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Re: Aliso Canyon Comprehensive Safety Review

Dear Division of Oil, Gas, and Geothermal Resources:

Introduction

The County of Los Angeles ("County") submits the following comments to the Division of Oil, Gas, and Geothermal Resources ("DOGGR") related to DOGGR's comprehensive safety review of the Aliso Canyon gas storage facility owned by the Southern California Gas Company ("SoCalGas"). Submitted with and incorporated into this letter are comments from the County Department of Public Health ("DPH"), the County Fire Department, Health and Hazardous Materials Division ("Fire Department"), oil and gas expert Calvin Barnhill with Northstar Exploration Company, and EES Consulting ("EES"), an expert consulting firm that reviewed the gas reliability/demand issues. The County is also relying on comments from California State University Northridge Professor of Geology Matthew d'Alessio, an expert in seismic risks, separately submitted to DOGGR on February 6, 2017.

DOGGR has not completed the safety review required by SB 380, has not provided the public with access to safety review related materials as required by SB 380, and the public meetings held by DOGGR did not comply with SB 380 because they were held prior to the completion of the safety review. SB 380 requires all 114 wells to be tested and to either pass the tests, be isolated from the field, or be plugged and abandoned. However, DOGGR's Notice of Public Meeting and Comment Period addresses only 113 wells, stating that 34 wells have passed the tests and 79 have been temporarily plugged and isolated. This does not comply with SB 380. In fact, DOGGR's press release for the public meeting

states that one well was still undergoing testing. As of February 6, 2017, DOGGR's Aliso Canyon webpage indicates that only 113 wells fall into those categories and that one well is still pending test results, Porter 32.

As the Fire Department notes in its comments, there are serious shortcomings with the risk management plan documents that require additional investigation and development. Indeed, some of SoCalGas' emergency planning documents have not been updated since prior to the Aliso Canyon well failure. The Fire Department and Department of Public Health agree that approving injection before the completion of the root cause analysis would preclude regulators from learning from the prior disaster and making changes so that it never happens again.

The Fire Department and CSUN geology professor both state that there are significant seismic risks that need to be fully investigated and mitigated prior to any approval of gas injection. Indeed, the 1994 Northridge earthquake caused major damage at the Aliso Canyon facility.

Petroleum engineering expert Calvin Barnhill states that there are several shortcomings in the safety review, including the need for subsurface safety valves to protect against a gas release if the wellhead were to be compromised.

County consultant EES found that gas demand mitigation measures are working and that withdrawals from Aliso Canyon are very unlikely to be necessary between now and the end of 2018. As a result, there is time to complete the CPUC proceeding on the future of Aliso Canyon and for all parties to have the benefits of the results of that proceeding before authorizing re-injection.

No decision should be made by DOGGR to approve injection of gas into Aliso Canyon until: (1) the root cause analysis of the gas leak is completed; (2) the California Public Utilities Commission ("CPUC") concludes a legislatively required investigation to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon gas storage facility; (3) the safety review is fully completed and all safety review related materials are accessible to the public on DOGGR's website as required by SB 380; (4) DOGGR completes the additional investigations, actions, and mitigations outlined in the County's comments; and (5) DOGGR complies with the California Environmental Quality Act ("CEQA").

A table of contents for the County's comments follows on the next page.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION.....	1
I. THE ROOT CAUSE ANALYSIS SHOULD BE COMPLETED PRIOR TO APPROVING INJECTIONS AT ALISO CANYON.....	3
A. The County Fire Department, Health Hazardous Materials Division Recommends Completing the Root Cause Analysis Prior To Approving Injection.....	4
B. County Department of Public Health Recommends Completing the Root Cause Analysis Prior to Approving Injection.....	4
C. By Failing to Wait for Completion of the Root Cause Analysis, DOGGR Has Failed to Comply with the Requirements of SB 380.....	4
D. Legislation Requiring Completion of the Root Cause Analysis Prior to DOGGR Authorizing Injection is Pending and is Supported by the County and City of Los Angeles.....	4
II. INJECTION SHOULD NOT BE APPROVED UNTIL AFTER THE CPUC CONCLUDES ITS LEGISLATIVE REQUIRED INVESTIGATION TO DETERMINE THE FEASIBILITY OF MINIMIZING OR ELIMINATING ALISO CANYON.....	5
A. The CPUC Will be Voting on Opening the Proceeding on the Future of Aliso Canyon and a Final Decision is Expected in Mid-2018.....	5
B. A Review by Engineering and Consulting Firm EES Demonstrates that the Success of Mitigation Measures in Reducing Gas Demand Provide Sufficient Time to Delay a Decision on Injection Until After the CPUC Proceeding.....	6
III. SEISMIC STUDIES RECOMMENDED BY THE NATIONAL LABORATORIES ARE NECESSARY TO THE RISK MANAGEMENT PLANNING PROCESS AND SHOULD BE COMPLETED PRIOR TO APPROVAL OF INJECTION.....	6
A. The Fire Department Recommends Further Study and Mitigation of Seismic Risk be Conducted Prior to Approval of Gas Injection.....	6
B. Comments from CSUN Geology Professor Matthew d'Alessio Demonstrate that the Seismic Hazard Risks Are Significant and Should be Further Studied and Mitigated.....	7
C. County DPH Believes that the Safety Review is Inadequate Because it Fails to Consider Public Health Risk Factors Identified by the DOE Task Force, Including Seismic Activity.....	8

D.	SoCalGas Has Failed to Comply with DOGGR Emergency Order 1109 Because Its Risk Management Plan Does Not Effectively Mitigate Geologic and Geotechnical Hazards.....	9
E.	By Failing to Sufficiently Identify the Seismic Risks, DOGGR Has Failed to Comply with the Requirements of SB 380.....	9
IV.	THE RISK MANAGEMENT PLAN IS INCOMPLETE AND INADEQUATE.....	9
A.	The Fire Department Believes that SoCalGas' RMP is Inadequate and Fails to Comply with Applicable Risk Management Requirements.....	9
B.	Numerous Required RMP Documents Referenced in Correspondence Between SoCalGas and DOGGR Have Not Been Completed or Have Not Been Provided to the Fire Department or the Public.....	11
C.	RMP Documents on the DOGGR Website Indicate that SoCalGas Emergency Planning Documents Have Not Been Updated Since Before the October 2015 Well Failure and Leak.....	12
D.	Ignoring the Direction of SB 887, SoCalGas Has Not Consulted with the Fire Department on its Emergency Response Plans for Aliso Canyon.....	12
V.	DPH FOUND THAT THE SAFETY REVIEW FAILS TO INCLUDE SEVERAL CRITICAL PUBLICHEALTH PROTECTION.....	13
VI.	SUBSURFACE SAFETY VALVES SHOULD BE REQUIRED ON ALL WELLS USED FOR INJECTION AND WITHDRAWAL AT ALISO CANYON.....	14
A.	County Oil and Gas Well Expert Calvin Barnhill Recommends Subsurface Safety Valves to Provide a Secondary Level of Protection in the Event of a Wellhead Failure.....	14
B.	Geology Processor d'Alessio Recommends Installation of Subsurface Safety Valves Due to the Location of Aliso Canyon in the Middle of an Active Earthquake Fault.....	15
VII.	THE PUBLIC MEETINGS WERE PREMATURE BECAUSE THE COMPREHENSIVE SAFETY REVIEW REQUIRED BY SB 380 WAS NOT COMPLETED PRIOR TO THE PUBLIC MEETING.....	15
A.	Documents on the DOGGR Website Demonstrate that As of February 3, 2017, Not all 114 Wells Had Passed Required Tests or Were Isolated.....	16

