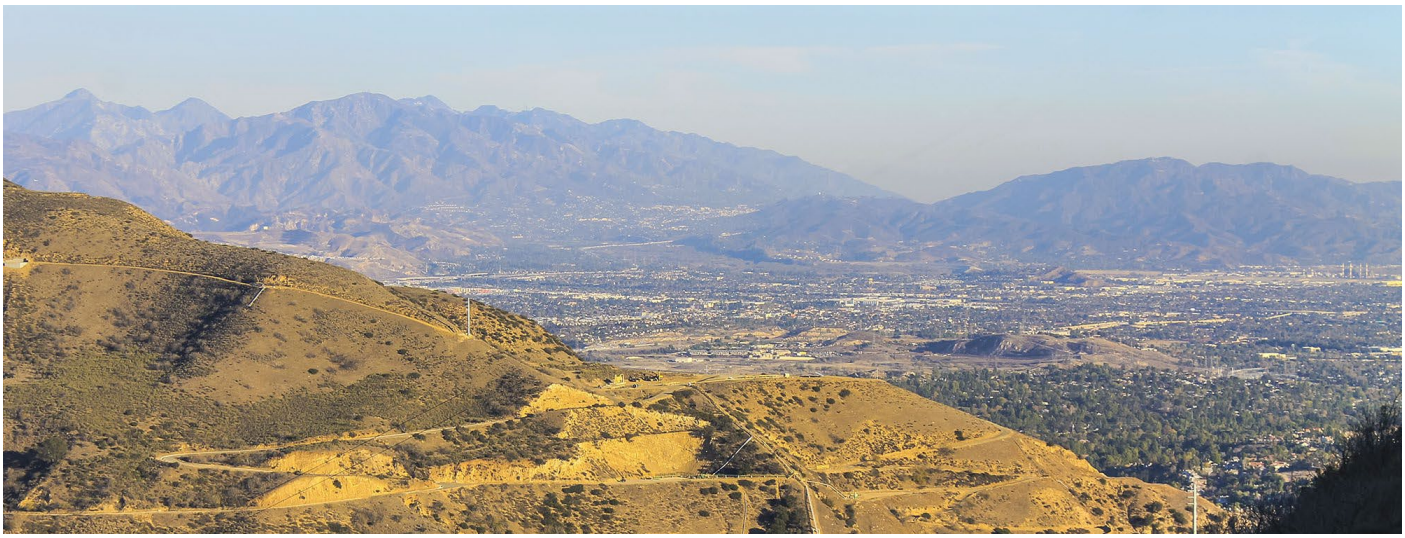

Annual Report Number 5

Work of the Safety Ombudsman

July 2023 – June 2024

Report Date: August 31, 2024

Stephen F. Nowaczewski

Safety Ombudsman

This unredacted report is not for release to the public and may contain information which is confidential, security sensitive, or trade secrets of a party.

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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.

- 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.
  - 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 Safety Ombudsman during the period of July 2023 – June 2024. It is the fifth such annual report.

I. WSOC Meeting Participation

Four (4) WSOC meetings were held during the July 2023 – June 2024 period, as noted below:

- September 22, 2023 (virtual);
- December 14, 2023 (in person);
- March 19, 2024 (virtual); and
- June 7, 2024 (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; 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 2023 – June 2024, 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 2023 – June 2024 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 gas storage facilities.

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

- September 2023 meeting minutes link: Click Here
- December 2023 meeting minutes link: Click Here
- March 2024 meeting minutes link: Click Here
- June 2024 meeting minutes link: Click Here

In alignment with the WSOC Charter, no change in membership occurred for the 2023 – 2024 period.

II. Safety Ombudsman Virtual Public Meeting – October 11, 2023

The terms of the Consent Decree require that the Safety Ombudsman provide three Annual Reports to the Attorney General, the City Attorney, County Counsel, the CPUC, and CalGEM. The Safety Ombudsman is required to make available to the public for review and comment a copy of each of the three Annual Reports and schedule at least one public meeting each year wherein the Safety Ombudsman shall explain and respond to questions regarding the Annual Reports. The three reports provide an overview of the following:

1. The work of the Safety Ombudsman.
2. The work of the WSOC.
3. Recommendations for improvements related to safety and prevention of leaks at the Facility.

Previous Annual Reports covering the April 2019 - June 2020 period, the July 2020 – June 2021 period, the July 2021 – June 2022 period, and the July 2022 – June 2023 period were posted to the Safety Ombudsman website prior to the annual public meetings.

The July 2022 – June 2023 period Annual Reports were posted on September 20, 2023 and notice was provided on the same day via email to approximately two dozen representatives from the CPUC, CalGEM, and the city and county of Los Angeles; to other state agents as applicable; and to approximately three dozen groups/parties whose contact information was supplied by SoCalGas' Public Affairs Group. The individuals/groups who received the meeting notice included those in SoCalGas' public outreach initiative associated with the Aliso Canyon incident. The email notice included information concerning a virtual public meeting to be hosted by the Safety Ombudsman on October 11, 2023, at 6:00 pm. The purpose of the meeting was to provide an overview of the work performed by the Safety Ombudsman during the July 2022 – June 2023 period, as detailed in three Annual Reports.

The annual public meeting was held on October 11, 2023; two (2) 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 Ombudsman's professional experience, the role of the Ombudsman, and a review of the three Annual Reports. Meeting participants were invited to raise questions or concerns at any time regarding the Annual Reports, or any other relevant issue, and to post their questions directly to the Safety Ombudsman website. The public meeting materials were posted to the Ombudsman website and can be

found at the following link: Click Here. The recording can be found under the "Safety Ombudsman Virtual Townhall Meeting 2023" heading at this link: Click Here

One meeting attendee provided significant input to the Safety Ombudsman concerning the seismic-event fault displacement threat and the application of subsurface safety valves or other forms of mitigation to limit the flow of fluids from a well should a severe event occur that causes a breach of the tubing-casing-cement.

