



**Annual Report Number 4**  
**Work of the Aliso Canyon Well and Storage**  
**Operations Safety Committee**  
**July 2022 – June 2023**

**Report Date: July 31, 2023**

**Stephen F. Nowaczewski**  
**Safety Ombudsman**

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## Overview

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SoCalGas (Defendant) and the State Attorney General, City Attorney for the City of Los Angeles, County Counsel for the County of Los Angeles, and the County of Los Angeles (collectively referred to as Government Plaintiffs) entered a Consent Decree to resolve claims raised by the Government Plaintiffs associated with the natural gas leak that occurred at the Aliso Canyon natural gas storage Facility (Facility) in October 2015. The terms and conditions of the Consent Decree required SoCalGas to, among other things, form an internal safety committee, and select and retain a third-party subsurface gas storage industry expert (Safety Ombudsman) who shall act as a safety advocate for the Facility. A copy of the Consent Decree may be accessed via this link: [Click Here](#)

Section 4.2 of the Consent Decree outlines the requirements for SoCalGas to establish a Well and Storage Operations Safety Committee (WSOC). The duties of the WSOC include but are not limited to the following:

- Meet quarterly to review safety issues at the Facility;
- Review operational safety issues and promote safe operations at the Facility consistent with applicable laws, rules, regulations, and orders;
- Review Facility-related information, materials, or work product to assess safety at the Facility;
- Make recommendations to SoCalGas for repairs, improvements, policies, and/or upgrades to the Facility or infrastructure therein;
- Facilitate the role of, and work in cooperation with, the Safety Ombudsman;
- In coordination with the Safety Ombudsman, conduct periodic safety audits or safety-related Strengths, Weaknesses, Opportunities, Threats (“SWOT”) analyses of the Facility; and
- Review California Public Utility Commission (CPUC) and California Department of Conservation Geologic Energy Management Division (CalGEM) audit reports of the Facility.

Section 4.3 of the Consent Decree outlines the requirements for SoCalGas to select and retain a Safety Ombudsman and the duties associated with that role. The duties of the Safety Ombudsman include the following:

- Participate in all Well and Storage Operations Safety Committee (WSOC) meetings;
- Have access to all non-privileged materials, information, records, and work product in SoCalGas’ possession, custody, and control necessary to accomplish the tasks required of the Safety Ombudsman;
- Review CPUC and CalGEM audit reports of the Facility;
- Review and evaluate all incidents reported to the public and State and local agencies pursuant to Section 4.1 of the Consent Decree;
- Review and advise on the WSOC’s efforts, findings, and recommendations for improvements;
- Serve as a non-exclusive repository for safety-related concerns reported by the public with respect to the Facility;
- Serve as a point of contact to receive safety complaints or concerns relating to the Facility from anyone who wishes to remain anonymous, and provide any anonymous reports of safety concerns to SoCalGas;

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- Maintain the privacy of the person or member of the public confidentially making safety complaints or concerns relating to the Facility;
- Generate annual reports (Annual Reports) that detail the following:
  - The work of the Safety Ombudsman;
  - The work of the WSOC; and
  - Recommendations, if any, for improvements related to safety and prevention of leaks at the Facility.
- Provide the Annual Reports to the Attorney General, the City Attorney, County Counsel, the CPUC and CalGEM. The Annual Reports shall also be made public via the Aliso Canyon Website and the local community shall be provided with an opportunity to comment on the Annual Reports. The Safety Ombudsman shall schedule at least one public meeting each year to explain and respond to questions regarding the Annual Reports.

This report has been prepared in accordance with the requirements outlined in Section 4.3, (b), (ix), (2) of the Consent Decree, and summarizes the work of the WSOC during the period of July 2022 – June 2023. It is the fourth such annual report.



## I. Well and Storage Operations Safety Committee (WSOC) Charter and WSOC Meetings

### WSOC Charter

SoCalGas established a Well and Storage Operations Safety Committee (WSOC) to review safety issues at the Facility. The committee purview includes but is not limited to safety issues related to well integrity and maintenance and associated unintended leak prevention; it excludes issues related to occupational health and safety as those are administered by a separate department.

