



Annual Report Number 6
Work of the Aliso Canyon Well and Storage
Operations Safety Committee
July 2024 – June 2025

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Overview

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.
- Review California Public Utilities 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:
 - o The work of the Safety Ombudsman.
 - o The work of the WSOC.
 - o 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 (1) 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 2024 – June 2025. It is the sixth 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 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](#)

The following is a paraphrased description of the WSOC membership and duties as detailed in the WSOC Charter.

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.
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-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.

Quarterly WSOC Meetings

Four (4) WSOC meetings were held during the July 2024 – June 2025 period, as noted below:

- September 13, 2024 (virtual)
- December 6, 2024 (in person)
- March 20, 2025 (virtual)
- June 26, 2025 (in person)

The Safety Ombudsman participated in all meetings, including in person at the December and June 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. PHMSA/CalGEM audit status.
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 2024 – June 2025, discussion topics included but were not limited to:

- Presentation and discussion 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 2024 – June 2025 period.
- Status of the Aliso Canyon Risk Management Plan (RMP), well integrity assessments, and individual well reassessment period adjustments granted by CalGEM.
- Discussion of well and reservoir risk assessment for the Aliso Canyon Facility.
- Overview of the facility during recent wildfires.

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

- September 2024 meeting minutes link: [Click Here](#)
- December 2024 meeting minutes link: [Click Here](#)
- March 2025 meeting minutes link: [Click Here](#)
- June 2025 meeting minutes link: [Click Here](#)

In alignment with the WSOC Charter, selected changes in membership occurred during the 2024-2025 period.

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 2024 – June 2025 period as follows:

- Well integrity assessment updates
- Risk Management Plan submittal update
- Audits of operational discipline to procedures
- 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 2024 WSOC meeting, the Safety Ombudsman reported on the annual public meeting, which was held virtually the evening of October 15, 2024; several members of the public attended. The meeting lasted 1.5 hours, including a question-answer period following the Safety Ombudsman's summary presentation covering the three (3) annual reports. One (1) meeting attendee provided feedback, stating that the SoCalGas progress on planning for the installation of several deeper-set subsurface safety valves was, at least preliminarily, moving toward satisfying the input this individual had been urging for several years in regard to the risk of a well integrity event related to deep-seated fault displacement. The meeting attendee also thanked the Ombudsman for the interaction with SoCalGas to help promote the outcome.

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Following the public meeting, and in order to obtain clarity on SoCalGas' plans and decision-making process, the Safety Ombudsman developed Data Request #22, submitted to SoCalGas on December 2, 2024, and summarized below. Annual Report Number 6 – Work of the Safety Ombudsman describes the data request, SoCalGas response, and 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 #22 and #23.

Data Request #22

The Ombudsman delivered Data Request #22 on December 2, 2024. SoCalGas presented information on risk assessment and decision making during the June 2025 WSOC meeting and formally responded on July 25, 2025.

DR#22 contained four (4) questions relating to SoCalGas' risk-based decision criteria for deep-set SSSV installation, including the estimated pre-installation and post-installation net risk, for any well in which SoCalGas decided to install modern deep-set subsurface safety valves. DR#22 asked SoCalGas to identify which wells were potential candidates for SSSV installation and which were not, based on SoCalGas' most recent risk assessment; and for those wells that have been selected for installation, the proposed subsurface safety valve design, installation, operation, monitoring, and testing specifications and procedures.

SoCalGas' responses, in combination with a more detailed presentation during the June 2025 WSOC meeting, were sufficient to address the Ombudsman's questions. Subsurface safety valves can mitigate consequences of well release but have the potential to fail, requiring intervention to repair. SSSV set depth impacts the degree to which threats are mitigated, as well as the valve reliability. SoCalGas uses quantitative risk analysis to estimate risks and benefits of valve installation. As a result of SoCalGas' risk analysis, SSSV installation to moderate depths of 1700-3500+ feet in three (3) wells so far, and at several more wells in the near future, can have a net benefit to reduce environmental risk. For more information and discussion around DR#22, please refer to Annual Report Number 6 – Work of the Safety Ombudsman, at the link noted earlier in this report.

Data Request #23

The Ombudsman made a request to the WSOC at the June 2025 meeting to explain actions that occurred on the six (6) requests for integrity inspection time extensions that had been denied by CalGEM.

The questions were: What subsequent work was done on the five (5) wells that were initially denied and later approved? How many wells at the Aliso Canyon Facility are still on a two-year assessment cycle?