The Ombudsman had additional discussion with the commentor after the public meeting. The public commentor has been concerned that SoCalGas' risk analysis of fault displacement, resultant probability of downhole tubular rupture, and subsequent probability-severity of gas and other fluids leakage has not been sufficiently sensitive to the range of possibilities and that the public, in the commentor's opinion, does not understand adequately the SoCalGas' decision to not use deep-set subsurface safety valves, or other physical risk controls, in storage wells as isolation and mitigation devices to protect against the displacement-tubular rupture-significant fluids release scenario.

The Ombudsman agrees that SoCalGas' risk-informed decisions could be made in recognition of risk tolerance and risk perception of Company, regulatory, and community stakeholders. There could be significant differences in perception and understanding, and thus in apparent risk tolerance, between the various stakeholders, and therefore it might be important for SoCalGas to provide greater transparency to the public with respect to its risk-informed decisions regarding the application of subsurface safety valves.

Following the public meeting, the Safety Ombudsman formed data requests responsive to the public input, and continued work on the issues with and through the WSOC. Refer to Section III of this Report for detailed treatment of the data requests and the Ombudsman assessment.

The Ombudsman will host a virtual meeting in Q4 of 2024 covering the Annual Reports posted for the period July 2023 – June 2024.

III. Safety Ombudsman Data Requests

The Consent Decree stipulates that the Safety Ombudsman shall have access to all non-privileged materials, information, records, and work product in SoCalGas' possession, custody, or control necessary to accomplish the Ombudsman's tasks. SoCalGas is prohibited from unreasonably denying the Ombudsman access to such information or withholding information based on a privilege not supported by applicable law.

The Safety Ombudsman made Data Requests #19, #19A, #20, and #21 during the July 2023 – June 2024 period. Prior data requests and response were reviewed in the previous three annual reports and will not be covered in this report.

Data Requests #19 and #19A

The Ombudsman delivered Data Request #19 on November 20, 2023. SoCalGas responded on March 1, 2024.

DR #19 included six questions relating to SoCal's experience with subsurface safety valve designs, operation, maintenance, and testing practices, reliability of subsurface safety valve function, efforts to increase reliability, SoCal's current application of subsurface safety valves, and SoCal's position on use of subsurface safety valves to mitigate risk.

SoCal's responses were sufficient and detailed to allow the Ombudsman to independently estimate past reliability of deep-set and shallow-set safety valves. The DR#19 questions and responses, with a data sheet provided by SoCalGas, can be found at these links: Click Here; Click Here

The Ombudsman developed and delivered Data Request #19A to SoCalGas on March 14, 2024, asking five questions seeking more information on deep-set subsurface safety valve designs and shallow-set subsurface safety valve designs historically used in Aliso Canyon gas storage wells. SoCalGas responded to DR#19A on August 12, 2024. The DR#19A questions and SoCalGas responses can be found at this link: Click Here

Summary analysis and opinion of the Ombudsman following DR#19 responses:

The Ombudsman analyzed the information provided by SoCalGas in response to DR#19.

SoCal has a history of 409 subsurface safety valve installations in Aliso Canyon gas storage field in 97 individual wells, of which 64 of those wells are now plugged and abandoned and 33 remain as active storage wells. Only thirteen (13) of the 409 installations were shallow-set subsurface valves, placed within 367-524 feet of the well surface, while 396 of the installations were deep-set valves at depths of thousands of feet below the wellhead, averaging 7707' but ranging from 3876' to 9144'. SoCal used a variety of valve manufacturers and designs, including wireline-conveyed and tubing-conveyed systems.

SoCal's reliability data on deep-set installations spans from 1972 to 1997, and there are no deep-set installations in service at Aliso Canyon gas storage field today.

SoCal's reliability data on shallow-set installations spans from 1986 to present, and there are six (6) shallow-set valves in service at Aliso Canyon gas storage field today.

SoCalGas has experience with both deep- and shallow-set valves in wells in SoCal's other storage fields; but while the Ombudsman is restricted to making requests about the Aliso Canyon facility, SoCal, in some replies and discussions, notes that their experience in wells in other fields with deep- and shallow-set valves is similar to the Aliso Canyon experience.

For deep-set subsurface safety valves, of 396 installation events at Aliso Canyon, 388 with install and remove data, 70 (18%) were functional failures immediately after installation, while another 65 (17%) failed in one month or less and another 27 (7%) failed within three months, another 126 (32%) failed within one year and another 57 (14%) failed within two years. Only 43 (11%) installations remained functional for three years or more, and only ten of those (2.6%) were functional for 5 years or more, with 7 years being the maximum functional life.

For shallow-set subsurface safety valves, of 13 installation events at Aliso Canyon, the average functional timespan is 11.3 years, but this includes valves that are still functional and were installed in the last 7-8 years. When the installations for only those wells with full lifespans is reviewed, the functional life is approximately 21 years, but even that might be a shortened life less than true reliability since the wells where a "full life" was recorded were plugged and abandoned and the valves were still functional.

The table below summarizes reliability information for the Aliso Canyon deep and shallow-set subsurface safety valve installation history.

Aliso Canyon Gas Storage Field Wells, Historical Reliability of Subsurface Safety Valve Installations					
Class	**Number of Events**	**Median Functional Life (Years)**	**Average Functional Life (Years)**	**Reliability, using Median**	**Reliability, using Average**
Deep-Set SSSV, all installations w/install-remove dates	388	0.42	0.80	-1.381	-0.250
Deep-Set SSSV, all installations excluding immediate initial failures	318	0.66	0.98	-0.527	-0.025
Deep-Set SSSV, installations in place >3 months	226	0.92	1.34	-0.087	0.256
Deep-Set SSSV, installations in place >1 year	100	1.77	2.24	0.433	0.544
Shallow-Set SSSV, all installations	13	5.50	11.34	0.818	0.912
Shallow-Set SSSV, only installations w/install and remove dates	7	21.27	20.92	0.953	0.952

Note: Reliability is calculated as R = (1 year - 1 year/Functional Life)
"Negative" reliability means that the component fails in less than one year.

