public

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Utilities Code section 961(d) and 49 CFR section 192.703(c). SoCalGas' first Leak Abatement Compliance Plan and accompanying Advice Letter were approved in 2018 and the Plan, including 26 mandatory best practices, is being implemented at SoCalGas. SoCalGas is submitting its second Biennial Compliance Plan by March 15, 2020. Implementation of the activities for each best practice will begin after cost recovery is approved, with an expectation of implementation in 2021 – 2022.

SoCalGas is an industry leader in the development of new methods and use of new technologies that enable the Company to reduce natural gas emissions. Some of these include:

- Improving the accuracy of emissions estimations and reporting;
- Development of Company-specific emissions factors;
- Use of infrared cameras to check for leaks after new pipelines are installed;
- Special fiber optic cable that detects methane leaks and third-party damage to pipelines;
- Infrared “point” sensors that can detect leaks before they can be smelled by people;
- Use of aerial platforms such as helicopters and drones equipped with advanced emission detection technologies to spot emissions from above;
- Developing algorithms that use our Advanced Meter system to identify unusual levels of natural gas consumption that indicate a leak at customers’ homes or businesses; and
- Capturing natural gas released during pipeline replacement or safety maintenance and testing, allowing for gas to be saved for later use while eliminating emissions that would otherwise occur.

Since the Leak Abatement Program began, SoCalGas has reduced its methane emissions by over 9% and is committed to reach a 20% reduction by 2025. SoCalGas has repaired over 7,500 incremental non-hazardous leaks since beginning the Leak Abatement Program and will continue to reduce the leak inventory and leak repair timeframes.

CARB Oil and Gas Rule

The CARB Oil and Gas Rule final regulation approval by the Office of Administrative Law (OAL) was effective October 1, 2017 and the rule implementation became effective on January 1, 2018. Although this rule is environmentally focused, the requirements also have co-benefits to support safety. This regulation impacts SoCalGas operations at Transmission Compressor Stations and Underground Storage Fields. SoCalGas has implemented a quarterly leak detection and repair program, a continuous methane monitoring system for its active storage fields, and limited delay of repairs in deference to operational and safety related issues.

Risk Management

SoCalGas is committed to taking a risk-based decision-making approach to prioritizing our work and allocating our resources. SoCalGas has a comprehensive, rigorous, and iterative system to manage its business risks across the enterprise, which encompasses employee, contractor, customer, public, and infrastructure safety risks. SoCalGas has a dedicated organization, Enterprise Risk Management (ERM), whose role is to facilitate the identification, analysis,

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evaluation, and prioritization of risks. Effective risk management practices help to reinforce a strong and positive safety culture. SoCalGas has undertaken a thoughtful and measured approach to the adoption of risk management structures and processes at all levels to further the development of a risk-aware culture. The SMS Plan leverages this robust risk management system as a basis for focusing our SMS objectives to reduce or mitigate the risks identified by the risk management process. Further, to promote alignment and consistency between the ERM and SMS organizations, meetings are held to discuss the risk management and mitigation progress, SMS policies and framework, and the respective execution of these efforts. A prudent SMS will further integrate risk, safety, and asset management under one framework.

While the ERM organization develops and executes risk mitigation policies and procedures, the operating business organizations manage risks every day relating to our employees, contractors, the public, and our infrastructure. These include safety management programs that are mandated by federal and State occupational, health and safety, and pipeline safety laws and regulations. These programs are managed at the local level and are further described in this chapter. Notable examples of integrity risk management conducted at the programmatic level include TIMP, DIMP, SIMP, and FIMP, described above.

ERM works annually to refresh Risk Registries at the Enterprise level. The Enterprise Risk Registry is a starting point for the RAMP and feeds into the Company’s risk-informed decision-making framework processes. Additionally, SoCalGas leverages the operating unit risk registries to inform internal asset management strategies and integrity management to continue the integration of risk and asset management.

Climate Change Adaptation and Resiliency

Under the broad umbrella of risk management, SoCalGas is addressing certain risks that have emerged as industry-specific issues, such as climate change adaptation. SoCalGas is focused on safety initiatives to address climate change issues including drought, wildfires, and mudslides. SoCalGas is working with the California Energy Commission and the CPUC on climate change adaptation. SMS encourages operators to use the results of their risk assessments to continue to drive down the likelihood of asset-related safety incidents and events—this approach is being implemented as the risk management processes are matured and improved. The Company views climate change as a driver and/or trigger to some of the top-identified safety risks and the results of the maturation of risk management is being integrated into the SoCalGas and SDG&E RAMP and GRC filings. For example, to address the risk of climate change, the 2019 RAMP Report focuses on the drivers of climate change and the potential resulting impacts, which in turn yielded the adaptation assessment and mitigation efforts presented in the risk chapters of the 2019 RAMP Report. SoCalGas continues to conduct research to understand possible impacts to its system during extreme events such as the recent wildfires in California or the hurricanes and floods in other parts of the country to better identify vulnerabilities and opportunities to enhance resiliency for the natural gas infrastructure.

SoCalGas is exploring capabilities to utilize the Advanced Meter network to support emergency services during catastrophic events such as mudslides, wildfires, and earthquakes. During the

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recent wildfire and mudslide events in California, SoCalGas used meter response and meter throughput data to identify possible impacted areas. The Utility Emergency Response Team was able to use this information to partner with first responders to support search-and-rescue activities.