B.	DOGGR Has Not Complied with SB 380 Because Other Requirements of the Safety Review Remain Incomplete and Subject to Future Submittals and Possible Changes.....	17
C.	The Safety Review is Incomplete Because SoCalGas Has Not Submitted Required Documents to the CPUC Following a Pipeline Leak at Aliso Canyon.....	18
D.	The Public Comment Deadline Should Be Extended Because All of the Required Documents and Data Related to the Safety Review Have Not Been Provided to DOGGR and Thus the Safety Review Is Not Complete as a Matter of Law.....	19
VIII.	DOGGR HAS NOT FULLY COMPLIED WITH SB 380'S REQUIREMENT TO POST MATERIALS IN A TIMELY MANNER ON THE PUBLIC PORTION OF ITS WEBSITE.....	19
IX.	APPROVAL OF GAS INJECTION WOULD HAVE NO MATERIAL IMPACT ON GAS RELIABILITY FOR THE TWO MONTHS REMAINING THIS WINTER BECAUSE IT WILL BE THE MIDDLE OF FEBRUARY, AT THE EARLIEST, BEFORE ANY INJECTION COULD OCCUR.....	21
A.	Approval of Injection in the Near Future Would Not Materially Impact Gas Reliability For the Rest of this Winter.....	21
B.	Mitigation Measures are Proving to be Successful in Reducing the Overall Demand for Gas, and Gas Withdrawals from Aliso Canyon Should not be Necessary During Summer 2017 or Winter 2017-2018.....	22
X.	EES FOUND THAT BASED ON CPUC RELIABILITY STUDIES, NO WITHDRAWAL OF GAS FROM ALISO CANYON SHOULD HAVE BEEN NECESSARY ON JANUARY 24 AND 25, 2017.....	22
XI.	THERE IS SUFFICIENT GAS CURRENTLY IN ALISO CANYON TO USE IT AS A LAST RESORT WITHOUT ANY NEW GAS INJECTION.....	24
XII.	THE COUNTY REQUESTS THAT THE CPUC CONDUCT A STAFF INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING THE WITHDRAWAL OF GAS FROM ALISO CANYON ON JANUARY 24 AND 25, 2017; THIS SHOULD BE COMPLETED PRIOR TO A FINAL DECISION TO ALLOW INJECTION TO BEGIN.....	24
XIII.	THE DECISION BY DOGGR TO ALLOW GAS INJECTION AT ALISO CANYON IS A PROJECT SUBJECT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.....	25

A.	The CEQA Process will Maximize Consideration of Potentially Significant Environmental Impacts and Mitigation Measures, and Will Require DOGGR to Consider the No Project Alternative and Other Alternatives to Maintain Gas Reliability Rather Than Approving Gas Injection.....	26
B.	The CEQA Process Helps Facilitate Public Participation and Informed Decision Making.....	27
C.	Use of a CEQA Exemption Would be Inappropriate Due to Unusual Circumstances.....	27
XIV.	THE COUNTY REQUESTS THAT DOGGR PREPARE AND MAKE AVAILABLE TO THE PUBLIC, WRITTEN RESPONSES TO ALL WRITTEN PUBLIC COMMENTS, INCLUDING THE COUNTY'S PRIOR TO A DECISION TO AUTHORIZE INJECTION.....	29
XV.	DOGGR AND THE CPUC SHOULD COMMIT TO HOLDING ANOTHER PUBLIC MEETING AFTER WRITTEN RESPONSES ARE PROVIDED TO ALL COMMENTS.....	29
XVI.	ALTERNATIVELY, ANY APPROVAL BY DOGGR SHOULD BE LIMITED IN SCOPE AND DURATION AND MUST BE SUBJECT TO ADDITIONAL MITIGATION MEASURES BASED ON THE RESULTS OF THE ROOT CAUSE ANALYSIS, THE ADDITIONAL SEISMIC STUDIES AND A COMPLETE RISK MANAGEMENT PLAN.....	30
XVII.	THE COUNTY REQUESTS THAT DOGGR CONSIDER THE FOLLOWING DOCUMENTS TO BE INCLUDED IN THE ADMINISTRATIVE RECORD.....	30
	CONCLUSION: DOGGR SHOULD NOT APPROVE NEW GAS INJECTION AT ALISO CANYON UNTIL IT COMPLIES WITH SB 380, CEQA, AND ITS OWN EMERGENCY REGULATIONS AND CHECKLIST.....	30

I. The Root Cause Analysis Should be Completed Prior to Approving Injections at Aliso Canyon.

On November 10, 2016, the Board of Supervisors sent letters to DOGGR and the CPUC requesting that no gas injections be allowed at Aliso Canyon until (1) a root cause analysis of the gas leak is completed, and (2) the CPUC concludes a legislatively required investigation to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon gas storage facility. (Copies of these letters are attached hereto as Exhibit 1). Neither the Board nor the County received a response from DOGGR or the CPUC to these letters.

The County's position makes common sense. Why should SoCal Gas be allowed to pump gas at high pressure into its facility without knowing what caused the leak, without knowing the future of the facility, and without fully addressing the risks of another leak? It would be irresponsible, and potentially disastrous, to approve injections at Aliso Canyon until we know what caused the well to fail, resulting in the largest gas leak in the history of the United States. As discussed further below, it would also be irresponsible to allow gas injection without having in place an adequate risk management and emergency response plan should a major leak occur.

A. The County Fire Department, Health Hazardous Materials Division Recommends Completing the Root Cause Analysis Prior to Approving Injection.

During the months-long leak at Aliso Canyon, the Fire Department participated in the unified command to respond to the Aliso Canyon leak. As first responders, the Fire Department is on the front lines of responding to emergencies, including leaks, fires, and other incidents at industrial facilities. The Fire Department regularly prepares after action reports, investigates the cause of fires and other incidents, and engages in prevention and risk management activities.

The comment letter from the Fire Department explains that a root cause analysis helps operators and regulators design and implement safety measures to prevent the incident from happening again. Without determining the cause of the Aliso Canyon leak, we cannot be sure that adequate steps are being taken to prevent such a leak from recurring.

The Fire Department recommends that no approval be given to SoCalGas to begin gas injection at Aliso Canyon without first completing the root cause investigation and incorporating improvements to the Risk Management Plan

based on the results of that investigation. Additionally, the root cause analysis could influence how a future release might be better managed.

B. County Department of Public Health Recommends Completing the Root Cause Analysis Prior to Approving Injection.

The comment letter from DPH submitted with this letter states that the root-cause analysis is expected to confirm the origin, mechanism, and nature of the leak that led to this community-wide public health disaster. This analysis should provide key information to prevent the occurrence of a similar disaster. DPH requests that DOGGR delay a decision to approve injection at Aliso Canyon until after the root cause analysis is finalized.

C. By Failing to Wait for the Completion of the Root Cause Analysis, DOGGR Has Failed to Comply with the Requirements of SB 380.

SB 380 requires that the "risks of failure identified in the review have been addressed." Without the benefit of the root cause analysis, neither DOGGR, nor the public, can know if all the risks of failure have been identified in the review required by SB 380. By declaring its safety review required under SB 380 complete, despite not having completed the root cause analysis, DOGGR has not complied with SB 380.

D. Legislation Requiring Completion of the Root Cause Analysis Prior to DOGGR Authorizing Injection is Pending and is Supported by the County and City of Los Angeles.

Proposed legislation (SB 57, formerly SB146), co-authored by state legislators representing the communities closest to Aliso Canyon, would prevent DOGGR from lifting the prohibition on gas injection until after the root cause investigation has been completed and released to the public.¹ The County and City of Los Angeles have both passed motions supporting this legislation.

¹https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB57; <http://www.scp.org/news/2017/02/02/68716/state-senators-push-legislation-to-delay-reopening/>

II. Injection Should Not be Approved Until After the CPUC Concludes its Legislatively Required Investigation to Determine the Feasibility of Minimizing or Eliminating Aliso Canyon.