The WSOC is comprised of nine (9) members, including a committee Chair, Vice Chair, and Secretary. There are five (5) voting members and four (4) non-voting members. The five (5) voting members include one (1) SoCalGas Director of Storage, two (2) SoCalGas Managers of Storage, and two (2) SoCalGas Storage Supervisors. The non-voting members of the WSOC include subject matter experts with relevant storage technical expertise.

The role of the WSOC is to review and provide recommendations regarding safety issues at the Facility to SoCalGas and coordinate with the Safety Ombudsman. WSOC duties include:

1. Review operational safety issues and promote safe operations consistent with applicable laws, rules, regulations, and orders;
2. Review Facility-related information, materials, or work product to assess safety at the Facility;
3. Make recommendations to SoCalGas for repairs, improvements, policies, and/or upgrades to the Facility and its infrastructure;
4. Facilitate the role of, and work in cooperation with, the Safety Ombudsman;
5. In coordination with the Safety Ombudsman, conduct periodic safety audits or safety-related Strengths, Weaknesses, Opportunities, Threats (SWOT) analyses of the Facility; and
6. Review California Public Utilities Commission (CPUC) and California Geologic Energy Management Division (CalGEM) audit reports of the Facility.

The Chair, Vice Chair, and Secretary of the Committee are nominated by the Senior Vice President and/or the Vice President of Storage and confirmed by the WSOC. Those three (3) positions are elected to two (2)-year terms, although individuals may serve more than one (1) term. Remaining members of the Committee are selected by the Senior Vice President and/or the Vice President of Storage; members are appointed biennially or as necessary to fill vacancies. The Chair manages WSOC meetings and must be a voting member of the committee. The Vice Chair performs the duties of the Chair in the Chair's absence. The Vice Chair may be a non-voting member; however, they will have voting rights when performing the duties of the Chair. The Secretary may be a non-voting member and prepares the minutes of the WSOC meetings.

The WSOC normally meets quarterly but may meet more frequently if it deems there is a need to do so. A majority of WSOC voting members is required, either in person or telephonically, to convene a meeting. Recommendations for formal action require a majority vote of the voting membership. The Safety Ombudsman is required to participate in all WSOC meetings, either in person or telephonically. Legal counsel is required to attend all WSOC meetings.



The SoCalGas Aliso Canyon Well and Storage Operations Safety Committee Charter provides a complete summary of the WSOC's function and defines roles, responsibilities, and governance of the WSOC. A copy of the Charter may be accessed via this link: [Click Here](#)

### **Quarterly WSOC Meetings**

Four (4) WSOC meetings were held during the July 2022 – June 2023 period, as noted below:

- September 21, 2022 (in person);
- December 15, 2022 (virtual);
- March 23, 2023 (in person); and
- June 9, 2023 (virtual).

The Safety Ombudsman participated in all meetings, including in person at the September and March meetings. The quarterly meeting agenda includes:

1. Review and approval of the prior meeting minutes;
2. Update from the Safety Ombudsman concerning public inquiries and other relevant topics;
3. Update from WSOC members concerning safety-related matters associated with the Aliso Canyon Facility;
4. CalGEM audit status; and
5. Joint discussion of other relevant matters related to the Aliso Canyon Facility.

The meetings provide a forum for discussions between the WSOC members and the Safety Ombudsman on safety-related matters at the Facility. Topics vary from meeting to meeting depending upon current issues, maintenance and construction work activity at the Facility, and safety concerns. Members of the WSOC provide updates of construction and/or maintenance work at the Facility with the emphasis on safety, the status of ongoing discussions with CalGEM staff concerning SoCalGas' Risk Management Plan for the Facility, and the status of periodic audits of the Facility by CPUC and CalGEM staff. The WSOC meetings provide an opportunity for the Safety Ombudsman to probe any safety concerns, establish a dialog directly with the appropriate subject matter experts, and give feedback to the WSOC concerning committee work or other safety-related initiatives at the Facility.