Enhanced Use of Satellite and Aerial Monitoring for Damage Assessments

The recent Thomas Fire that was followed by the intense rainstorm in the Montecito area, causing massive mud and debris flows, underscored the need to continuously enhance our tools to assess damage and focus our response after an emergency incident. SoCalGas uses its satellite monitoring program to provide before-and-after images of the area to help identify impacted infrastructure. Also, SoCalGas has been piloting new aerial drones that provide high definition imagery and methane detection to support damage assessments in these types of incidents. SoCalGas will be integrating the imagery and methane sensing from these new tools into the Geographic Information System (GIS) to support hydrology and other geohazard events.

New Fiber Optic System for Pipeline Damage Prevention and Leak Detection

SoCalGas recently completed installing its first fiber optic system to help prevent third party dig-ins by detecting vibration from encroachments. The system, installed in the San Joaquin Valley, also can detect leaks on the pipeline. Additional fiber assets used to support pipeline safety at creek crossing locations in Santa Barbara County have also been installed.

Senate Bill 840 (R.13-02-008) - Biomethane Injection into Common Carrier Gas Pipelines, Renewable Gas Connections and Hydrogen Blending

SoCalGas supports expanding its energy portfolio by increasing connections from renewable gas sources. SoCalGas has been an active and committed partner in advancing recent CPUC filings and legislative initiatives that allow biogas from various sources and within specific gas quality thresholds to connect to its Gas Infrastructure. SoCalGas is on the forefront of exploring various methods of introducing hydrogen blending into its gas system while maintaining public safety and customer reliability.

Material Traceability

SoCalGas has implemented an SAP-based material traceability system for tracking pipe, valves, fitting and equipment (PVFE) from the manufacturer to procurement, construction and project closeout and through retirement. The initial phase is focused on large-sized high pressure PVFE and will expand to include the relevant utility PVFE portfolio of materials. Material traceability focuses on record retention but also implements stage gates and business controls for the typical quality management aspects of material procurement and installation such as inspection, goods receipt and release, fabrication and performance testing, staging and reconciliation (i.e., return to inventory, scrap, or transfer). SoCalGas is also one of the first utilities in the nation to expand this effort to include material traceability on Complex Facilities (non-linear assets such as compressors, turbines, underground storage, wellheads, etc.) and their critical auxiliary components, as well as high pressure assets of other mediums (oil, water, glycol, etc.).



Work gets underway on laying fiber optic cable

Proposed Federal Pipeline Safety Regulations

As significant new pipeline safety regulations are being developed by the Pipeline and Hazardous Material Safety Administration (PHMSA), SoCalGas continues to provide input to assist in effective implementation and desired outcomes that affirms SoCalGas’ commitment to safety and implementing SMS. Examples of significant regulations on the horizon include:

- “Safety of Gas Transmission Pipelines: MAOP Reconfirmation, Expansion of Assessment Requirements, and Other Related Amendments”
 - PHMSA published its final rule in October 2019, and the amendments within address integrity management and other requirements focusing on the actions an operator must take to reconfirm the maximum allowable operating pressure of previously untested natural gas transmission pipelines and pipelines lacking certain material or operational records, the periodic assessment of pipelines in populated areas not designated as “high consequence areas,” the reporting of exceedances of maximum allowable operating pressure, the consideration of seismicity as a risk factor in integrity management, safety features on in-line inspection launchers and receivers, a 6-month grace period for 7-calendar-year integrity management reassessment intervals, and related recordkeeping provisions.

- “Safety of Gas Transmission Pipelines: Repair Criteria, Integrity Management Improvements, Cathodic Protection, Management of Change, and Other Related Amendments”
 - “This rulemaking will address the following proposals:
 - Repair criteria (HCA and non-HCA)
 - Inspections following extreme events

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- Safety features on ILI launchers and receivers
 - Management of change
 - Corrosion control
 - Integrity management clarifications
 - Strengthened assessment requirements”
- “Underground Storage Facilities for Natural Gas”
- PHMSA issued an interim final rule (IFR) in December 2016 that revised the Federal pipeline safety regulations to address critical safety issues related to downhole facilities, including wells, wellbore tubing, and casing, at underground natural gas storage facilities. In January 2020, PHMSA transmitted to the federal register a final rule regarding Underground Natural Gas Storage facilities (UNGSF). The final rule incorporates safety standards for several types of underground facilities and provide a minimum federal standard for inspection, enforcement, and training. These standards will directly apply to approximately 200 interstate facilities and serve as the minimum federal standard for approximately 200 intrastate facilities.
- The rule also clarifies the threshold for reportable changes and events which require PHMSA notification and revises the definition of an Underground Natural Gas Storage facility.
- PHMSA has transmitted this final rulemaking to the Office of the Federal Register for publication. The official publication of the rulemaking will likely be published by February 2020.

California Geologic Energy Management Division (CalGEM) Regulations

The State agency for regulating storage wells has transitioned from the Department of Oil, Gas, and Geothermal Resources (DOGGR) to the California Geologic Energy Management division as of January 1, 2020. CalGEM remains a division under the Department of Conservation.

The Department of Conservation enacted regulations detailing requirements for California underground natural gas storage projects which were approved by the Office of Administrative Law (OAL) on June 28, 2018 and became effective on October 1, 2018. This regulation establishes a comprehensive regulatory framework for Underground Gas Storage (UGS) projects, including standards, specifications, and requirements for well construction, mechanical integrity testing, risk management plans, emergency response plans, UGS project data, monitoring, inspection, and project decommissioning.