A. The CPUC Will Be Voting on Opening the Proceeding on the Future of Aliso Canyon and a Final Decision is Expected in Mid-2018.

On January 27, 2017, the CPUC issued a press release stating that at its February 9, 2017, Voting Meeting, the CPUC is expected to vote on opening an Order Instituting an Investigation that will determine the feasibility of minimizing or eliminating the use of Aliso Canyon.² This proceeding is required by state law (SB 380). According to the proposed Order³ on the CPUC website, the investigation will have two phases: Phase 1 of the proceeding would undertake a thorough analysis of whether it is feasible to reduce or eliminate the use of Aliso Canyon while still maintaining electric and gas reliability for the region. The determination would include an assessment of the impact of reducing or eliminating the use of the Aliso Canyon facility on rates. Phase 2 of the proceeding would answer the question of whether the CPUC should reduce or eliminate the use of Aliso Canyon, and if so, under what conditions and parameters and in what time-frame. The CPUC has indicated that it expects a final decision in the matter in mid-2018. The County requests that a decision on approving injections at Aliso Canyon be delayed until after the completion of this legislatively mandated CPUC process.

²<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M173/K201/173201227.PDF>

³http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Proposed%20OII%20Aliso%20Canyon.pdf

B. A Review By Engineering and Consulting Firm EES Demonstrates that the Success of Mitigation Measures in Reducing Gas Demand Provide Sufficient Time to Delay a Decision on Injection Until After the CPUC Proceeding.

The County has retained EES, a registered professional engineering and management consulting firm, to provide analysis and expert opinion regarding gas reliability issues. Based on the success of the mitigation measures in reducing gas demand, and the recommended actions in EES's comment letter, it is EES's opinion that withdrawals from Aliso Canyon are very unlikely to be necessary between now and the end of 2018. As a result, there is time to complete the CPUC feasibility proceeding and for all parties to have the benefits of the results of that proceeding on the future of Aliso Canyon before authorizing re-injections at the facility.

III. Seismic Studies Recommended by the National Laboratories Are Necessary to the Risk Management Planning Process and Should be Completed Prior to Approval of Injection.

A. The Fire Department Recommends Further Study and Mitigation of Seismic Risk be Conducted Prior to Approval of Gas Injection.

As explained in the Fire Department comments, documents posted on DOGGR's Aliso Canyon website indicate that the investigation and mitigation of seismic risks are not complete. In an October 11, 2016 submittal to DOGGR, SoCalGas acknowledged that *"there are geologic and geotechnical risks to operating and maintaining a natural gas storage facility" that range "from seismic activity to landslides, and could damage SoCalGas' assets above and below ground."* Indeed, the 1994 Northridge earthquake damaged surface terrain at Aliso Canyon, including landslides, cracked well cellars and roads, tank farm damage, and pipe support damage. Per SoCalGas' October 11, 2016 Supplement Risk Management Plan #2, one well, SS4-O, experienced a collapsed casing which required the well to be plugged.

SoCal Gas further acknowledged that *"localized landslides could pose a risk to the wellhead, wellsite piping, withdrawal/injection piping, and process equipment through debris fall induced through non-seismic events, such as heavy rain."* SoCal Gas states that it *"will undertake further study of the geologic and geotechnical hazards in the area to determine if other mitigation measures are warranted, and to determine if there are ways to better understand the probability of these events."* SoCal Gas has acknowledged the need to submit additional data and information as it works collaboratively with DOGGR toward a final seismic

analysis. Additional study of geologic, geotechnical, and seismic hazards are plainly required for the Aliso Canyon facility.

A December 12, 2016 letter from the Berkeley, Sandia and Lawrence Livermore National Laboratories ("National Laboratories") to DOGGR acknowledges that there are seismic risks to the Aliso Canyon facility from the Santa Susana fault system and other nearby faults. (see Attachment 3 to Fire Department comments). The National Laboratories agreed that further scrutiny of seismic hazards associated with the Santa Susana fault system is warranted. The National Laboratories also agreed that further study of the risk of damage to wells from fault slippage would better inform the level of hazard to consider.

Collectively, completing these additional investigations will provide a more detailed understanding of the seismic hazards at Aliso Canyon. The letter states that *"SoCalGas should then undertake the next step of using the improved knowledge of hazards to consider the risks to subsurface infrastructure" and "consultants with expertise in quantitate risk assessment of wellborne systems should be engaged in carrying out a detailed analysis of formation-wellborne interaction under seismic loading. A risk assessment should incorporate the designs of the wells being used at Aliso Canyon."* The Fire Department believes that the most prudent approach would be to complete these additional seismic hazard investigations and fully evaluate the seismic risks, prior to allowing SoCalGas to inject more gas into Aliso Canyon.

B. Comments from CSUN Geology Professor Matthew d'Alessio Demonstrate that the Seismic Hazard Risks Are Significant and Should be Further Studied and Mitigated.

California State University Northridge Professor of Geology Matthew d'Alessio, who has studied the San Andreas fault system as a researcher and former member of the U.S. Geological Survey Earthquake Hazards Team, has shared the comments he submitted to DOGGR on February 6, 2017 with the County. A copy of Professor d'Alessio's comments is attached hereto as Exhibit 2. Professor d'Alessio's opinion is that seismic hazards are significant at Aliso Canyon and should be quantified and mitigated before any new injections are approved. He recommends that SoCalGas should submit results showing the effects of ground shaking and fault rupture on the surface and underground facilities. Once they have fully identified these risks, they should be required to mitigate them before the facility is permitted to operate.

Professor d'Alessio explains that the Santa Susana fault, which the State of California has designated as a known active fault, cuts across all 114 wells at Aliso Canyon. Models by the U.S. Geological Survey expect that the fault will produce a magnitude seven earthquake at some point in the future. There is a 78% chance of a major earthquake nearby Aliso Canyon in the next 50 years. In a magnitude seven earthquake, the fault could slip three to six feet in a single lurch. That motion has the potential to slice the storage facility wells in half, rupturing every one of them. It took four months to kill a single ruptured well last year. What would happen if dozens of wells ruptured simultaneously at Aliso Canyon after more gas has been injected at high pressure? It took over four months to plug just one well that spewed over 100,000 tons of gas into the environment.

Earthquakes have caused significant impacts to other oil and gas fields in Southern California. For example, when a fault in the Wilmington oil field near Long beach slipped less than one foot in 1961, more than 130 wells failed simultaneously. Many of the wells at Aliso Canyon were built before 1961.

Six scientists from the Department of Energy signed a letter to DOGGR agreeing that fault rupture poses a risk to the facility, and they recommend the facility perform two types of seismic hazard analysis. The letter urges that studies "should be planned and executed in a deliberate manner." Professor d'Alessio opines that the appropriate time to fully assess the risks is *before* this facility is permitted to reopen. He notes that we would not allow a school to be built near an active fault, allow students to enroll in it, and then schedule a seismic hazard analysis to be completed at a later date. In fact, schools, hospitals, nuclear power plants, dams, and housing developments are all required by state or federal regulations to perform seismic analyses before they are allowed to operate. DOGGR's "duty to prevent damage to life, health, property, and natural resources" cannot be satisfied without an understanding of seismic risks and appropriate mitigations.

As discussed further below, Professor d'Alessio recommends that subsurface safety valves be required on all wells as a mitigation measure to reduce the impacts of earthquakes.

C. DPH Believes that the Safety Review is Inadequate Because it Fails to Consider Public Health Risk Factors Identified by the DOE Task Force, Including Seismic Activity

DPH also states that the safety review is inadequate because it does not consider public health risk factors identified by the Department of Energy Task Force in the evaluation of natural gas storage safety. These include geologic

factors (e.g. seismic activity), potential for human error, and severe weather events. Because the Aliso Canyon field is situated on a geologic fault, seismic activity must be anticipated, further evaluated, and incorporated into comprehensive risk management and emergency response plans.