During the period of July 2022 – June 2023, discussion topics included but were not limited to:

- Inclusion of a general safety theme at the start of each meeting, including incidents from the natural gas pipeline and gas storage industry.
- The development of additional and enhancement of existing Gas Standards relevant to the safety of underground natural gas storage facilities;
- Status of Data Requests from the Safety Ombudsman and subsequent SoCalGas responses;
- Preparation of the Safety Ombudsman Annual Reports and public interactions, including any concerns, issues, or complaints submitted to the Safety Ombudsman by members of the public;
- Recommendations of the WSOC and/or the Safety Ombudsman and the status of SoCalGas plans in response to the recommendations;



- Audits performed by the WSOC examining adherence to SoCalGas' Gas Standards, and reviews and updates of SIMP (Storage Integrity Management Program) standards;
- Status of the CalGEM/PHMSA audits through the July 2022 – June 2023 period; and
- Status of the Aliso Canyon Risk Management Plan (RMP), well integrity assessments, and individual well reassessment period adjustments granted by CalGEM.

Individual links to the minutes of the WSOC meetings are included immediately below. Names of individuals have been redacted from the meeting minutes.

- September 2022 meeting minutes link: [Click Here](#)
- December 2022 meeting minutes link: [Click Here](#)
- March 2023 meeting minutes link: [Click Here](#)
- June 2023 meeting minutes link: [Click Here](#)

In accordance with the WSOC Charter, a change in membership occurred for the 2022 – 2024 period. New members and members filling officer roles were introduced at the December 2022 meeting.

## **II. Review of Operational Safety Issues and Information, Materials, or Work Product to Assess Facility Safety**

Each WSOC quarterly meeting agenda includes a review of current operational activities, with specific routine areas discussed during the July 2022 – June 2023 period as follows:

- Well integrity assessment updates:
- Risk Management Plan submittal update;
- Audits of operational discipline to procedures; and
- Well work in progress and planned.

Details concerning these discussions may be found by accessing the link to the minutes of each meeting at the bottom of [Section I](#) of this report, immediately above.

### **Public Meeting**

At the December 2022 WSOC meeting, the Safety Ombudsman reported on the annual public meeting, which was held virtually the evening of October 5, 2022, and was well attended, with much public feedback. The meeting lasted 1.5 hours, including a one-hour question-answer period following the Safety Ombudsman's summary presentation covering the three annual reports. The Safety Ombudsman received feedback on topics grouped into several categories. Concerns were expressed over:

1. The adequacy, effectiveness, and transparency around the fence-line methane monitoring system;
2. Seismic event and fire event risk, how such hazards could relate to well failure and cascading events to the public, and how SoCalGas has evaluated and plans to manage such risk – and within this topic area, several meeting participants brought up the issue of use/lack of use of subsurface safety valves; and



3. Emergency response planning, coordination with local civil emergency responders, and transparency to the public on emergency response plans and emergency notification.

Some meeting participants provided feedback on the history of the issues that, in their opinion, stemmed from the original Aliso Canyon incident, and some participants expressed a level of uncertainty over information they received and a general sense of distrust of SoCalGas. The Safety Ombudsman agrees that SoCalGas' management of Aliso Canyon's gas storage risk should evaluate rational and knowable aspects of risk, including physical and human and organizational risk, and that the Company's risk decisions could best be made in recognition of risk tolerance and risk perception of Company, regulatory, and community stakeholders. The meeting participants gave the Safety Ombudsman a sense of their relative levels of risk tolerance and risk perception.

Following the public meeting, the Safety Ombudsman took up the issues of concern through research on the topics and subsequent data requests to SoCalGas, working with and through the WSOC.

The data requests are summarized below, but Annual Report Number 4 – Work of the Safety Ombudsman, describes the data requests and responses and provides a link to the public meeting materials: [Click Here](#)

### **Data Requests**

The WSOC participated in material submissions in response to the Safety Ombudsman's data requests on his own behalf, and on behalf of and related to public inquiries. The Safety Ombudsman made data requests #14, #15-#15A, #16-#16A, #17, and #18-#18A during the July 2022 – June 2023 period.