The Department of Conservation finalized new regulations to update Idle Well Regulations (Assembly Bill 2729) and Underground Injection Control (UIC) in February 2019. These new regulations were approved by the OAL on March 20, 2019 and became effective on April 1, 2019. The Idle Well regulations address regulatory provisions which include requirements related to plugging and abandonment, testing, remediation, and the securing of idle wells in public places as well as testing requirements for observation wells. The UIC regulations impact wells utilized for wastewater disposal, injection of water and steam for the purposes of producing oil and gas, and address regulatory

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provisions related to injection approvals, project data requirements, mechanical integrity testing of wells, monitoring requirements, prevention of surface expressions, and incident response.

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- 1.1. In Decision (D.)12-04-010, the Commission stated gas operator safety plans “may reference existing components or include Exhibits or Attachments that cross-reference to other existing utility documentation[.]” Id. at 19. SoCalGas has numerous existing safety programs, plans, and procedures in place that address specified infrastructure or areas of company activity. This Gas Safety Plan provides an overarching safety strategy that encompasses the plans, programs, and policies referenced in this document and affirm SoCalGas’ commitment to safety. The following matrix is a guide to the documents making up these plans, programs, and policies. Documents have been identified by their policy number and title and cross-referenced to the Gas Safety Plan chapter.

Policy Document – Safety Plan Matrix

Pipeline Safety Plan Chapter					
Policy	Title	4	5	6	7
01.010-I	Emergency Incidents/Local Instructions		X		
01.010-N	Emergency Incidents/Local Instructions		X		
01.010-OC	Emergency Incidents/Local Instructions		X		
01.010-P	Emergency Incidents/Local Instructions		X		
10.010-COM	BRP - Dispatch/ARSO		X		
10.020-COM	BRP - Customer Services, Distribution, and Meter & Regulation		X		
100.0152	Self-Audit Requirements - Gas Measurement (Distribution, Transmission & Storage)	X		X	X
104.0001	Environmental Training	X			
104.0017	Pipeline Liquids - Field Handling	X			
104.0030	Hazardous Waste Shipping		X		
104.0040	Hazardous Material Shipping		X		
104.0085	PCB Spill Clean-up and Decontamination		X		
104.0087	Crude Oil Contamination by PCB				X
104.0095	Hydrogen Sulfide Lead Acetate Tape Analyzer Maintenance				X
104.0150	Proposition 65 Compliance		X		X
104.02	Notification Requirements for Release/Spill Events		X		
104.0210	Industrial Waste Discharge to Sanitary Sewer				X
104.0220	Hydrostatic Test Water Management			X	X
104.06	Respiratory Protection Program	X		X	X
104.071	Draeger Pac® 7000 Personal Gas Monitor				X
106.0063	Fire Extinguishing Equipment				X
107.0004	Material Evaluation and Implementation	X			
107.0293	RMLD - Remote Methane Leak Detector				X
107.0296	Sensit G2 Multigas Detector and SMART-CAL Equipment Operations and Maintenance Procedures				X
107.0324	General Operating Instructions for the Metrotech® Model 480B Pipe and Cable Locator - "Split Box"	X			
140.04	Condition/Location of Meter Installations and Report of Inaccessible/Removed Meters	X		X	
142.0060	Service Policy				X
142.0065	Meter Set - Meter Turn-On	X		X	
142.0075	Closing Meters - Methods and Procedures	X		X	
142.01	Order Completion Schedule and Priority Scheduling	X	X	X	
142.0146	Fumigation Close and Back-On Orders				X
142.02	Leak Investigation - Customer Service	X		X	
142.0275	Back Flow Protection - Regulators and Check Valves			X	X
142.1189	Premise Access				X

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Pipeline Safety Plan Chapter					
Policy	Title	4	5	6	7
142.5660	Purging Gas Meters and Customer Housetines	X		X	X
151.0010	Environmental Inspections, Search Warrants, and Internal Notifications	X			
166.0015	Fire Prevention and Protection - Transmission and Storage	X		X	
166.0025	Prevention of Accidental Ignition of Natural Gas	X	X	X	
166.0032	Low-Voltage Electrical Safety Program				X
166.0055	Contractor Safety Observation Areas	X			X
166.0076	Working in Flammable Atmospheres	X		X	
166.0077	Confined Space Operations	X			
166.09	Heat Illness Prevention for Outdoor Work				X
167.0100	Operator Qualification Program	X		X	X
167.0125	Self-Audit Guidelines - Pipeline Integrity Program	X			
167.0200	Data Gathering and Integration	X	X	X	X
167.0203	Threat Identification	X			
167.0204	Risk Assessment of High Consequence Areas	X			
167.0207	TIMP Risk Algorithm	X			
167.0208	Baseline and Reassessment Plan	X			
167.0209	External Corrosion Direct Assessment Procedure	X			
167.0210	In-Line Inspection Procedure	X	X		
167.0211	Bellhole Inspection Requirements	X		X	X
167.0212	Casing Wax Fill	X		X	X
167.0214	Preventive and Mitigative Measures	X			X
167.0215	Continual Evaluation	X			X
167.0216	Stress Corrosion Cracking Direct Assessment Procedure	X			
167.0217	Supplemental Data Determination	X			
167.0218	Pipeline Cleaning Standard	X			
167.0220	In-Line Inspection Surveys Standard	X			
167.0224	Dry Gas - Internal Corrosion Direct Assessment	X			
167.0229	Internal Corrosion Management Plan	X		X	X
167.0230	Internal Corrosion Design and Construction Considerations	X		X	X
167.0232	Field Sampling and Analysis of Liquids and Solids/Sludge	X			
167.0233	Corrosion Coupon Installation and Removal	X		X	X
167.0235	Immediate Repair Conditions - Transmission Pipelines	X	X	X	X
167.0236	Scheduling Remediation	X			
167.0240	Assessment of Pipeline Integrity Using Guided Wave UT	X			
167.0245	Global Positioning System (GPS) Process	X			
167.0246	GPS Control Survey	X			
167.0247	Aboveground Survey Plan	X			X
167.0248	Alternating Current Attenuation Survey	X			X
167.0249	Close Interval Survey	X			X