D. SoCalGas Has Failed to Comply with DOGGR Emergency Order 1109 Because its Risk Management Plan Does Not Effectively Mitigate Geologic and Geotechnical Hazards.

DOGGR's emergency order 1109, dated March 2016, require that SoCalGas ensure that its Risk Management Plan ("RMP") include *"an effective facility-wide emergency response plan and effective geologic and geotechnical hazard mitigation protocols."* Without conducting the additional seismic investigations recommended by the National Laboratories, SoCalGas' own letter, the Fire Department, and Professor d'Alessio, the RMP fails to comply with DOGGR emergency order 1109.

E. By Failing to Sufficiently Identify the Seismic Risks, DOGGR Has Failed to Comply with the Requirements of SB 380

SB 380 requires that the "risks of failure identified in the review have been addressed." The risk of failure due to seismic hazards have been identified, but they have not been addressed. By not completing the recommended seismic studies, DOGGR has not addressed the seismic risks and therefore has not complied with SB 380.

IV. The Risk Management Plan Is Incomplete and Inadequate.

A. The Fire Department Believes that SoCalGas' RMP is Inadequate and Fails to Comply with Applicable Risk Management Requirements.

The Fire Department's comment concludes with the following statement:

[I]t is the professional opinion of the Fire Department and its HHMD that SoCalGas' RMP is inadequate and fails to comply with the letter or spirit of applicable risk management requirements. The Fire Department strongly encourages DOGGR to require SoCalGas to conduct the further studies, incorporate further mitigations, and make all of the improvements to the RMP discussed [by the Fire Department].

The basis for the Fire Department's conclusion is discussed below. In response to a County request for the RMP for the Aliso Canyon facility, DOGGR provided the County an "initial draft submission" of SoCalGas' RMP along with a September 19, 2016 cover letter (see Attachment 4 to Fire Department comment letter) in which DOGGR acknowledged that "*risk management planning for underground gas storage facilities is a new and complex requirement, and DOGGR anticipates the need for in depth and technical discussions with each of the gas storage operators regarding their initial submissions, likely leading to further developments of these plans.*" Incredibly, the draft RMP submitted by SoCalGas makes no mention of the Aliso Canyon well failure.

On January 3, 2017, the Fire Department submitted detailed comments on the RMP for Aliso Canyon that was submitted by SoCal Gas to DOGGR. The letter identified over a dozen inadequacies in the RMP. On January 19, 2017, DOGGR sent an email to the County indicating that DOGGR would "make appropriate edits to the next cycle of the Underground Gas Storage permanent regulations to incorporate [the Fire Department's] suggestions as potential requirements for the permanent regulations" but that DOGGR "*does not intend to require another revision of the RMP from SoCalGas*" until the permanent regulations have been approved. (The email is attachment 6 to the Fire Department comments). The email from DOGGR indicated that the formal regulation procedure would begin in the next 60 days and that the "*RMP requirements will be expanded in the final regulations.*" The Fire Department recommends that improvements to the RMP be completed by SoCalGas *before* injection resumes.

Additionally, the DOGGR rulemaking should be completed prior to approving new injection into Aliso Canyon, and those new regulations should apply to Aliso Canyon. DOGGR is conceding that additional risk management requirements will be imposed on gas storage facilities in the future but is unwilling to wait until that process is complete to consider a final decision on gas injection at Aliso Canyon.

The RMP is not specific to Aliso Canyon, but applies broadly to SoCalGas' three active underground storage facilities and to a former underground gas storage facility in Montebello. Site-specific information is critical for an acceptable RMP.

On October 21, 2016, DOGGR and the CPUC sent a joint letter to SoCalGas (see Attachment 7 to Fire Department comments) that contained a "*Checklist of Pre-Injection Safety Assurances*" to be completed prior to resuming

the injection of gas at Aliso Canyon. The checklist requires SoCal Gas to provide an RMP in accordance with DOGGR's emergency regulations that includes an effective facility-wide emergency response plan and effective geologic and geotechnical hazard mitigation protocols. As discussed above, the RMP was prepared without having the benefit of the root cause analysis or the seismic studies and analysis recommended by the National Laboratories. Accordingly, the RMP fails to comply with the checklist prepared by DOGGR and the CPUC. Gas injection should not be approved until these additional steps are completed.

B. Numerous Required RMP Documents Referenced in Correspondence Between SoCalGas and DOGGR Have Not Been Completed or Have Not Been Provided to the Fire Department or the Public.

According to SoCalGas' November 1, 2016 submittal to DOGGR regarding compliance with DOGGR regulations section 1724.9(a), SoCalGas stated that it *"is compiling the data required under Section 1724.7 of Title 14 of the California Code of Regulations (CCR) for the Aliso Canyon Storage Field, and will submit as soon as practicable"* (see Attachment 8 to Fire Department comments). This data is required under DOGGR regulations and should be provided to DOGGR and the public prior to any decision to approve gas injection. Per SB 380, such data should be posted on the DOGGR website for public access. Without such data, neither DOGGR, nor the public, can be sure that SoCalGas has complied with State law and regulations.

As stated in its October 11, 2016 letter, SoCalGas acknowledges the need to submit additional data and information as it works collaboratively with DOGGR toward a final RMP. As of February 3, 2017, there were no documents related to the RMP on the DOGGR website that post-date October 11, 2016. Based on the documents available on the DOGGR website, the current version of the RMP does not mention the December 12, 2016 recommendations from the National Laboratories, or the January 3, 2017 recommendations of the Fire Department.

SoCalGas sent a letter to DOGGR dated October 11, 2016 which contained two short supplements to the RMP. The one-page Supplement to SoCalGas' Storage Risk Management Plan #1, states that the *"baseline assessment of wells will be completed no later than December 2019."* (See Attachment 2 to Fire Department comments). A baseline assessment inspection of wells should be completed prior to allowing gas injection to begin.

An October 11, 2016 letter from SoCalGas to DOGGR on the RMP references an "*Emergency Response Plan*" that SoCalGas says it submitted to DOGGR on September 30, 2016. (See Attachment 2 to Fire Department comments). As of February 3, 2017, this document has not been made publicly available on the DOGGR website. Despite requests to DOGGR for this document by other Los Angeles County entities, a copy has not been provided.

C. RMP Documents on the DOGGR Website Indicate that SoCalGas Emergency Planning Documents Have Not Been Updated Since Before the October 2015 Well Failure and Leak.

A document entitled "*Aliso Canyon Emergency Binder*" is posted on the DOGGR website. It contains various documents that, based on the date cited, have not been updated since the October 23, 2015 leak at Aliso Canyon. Of particular concern to this Department are: "*Natural Disaster or Major Emergency - Employee Instructions*" dated 2011 and, last reviewed 2012; "*Field Services Emergency Plans*" last reviewed on October 6, 2015; "*Mutual Assistance Agreement*" last reviewed on September 23, 2015. These are collectively attached as Attachment 9 to the Fire Department comments. This binder also contains a Public Awareness Plan (see Attachment 10 to Fire Department comments) which has not been updated since April 4, 2014 - 18 months prior to the leak. Many other documents in the binder also indicate that they have not been updated since the October 23, 2015 leak at Aliso Canyon. The Fire Department recommended that DOGGR require SoCalGas to thoroughly review and update its emergency binder to take into consideration lessons learned from the October 2015 leak and corresponding response prior to the RMP considered for final approval and prior to any gas injection.

D. Ignoring the Direction of SB 887, SoCalGas Has Not Consulted with the Fire Department on its Emergency Response Plans for Aliso Canyon.