#### **Data Request #14**

The Ombudsman requested a copy of what SoCalGas uses as a well handover process (as in ISO 16530) during the September 21, 2022 WSOC meeting. SoCalGas responded on October 13, 2022 (dated October 11, 2022), attaching STOR-002 O&M Request Work Instructions.

The Ombudsman identified several opportunities for improvement in STOR-002, which can be found in Annual Report Number 4 – Recommendations for Improvements Related to Safety and Leak Prevention: [Click Here](#)

#### **Data Request #15, #15A**

Data Request #15 on October 21, 2022 delivered questions regarding the adequacy, effectiveness, reliability, and transparency of the fence-line methane monitoring system (FLMM; see additional discussion [below](#)). SoCalGas responded on November 11, 2022. Data Request #15A, asking for additional clarification and detail on system reliability calculations and statistics, was delivered on November 16, 2022 and SoCalGas responded on December 8, 2022.

As a result of these data requests, the Ombudsman identified recommendations for tracking reliability of safety systems, described in Annual Report Number 4 – Recommendations for Improvements Related to Safety and Leak Prevention.

#### **Data Requests #16, #16A**

Data Request #16 on November 30, 2022 delivered questions regarding emergency response planning, coordination with local civil emergency responders, and transparency to the public on emergency response plans and emergency notification. SoCalGas provided responses on January 12, 2023 with information sufficient, or better, to answer the Ombudsman's immediate questions in DR#16. However, the

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Ombudsman developed Data Request #16A, which was delivered on January 30, 2023, with questions on well flow potential estimation, heat content estimation, emergency area/isolation area determination and planning, and follow-up actions taken by the Company to internally recommended improvements after drills and reviews.

### **Data Request #17**

The Ombudsman reviewed the DRAFT Aliso Canyon Geologic, Seismologic, and Geomechanical Studies performed pursuant to requirements made by California DOGGR, now CalGEM, and submitted in draft by March 20, 2019 (overview, summary, reports 1-10 inclusive).

The Ombudsman prepared DR#17, asking what risk management plans or actions SoCalGas had completed pursuant to the landslide and seismic-induced earth movement risk identified in the reports in general and at specific locations. The Ombudsman's questions focused on areas of general geo-hazard interest presented by the public during the October 2022 annual meeting.

SoCalGas provided a response on February 17, 2023, answering only one question and deferring on the others due to legal/regulatory issues impeding the completion of the draft reports.

### **Data Request #18, #18A**

The Ombudsman delivered DR#18 on March 6, 2023, with questions following those of DR#17, as well as new questions about annulus gas monitoring as a follow-up to 2019-20 email inquiries by the Ombudsman. SoCalGas provided responses on May 15, 2023. The Ombudsman sent follow-up questions in DR#18A on May 22, 2023 seeking additional information and clarification pursuant to DR#18 questions and responses. SoCalGas provided responses on July 21, 2023.

DR#17, #18, and #18A relate to understanding the advance of SoCalGas' risk management efforts in Aliso Canyon – specifically, the knowledge gained through ongoing monitoring, the preventive and mitigation (P&M) efforts employed or planned, and the perceived efficacy and effectiveness of those P&M measures.

The Ombudsman intends that the answers to the questions provide the public with some understanding of the risk reduction achieved by SoCalGas since 2016-2018 and the improving risk-informed discipline of the Company visible in its management of active hazards and threats.

### **Fence-Line Methane Monitoring (FLMM) System**

SoCalGas provided the Ombudsman a presentation and discussion of the fence-line methane monitoring system at the December 2022 meeting, as an addition to the questions and responses regarding reliability of the system in Data Requests #15 and #15A. The presentation can be viewed at this link: [Click Here](#)

The FLMM system is comprised of eight (8) monitoring areas offering 24/7 surveillance and that are maintained with monthly checks, quarterly calibrations, and component replacement as necessary. There is also a public-facing website, and updates to this webpage are performed at least twice monthly, which maintains system reliability and minimizes outages. System reliability information is found in response to DR #15 and #15A, detailed in Annual Report Number 4 – Work of the Safety Ombudsman.