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Pipeline Safety Plan Chapter					
Policy	Title	4	5	6	7
167.0250	Voltage Gradient Survey	X			
167.0251	Soil Resistivity Survey	X			
167.0252	Inspection of Cased Pipe	X			
167.0260	Fiber Optic Cable Installation for Pipeline Monitoring	X			X
167.04	Contractor Safety Program	X			X
167.15	Hot Work Permit Program	X			
167.30	Lead and Metals in Surface Coatings: Hazard Compliance Program		X		
180.0003	Material Specifications and Purchase Descriptions	X			
180.0005	Steel Pipe - Selection Requirements	X		X	X
180.0010	Steel Butt-Weld Fittings - Selection Guide	X		X	X
180.0015	Wedding Bands, Reinforcing Sleeves and Canopies - Selection Guide	X		X	X
180.0020	Flanges - Selection, Torque and Installation Requirements	X		X	X
180.0030	Branch Connection, Steel - Selection Guide	X		X	X
180.0035	Leak Repair Clamps and Sleeves - Selection Guide	X		X	
180.0040	Pressure Control Fittings - Selection Guide	X			X
180.0045	PE Reinforcing Sleeves - Selection Guide, Application and Installation	X		X	
180.005	Steel Pipe Yield, Design Properties and Design Pressure Tables	X			
180.0050	Control Piping			X	X
180.0085	Valve Usage and Selection Guide	X		X	X
180.0090	Valve Casing Assembly - Selection Guide				X
180.0100	Prefabricated Vaults - Design and Selection Guide	X		X	X
182.0010	Request for Pipeline Engineering Assistance	X		X	X
182.0020	Electrical Facilities in Hazardous Areas			X	X
182.0040	Changing Maximum Allowable Operating Pressure and Maximum Operating Pressure	X		X	X
182.005	Service Pipe and Excess Flow Valve Sizing				X
182.0050	MAOP Evaluation of Corroded Pipe	X		X	X
182.0052	Welding Inspector Operator Qualification	X		X	X
182.0055	Identification of Steel Pipe and Butt Weld Fittings	X		X	X
182.0060	Service Risers	X			
182.0070	Angles and Bends in Steel Piping			X	X
182.0080	Casing Assemblies - Steel Carrier Pipe	X		X	X
182.0085	Pipe End Closures				X
182.0087	Inspection of Pipeline Cable-Suspension Bridges	X		X	
182.0090	Designs for Pipelines in Bridges	X		X	X
182.0093	Wear Pads and Bands for Steel Gas Piping	X		X	X
182.0125	Steel Service Design - 60 psig or less				X
182.0130	Steel Service Design 61-1000 PSIG			X	X
182.0140	Casing Assemblies - Plastic Carrier Pipe	X		X	X

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Pipeline Safety Plan Chapter					
Policy	Title	4	5	6	7
182.0148	Casing Assemblies - Plastic Carrier Pipe	X		X	X
182.0150	Polyethylene (PE) Service Selection Guide	X		X	X
182.0160	Purging Pipelines and Components	X		X	
182.0161	PURGING OPERATIONS – MINIMUM DISTANCE BETWEEN PURGING-STACK AND IGNITION SOURCES	X		X	X
182.0162	Purging and Locking Service Risers	X		X	X
182.0165	Tap Requirements	X		X	X
182.0170	Strength Testing - High Pressure Pipelines and Facilities	X		X	X
182.0185	Pressure Terminology and Establishment of Pressure Levels for Piping	X		X	X
182.0190	Class Location - Determination and Changes	X		X	X
182.0200	Design Factors for Steel Piping Systems	X		X	X
183.0030	Contact with Fire and Police Departments and Public Agencies	X	X	X	
183.01	Shutdown Procedures and Isolation Area Establishment for Distribution Pipeline Facilities	X	X	X	X
183.0100	Emergency Incident Notifying	X	X		
183.0110	Field Procedure - Emergency Incidents Transmission	X	X	X	X
183.0120	Emergency Outage Procedure	X	X	X	
183.0130	Materials and Supplies for Emergency Situations	X	X	X	
183.0160	Dispatch Office - Message Center Reports	X	X	X	X
183.0165	Emergency Incident Reporting	X	X	X	
183.03	Field Guidelines - Emergency Incident Distribution / Customer Service	X	X	X	X
183.05	Message Center Reporting (MCR)	X	X	X	
183.06	Region Reports of Safety-Related Pipeline Conditions	X	X	X	X
183.07	Pipeline Incident Reports to CPUC and PHMSA; National Transportation Safety Board (NTSB) Accident Investigation	X	X		X
183.08	Pipeline Safety Reports and Notifications to CPUC and DOT	X	X	X	X
184.0015	Construction Planning for Mains and Supply Lines	X			
184.0016	Main Construction Project Routing	X			
184.0031	Pressure Monitoring of Distribution Systems	X		X	X
184.0035	Regulator Station Design and Planning			X	X
184.0050	General Construction Requirements for Distribution Mains			X	X
184.0055	Hand Backfill and Compaction Method			X	X
184.0060	General Construction Requirements for Distribution Service Lines	X		X	X
184.0075	Evaluation and Disposition of Inactive Services	X		X	
184.0080	Abandonment of Gas Services and Gas Light Tap Assemblies	X		X	X
184.0085	Abandonment or Inactivation of Gas Distribution Pipelines	X		X	X
184.0090	Valve Selection and Installation - Services			X	X
184.0095	Polyethylene (PE) Pipe and Fittings - General Installation Requirements	X		X	X