SB 887, codified now as Public Resources Code section 3181 requires that "*The operator shall consult with local emergency response entities on the response plans.*" The Fire Department, along with the Los Angeles City Fire Department, are the local emergency response entities, yet SoCalGas has not consulted with either entity regarding its RMP. The RMP submitted does not contain all of the requirements listed in Public Resources Code section 3181.

V. DPH Found That The Safety Review Fails to Include Several Critical Public Health Protections.

DPH responded to health-related impacts and ongoing recovery efforts continuously since the natural gas disaster began. DPH understands the magnitude of adverse health impacts that can occur as a result of exposure to emissions from the Aliso Canyon field. Over 8,000 families were relocated from their homes, including many as far away as seven miles from the well failure. The extremely large number of people impacted by the Aliso Canyon disaster was unprecedented in the experience of DPH. DPH also understands that some residents may have experienced exposure to natural gas odors for at least several years prior to this disaster. Reported and confirmed natural gas-type odors continue to this day in Porter Ranch, with the most recent recorded occurrence on January 17, 2017.

The safety review does not adequately address the need for continuous, comprehensive air monitoring for the complex network of wells, pipelines and related infrastructure at Aliso Canyon. It is vital to include best management practices, monitoring technologies, and reporting practices that the operator should have in place to closely monitor and evaluate the facility on a continuous basis. The 2016 Department of Energy ("DOE") Task Force has reported that monitoring and leak detection practices were likely inadequate to maintain safe operations. DPH expects the root cause analysis findings to further inform this critically important monitoring plan for the facility.

The safety review does not identify the chemical composition of the natural gas in the wells or reservoir. In the petrochemical industry, oil refineries routinely "fingerprint" oil mixtures. This practice should take place at Aliso Canyon. DPH advises DOGGR to conduct fingerprinting analysis periodically for Aliso Canyon and other natural gas storage facilities, in order to understand potential impacts on public health.

DPH recommends that SoCalGas be required to fund a comprehensive, community health study to the scope and specifications approved by DPH, AQMD, and an independent panel of scientific agencies and experts.

VI. Subsurface Safety Valves Should be Required on All Wells Used for Injection and Withdrawal at Aliso Canyon.

A. County Oil and Gas Well Expert Calvin Barnhill Recommends Subsurface Safety Valves to Provide a Secondary Level of Protection in the Event of a Wellhead Failure.

The County is submitting with these comments, the expert opinion comments of petroleum engineer Calvin Barnhill from Northstar Exploration Company, a registered professional engineering company (hereinafter "Barnhill Comments"). Mr. Barnhill participated in a conference call with DOGGR on December 20, 2016 regarding Aliso Canyon during which the need for SSSVs was discussed. DOGGR has not responded to the need for SSSVs raised by Mr. Barnhill and the County in its safety review. As set forth in the enclosed opinion from Mr. Barnhill, DOGGR's safety review failed to consider the risk of damage to or destruction of the wellhead (surface) of the wells at Aliso Canyon. If a wellhead fails or is damaged where there is no secondary barrier to contain and prevent a gas leak, gas would escape to the atmosphere. There are a number of ways that a wellhead can fail, including from accidental collisions, landslides, extreme weather conditions and earthquakes. It is well-known that Aliso Canyon is an active earthquake zone. In fact, the Santa Susana fault line crosses through the facility. There is a high likelihood of a large earthquake near Aliso Canyon. In 1994, the Northridge earthquake damaged Aliso Canyon causing landslides, cracked well cellars and roads, tank farm damage, pipe support damage, and damaging a well so badly that it had to be plugged. If the wellhead fails, the surface safety valve would be inoperable and gas would leak from the well, leading to another public health and environmental disaster like the one the community just suffered. See Figure B to the Barnhill Comments for a depiction of such an event.

The way to mitigate against this risk is to require the installation of SSSVs on all wells in operation. The installation of SSSVs will create a secondary level of protection in case of wellhead failure and is thus consistent with DOGGR's mandated "no single point of failure" requirement.⁴ As depicted in Figure C to the Barnhill Comments, a SSSV shuts down the flow of gas in the event of a wellhead failure, preventing a catastrophic gas release.

⁴http://www.conservation.ca.gov/dog/Documents/GasStorage/August_2016_Gas_Storage_Presentation.pdf

The County previously participated in a conference call with DOGGR in which the County requested that all wells that SoCalGas wants to use for injection and withdrawal should be equipped with SSSVs. While six wells at Aliso Canyon have SSSVs, none of those wells have passed all of the required tests and are not currently proposed to be used for injection. This risk is unacceptable. SSSVs should be installed on all wells at Aliso Canyon before allowing injections of gas at high pressure to begin.

B. Geology Professor d'Alessio Recommends Installation of Subsurface Safety Valves Due to the Location of Aliso Canyon in the Middle of an Active Earthquake Fault.

Geology professor d'Alessio noted that Aliso Canyon is uniquely situated as it straddles the active Santa Susana fault and there is a 78% chance of a major earthquake nearby in the next 50 years. For this reason, he opines that Aliso Canyon should be one of the places where SSSVs are necessary. The risk from landslides and subsurface fault rupture are very real at Aliso Canyon, and SoCalGas acknowledges this.

VII. The Public Meetings were Premature Because the Comprehensive Safety Review Required by SB 380 Was Not Completed Prior to the Public Meeting.

SB 380, codified at Public Resources Code section 3217, contains the following relevant requirements:

(D) The supervisor shall make a written finding for each gas storage well that has satisfactorily completed the testing and remediation required under subparagraph (B).

(5) The gas storage well comprehensive safety review is not complete until every gas storage well at the facility has completed the testing and remediation required under subparagraph (B) of paragraph (4), been temporarily abandoned and isolated from the reservoir as required under clause (i) of subparagraph (C) of paragraph (4), or been fully plugged and abandoned to the supervisor's satisfaction in accordance with Section 3208.

(d) Upon completion of the gas storage well comprehensive safety review but before authorizing the commencement of injections at the facility, the division shall hold at least one duly noticed public meeting in the affected community

to provide the public an opportunity to comment on the safety review findings and on the proposed pressure limit as provided in subdivision (e).

A. Documents on the DOGGR Website Demonstrate that As of February 3, 2017, Not All 114 Wells had Passed Required Tests or Were Isolated.

DOGGR and the CPUC sent SoCalGas a checklist of required elements to be completed as part of the SB 380 safety review.⁵ On DOGGR's January 17, 2017, DOGGR sent SoCalGas its Findings on the safety review and stated that its comprehensive safety review was complete.⁶ The letter included an attachment that listed each of the requirements on the checklist from the October 21, 2016 letter and listed DOGGR's finding and the basis of the finding. As to Checklist item number 1, DOGGR references a SoCalGas attachment B, checklist #1. That document, dated October 31, 2016, indicates that testing on nine wells was in progress.⁷ As of February 1, 2017, the DOGGR website indicates that Aliso Canyon Well Porter 32 was still undergoing testing.⁸ A SoCalGas report dated January 23, 2017 on the DOGGR website also indicates that testing of nine wells are pending test results.⁹ DOGGR's Notice of Public Meeting and Comment Period states that 34 wells have passed the tests and 79 have been temporarily plugged and isolated. This totals only 113 wells. DOGGR's press release announcing the public meeting and comment period dated January 17, 2017, states that one well was still undergoing testing.¹⁰

Accordingly, the safety review is not complete because anywhere from one to nine wells have not fully complied with the testing and isolation

⁵ http://www.conservation.ca.gov/dog/Documents/Aliso/10-21-16_Letter_to_SCG.pdf

⁶ http://www.conservation.ca.gov/dog/Documents/Aliso/2017.1.17_DOGGR_Letter_of_Findings_regarding_Aliso_Canyon_Storage_Facility.pdf

⁷ ftp://ftp.consrv.ca.gov/pub/oil/SCG_Attachment/B/1_safety_review_status_cpuc_10-31-16.pdf

⁸ <http://www.conservation.ca.gov/dog/AlisoCanyon/Pages/Well-Detail.aspx>

⁹ ftp://ftp.consrv.ca.gov/pub/oil/SCG_Reports/Southern%20CA%20Gas%20Report%2001%2020%2017.pdf

¹⁰ <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M172/K641/172641497.pdf>; copy attached as Exhibit 4.

requirements in SB 380. Thus, it was premature for DOGGR to tell the public that it was complete and to hold the public meeting required by SB 380. The County requests that the safety review required by SB 380, and outlined by DOGGR and the CPUC in their letter of October 21, 2016, be completed. Only after it is completed can SB 380's public meeting requirement be completed.