There are two (2) system alarm criteria: "Reportable Detection," which is a 10 ppm or greater 30-minute average, and "Notification Detection," which is a 25 ppm or greater 30-minute average.

The system has four (4) modes identifying non-functionality: Weather Hold, Beam Block, Maintenance, and Communication Loss.

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### **Well Integrity Risk Reduction and Risk Assessment**

Each WSOC meeting includes review and discussion of the well work and well integrity assessments completed or in progress.

At the Aliso Canyon facility, wells have been plugged in accordance with CalGEM and PHMSA rules, essentially filling all voids with cement, and reducing the well count to sixty (60) injection/withdrawal (I/W) wells by plugging fifty-four (54) wells since late 2016. Forty-one (41) out of sixty (60) I/W wells have had complete new inner casing strings installed since 2016, and by the end of 2023 the plan is that forty-four (44) wells, 73% of the I/W wells, will have new inner casing strings.

All wells have had 2<sup>nd</sup>-round assessments, which includes casing inspection logs; thirty-two (32) wells have had 3<sup>rd</sup>-round reassessments with an additional three (3) in progress; and two (2) wells have had 4<sup>th</sup>-round reassessments with one (1) in progress.

In calendar year 2022, seventeen (17) wells had integrity reassessments. As of the June 2023 WSOC meeting, the 2023 year-to-date work on Aliso Canyon wells included three (3) integrity reassessments completed and five (5) in progress; two (2) well plug and abandonments completed; and two (2) new inner casing strings installed with one (1) in progress.

The ongoing accumulation of well integrity findings from the surface monitoring and downhole inspections creates additional learning opportunities. The findings of the reassessments suggest to SoCalGas that the reassessment inspection period can be lengthened, and the Company has submitted individual requests to CalGEM for such reassessment extensions for forty-six (46) wells at the Aliso Canyon facility. As of the June 9, 2023 WSOC meeting, SoCalGas had received permission from CalGEM to extend the reassessment interval from twenty-four (24) months to 50-60 months on twenty-nine (29) wells, all of which have had new inner strings of casing installed and cemented in place since the initial baseline inspections. CalGEM's decision is pending on an additional eleven (11) wells, while CalGEM has denied extension of reassessment intervals for six (6) wells.

### **Department of Transportation (DOT) Pipelines and Hazardous Materials Safety Administration (PHMSA) Incident Report Review**

At the June 2023 meeting the Ombudsman provided the WSOC with a review of 2017-May 2023 PHMSA incident reports involving gas storage, noting seventeen (17) of seventy-six (76) storage-related incidents reported during that period involved wells, including ten (10) well leaks and seven (7) well workover incidents. Review of incidents helps to focus gas storage operators on questions such as:

- Where do we have control and can take preventative measures?
- Which incidents can we anticipate and prepare mitigation?
- How do we address the importance of “Human error” as an underlying cause, especially when fourteen (14) of the last twenty-one (21) storage-related incidents reported to PHMSA can be interpreted to have underlying causes rooted in human and organizational factors – such as “incorrect” or “inadequate” something, or “failure to” perform something as intended, or “faulty” interpretations, designs, maintenance programs and practices, inspection types-methods-tools, supervision-ownership-decision making, or incorporation of wider learning and historical knowledge?



The Ombudsman recommended that in future cycles the WSOC perform an annual review of the PHMSA incident report database for storage-related incidents, as well as incident investigations related to major accidents on wells, such as those from the National Transportation Safety Board (NTSB) or the Chemical Safety Board (CSB), since there could be lessons learned from other operators' incidents that could have bearing on the continual learning and improvement at the Aliso Canyon facility.

### **III. Recommendations for Repairs, Improvements, Policies, and/or Upgrades to The Facility**

The Safety Ombudsman maintains a compendium of all recommendation topics by the WSOC and/or the Ombudsman over the past four years, the period over which the Consent Decree has been active. The summary of past and current recommendations and the progress of SoCalGas in response to the recommendations is contained in a Microsoft Excel file which can be found at the following link: [Click Here](#)

The Safety Ombudsman developed several specific safety recommendations for consideration by the WSOC/SoCalGas. These recommendations are contained in Annual Report Number 4 – Recommendations for Improvements Related to Safety and Leak Prevention, Section II, available at the following link: [Click Here](#)

In addition to recommendations made by the Ombudsman, the WSOC made recommendations or enacted improvements during the July 2022-June 2023 period.