The Ombudsman's analysis is in a file "Ombudsman Analysis of SoCalGas Historical Safety Valve Reliability," which can be found at this link: Click Here

The Ombudsman compared the Aliso Canyon SSSV reliability experience with that from other studies. The US Department of Transportation-sponsored research project, performed by Battelle Memorial Institute and others with a report *Reliability of Subsurface Safety Valves (SSSVs)– Cost/Benefit Analysis for SSSVs in Underground Gas Storage Wells* published October 30, 2020, used estimates of oil and gas well industry reliability experience to establish ranges for the research into the efficacy of subsurface safety valves as risk controls. The Battelle final report, which can be found at this link: Click Here, contains a range of reliability used in that study, summarized in the table below:

From the report prepared by Battelle Memorial Institute: "Reliability of Subsurface Safety Valves (SSSVs)– Cost/Benefit Analysis for SSSVs in Underground Gas Storage Wells," October 30, 2020		
Estimation	**Reliability of SSSV**	
	Shallow-Set	**Deep-Set**
Very Low	0.60 - 0.67	0.36
Low	0.8	0.67
Medium	0.905	0.84
High	0.985	0.94

The Aliso Canyon SSSV experience shows shallow-set SSSV reliability in line with medium to high reliability estimates in the Battelle study, while Aliso Canyon's deep-set SSSV reliability is in the very low to low range of the Battelle study estimates.

The Ombudsman also purchased the SINTEF (Norway) Reliability Data for Safety Equipment PDS Data Handbook, 2013 Edition and the 2021 Edition. The data does not provide for depth of setting or for design of safety valves. The table below uses information from the 2013 Edition to compare reliability of DHSV (downhole safety valves) installed below the wellhead of offshore wells - whether those wells are completed "top-side" (that is, on a surface production platform) or "subsea" (that is, on the sea floor) - to surface (wellhead) emergency shutdown valves (ESV) and wellhead "Christmas tree" valves (XV), and subsea isolation valves (SSIV).

The SINTEF 2013 DHSV failure rate and reliability align with the shallow safety valve reliability at SoCal Aliso Canyon wells and to the range used in the Battelle study for shallow-set SSSV.

Derived From SINTEF PDS Data Handbook 2013 Edition				
Annual Failure Rate (F) or Reliability (R)	**DHSV**	**Top-Side ESV/XV**	**Top-Side ESV Christmas Tree**	**Subsea Isolation Valve (SSIV)**
F	0.049	0.041	0.022	0.005
R	0.951	0.959	0.978	0.995

The SINTEF 2021 PDS Data Handbook encompasses more data, provides a breakdown timeframe and population information, and includes reliability for SSSV type and a summary of the failure rate assessment, including differences between systems. DHSV stands for "downhole safety valve," WRSCSSV stands for "wireline retrievable surface controlled subsurface safety valve," TRSCSSV stands for "tubing retrievable surface controlled subsurface safety valve," and TRSCASSV stands for "tubing retrievable surface controlled annular subsurface safety valve."

Derived From SINTEF PDS Data Handbook 2021 Edition							
Annual Failure Rate (F) or Reliability (R)	**DHSV - all**	**WRSCSSV**	**TRSCSSV**	**TRSCASSV Type A**	**TRSCASSV Type B**	**Subsea XT Master Valves**	**Subsea Isolation Valve**
F	0.167	0.167	0.039	0.038	0.041	0.008	0.008
R	0.833	0.833	0.961	0.962	0.959	0.992	0.992
Observation period - years and range	20, 2000-2019	20, 2000-2019	20, 2000-2019	20, 2000-2019	20, 2000-2019	20, 2000-2019	13, 2006-2018
Population size	4665	1721	2891	456	169	936	11

SINTEF notes in the 2021 PDS Data Handbook that the failure rate for DHSV increased as compared to the DHSV failure rate in the 2013 Handbook, and resulted from an increased data set over a longer period than was available in 2013. SINTEF noted that there was a high rate and fraction of internal leakage failures relating to strict valve performance criteria with respect to allowable internal leakage. Even so, the overall failure rate of DHSV aligns with the "medium" reliability rate used for deep-set valves in the Battelle study,

and the breakdown shows that TRSCSSV reliability is in the "high" range, as is the reliability of annular subsurface safety valve systems.

The 2021 Handbook identifies significant reliability differences between tubing-retrievable and wireline retrievable SSSV systems.

TRSCSSV systems include the main valve unit, actuator mechanism, control line with connection to the valve, and control line connections at the tubing hanger. The SINTEF failure rate assessment for TRSCSSV states that newer generations of such valves have higher reliability than older designs, with valve designs from 1995-2000 considered "newer" and still in existence today with little change in design, although some new and improved versions have come out since 2000. SINTEF comments that the largest share of failures of TRSCSSV come from scale and debris in the flow tube and flapper parts of the valve, and that older top-side completions had lower reliability than subsea completions.

WRSCSSV systems include the main valve and actuator, packing seals between the valve and the hydraulic nipple, control line and connection to the hydraulic nipple, and control line and connection at the tubing hanger. SINTEF notes that the WR systems have lower reliability and much of the failure information indicates that it relates to scale and debris in older systems installed in production wells. SINTEF also notes that the installation of WRSCSSV is in a nipple profile, but a tight seal is required in that profile in order to establish communication through the control line. The installation reliability is thus very sensitive to scale and debris buildup in the nipple profile. SINTEF notes that additional failures are assigned to causes such as control line communication failure and/or leaking piston seals. Therefore, most of the WRSCSSV failures result from poor sealing of the packing seals or improper setting of the valve in the nipple profile. SINTEF notes that WRSCSSV design and function principles have not changed appreciably over time, although the running and installation tools might have changed and individual vendors have their own tools.