B. DOGGR Has Not Complied with SB 380 Because Other Requirements of the Safety Review Remain Incomplete and Subject to Future Submittals, and Possible Changes

According to SoCalGas' November 1, 2016 submittal to DOGGR regarding compliance with DOGGR regulations section 1724.9(a), SoCalGas stated that it "is compiling the data required under Section 1724.7 of Title 14 of the California Code of Regulations (CCR) for the Aliso Canyon Storage Field, and will submit as soon as practicable."¹¹ This data is required under DOGGR regulations and should be provided to DOGGR and the public prior to any decision to approve gas injection. Furthermore, under SB 380, such data is required to be posted on the DOGGR website so that the public could access it. Without such data, neither the DOGGR, nor the public, can be sure that SoCalGas has complied with state law and regulations.

SoCalGas has not complied with Checklist Requirement #11 because its submission needs to be updated on the issue of sustained surface casing pressure. DOGGR required SoCalGas to develop an updated protocol regarding the issue of sustained surface casing pressure. This protocol must be completed and posted on the DOGGR website before requirement #11 of the safety review can be considered completed. By failing to require SoCalGas to complete the requirements now, DOGGR is not in compliance with SB 380 and the safety review is not complete. Additionally, by not waiting until the protocol was in final form and posting it publicly, DOGGR has denied the public its right under SB 380 to comment on the completed safety review prior to approval of injection.

SoCalGas has not complied with Checklist Requirement # 16 because DOGGR states in its January 17, 2017 letter that the leak detection protocol was compliant "upon specified protocol modifications and final consultation with CARB. The updates will include more detailed information about the use of optical gas imaging (OGI) detection equipment and use of an alternative instrument in inclement weather." Again, these protocol modifications and any

¹¹ftp://ftp.consrv.ca.gov/pub/oil/SCG_Attachment/B/22_SoCalGas_Responses_DOGGR_Emergency_Regs_072916/AC_DOGGR_Emergency_Regs_1724.9a.b_072916.pdf

other changes that CARB may require must be done prior to the safety review being deemed complete. By failing to require SoCalGas to complete the requirements now, DOGGR is not in compliance with SB 380 and the safety review is not complete. Additionally, by not waiting until the protocol was in final form and posting it publicly, DOGGR has denied the public its right under SB 380 to comment on the completed safety review prior to approval of injection.

Requirement #22 in the DOGGR safety review checklist required SoCalGas to address all data gaps that DOGGR has identified in SoCalGas' project file. DOGGR's Findings state that the inspection team "found the work plan and timeline for Checklist #22 is on track for compliance. Coastal District staff previously specified the requirements in a letter to SoCalGas. While some data has been received, not all of the information adequately fulfills the requirements of California Code of Regulations, Title 14, section 1724.7 (data elements). Figures in some of the documents submitted are unclear or lack data. SoCalGas indicated that all of the updates will be provided by February 7, 2017." Thus, the safety review is not completed because SoCalGas has not provided the necessary data and does not propose to provide the necessary data until February 7, 2017 – which is after the public comment period closes, and after the public meetings. This is not compliance with SB 380. By failing to require SoCalGas to complete the requirements now, DOGGR is not in compliance with SB 380 and the safety review is not complete. Additionally, by not waiting until all the data gaps were remedied, DOGGR has denied the public its right under SB 380 to comment on the completed safety review prior to approval of injection.

C. The Safety Review is Incomplete Because SoCalGas Has Not Submitted Required Documents to the CPUC Following a Pipeline Leak at Aliso Canyon.

Following a pipeline leak at Aliso Canyon on September 12, 2016, on September 20, 2016, the CPUC ordered SoCalGas to conduct internal corrosion assessments at Aliso Canyon pipelines used for injection and withdrawal. In an October 17, 2016 letter from SoCalGas to CPUC regarding this CPUC directive, SoCalGas stated that it expected to have a final report on the root cause analysis of the leak in the future.¹² No final report has ever been made available to the public on the CPUC website. As explained by the Fire Department, having the benefit of a root cause report is important so that regulators and operators can

¹² A copy of the October 17, 2016 letter is attached hereto as Exhibit 3 also at: http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/SoCalGas%20Response%20to%20SED%20Directive%2010-17-16.pdf

implement mitigations to prevent future leaks and incorporate lessons learned into risk management planning. Without knowing the results of the root cause of the leak, neither DOGGR, nor the public, can be sure that SoCalGas has taken necessary action to ensure that its pipelines are safe to handle new gas injections at Aliso Canyon.

The October 17, 2016 letter also states that "work continues to proceed on the development and implementation of a comprehensive Underground Storage Corrosion Control Manual as part of the SoCalGas Storage Risk Integrity Management Plan submitted to the California Division of Oil, Gas, and Geothermal Resources in August, 2016. The manual will ultimately provide a structured framework for the corrosion control of all wells, piping, and reservoir within the Gas Storage organization." Again, there is no further correspondence on the CPUC's website related to these issues. It appears that SoCalGas has not developed or implemented a structured framework for the corrosion control of all wells, piping, and reservoir at Aliso Canyon. At this point, neither DOGGR, nor the public, can be sure that SoCalGas has taken necessary action to ensure that it is safe to allow gas injection at Aliso Canyon. DOGGR should require that SoCalGas complete its root cause analysis of the September 12, 2016 pipeline leak and implement a structured framework for the corrosion control of all wells, piping, and reservoir at Aliso Canyon before approving any new injection into Aliso Canyon.

D. The Public Comment Deadline Should be Extended Because All of the Required Documents and Data Related to the Safety Review Have Not Been Provided to DOGGR and Thus the Safety Review Is Not Complete as a Matter of Law.

For the reasons discussed above, the safety review required by SB 380 is not complete, and the public has not been provided access to all safety related documents as required by SB 380. Accordingly, the public comment deadline should be extended, or public comment reopened, once the safety review is completed and these missing documents are publicly posted on the DOGGR website.

VIII. DOGGR Has Not Fully Complied with SB 380's Requirement to Post Materials in a Timely Manner on the Public Portion of its Website.

SB 380, codified at Public Resources Code section 3217 (j), requires that "[w]ith respect to the gas storage well comprehensive safety review at the facility, all testing, inspection and monitoring results reported to the division, gas storage well compliance status, any required remediation steps, and other safety review-

related materials shall be posted in a timely manner by the division online on a public portion of its Internet Web site."

Numerous documents that fall within the definition of this section have not been posted on the public portion of the DOGGR website, including:

(1) SoCalGas' emergency response plan. An October 11, 2016 letter from SoCalGas to DOGGR on the RMP references an "*Emergency Response Plan*" that SoCalGas says it submitted to DOGGR on September 30, 2016. (Fire Department comments, Attachment 2). As of February 6, 2017, this document has not been made publicly available on the DOGGR website. Nor has it been provided to the County despite County requests for it to DOGGR. See emails from County to DOGGR requesting document, attached hereto as Exhibit 5.