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Pipeline Safety Plan Chapter						
Policy	Title	4	5	6	7	
184.0100	Inserting PE Pipe - Service Replacement			X	X	
184.0105	Polyethylene (PE) Pipe Inserted – Main in Metal Casing			X	X	
184.011	Notification of Excavation and Construction Activities - Assembly Bill Number 1937/ PUC Code 955.5			X	X	
184.0110	Inserting PE Pipe - Service Riser Adapter			X	X	
184.0115	Tapping/ Stopping PE Fittings	X				
184.0120	Service Risers for Polyethylene (PE) Installations			X	X	
184.0121	Service Riser Integrity Observations and/or Inspection	X				
184.0123	Composite Coating Repair for Anodeless Risers	X				
184.0124	Coring for Mini Riser Vault (MRV) Installation	X				
184.0125	Tracer Wire Installation for Polyethylene (PE) Pipe Installations			X	X	
184.0130	Polyethylene Heater - Temperature Measurement and Adjustment	X			X	
184.0150	Leak Testing of Distribution Piping with MAOP <= 60 PSIG	X		X	X	
184.0170	Trenchless Construction Methods	X		X	X	
184.0175	Prevention of Damage to Subsurface Installations	X				
184.0200	Underground Service Alert and Temporary Marking	X		X		
184.0215	Annual Report of Leak Repairs on Federal Lands	X				
184.0225	Leak Repair Methods for Steel Distribution Pipelines	X				
184.0233	Mechanical Tapping Tee Inspection				X	
184.0235	Polyethylene (PE) Pipe Repair	X		X	X	
184.0240	Polyethylene (PE) Tapping Tee and Service Saddle Repair				X	
184.0245	Leak Investigation - Distribution		X		X	
184.0250	Halt Tool - Gas Emergency Leak Clamp		X			
184.0275	Inspection Schedule - Regulator Station, Power Generating Plant Regulation Equipment Requirements	X		X		
184.03	Replacement Criteria for Distribution Mains and Services	X		X		
184.0300	Squeezing and Reopening Mains and Services	X				
184.0335	Steel Pipe Squeezers 6" through 12"	X	X		X	
184.0340	Squeezing Polyethylene (PE) Pipe - 1/2" Through 8"	X				
184.0355	Pressure Control Machines - 2" Through 12"	X		X		
184.0360	Pressure Control - Fittings 2" and Under Pressure Limitations and Related Equipment	X		X		
184.0366	Pressure Control: Drilling Operations For DH-5 Drilling Machine	X		X		
184.0368	Pressure Control - TD Williamson Unit1200				X	
184.0370	Pressure Control: Drilling Operations For D-5 Drilling Machine	X		X		
184.04	Supply Line Identification and Records	X		X		
184.0405	Pressure Control - Stop Bottom Outlet Fittings	X		X		
184.0443	Pressure Control - 2", 3" and 4" Top Half Fitting				X	
184.0447	Handling and Storage of Polyethylene (PE) Material	X		X		
184.0450	Pressure Control - Completion Plugs 3/4" - 1-1/4"	X		X		

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184.0451	Pressure Control: Completion Machine H-17045	X		X	
184.0455	Pressure Control - DH-5 Machine 2" and 3" Insert/Extract	X		X	
184.0480	Pressure Control - Completion Plugs	X		X	
184.0575	Pressure Control: Stop Standard 2" Service Tee With D-5 Machine	X		X	
184.0585	Remove 1" Street EII from a Service Clamp - Install a 1" Threaded Both Ends (TBE) Nipple in Clamp	X		X	
184.0590	Pressure Control Qualification Requirements	X		X	
184.06	Gas-Handling and Pressure Control	X		X	
184.09	Prevention of Excavation Damage to Company Facilities	X		X	X
184.12	Inspection of Pipelines on Bridges and Spans	X		X	X
184.16	Valve Inspection and Maintenance - Distribution	X		X	X
184.17	Temporary LNG Facility	X			X
185.0001	Meter Locations	X		X	X
185.0005	Curb Meter Box - Installation Requirements				X
185.0007	Curb Meter Box Installation			X	X
185.0008	Meter Guard - Installation Requirements	X		X	X
185.0010	MSA Standard Designs and Selection Chart				X
185.02	Pressure Regulation - Residential and Commercial	X		X	X
185.0228	Meter Set Assembly Inspections	X		X	X
185.0287	Over-Pressure/Under-Pressure Protection - Maintenance, Installation and Settings	X		X	X
185.0300	MSA - Installing, Rebuilding and Inspections	X		X	X
185.0310	Inspection Schedules - Measurement and Regulation Equipment, PLC's, Recording Gauges, Vaults and Filters	X		X	X
185.0474	Control Microsystems SCADAPACK	X			
185.0559	Terms and Definitions				
185.0560	Pressure Regulation Overpressure Protection				X
186.0002	Design and Application of Cathodic Protection	X		X	X
186.0005	Cathodic Protection - Mixed Piping System	X		X	X
186.0015	Condition Assessment of Unprotected Distribution Steel Piping	X		X	
186.0035	Criteria for Cathodic Protection	X		X	X
186.0036	100mV Polarization Criteria	X		X	X
186.0040	Magnesium Anodes for Corrosion Control	X		X	X
186.005	Cathodic Protection - Instruments and Testing Equipment	X			
186.0052	Copper Sulfate Electrode	X			
186.006	Selection and Installation of Rectifiers and Impressed Current Anodes	X			X
186.0070	Insulating MSA's	X		X	
186.0075	Electrical Test Stations & Bond Assembly	X		X	X
186.0090	Corrosion Control of Underground Hazardous Substance Storage Tanks				X