Causes of Reliability Issues

Causes of SSSV reliability issues can include, among other items not specifically mentioned: incorrect design; incorrect application; faulty installation and/or commissioning; incorrect or inadequate maintenance-inspection-testing; control system failure due to damage to control system components or other cause of loss of functionality; and/or mechanical failure of the valve due to erosion, corrosion, impairment by debris, damage or breakage of components, equipment malfunction, or other cause of mechanical failure.

DR#19 asked about some of the human and organizational threats that could work against SSSV reliability; SoCalGas answered that design and installation specifications and standards were in place, and operational procedures for inspection, testing, and maintenance had been in place* and that considerable discussions were had with the various manufacturers and installers regarding efforts to increase deep-set SSSV reliability (see SoCalGas response to DR#19 Q4: Click Here).

*See SoCalGas responses to DR#19 Q2 and Q3 (linked above), with procedures found at the following links:

File	Link
Testing Surface Controlled Subsurface Safety Valves (224.0000 - 1997-05_Redacted)	Click Here

File	Link
Testing Surface Controlled Subsurface Safety Valves (224.0000 - 2002-05_Redacted)	Click Here
Testing Surface Controlled Subsurface Safety Valves (224.0000 - 2007-11_Redacted)	Click Here
Testing Surface Controlled Subsurface Safety Valves (224.0000 - 2014-02_Redacted)	Click Here
Testing Surface Controlled Subsurface Safety Valves (224.0000 - 2016-04_Redacted)	Click Here
Testing Surface Controlled Subsurface Safety Valves (224.0000 - 2016-05_Redacted)	Click Here
Testing and Inspection of Safety Valves and Wellhead Valves (224.0000 - 2017-08_Redacted)	Click Here
Testing and Inspection of Safety Valves and Wellhead Valves (224.0000 - 2019-08_Redacted)	Click Here
Testing and Inspection of Safety Valves and Wellhead Valves (224.0000 - 2020-08_Redacted)	Click Here
Testing and Inspection of Safety Valves and Wellhead Valves (224.0000 - 2021-08_Redacted)	Click Here

Many SSSV failures relate to control system (hydraulic) failures, which tend to be increasingly common with greater depth, thus a general industry observation of lower reliability for deep-set vs. shallow-set systems. SoCalGas tried many SSSV designs and setting depths at Aliso Canyon and other facilities. In the first decade (1970s) of Aliso Canyon gas storage operations, SSSV were installed at depth just above the gas storage zone at 7000-8000 ft, or deeper, but these SSSV failed relatively quickly due to mechanical issues. In SoCal's answer to DR#19, Q4, the company states, "The first group of Aliso Canyon wells received tubing retrievable systems from three different manufacturers, followed by wireline retrievable systems from four different manufacturers. The tubing retrievable systems included a control line mounted to the outside of the tubing that provided hydraulic pressure to operate the valve. There were approximately 31 installations of these earlier SSSVs that failed mechanically and then were removed by 1976."

"In late 1975, SoCalGas began installing a new concept wireline retrievable SSSV system made by three manufacturers designed for either tubing flow or casing flow. This new concept utilized the tubing or casing string for motive pressure rather than a control line. The new concept deep-set SSSVs, however, also failed to activate, activated spontaneously, or simply came apart. SoCalGas installed approximately 96 of these SSSV systems and nearly all valves were removed by 1979 due to poor reliability. SoCalGas records indicate extensive conversations with the various manufacturers related to reliability concerns."

SoCalGas acknowledges that shallow-set SSSV have had good reliability, in their experience.

The Ombudsman's DR#19A asked more questions about the specific designs of deep-set and shallow-set SSSV that were installed at Aliso Canyon wells, as well as a follow-up to the current SoCalGas evaluation of SSSV applicability in Aliso Canyon wells.

Summary analysis and opinion of the Ombudsman following SoCalGas DR#19A responses:

SoCalGas, in response to Q1 of DR#19A, provided a file, accessible at this link (Click Here) detailing criteria relevant to the decision on potential SSSV applicability in Aliso Canyon Facility wells. The data file shows each well with its location, threat susceptibility, and proximity of the well to potential receptors of impacts relative to a fluid release event; SoCalGas also included review of each well's maximum probably flow potential in terms of gas and total fluid, but removed this confidential information from the file. All wells are at least ½ mile to 1 mile or more from buildings intended for human occupancy or from other cultural features such as roads, airports, railways, or industrial facilities. Infrastructure most proximal to wells is other Aliso Canyon infrastructure – wells, pipelines, and related facilities. The file shows that each well remains subject to landslide risk review and seismic susceptibility risk review before decision-making on applicability of SSSV can be completed.

The Ombudsman notes that risk related to surface expression of a release is limited and potentially relatively minor because of lack of proximity to receptors, although in the case of a release with ignition, there is potential for cascading damage to other Aliso Canyon facilities if any are in relatively close proximity. However, for long-duration releases, as occurred with the SS-25 event, or for underground releases that could spread in the subsurface, potential environmental impacts and safety impacts could be significant due to the maximum flow potential and the large reservoir source that could maintain a relatively high feed rate to a release.

It is the Ombudsman's opinion that application of the Battelle methodology would render wells in Alison Canyon that are subject to seismic fault displacement in the zone ("Zone B" in the Battelle report) of potential beneficial risk mitigation effects of SSSV. The Ombudsman also notes that the Battelle report is clear in stating that other risk mitigations might be employed by the operator to reduce risk, that SSSV are one method for potentially reducing risk, and that storage operators should evaluate the net risk change caused by the installation of an SSSV in any individual well case. A significant factor in evaluating the net risk change is the reliability of the SSSV system and the related increased safety, environmental, and financial impact effected by well workover frequency necessary to service SSSV system reliability failures. Thus, it remains for SoCalGas to complete their assessment of landslide risk and seismic fault displacement risk for each well, complete the net risk change assessment, consider risk mitigation alternatives, and complete the decision process as to applicability of SSSV.

With respect to the SSSV reliability, as already noted in the discussion related to DR#19, the SoCalGas experience with deep-set SSSV systems is influenced by a history of low reliability, despite efforts to improve reliability.