The SoCalGas response of July 25, 2025, can be found at this link: [Click Here](#)

Safety Culture Initiatives Updates During Quarterly WSOC Meetings

SoCalGas shared a safety culture initiative within the Storage Integrity Management Program (SIMP) at the December 2024 WSOC meeting. The initiative involves an audit of work activities of contractors engaged in downhole well work. The audits have three (3) levels: audit of contractors to the SoCalGas Contractor Safety Handbook and California OSHA requirements; contractor-led safety audits aligned to the contractors' specific work tasks; and SoCalGas engineer-led, on-site audits. At each level of audit, leading



indicators showing the progressive positive safety behaviors are determined, tracked, and shared. The summary presentation can be found here: [Click Here](#)

SoCalGas shared an update on their corporate safety culture improvement initiative “Safer Together” (formerly “Safety Forward”) at the June 2025 WSOC meeting. The update discussed SoCalGas’ Safety Management System (SMS) and its elements, aligning to the elements of API 1173, Pipeline Safety Management Systems. SoCalGas will assign an accountable executive for each element to collaborate with others and provide direction on goals and objectives. The 2025 goals for SMS include strengthening leadership commitment, establishing the governance model, building processes and procedures, and launching an employee awareness and engagement campaign.

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 fifty-nine (59) injection/withdrawal (I/W) wells by plugging fifty-five (55) wells since late 2016. As of June 2025, forty-two (42) out of fifty-nine (59) I/W wells have had complete new inner casing strings installed since 2016.

Work year-to-date June 2025 includes completion of two (2) reassessments, two (2) casing expansion/isolation tests and six (6) through-tubing integrity logs and shut in annulus pressure tests, with five (5) additional reassessments in progress and one (1) well to be plugged back within the storage zone.

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. As of June 2025, the Company had been granted seventy-five (75) reassessment extensions on fifty-three (53) unique wells, with the reassessment interval reset by CalGEM from twenty-four (24) months to as much as eight-four (84) months. For six (6) wells where reassessment extension requests had previously been denied, SoCalGas reworked two (2) wells, reinspected three (3) wells, and subsequently received reassessment extension permission from CalGEM. Refer to [Data Request #23](#).

Subsurface safety valve installation status is discussed in [Subsurface Safety Valve Installations](#), below.

Risk Assessment Discussions

SoCalGas developed a quantitative framework for storage well risk assessments. At the June 2025 WSOC, members of the WSOC provided the Ombudsman with a summary of Aliso Canyon Facility well risk assessment work. The analysis to date continues to show that the likelihood of well failure can be related to specific hazards and threats which are required to be evaluated by PHMSA and CalGEM regulations, and that most Aliso Canyon Facility wells generally had comprehensive failure rates in line with general gas storage industry averages; however, modeled failures during workovers are a significant contributor to the likelihood of a significant fluid release, as are the threats of earth movements due to landslides in relatively shallow intervals up to ~500 feet of depth, and due to fault displacements at depths of several thousand feet. Meanwhile, the work SoCalGas has done since 2016 to add new or dual tubular barriers and increase pressure monitoring, casing inspection, and other repairs leads to lower likelihood of fluid release. The Ombudsman noted in Annual Report Number 4 – Work of the Safety Ombudsman, in response to Data



Request 17-18, at this link: ([Click Here](#)), that many Aliso Canyon Facility wells had increased resistance and resilience to certain threats due to the installation of additional new cemented inner casing strings and/or tubing/packer strings.

SoCalGas' June 2025 update summarized that geohazard threats (landslides and fault displacement) contribute significantly to the likelihood of failure for some wells and many of those wells could have high release rate failures; therefore, significant environmental risk potential is driven by landslide and fault displacement threats. Because the immediate Aliso Canyon Facility well sites are not within a populated area, the life safety risk is relatively low during normal operations but could be elevated by frequent well interventions. The frequency of well interventions will be related to the SSSV reliability, which often is a function of installation depth and valve type.

SoCalGas demonstrated how they tested their risk model for net risk change due to SSSV for shallow, intermediate, and deep SSSV installations and no installations at all, and a range of low, medium, and high reliability. SoCalGas provided an example of one (1) well's risk profile given the matrix of scenarios above; whereas environmental risk was substantially reduced from a baseline of "no installation" to one order of magnitude for shallow installation and over 1.5 order of magnitude for both medium and deep SSSV installations in the example well, the life safety risk for shallow and medium-depth installations increased from baseline conditions marginally but by nearly an order of magnitude for deep installations. Thus, the net risk change favors medium-depth installations where fault displacement is a significant threat, and shallow installations where landslide potential is a significant threat.

More detailed discussion of the Aliso Canyon Facility well integrity risk assessment is found in Annual Report Number Six – Work of the Safety Ombudsman, previously linked.

Subsurface Safety Valve Installations

SoCalGas has had four (4) shallow SSSV installations in operation for several years at Standard Sesnon 9 (457', installed 2018), Standard Sesnon 10 (372', installed 2020), Standard Sesnon 29 (374', installed 2019), and Fernando Fee 33 (367', installed 2018).