(2) An October 5, 2016 letter from DOGGR to SoCalGas about the risk management plan is not on the DOGGR website. After a request from the County, this document was sent to the County on January 31, 2017. As of February 3, 2017, it was not posted on the public portion of the DOGGR website. Attached hereto as Exhibit 6 is a copy of the letter; the County and DOGGR email exchange regarding the letter is included as part of Exhibit 5.

(3) The Final Failure Analysis prepared for SoCalGas after a leak from a pipeline at Aliso Canyon. DOGGR's January 17, 2017 letter to SoCalGas, requirement #6, references a failure analysis regarding a leak from an Aliso Canyon pipeline and states that SoCalGas "delivered the final Failure Analysis to the CPUC on Nov 9, 2016." (Id. p. 3). As of February 6, 2017, this document was not posted on the public portion of the DOGGR website. A print out of the DOGGR website pages listing documents on Aliso Canyon is attached hereto as Exhibit 7.

(4) DOGGR's January 17, 2017 letter, Requirement #22, discusses data gaps in SoCalGas' project file and notes that DOGGR Coastal District staff "previously specified the requirements in a letter to SoCalGas." That letter has not been posted publicly on DOGGR's website.

(5) CPUC's safety assurance inspection results from pipelines at Aliso Canyon. While DOGGR's January 17, 2017 letter, Checklist Requirement #7, states that these are posted on CPUC website, as of February 3, 2017 they were not. In fact, the CPUC website states that documents related to the safety review are posted "are available on DOGGR's website." A copy of a print out of the CPUC Aliso Canyon website page is attached hereto as Exhibit 8.

(6) Test results for well SS-25. A January 3, 2017 letter from the DOGGR Supervisor to SoCalGas states that the well that failed, SS-25¹³, passed the first battery of tests, but no corresponding test data is provided on the DOGGR website. On the DOGGR Aliso Canyon website page entitled "Test Results of Aliso Canyon Wells", when the "taken out of operation link" for well SS-25 is clicked, a letter opens which states that well SS-25 completed the first battery of tests and was taken out of service. No test data is provided for SS-25 on this same page. The County requests that the testing data be provided on the DOGGR website.

(7) The January 3, 2017 comment letter from the Fire Department. This document falls within the definition of safety review related material, but it has not been posted on the website.

All of these documents should have been posted on the public portion of the DOGGR website so that the public could access it. Without such data, neither DOGGR nor the public can be sure that DOGGR has complied with the requirements of SB 380.

IX. Approval of Gas Injection Would Have No Material Impact on Gas Reliability for the Two Months Remaining this Winter Because it Will Be the Middle of February, at the Earliest, Before Any Injection Could Occur.

A. Approval of Injection in the Near Future Would Not Materially Impact Gas Reliability For the Rest of this Winter

The CPUC Revised Report on Aliso Canyon Working Gas Inventory, Production Capacity, Injections Capacity, and Well Availability for Reliability dated January 17, 2017 ("CPUC Jan. 2017 Reliability Report") states that "even if injections were authorized this winter a fairly minimal volume of gas could be injected into the field to impact winter reliability" and "even assuming optimistic production rates," there are not a sufficient number of wells available "to assure reliability in the short term." (*Id.*, p. 2, 5). There "will not be enough completed wells for the 2016-17 winter season nor will there be sufficient wells available to meet a peak summer day demand." (*Id.*, p. 5). The report further states that "[a]fter January, the forecast peak day declines[.]" (*Id.*, p. 10).

¹³http://www.conservation.ca.gov/dog/AlisoCanyon/Documents/03700776_SS_2_5_WIL.pdf

County expert consultant EES agrees that given the timing of any potential approval to allow injection, coupled with the time it would take to inject gas, the approval of gas injection in the near future would have no material impact on gas reliability for the time period February – June 2017.

B. Mitigation Measures are Proving to be Successful in Reducing the Overall Demand for Gas, and Gas Withdrawals from Aliso Canyon Should not be Necessary During Summer 2017 or Winter 2017-2018.

Policies implemented to reduce the demand for natural gas in Southern California are working.¹⁴ Continuing to aggressively implement these mitigation measures is the best way to avoid the need to utilize Aliso Canyon. Additionally, the large amounts of rain and snowfall will result in greater generation from hydroelectric facilities during the summer of 2017, which will buy the region time to put additional mitigation measures in place. While EES believes that the combination of increased hydroelectric generating capabilities and mitigation measures will eliminate the need to withdraw gas from Aliso Canyon, even if there was a desire to withdraw gas the CPUC report noted above indicates that there will not be sufficient wells available at Aliso Canyon to meet peak summer day demand.”¹⁵

In addition, the continued and aggressive implementation of demand-side management and other mitigation measures will preclude the need to withdraw gas from or inject gas into Aliso Canyon in Winter 2017-2018 as well.

X. EES Found that Based on CPUC Reliability Studies, No Withdrawal of Gas From Aliso Canyon Should Have Been Necessary on January 24 and 25, 2017.

An assessment of the winter of 2016-17 identified additional mitigation measures that were expected to help meet demands during the winter of 2016-17. The "Aliso Canyon Gas and Electric Reliability Winter Action Plan" dated

¹⁴ CPUC (Jan. 25, 2017) *Aliso Canyon Demand-Side Management Impact Summary*.
http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/2017_AlisoDSMImpactSummary_01-25.pdf

¹⁵ CPUC Jan. 2017 Reliability Report, p. 5

August 22, 2016,¹⁶ states that SoCalGas "can provide a maximum of 4.5 Bcf per day without Aliso Canyon, assuming pipeline capacity of 95 percent."¹⁷ The plan also states that "under normal weather conditions, with no gas withdrawn from Aliso Canyon and reasonable assumptions about utilization rates on pipeline delivering into SoCalGas, the gas system will be able to meet each month's daily demand for the winter season from November 1 through March 31."¹⁸

On January 24 and 25, 2017, SoCalGas delivered "almost 4.1" Bcf of gas per day, including withdrawals from Aliso Canyon of 0.03 Bcf of gas on January 24th and 0.02 Bcf of gas on January 25th. The "Aliso Canyon Gas and Electric Reliability Winter Action Plan" stated that it was only on a winter peak day, defined as the coldest day forecasted in a 1-in-10 year period for noncore customer demand (plus 1-in-35 demand for core customers) that there would be a need to curtail about 0.3 Bcf. The weather on January 24 and 25, 2017 was not a winter peak day under this definition. The lowest temperature observed at Los Angeles International Airport on those two days was 40 degrees. Similar temperatures have been observed at the same location in 22 of the past 30 years. Based on the August 2016 action plan, there should not have been a need to withdraw gas from Aliso Canyon.

The peak rate at which gas was withdrawn on these two days could have been reduced nearly in half by SoCalGas' planned conservation pilot rebate program, but no results or activities have been reported on it since the CPUC approved the program. The gas withdrawn could also have been offset by the partial curtailment of natural gas power plants. Based upon the peak withdrawal rate, the curtailment would amount to approximately 1,700 MW at the most, an amount that could likely have been offset by demand response and/or the import of additional generation from outside the LA Basin.