In response to DR#19A questions 2, 3, and 4, which sought information on the various SSSV designs for both deep-set and shallow-set SSSV applications, SoCalGas provided the following files:

File	Link
DR19A-Q2-Tubing Retrievable Deep-Set SSSVs	Click Here
DR19A-Q3-Wireline Retrievable Deep-Set SSSVs	Click Here
DR 19A-Q2&Q3-4601_Redacted	Click Here
DR 19A-Q2&Q3-4618_Redacted	Click Here
DR 19A-Q2&Q3-4622_Redacted	Click Here
DR 19A-Q2&Q3-4625_Redacted	Click Here
DR 19A-Q2&Q3-4636_Redacted	Click Here
DR19A-Q4-P-69F_Nov23_Tool Drawings	Click Here
DR19A-Q4-P-69F-101069570 Control Panel Diagram 71CO424	Click Here
DR19A-Q4-P-69F-102861721_78LXE28304-U	Click Here
DR19A-Q4-P-69F-BDMI_71CO424_1	Click Here
DR19A-Q4-Tubing Retrievable F2 Shallow Set (a)	Click Here
DR19A-Q4-Tubing Retrievable F2 Shallow Set (b)	Click Here
DR19A-Q4-Tubing Retrievable FF33 Shallow Set	Click Here
DR19A-Q4-Tubing Retrievable MA4 Shallow Set	Click Here
Fernando Fee 33_2020 Completion Schematic_Rev3 - 2024-04-10 14.30.43	Click Here

File	Link
Halliburton SSSV NE Fernando Fee 33	Click Here
33173-2082-D-PID (FF33)	Click Here
101069570 Control Panel Diagram 71CO424	Click Here
BDMI_71CO424_1 Design Specification	Click Here
So Cal Gas Standard Sesnon 9 SSSV Databook	Click Here
Standard Sesnon 9_Tubing Completion Schematic_12.15.2021 V2 - 2024-04-10 14.23.08	Click Here
33173-2136-D-PID (SS9)	Click Here
DR19A-Q5-Tubing Retrievable Miller 4 Goleta Deep-Set SSSV	Click Here

Among the files provided, relevant discussion is found in the late 1970s in DR19A–Q2&Q3–4601, -4618, -4622, -4625, and -4636. By 1975, SoCalGas had found that deep-set tubing retrievable SSSV systems were exceptionally problematic with respect to reliability, and noted in a May 1977 document that the ongoing efforts were part of the seventh generation of efforts to find a satisfactory subsurface safety valve system. Tubing-retrievable systems operated on hydraulic pressure that controlled a piston that must be held open and if pressure were relieved, the piston would move up and cause the valve to close. However, SoCalGas found that such systems required hydraulic pressure at surface and/or bottom hole that was incompatible with its wellhead or downhole systems, especially for the deeper fields such as Aliso Canyon.

Having worked with manufacturers, the mid- to late-1970s valve systems were wireline-retrievable and could be set into the profile of the tubing-retrievable systems when the latter were locked open to provide a fully open tubing section with a landing profile to accept the wireline-retrievable (WR) valves. The new WRSSSV had flappers for closure, actuated by spring pressure controlled hydraulically by connection to a surface reservoir, and in one manufacturer's design, the downhole valve also had a dome reservoir for residual pressure charge to assist the surface controlled hydraulic pressure. The 1977 note continues to add, however, that there were additional failures even with the improved designs; in one design, there were serious/critical failures of the flapper mechanism itself, and in the other design, there were minor reliability issues related to false closure due to dome pressure leak-off caused (probably) by seal leaks in the tool body. SoCalGas continued to work with the manufacturers to attempt improvement on the reliability issues,

and SoCalGas employed a consulting company to study the causes of SSSV failure and recommend improvements in concert with manufacturers.

SoCalGas employed revised, modified versions of the manufacturer's SSSV systems and also tried another major supplier's SSSV system which used a bellows mechanism instead of a dome charge. However, the poor reliability experience continued through the late 1970s, with much of the reliability issue related to the ability, or lack thereof, to maintain adequate operating pressure on the valves, due potentially to damage, erosion, or corrosion on the control line, or due to leakage within the valve body and seals.

Through to the end of 1979, the SoCalGas effort to improve deep-set SSSV reliability continued, but without much improvement. A June 1979 internal note (see file DR19A-Q2&Q3-4622) identified that from mid-1976 to early 1979, 90 wells with SSSV at Aliso Canyon were inspected, and over the approximate 2.5-year period, there were 118 test failures, or about 0.52 test failures per well-year, 66 operational failures, or about 0.29 operational failures per well-year, and 5 equipment (control line) failures, or about 0.02 control line failures per well-year. The combined test failure plus operational failure plus control line failure rate was 0.84 failures per well-year, or average reliability duration of 1.19 years.

By the end of October, 1979, SoCalGas had concluded from its long effort at deep-set and shallow-set SSSV systems in all of its gas storage fields, including Aliso Canyon, that 1) shallow-set tubing-retrievable SSSV were the only systems in SoCalGas' experience approaching acceptable reliability; 2) all deep-set tubing-retrievable systems should be locked open and set to receive a wireline-retrievable system if the well were designated as "critical" by the California Division of Oil and Gas (now CalGEM); 3) installation of new SSSV systems would be suspended except for wells where shallow-set SSSV could be employed without greater than 25% impact to the well's gas deliverability; and 4) study of possible reliability improvements should continue.

The Ombudsman notes that in the discussion with respect to DR#19, more recent SSSV reliability information comes from SINTEF's 2021 publication. Additionally, the Ombudsman is a member of the Society of Petroleum Engineers (SPE) and is a member of the Well Integrity Technical Section (WITS) discussion group. The Ombudsman notes a recent August 2024 WITS discussion from engineers in the offshore well completion environment questioning the reliability of SSSV. One participant noted that surface-controlled SSSV have been prone to failure over the years, leading to many workovers on wells, with attendant environmental, health, and safety risk. However, another discussion participant indicated good reliability with deep-set systems, noting that one tubing-retrievable SSSV was still functional and in place after 18 years of service.