As a result of risk assessment as discussed in the previous section, recent installations have been made:

- At shallow depths across the Topanga Formation to mitigate landslide risk in wells Porter 69C (462'), Porter 69F (468'), Porter 69J (479'), and Fernando Fee 35D (489') (waiting on a control panel for full functionality).
- At intermediate depths approximately 200' below the Younger Santa Susana Fault to mitigate fault displacement risk in wells Fernando Fee 35C (1707'), Porter 50C (3175'), and Fernando Fee 32F (3517'). These three (3) intermediate-depth installations are waiting on control panels for full functionality. At multiple well sites instrument control lines are being configured to ensure that activation of a surface-controlled SSSV will not result in a shut-down of all wells on the site.

Installations are planned at Fernando Fee 32G, Porter 68A, Porter 69D, Porter 69K, and Porter 72B.

Surface Casing Vent Valves

At the March 2025 WSOC meeting, SoCalGas noted that they identified that there was no current procedure for replacing Surface Casing Valves. Subsequently, a draft procedure for the valve replacement was developed and one (1) committee member is assigned to the development team to complete the procedure.



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 five (5) 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 reviewed past and new safety recommendations for consideration by the WSOC/SoCalGas. These recommendations are contained in Annual Report Number Six – Recommendations for Improvements Related to Safety and Leak Prevention, available at the following link: [Click Here](#)

WSOC recommendations made during the July 2024-June 2025 period are included in the discussion of the Management of Change SWOT analysis below.

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

Safety/Procedure Audits/SWOT Analysis

A SWOT analysis of SoCalGas' SIMP Chapter 6 Management of Change was conducted by the WSOC starting in mid-late 2024 and concluding in early 2025.

The subcommittee conducted two (2) workshops with stakeholders and subject matter experts to gather feedback, and the Strengths, Weaknesses, Opportunities and Threats were summarized and presented to the WSOC for both the SIMP.6 standard process and the eMOC tool currently in use.

The subcommittee developed an Action Plan to address improvement opportunities identified through the MOC SWOT analysis, including reinforcement and learning by sharing examples of operational MOCs, development of an MOC Dashboard and shared initial examples charts. Additionally, SoCalGas created an enterprise-wide gas standard on Management of Change with publication in the first half of 2025.

The findings and Action Plan are summarized below; most actions will be completed in 2025.

Strengths:

- Good general awareness of process
 - o Recommendations - Continue annual awareness training; upgrade training module; establish a feedback loop survey after the training
- Technical review meetings ensure adequate review and expedite process
 - o Recommendations - Continue technical review meetings; leverage new cross-functional Technical Committee to support MOC technical reviews
- Positive impressions of eMOC tool function and use
 - o Recommendations - Create specific MOC email address for support and communication; promote eMOC usage; generate metrics for eMOC usage and present to Management annually to emphasize importance



Weaknesses:

- Definition of Stakeholder responsibilities
 - o Recommendation – Address the eMOC Stakeholder role, as defined in SIMP.6, Section 1.3.1, in training updates
- Ability to capture Stakeholder feedback
 - o Recommendation - Include process for Stakeholders to provide feedback in eMOC form
- Guidance for identifying attendees needed for technical review meetings
 - o Recommendations - Address the groups recommended to participate in technical review, as noted in SIMP.6, Section 3.2.1, in training updates

Opportunities:

- Align, as applicable, with Enterprise MOC processes
 - o Recommendations - Review enterprise MOC procedure and incorporate best practices into SIMP MOC process where applicable

Threats:

- Perception that MOC process is too time consuming
 - o Recommendations - Create and deploy an MOC Dashboard for accessibility/visualization of program metrics and real-time data; add a metric for the time difference between initiation date and approval date; include language addressing changes impacting safety, reliability, or environment in SIMP.6, Section 3.1.2, and update training
- Lack of clarity or understanding of scenarios that require MOC
 - o Recommendations - Add example list of scenarios requiring MOC to the SIMP.6 appendix and to MOC section of gas standards; annually review documented MOCs with underground and above-ground storage departments to promote understanding of scenarios requiring MOC; circulate quarterly bulletin of completed MOCs, and solicit feedback on changes that may have missed documentation or are pending documentation

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

CalGEM is acting as agent for PHMSA during all mandated safety inspections of the Facility. The most recent CalGEM audit of the Aliso Canyon Facility was in May 2025, and comprehensively addressed the SoCalGas storage integrity management program and construction, maintenance, inspection, testing, and documentation. The audit included ninety-five (95) questions regarding Integrity in Well Design and Construction, eighty-six (86) questions regarding Integrity Monitoring, Site Security and Safety, Procedures and Training, and forty-seven (47) questions regarding Reporting, Risk Management, and PHMSA Rules and Frequently Asked Questions. There were no findings against SoCalGas' storage integrity management program at the Aliso Canyon Facility in this audit.