1. At the September 2022 WSOC meeting, the International Standards Organization (ISO) 16530 Well Integrity: Life Cycle Governance was discussed, pursuant to a prior recommendation from the Safety Ombudsman to review ISO 16530 and consider adopting relevant portions of the standard. SoCalGas compared ISO 16530 and current practices already adopted in response to PHMSA regulation/API 1171 and CalGEM regulation, and decided to pursue the following improvements:
  - a. Creation of generic wellbore diagrams that fit different well construction types and which specifically highlight the primary and secondary barriers;
  - b. Compilation of performance standards for well barrier elements into a table with barrier description, monitoring requirements, and acceptance criteria; and
  - c. Review of annulus pressure thresholds for tubing/casing annulus; enhancement, where appropriate, of the documented rationale for choosing the threshold limits in the procedure; and enhancement of the procedure to reflect the monitoring and trending steps taken prior to pressures reaching threshold limits.
2. At the June 2023 meeting, the WSOC chair noted two recent improvements related to facility wells:
  - a. Regarding well head valves material verification best practices, a new form was developed and implemented which includes sign-offs with the vendor at the vendor's shop and on-site when delivery is received at the storage field.
  - b. To reduce pressure anomalies caused by faulty surface equipment, the casing production laterals are being removed and the kill side of the casing is being disconnected from the network. Redesign will keep remote stab connections available for emergency response. Additionally, the casing will be pressurized to 450 psig using nitrogen instead of natural gas.



This work will occur following SIMP inspections rather than as a one-time project, making this a multi-year process to complete.

3. Recommendations from audit of procedure GS 224.119 – see [Section IV](#) below.

## **IV. Conduct Periodic Safety Audits (SWOTs) Associated with the Facility**

### **Safety/Procedure Audits**

At the September 2022 meeting, a subcommittee of the WSOC presented four (4) options to consider for an audit or SWOT, including two (2) options for auditing gas standards and two (2) options for SWOT analysis of SIMP chapters. WSOC discussion resulted in selection and voted approval of an audit for Section 5 of SoCalGas Gas Standard (GS) 224.119 Pressure Monitoring-Storage Wells and Reservoirs.

Upon WSOC request, the Safety Ombudsman randomly selected ten (10) wells to be included in the audit. The audit team reviewed pressure transmitter data verification and pressure differences between calibrated electronic gauge and transmitter (>10 psig for tubing, casing, annulus 1 and annulus 2) for the period January 1, 2021 through June 30, 2022. Observations of employees conducting work in the field to validate that employees are following procedures as written was completed on March 10, 2023. Recommendations made by the audit subcommittee were:

1. Review Gas Standard 224.119 Pressure Monitoring – Storage Wells and Reservoirs and Maximo Job Plan # ACWPTCHK with applicable employees.
2. Additional training for employees focusing on Section 5.5 of gas standard: If pressure difference is greater than 10 psig, then the Operator shall do the following:
  - a. Verify instrument tubing is free from restrictions.
  - b. Clear trapped gas or liquid pressure by depressing the quick connect and then zero the calibrated electronic gauge and recheck the pressure read using the electronic gauge.
  - c. If the differential is still higher than ten (10) psig, the Operator shall do the following: Issue a work order to the maintenance department to replace or repair the transmitter.
3. Use Aliso Daily Pressure form to document pressure reading while in the field.
  - a. Use this form as reference to enter the pressure reading into the Monitoring database once back in the office.
  - b. Include notes to Monitoring database if rig is on site or any deviations.
  - c. Scan and upload a copy of the completed form, attaching it to the completed work order in Maximo.
  - d. Assign a responsible person to keep the form up to date.
4. Edit the Maximo Job Plan:
  - a. Move reference to verifying crystal gauge calibration to beginning of job plan steps.
  - b. Update/change reference from “Control Room” to “Operations Office.”
  - c. Move step # 50 to end of job plan.