The recent SPE-WITS discussion identified ongoing issues with maintaining proper SSSV control pressure. One participant asserted that the SSSV often fail because of poor practices, which could include: excessive control line pressure, causing excess stress and shortening the life of system components; lack of regular cycling and testing and maintenance to ensure functionality, exercise the seals and prevent scale buildup; and human error caused by insufficient knowledge and training regarding SSSV system operation, maintenance, and troubleshooting.

The Ombudsman hopes that this summary of SoCalGas and wider-world experience in SSSV reliability helps to clarify the issues impacting risk-informed decisions to use SSSV as a risk control. SoCalGas does employ some shallow-set tubing retrievable SSSV systems, and as previously noted, SoCalGas has experienced acceptable reliability with these systems. SoCalGas' evaluation of new technology versions of

deep-set systems specifically designed for Aliso Canyon conditions could lead to an opening to perform trials of new systems in one or more Aliso Canyon wells, and the Ombudsman recommended that SoCalGas take that course of action – see Annual Report Number 5, Recommendations for Improvements Related to Safety and Leak Prevention, July 2023 – June 2024. Part A: Recommendations Made During the July 2023-June 2024 Period, new recommendation number 4, also listed below in the recommendations following discussion of the DR#20 responses (see item #6 under Recommendations below).

Data Request #20

Data Request #20, submitted to SoCalGas on November 21, 2023, delivered five questions regarding geohazard risk assessments for Aliso Canyon gas storage wells, focused on landslide threats and fault displacement threats. The Ombudsman asked SoCal to identify how susceptibility of wells to landslide and fault displacement threats changed after the reworking of wells to add new inner casing strings and/or tubing strings. The Ombudsman asked how SoCal is characterizing risk related to landslide and fault displacement threats and how the company was applying other research related to gas storage risk in its own risk assessments for Aliso Canyon gas storage wells.

SoCalGas provided responses on May 22, 2024. SoCal's responses were adequate to answer the immediate questions but the Ombudsman used the June 7, 2024 WSOC meeting for follow-up discussion. Subsequent to the June 2024 WSOC meeting, SoCal provided the Ombudsman with confidential, site-specific risk assessment information for its Aliso Canyon wells. The meeting following the June 2024 WSOC meeting was sufficient to provide the Ombudsman with additional detail and negated the need for a follow-up data request pursuant to DR#20. The DR#20 questions and responses can be found at this link: Click Here

Summary opinion of the Ombudsman following DR#20 responses:

After review and analysis of SoCalGas responses to Data Requests 19, 19A, and 20, and the additional risk assessment discussions (see the Risk Assessment Discussions section below), the Ombudsman identified recommendations listed below and also described in Annual Report Number 5 – Recommendations for Improvements Related to Safety and Leak Prevention, found at this link: Click Here

1. Update the "…finite element analysis previously performed at Aliso Canyon" (Note – SoCalGas, in its response to DR#20 Q1, stated that "Evaluation of the fault displacement threat leverages public models for earthquake frequency, surface expression likelihood, and fault displacement amplitude. The probability that a given fault displacement amplitude will result in a well failure is estimated leveraging finite element analysis previously performed at Aliso Canyon.")
2. Model the change in resistance and resilience of the dual-casing-string wells to show the difference between before- and after-state of risk at the facility wells in regard to failure due to mass earth movement. Note: SoCalGas reported differences in failure rates for such wells in response to DR#20, Q2, but it is not clear how these differences are more fully represented in the individual well risk assessments.
3. Define how the tubular failure frequencies for current wellbore completions with tubing/packer and/or new and additional cemented casing strings compare in an updated finite element analysis with the failure frequency over a 10-year period for each well in the previous analysis, stated to be in the range 2.9 x10e-3 to 3.9 x 10e-3 per year (SoCalGas response to DR#20, Q1). Is that

likelihood different if the period is different than 10 years – for example, what would be the failure probability over 50-year and 100-year periods?

4. Use a P90/P90+ potential leak scenario stemming from tubular failure at deep seated fault displacement with gas flow to the surface, when coupled with a longer-than-10-year review period for fault displacement tubular failure. Develop and show the full risk potential envelope (or profile) for the range of failure likelihood and consequence scenarios.

5. Show the difference in risk profile or risk envelope, as defined in recommendation #3 above, for wells re-completed since 2016 where additional tubular strings were added to the wellbore profile. Show how additional tubular strings are handled in the probabilistic evaluation/equation, as independent barriers vulnerable to their individual failure likelihood in relation to a single fault displacement source event, or as redundant or partially redundant barriers. Show how secondary effects and co-dependent barrier elements (such as wellbore cement) are addressed in the probability chain.

6. Taking into evaluation the well deliverability, well siting, proximity to greatest perceived threat of fault displacement, and SoCal's progress on "evaluating the wells at Aliso Canyon for the installation of subsurface safety valves as measures to mitigate landslide and/or seismic threats"*, as well as SoCal's past experience with reliability of deep-set subsurface safety valve systems and more recent reliability information as, for example, from the SINTEF 2021 Reliability Handbook, and after review and consultation with subsurface safety valve system manufacturers, select one well for demonstration installation of a current-technology deep subsurface safety valve system. Develop maintenance, inspection, and testing practices for the system, then monitor the performance reliability of the installation over a period sufficient to demonstrate the potential range of reliability and the net risk change. Note: SoCalGas stated in response to DR#20, Q4 and Q5 that "SoCal is in the process of evaluating the wells at Aliso Canyon for the installation of subsurface safety valves, as measures to mitigate landslide and/or seismic threats."