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186.0100	Approved Protective Coatings for Below Ground Corrosion Control	X		X	X
186.0102	Field Application of Fusion Bonded Epoxy to Joints and Field Repair of Fusion Bonded Epoxy Coating	X		X	X
186.0103	External Surface Preparation and Field Applied Coatings for Buried Pipelines	X		X	X
186.0104	Surface Preparation and Coating for Above Ground Piping and Steel Components	X			X
186.0108	External Surface Preparation and Coating Application for Steel Tanks and Vessels (New & Refurbished)	X		X	
186.0109	Internal Coating of Tanks, Vessels, & Drip Legs	X		X	
186.0110	Field Tape Wrapping Requirements	X		X	X
186.0111	Field Application of Grease Coating	X		X	X
186.0117	External Surface Preparation and Shop-Applied Coating for High Corrosion Service Areas	X		X	X
186.0120	Interference - Stray Electrical Current	X		X	X
186.0121	Requirements for Installing Gas Pipelines in or adjacent to Sloping Terrain	X		X	X
186.0135	Operation and Maintenance of Cathodic Protection Facilities	X		X	X
186.0170	Record Keeping - Corrosion Control	X		X	X
186.0180	Cathodic Protection Test Orders - Monitoring Isolated Facilities	X		X	
186.0190	Induced High Voltage Alternating Current (HVAC) on Pipelines				X
186.02	Cathodic Protection - Inspection of Exposed Pipe	X		X	X
186.06	Cathodic Protection - Electrical Isolation	X		X	X
186.07	Hot Line Insulating Sleeves	X		X	
186.09	Cathodic Protection - Casings	X		X	X
186.224	Well Production Casing – Determination and Need for Cathodic Protection				X
186.225	Design and Application of Cathodic Protection – Well Production Casings				X
186.226	Determination of Effective Cathodic Protection on Well Production Casings				X
186.227	Well Production Casing Potential and Polarization Profiles				X
187.0050	Cutting into Gas Mains, MSAs and Abandoned Substructures - Safety Precautions	X			X
187.0055	General Welding Requirements	X		X	X
187.0056	Welding Field Guide	X		X	X
187.0103	Purging Pipelines Using Air Movers for Cold Tie Operations	X		X	X
187.0115	Fusion Requirements for Polyethylene Pipe	X			X
187.0120	Fusing Socket Connections - Polyethylene (PE) Pipe	X		X	X
187.0125	Electrofusion Process - General Instructions	X			X
187.0126	Magic Box - 2"-4"	X			X

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Policy	Title	4	5	6	7
187.0138	PE Saddle Fusions	X		X	X
187.0139	PE Fusion Card			X	X
187.0140	Transition Fittings	X			
187.0145	Value Installation and Valve Box Assemblies for Polyethylene			X	X
187.0146	Excess Flow Valve (EFV) - Installation and Operation	X		X	X
187.0155	Butt Fusing 2", 3" and 4" PE Pipe (Manual Machines)	X		X	X
187.0158	4", 6" and 8" Polyethylene (PE) Butt Fusion (Hydraulic Machines)	X		X	X
187.0170	Connect Copper Wire to Steel Pipe - Pin Brazing, Thermite Welding and Braze Welding Processes				X
187.0175	Inspection and Testing of Welds on Company Steel Piping	X		X	X
187.0180	Qualification and Re-Qualification of Welders	X		X	X
187.0181	Qualification of Personnel - Polyethylene Pipe Joiners	X		X	X
187.0200	Radiographic Examination API 1104			X	X
187.0210	Service-To-Main Connection (SMC)			X	X
188.0001	Standard Specification for Natural and Substitute Fuel Gases	X		X	
189.0001	Odorization	X		X	X
189.0002	ODORIZATION-YZ NJEX Odorant Injection System Maintenance				X
189.0010	Supplemental Odorization of Gas at Border Stations	X		X	
189.005	Operation of Odorometer				X
189.0056	Odor Conditioning of New Customer-Owned Pipelines - Size 4 Meter (AC630) and Larger				X
189.01	Odorization - Roles and Responsibilities				X
190	Operator Qualification Task Change Communication	X		X	
191.0025	Scoring of Construction Work Inspected	X		X	X
191.01	Investigation of Accidents and Pipeline Failures	X	X	X	X
191.0210	Qualification of New Construction Contractors	X			X
192.0010	Preparation of Construction Sketches	X			
192.0020	Preparation of Completion Sketch			X	
192.0025	GIS Maintenance Requirements for High Pressure Gas Lines	X			X
192.0026	Records Management for High Pressure Project Closeout	X			X
192.0030	Completion Drawing Set Requirements for High Pressure Pipelines	X			X
192.0100	Archiving of High-Pressure Records in PDMS	X			X
192.02	Procedure for HCA Segment Identification	X			
1957	Gas Stub Tag		X		
203.005	Self-Audit Guidelines - Distribution	X		X	
203.007	Pipeline Patrol and Unstable Earth Self Audit	X		X	
203.008	Pipelines on Bridges and Spans Self-Audit	X		X	
203.016	Leak Survey Self-Audit	X		X	
203.017	Valve Inspections and Maintenance Self-Audit	X		X	