- d. Add new step #55 “If there is a new transmitter in the field but no Pi tag listed on the Aliso Daily Pressure form notify Operations supervisor”.

A presentation summarizing the audit of GS 224.119 can be found at the following link: [Click Here](#)

### **SWOT (Strengths-Weaknesses-Opportunities-Threats Analysis)**

At the December 2022 WSOC meeting, the Ombudsman reviewed the responsibilities of the committee per the charter and recommended the following:

1. The WSOC should work with the SoCalGas Safety Culture Improvement Plan to allow the SIMP to be one organizational area of focus and leverage the strengths of the SIMP (See “SoCalGas Safety Culture Improvement Plan” [below](#)). SoCalGas offered that at the March 2023 meeting the lead for the Safety Culture Improvement Plan could present and discuss the Plan with the WSOC.
2. Begin each WSOC meeting with a risk-based safety topic presented by WSOC members (Initiated at the March 2023 meeting).
3. In the 2023-2024 WSOC cycle, conduct a SWOT exercise, to be facilitated by the Ombudsman over the course of the 2023-2024 WSOC meetings. The SWOT boundaries would be defined to include the SIMP and its related technical-human-organizational-fundamental hazards and barriers. The purpose of the SWOT would be to elicit WSOC recommendations for safety improvement at the facility.
4. WSOC members consider the option to read additional risk-based process safety materials, such as “Failure to Learn,” by Andrew Hopkins.

### **SoCalGas Safety Culture Improvement Plan**

The March 23, 2023 meeting included a summary presentation and discussion regarding SoCalGas’ efforts to improve safety culture and how the SIMP, the people interacting with the SIMP, and the SIMP processes and procedures might be leveraged to improve safety culture with specific focus on the Aliso Canyon Gas Storage Facility. The Director of Special Projects, Safety Culture Improvement Program shared an overview of the Safety Forward SoCalGas program. The summary presentation can be found at the following link: [Click Here](#)

Safety Forward, a Company-wide commitment to enhance safety culture while living safety values, is designed to advance a culture that embraces learning, continuous improvement, and risk mitigation as core aspects of a shared duty to protect the public, the environment, the facilities, and coworkers. Culture improvement is centered around four themes:

1. Safety is most often perceived as personnel safety.
2. Safety and risk are perceived as achieved by compliance.
3. Resources are needed to promote a healthy safety culture.
4. Learning and safety improvement require an integrated management system.



## **V. California Public Utility Commission (CPUC) and California Department of Conservation Geologic Energy Management Division (CalGEM) Audit Reports**

A discussion of audits performed by the CPUC and CalGEM during the period covered by this report is contained in Annual Report Number 4 – Work of the Safety Ombudsman, Section IV, and will not be repeated here, although a summary certain audit actions is given below. CalGEM is acting as agent for PHMSA during all mandated safety inspections of the Facility.

Closing of the follow up to the CalGEM October 2021 audit included revision of the procedure for testing and inspection of safety valves and wellhead valves to include actions that must be taken if wellhead valves require repair or replacement; SoCalGas Gas Standard 224.0000 was revised and submitted to PHMSA on June 15, 2022. SoCalGas received a letter on June 28, 2022 stating that the revised procedure and the issue identified were corrected, and PHMSA closed the Notice of Amendment with no further action necessary by SoCalGas.

PHMSA/CalGEM conducted an audit in May 2022, focusing on integrity in well design and construction with site visits and procedures review. Written preliminary findings for 2022 audit were received from CalGEM on August 10, 2022, and identified one item unrelated to Aliso Canyon.

PHMSA/CalGEM conducted an audit in February 2023, with one potential finding again unrelated to the Aliso Canyon Facility. The first part of the audit involved field inspections from February 6<sup>th</sup> to 9<sup>th</sup>, followed by the second part of the audit done by virtual review of records and documents from February 13<sup>th</sup> to 17<sup>th</sup>.