Risk Assessment Discussions

Prior to DR#19, #19A, and #20, at the September 2023 WSOC meeting, members of the WSOC provided the Ombudsman with a summary of Aliso Canyon well risk assessment work, which included development of a quantitative risk model and preliminary results for ten (10) wells. SoCalGas noted 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 the ten (10) Aliso Canyon wells generally had comprehensive failure rates in line with general gas storage industry averages. SoCalGas also noted that modeled failures during workovers are a significant contributor to the likelihood of a significant fluid release, but that dual barrier construction, pressure monitoring, casing inspection and repair lead 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 (Click Here), that many Aliso Canyon 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. The WSOC members also indicated during the September 2023 meeting that development of a qualitative reservoir risk assessment framework was underway.

Pursuant to Data Requests #19, #19A, and #20, the Safety Ombudsman asked for more discussion on SoCalGas' risk assessment, specifically with respect to the geohazards threats of landslide mass movement and fault displacement.

WSOC members provided a summary update on risk assessment progress to the Ombudsman during the December 2023 WSOC meeting and again at the June 2024 WSOC meeting and at a follow-up virtual session in late June.

SoCalGas' June 2024 update summarized that preliminary risk assessment has been completed for thirty-five (35) Aliso Canyon facility wells. Some Aliso wells have higher-than-industry average failure potential, with attendant potential for significant fluid release, driven primarily by one or two geohazards – either or both landslide mass movement or fault displacement. Landslide and fault displacement threat levels are elevated at Aliso Canyon due to the inherent geologic features of the geologic framework. However, there is significant variability in well-to-well hazard levels for these two threats, thus the environmental risk related to such threats is site-specific and should not be generalized for all Aliso Canyon wells. SoCal's risk model estimates of the combination of tubing shear due to seismic event fault displacement or landslide earth movement with flow of fluids can be perhaps one-half order of magnitude higher than other threats when comparing landslides to other threats (other than fault displacement) and up to one order of magnitude or more than other threats when comparing fault displacement to other threats (other than landslides).

SoCalGas' well integrity risk assessment model applies a probabilistic fault displacement hazard assessment and within the model applies methods from documented sources (UCERF3, CEC probabilistic seismic hazard analysis) and a failure effects assessment specific to Aliso Canyon.

SoCalGas' well integrity risk assessment model applies landslide mass movement risk assessment using landslide occurrence factors based on California Geological Survey data and other public and company-specific landslide frequency data, then estimates individual well susceptibility based on the distance of a well to the landslide mass potential, then estimates the particular well's vulnerability based on the Alison Canyon failure effects assessment. For the 35 wells modeled thus far, there is about a two-order of magnitude difference in landslide threat potential among individual wells, and SoCalGas takes into account any landslide mitigations the company already has applied.

SoCalGas considers its modeling of fault displacement threats and consequence and landslide threats and consequences to be conservative, insofar as the modeled potential release rates are considered conservative (high side) and the landslide frequency is considered on the high side of the probable range.

In determining net risk, SoCalGas applies industry rates for well workover and drilling loss of control incidents, as estimated in recent DOT-sponsored studies, such as the Battelle study previously mentioned, as well as C-FER Technologies *Risk Assessment and Treatment of Wells*, September 2020 (the C-FER report can be found at the following link: Click Here). Rates of loss of control can be one-half order of magnitude higher than most well integrity threats, other than fault displacement and landslide threats. However, when evaluating potential mitigations to threats and consequences relative to fault displacement and/or landslides, SoCal takes planned intervention risk level into account. Use of a deep-set SSSV to mitigate fault displacement risk exposes a potential low reliability of such SSSV, which then could cause frequent well interventions that carry relatively high risk, such that the net risk after mitigation with a deep-set SSSV might not be significantly or beneficially reduced and might actually increase both environmental risk and safety risk, as pointed out in both DOT-sponsored research projects (Battelle and C-FER

Technologies). SoCalGas' current assessment of the utility of SSSV is found in the company's position paper S_POS.002, which SoCalGas provided in response to DR#19, Q6 and can be found at this link: Click Here

The SoCalGas storage well risk assessment model enables the company to compare risk and estimate aggregated risk related to all threats evaluated and to threat-specific risk, or residual risk after single or multiple threats are reduced or removed. The model accounts for well-specific configurations and already in-place monitoring and mitigation. The quantitative capability permits estimation or perspectives of threat interaction as well as identification of the relative levels of threats. The model also permits consequence severity estimation related to the type or mode of well barrier component failure.

At this time, SoCalGas estimates that due to the workover and recompletion of many Aliso Canyon wells, there is a quantifiable well failure potential risk reduction benefit of additional casing strings and/or tubing strings of 2.7 x 10-4 to 1.7 x 10-3 per year.

Well integrity risk assessment data collection and well workovers continue. All Aliso Canyon wells have had 2nd-round assessments, which includes casing inspection logs; forty (40) wells have had 3rd-round reassessments and five (5) wells have had 4th-round reassessments. Fifty-four (54) wells have been plugged since late 2016. As of June 2024, forty-three (43) out of sixty (60) remaining I/W wells have had complete new inner casing strings installed since 2016.

In calendar year 2023, well integrity reassessments were completed on fifteen (15) wells; two (2) new inner casing strings were installed, and two (2) well abandonments were completed. Work year-to-date June 2024 included two (2) reassessments in progress, one (1) abandonment in progress, four (4) through-tubing inspections completed, one (1) workover recompletion, and one (1) wellhead repair.

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 2024, the Company had submitted sixty-six (66) individual requests to CalGEM for such reassessment extensions and received permission from CalGEM to extend the reassessment interval from twenty-four (24) months to 50-60 months on sixty (60) requests (the extensions might have been granted in more than one (1) request on the same well). CalGEM has denied extension of reassessment intervals for six (6) requests.

WSOC members informed the Ombudsman on the outline of the reservoir risk assessment and its qualitative treatment of threats affecting the reservoir – geologic uncertainty, third-party activity, incorrect operations, and outside forces. The Ombudsman made recommendations: a) clarify the definition of a reservoir risk event; b) add pressure-volume-inventory as a threat and, specific to Aliso Canyon, identify the sensitivity of gas volume per psi as a tool to monitor for reservoir events; and c) evaluate interaction of the pressure-volume-inventory threat with the geologic uncertainty threat. (Refer to Annual Report Number 5 – Recommendations for Improvements Related to Safety and Leak Prevention, linked under Data Request #20, above.)