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Policy	Title	4	5	6	7
2110	Management of Change for Gas Standards Related to Integrity Management Programs	X			
2111	Management of Change - Request & Approval	X			
2112	Pipeline Database Update	X			
2120	Pipeline Feature Data Collection	X			
223.0001	CPUC and PHMSA Notification of Major New and Upgraded Pipelines and Pressure Test Failures of Pipelines	X	X		
223.0002	Minimum Trench Requirements for Transmission Pipelines	X		X	X
223.0003	General Construction Requirements - Steel Transmission System			X	X
223.0030	Failure Analysis Process for Gas Systems	X		X	X
223.0031	Abnormal Operations - Transmission	X	X	X	
223.0032	Incident Evaluation Process on Gas Systems		X		X
223.0065	Pipeline Patrol and Unstable Earth Inspections	X		X	X
223.0075	Pipeline Markers	X		X	X
223.0095	External and Internal Transmission Pipeline Inspection	X		X	X
223.0100	Leakage Surveys	X		X	X
223.0103	Aerial Leakage Surveys	X		X	X
223.0104	Optical Methane Detector Operation and Maintenance				X
223.0106	Updating of Pipeline Patrol Maps	X		X	X
223.0125	Leakage Classification and Mitigation Schedules	X		X	X
223.0126	Above Ground Leakage Classification and Mitigation Schedules	X		X	X
223.0130	Abandonment, Conversion and Reinstatement of Transmission Pipelines	X		X	X
223.0140	Excavating, Shoring and Sloping	X		X	
223.0145	Planning Shutdowns for Transmission and Storage	X	X	X	X
223.0155	Planning Pipeline Blowdowns	X		X	
223.0177	Measurement of Remaining Wall Thickness	X			
223.0180	Repair of Defects in Steel Pressure Piping	X		X	X
223.0181	Repair of Defects on Operating Pipelines Using Abandon Nipple				X
223.0183	Repair of Defects on an Operating Pipeline by Grinding	X			X
223.0185	Repair Leak on an Operating Pipeline with Band or Sleeve	X			
223.0188	Epoxy Grouted Non-Leaking Steel Sleeve Repairs - Above and Below Ground Piping	X			
223.0190	Repair of Non-Leaking Defects on an Operating Pipeline with a Band or Sleeve	X			X
223.0195	Repair on Operating Pipelines Using a Welded Steel Patch	X		X	
223.0210	Vault Maintenance and Inspection	X		X	
223.0215	Valve Inspection and Maintenance - Transmission	X		X	X
223.0223	Valve Automation	X		X	X
223.0230	Identification Numbers for Pipeline Valves - Transmission	X		X	
223.0233	Transmission Line Identification and Records	X			

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Policy	Title	4	5	6	7
223.0240	Compressor Station Emergency Shutdown Systems	X		X	
223.0250	Compressor Station Equipment - Isolation and Purging for Maintenance or Alterations	X		X	
223.0255	Testing and Maintaining Compressor Station Emergency Shutdown Systems	X		X	X
223.0265	Identification Numbers for Station Valves	X			
223.0275	Main Reciprocating Gas Compressor Unit Operation - Transmission and Storage Operations	X		X	X
223.0280	Main Reciprocating Gas Compressor Maintenance - Transmission and Storage Operations	X		X	X
223.0315	Operation and Maintenance of Generator Units - Transmission and Storage Operations	X		X	X
223.0325	Main Centrifugal Gas Compressor Unit Operation	X		X	
223.0330	Main Centrifugal Gas Compressor Unit Maintenance	X		X	
223.0345	Pressure Relief/Pressure Limiting Devices, Testing/Inspection	X		X	X
223.0375	MAXIMO - Transmission and Storage Operations	X			X
223.0400	Gas Detectors in Compressor Stations	X		X	X
223.0410	Requirements for Designing Pipelines to Accommodate Smart Pigs	X		X	X
223.0415	Pipeline and Related Definitions	X		X	X
224.0000	Testing and Inspection of Safety Valves and Wellhead Valves				X
224.0015	Security and Accounting - Underground Storage Field Production Fluids				X
224.0030	Well Kill and Loading				X
224.010	Flow Erosion Monitoring and Assessment				X
224.02	Operation of Underground Storage Wells				X
224.023	Wireline and Slickline				X
224.05	Blowout Prevention Equipment				X
224.055	Well Unload				X
224.070	Reservoir Integrity and Inventory Assessment				X
224.101	Storage Well Design				X
224.102	Drilling Storage Wells				X
224.103	Well Workover				X
224.104	Well Isolation				X
224.105	Coiled Tubing				X
224.106	Casing and Tubing Inspection Field Procedure				X
224.107	Blowout Contingency Plan				X
224.108	Well and Reservoir Record Keeping				X
224.109	Abnormal Operating Conditions - Underground Storage				X
224.110	Wellsite Security and Safety				X
224.111	Training - Storage Wells and Reservoir				X
224.113	Gas Sampling - Underground Storage				X

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224.114	Geological and Engineering Design				X
224.115	Inspection of Third-Party Wells				X
224.116	Nonconformance – Storage Wells and Reservoirs				X
224.117	Start-Up, Commissioning, and Decommissioning - Storage Wells and Reservoirs				X
224.118	Plugged Well Inspections				X
224.119	Pressure Monitoring - Storage Wells and Reservoirs				X
224.120	Storage Field Interaction with Gas Control				X
224.121	Field Procedure - Emergency Incidents Storage				X
2849	Construction Inspection Report				X
3084	Corrosion Tests General Data Sheet	X			
3222	Design Data Sheet (DDS)	X		X	X
3506	Notice of Shutdown / Operational Deviation	X		X	
3689	System Qualification Record	X			
40-00	Polyethylene Pipe and Tubing				X
4090	100mV Polarization Form	X			
4091	Wax Casing Data Collection Form	X			
41-06.1	Pipe - Steel, Grades B through X70				X
50-15	Pipe Nipples				X
5153	Pipeline Location Information	X			
52-65	Fittings - Threaded, Malleable Iron				X
52-80	Couplings - Electrofusion, Polyethylene				X
52-81	Fittings, Socket & Saddle, Polyethylene Heat Fusion				X
52-82	FITTINGS, BUTT TYPE, POLYETHYLENE HEAT FUSION				X
52-96	Fittings - Butt Weld Steel				X
5330	Operating and Maintenance Order (OMO)	X			
54-17	Flanges and Flanged Fittings				X
54-17.1	Cast Iron Flanges				X
56-40	Stop Cocks				X
56-50	Steel to Plastic Transition Fittings				X
56-70.1	Risers - Service, Anodeless				X
56-70.16	Riser - Service Head Adapter				X
57-15	Canopies, High Pressure				X
58-08	Excess Flow Valve Assemblies				X
58-10	Valves - Thermoplastic				X
58-15.2	Valves; Ball, Steel Floating				X
58-70	Valves - Plug, Lubricated, Positive Shut-Off				X
58-82	Valves - Ball, Steel, Trunnion Mounted				X
58-96.6	Valve - Relief, Large				X
677-1	Pipeline Condition and Maintenance Report	X			

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70-45	Regulator - Service, Standard Pressure					X
70-47	Regulators - High Pressure Spring Loaded					X
76-72	Odorant - 50/50 TBM/THT	X				
76-73	Thiophane Odorant	X				
76-95	Pressure Vessels					X
78-01	Meters - Diaphragm					X
78-02	Meters - Rotary					X
ACF	Assessment Completion Form	X				
CCM.1	Introduction	X				
CCM.10	Site Specific Plans	X				
CCM.11	Record Keeping	X				
CCM.4	Roles, Responsibilities, and Required Qualifications	X				
CCM.5	External Corrosion Control Requirements	X				
CCM.6	Examination of Exposed Buried Pipe	X				
CCM.7	Internal Corrosion Control Requirements	X				
CCM.8	Atmospheric Corrosion Control Requirements	X				
CCM.A	Terms, Definitions and Acronyms	X				
CRMP1	Control Room Management Plan	X		X		
CRMP6	Gas Control Management of Change	X		X		
DIMP1	Introduction	X				
DIMP2	System Knowledge	X				
DIMP3	Threat Identification	X				
DIMP4	Evaluate and Rank Risk	X				
DIMP5	Identify and Implement Measures to Address Risk	X				
DIMP6	Measure Performance, Monitor Results and Evaluate Effectiveness	X				
DIMP8	Periodic Evaluation and Improvement	X				
DIMP9	Report Results	X				
DIMPA	Terms, Definitions and Acronyms	X				
ER-1	Gas Emergency Management Preparedness and Response Policy	X				
F17-1	Annual Performance Measures	X				
F4-1	Threat Evaluation Form	X				
F8-1	Baseline Assessment Plan Revisions Log	X				
GC1	Gas Control Emergency Plan	X				
IIPP.01	IIPP-Table of Contents					X
IIPP.02	IIPP-Introduction					X
IIPP.1	Injury and Illness Prevention Program					X
IIPP.10	IIPP-Safety Meetings					X
IIPP.11	IIPP-Best Safety Practices					X
IIPP.2	IIPP-Supervisor Responsibilities					X
IIPP.3	IIPP-Records					X

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IIPP.4	IIPP-Employee Responsibilities				X	
IIPP.5	IIPP-Communications				X	
IIPP.6	IIPP-Corrective Actions				X	
IIPP.7	IIPP-Appendices				X	
IIPP.8	IIPP-Local Safety Plans				X	
PA-1	Public Awareness Plan		X		X	
PP01.002	Management of Company Operations Standards - Definitions				X	
QUALPROG	Quality Program Manual for Owner-User Inspection of Air Tanks				X	
SIMP.1	Introduction				X	
SIMP.10	Procedures and Training				X	
SIMP.11	Minimizing Environmental and Safety Risks				X	
SIMP.14	Communications Plan	X				
SIMP.15	Emergency Response Plan	X				
SIMP.2	Data Collection and Management	X				
SIMP.3	Threat Identification and Risk Assessment	X				
SIMP.4	Integrity Assessment and Remediation	X				
SIMP.5	Preventive and Mitigative Measures	X				
SIMP.8	Quality Assurance Plan	X				
SIMP.9	Records Management Plan	X				
TIMP.0	Table of Contents	X				
TIMP.1	Introduction	X				
TIMP.10	Remediation	X				
TIMP.11	Minimizing Environmental and Safety Risks	X				
TIMP.12	Preventive and Mitigative Measures	X				
TIMP.13	Continual Evaluation	X				
TIMP.14	Management of Change	X				
TIMP.15	Quality Assurance Plan	X				
TIMP.16	Record Keeping	X				
TIMP.17	Performance Plan	X		X		
TIMP.19	Communications Plan	X				
TIMP.20	Regulatory Interaction	X				
TIMP.3	HCA Identification	X				
TIMP.4	Data Gathering and Integration	X				
TIMP.5	Threat and Risk Assessment	X				
TIMP.8	Baseline Assessment Plan	X				
TIMP.9	Integrity Assessments	X				
TIMP.A	Terms, Definitions and Acronyms	X				