Data Request #21

The Ombudsman requested an up-to-date copy of the Management of Change procedure, which SoCalGas identified as Data Request #21 and provided on March 1, 2024. The request related to the planning of a

SWOT (Strengths-Weaknesses-Opportunities-Threats) exercise the WSOC was preparing to do pursuant to its Consent Decree duties.

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

SoCalGas is subject to regulation by the CPUC, CalGEM, and PHMSA. The CPUC has safety jurisdiction over the operation of the surface equipment at the Aliso Canyon Facility. PHMSA at the federal level, and CalGEM at the state level, have safety jurisdiction over underground natural gas storage facilities including the wells and storage reservoir. CalGEM regulations for construction, operation and maintenance, monitoring, and safety requirements for the storage wells and storage reservoirs must meet the federal safety regulations that were implemented by the Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) in the interim rule of December 2016 and final rule of March 2021. Indeed, many CalGEM regulations exceed the federal minimum standards.

PHMSA, while retaining enforcement authority, permits CalGEM to act as PHMSA's agent for safety inspections of the Facility. PHMSA reviews CalGEM audit findings and recommendations prior to issuance of inspection reports to SoCalGas. There has not been a PHMSA/CalGEM audit of the Aliso Canyon facility since February 2023.

On August 31, 2023, the California Public Utilities Commission (CPUC) voted to increase the interim storage limit at the Aliso Canyon natural gas storage facility to 68.6 billion cubic feet (Bcf), still below former maximum capacity of 86.2 Bcf. The CPUC ruling was made, in part, based on the demonstrated recent safety performance of the Aliso Canyon facility as well as on the energy needs and 2023 winter reliability model, which can be found at this link. Click Here

SoCalGas submitted its RMP update to CalGEM on April 1, 2022, as required. SoCalGas demonstrated compliance with CalGEM requirements by referring to the various SIMP chapters in the RMP. SoCalGas maintains a standing monthly meeting with CalGEM and uses the meetings for a detailed look at quantitative risk analysis, communication of details of learnings and developments to CalGEM, and fostering question and answer sessions. Part of the process of continual improvement of the RMP is review of the procedures referred to in the SIMP chapters. Some documents require reviews every year, and others are reviewed every three (3) years.

V. Safety Ombudsman Review and Evaluation of Incidents Involving Methane Emissions Above Threshold Levels

The Safety Ombudsman is charged with review and evaluation of all incidents reported to the public and State and local agencies pursuant to Section 4.1 of the Consent Decree. Section 4.1 addresses methane emissions detected by a fence-line methane monitoring system installed at the Facility to detect and monitor methane emissions that may be associated with the leakage of stored natural gas from the Facility.

The monitoring system detects and records methane concentrations in real time. If methane concentrations exceed 25 parts per million (ppm) averaged over a 30-minute period SoCalGas is required to provide public notice on the Aliso Canyon Website, including a general explanation as to the cause of the detection and the responsive actions taken, if any. They are also required to notify the Government Plaintiffs of the

detection(s), their responsive actions, and that they have posted the same information on the Aliso Canyon Website. Lastly, SoCalGas is required to submit quarterly reports to the Government Plaintiffs outlining each time during the quarter that the fence-line monitoring system detects methane concentrations in excess of 10 ppm averaged over any 30-minute period. The same reporting obligations exist for this level of exceedance as noted above, i.e., identification of the cause of the detection and responsive action(s). Normal background methane level is approximately 2 parts-per-million (ppm).

During the period of July 2023 – June 2024 there were no known fence-line monitoring methane concentration exceedance events.

The fence-line methane monitoring system is comprised of eight (8) monitoring areas offering 24/7 surveillance and 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 continues to make the system more reliable and helps avoid outages.

The Ombudsman previously made inquiry and addressed the reliability of the fence-line methane monitoring system as summarized in Annual Report Number 4 – Work of the Safety Ombudsman, available at this link: Click Here

VI. Review and Advise on the WSOC's Efforts, Findings, and Recommendations for Improvements

The Safety Ombudsman duties include reviewing and advising the WSOC on their efforts, findings, and recommendations for improvements at the Aliso Canyon Facility. The specifics of this obligation are outlined in separate reports, Annual Report Number 5 – Work of the Aliso Canyon Well and Storage Operations Safety Committee, Section III, and Annual Report Number 5 – Recommendations for Improvements Related to Safety and Leak Prevention, Section II, and will not be repeated here.

The Safety Ombudsman maintains a compendium of all recommendation topics by the WSOC and/or the Ombudsman over the past five 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 5 – Recommendations for Improvements Related to Safety and Leak Prevention, Section II, link provided earlier in this Report.

VII. Safety-related Concerns Reported by the Public

The Safety Ombudsman functions as a non-exclusive, confidential repository for safety-related concerns related to the Facility and which are reported by the public, including employees of SoCalGas. The Safety Ombudsman maintains strict confidentiality of anyone who submits a safety concern or complaint regarding the Facility. Anyone who submits a concern or complaint has the option of providing their contact information or remaining completely anonymous. For those who elect to provide contact information, their identity and contact information is known only to the Safety Ombudsman and is never revealed. Providing contact information affords the opportunity for the Safety Ombudsman to contact the individual who

submitted the complaint and clarify the issue, as necessary. This, in turn, helps facilitate the review/investigation process and response to the issue.

The comments provided to the Ombudsman at the October 11, 2023 public meeting were addressed previously in this Report.

Only one other item was raised to the Ombudsman by the public during the period covered in this Report. A mold complaint issue was addressed to the Ombudsman email address on March 14, 2024, but involved an apartment in Port Hueneme, California, 35 miles west of the storage facility. The Ombudsman directed the inquirer to the Ventura County Health Department and/or the California Department of Public Health.