¹⁶ CPUC (August 22, 2017) *Aliso Canyon Gas and Electric Reliability Winter Action Plan*. http://docketpublic.energy.ca.gov/PublicDocuments/16-IEPR-02/TN213406_20160901T073434_Aliso_Canyon_Gas_and_Electric_Reliability_Winter_Action_Plan.pdf

¹⁷ *Ibid.*, p. 4

¹⁸ *Ibid.*, p. 4

XI. There is Sufficient Gas Currently In Aliso Canyon to Use it as a Last Resort Without Any New Gas Injection.

Use of Aliso Canyon as a last resort for withdrawals can continue without any new gas injection. The minimum gas storage requirement at Aliso is 5 Bcf.¹⁹ The current amount of gas in storage at Aliso is 14.8 Bcf. Thus, 9.8 Bcf of gas is currently available for withdrawal without the need for any new injections. Based upon the minimum gas storage requirement of 5 Bcf at Aliso Canyon,²⁰ if needed, gas could be withdrawn at the rate of recent withdrawals on January 24 and 25, 2017, for 326 days without the need for any new injections. Since gas need only be withdrawn from Aliso Canyon on peak summer and winter days, the Aliso Canyon gas storage facility can be used for emergency withdrawals on peak summer and winter days, if necessary, for years without the need to inject new gas into the facility. Thus, there is no current need for new gas injections at Aliso Canyon. The root cause analysis and CPUC feasibility investigation can and should be completed before injecting gas at Aliso Canyon.

XII. The County Requests that the CPUC Conduct a Staff Investigation into the Circumstances Surrounding the Withdrawal of Gas from Aliso Canyon on January 24 and 25, 2017; This Should be Completed Prior to a Final Decision to Allow Injection to Begin.

The nature of these withdrawals and the extent to which other mitigation measures could have been utilized has yet to be fully reported and thoroughly investigated. Several groups have asked the California Attorney General to open an investigation into possible manipulation by SoCalGas.²¹ Publicly available data obtained from SoCalGas' Envoy system and provided in Appendix C indicates that SoCalGas scheduled less gas to be delivered to their system on January 24th and 25th than on the two days prior, which were warmer. The difference in gas scheduled on the 23rd and on the 24th and 25th exceeds the amount withdrawn from Aliso Canyon. The County requests that the CPUC conduct an investigation into the circumstances surrounding the timing and

¹⁹http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Letter%20to%20Jimmy%20Cho%20on%20Aliso%20Canyon%20withdrawals.pdf

²⁰ *Id.*

²¹ Los Angeles Times, January 24, 2017, "Southern California Gas taps Aliso Canyon amid Conservation Warnings" <http://www.latimes.com/business/la-fi-southern-california-gas-20170124-story.html>; <http://www.consumerwatchdog.org/resources/lettertobecerrafeuersocalgas1-24-17.pdf>.

necessity of the gas withdrawals and the results of the investigation should be made public.

XIII. The Decision by DOGGR to Allow Gas Injection at Aliso Canyon is a Project Subject to the California Environmental Quality Act.

Under the California Environmental Quality Act ("CEQA") (Public Resources Code § 21000 et seq.), environmental review is required before taking discretionary action to approve a project. As defined in the State CEQA Guidelines, a discretionary project "means a project which requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity." 14 Cal. Code Regs., § 15357. A "project" is an action that has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. 14 Cal. Code. Regs., § 15378. The DOGGR website contains the following statement about CEQA:

CEQA applies to certain activities, undertaken by a public agency, which are defined by CEQA as a "project." A project is an activity that meets both of the following:

1. Receives some discretionary approval (i.e.: authority to deny a requested permit or approval) from a public agency.
2. May cause either a direct physical change in the environment, or a reasonably foreseeable indirect change in the environment.

Every CEQA project will require some level of environmental review, pursuant to CEQA, unless an exemption applies. A project may not be approved if feasible alternatives or mitigation measures are available to eliminate or substantially reduce the significant environmental effects of the project.²²

As stated on DOGGR's website, following the public meeting and comment period, DOGGR intends to make a "decision about whether injection of

²² <http://www.conservation.ca.gov/dog/CEQA/Pages/CEQANotices.aspx>

gas into the storage facility can resume."²³ DOGGR also intends to determine the minimum and maximum pressure limits for the Aliso Canyon Storage Facility. *See* DOGGR Notice of Public Meeting and Comment Period at 4 (Jan. 17, 2017). Because these decisions require discretion by DOGGR and there is a potential for a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment, CEQA compliance is required. Given the nature of the approval here--allowing gas injection at high pressure into the Aliso Canyon facility following the largest gas leak in United States history, without the completion of the root cause analysis--potentially significant impacts may result from DOGGR's decision; thus, DOGGR must prepare an Environmental Impact Report ("EIR") before making its decision.

A. The CEQA Process Will Maximize Consideration of Potentially Significant Environmental Impacts and Mitigation Measures, and Will Require DOGGR to Consider the No Project Alternative and Other Alternatives to Maintain Gas Reliability Rather Than Approving Gas Injection.

Compliance with CEQA and preparation of an EIR would enable the public and DOGGR to understand the full impacts of DOGGR's decision, meaningfully explore alternative means of reducing demand for natural gas through various mitigation measures, and thereby potentially avoid the need for additional gas injection into Aliso Canyon. Given the time it would take to inject additional gas into Aliso Canyon, adding additional gas into the storage reservoir will have no impact on the Winter 2016-17, as it will be the middle of February, if not later, before DOGGR approves injection and there is likely not going to be gas available to inject in the short term. Additionally, the winter in Southern California will be over in March and there will be little or no risk of gas curtailment. It will not be until July or August 2017 that concerns about gas curtailment could be impacted by gas injections. By that time, the CEQA and root cause analyses can be completed.

²³ <http://www.conservation.ca.gov/dog/Pages/AlisoCanyon.aspx>. SoCalGas has stated in a press release that a decision has to be made to "re-open Aliso Canyon." April 7, 2016 press release.

B. The CEQA Process Helps Facilitate Public Participation and Informed Decision Making.

In a press release announcing the Aliso Canyon public meeting, DOGGR Supervisor Ken Harris stated: "We want to hear the public's thoughts on the testing and inspections, and the steps being taken to ensure public health, safety, and environmental protection[.]"²⁴ The County appreciates this approach, and believes that the approach can best be furthered via preparation of an EIR. CEQA is designed to facilitate public participation. An EIR's "purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made." *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1123. An "EIR protects not only the environment but also informed self-government. To this end, public participation is an essential part of the CEQA process." *Ibid.* (internal quotations and citations omitted). Thus, preparation of an EIR will facilitate community participation and achieve DOGGR's goal to hear the public's thoughts.

C. Use of a CEQA Exemption Would be Inappropriate Due to Unusual Circumstances.

To the extent DOGGR is considering use of a CEQA exemption in conjunction with this decision, the County strongly urges DOGGR to reconsider. CEQA exemptions may not be used "where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances." 14 Cal. Code Regs., § 15300.(c).

As the California Supreme Court recently explained: "[a] party invoking the exception may establish an unusual circumstance without evidence of an environmental effect, by showing that the project has some feature that distinguishes it from others in the exempt class, such as its size or location. In such a case, to render the exception applicable, the party need only show a reasonable possibility of a significant effect due to that unusual circumstance." *Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1105 (2015). Alternatively, "a party may establish an unusual circumstance with evidence that the project will have a significant environmental effect." (*Id.*) Here, both circumstances apply. Not only is this storage facility distinguishable

²⁴ <http://abc7.com/news/porter-ranch-residents-pack-hearing-over-aliso-canyon-facility/1733682/> <http://www.dailynews.com/business/20170201/public-hearing-on-aliso-canyon-gas-field-cut-short-as-tempers-flare>

from other storage facilities in its history and track-record of having caused extensive human and environmental damage, its location on an earthquake fault, its size (the largest underground gas storage facility on the West Coast), its storage of large amounts of gas at high pressure, it being subject to a complex set of testing and review that was developed and required by state statute and emergency regulations following the largest natural gas leak in United States history, but the decision to allow injections to resume, along with the minimum and maximum pressure limits, will have significant impacts on the environment.²⁵ Thus, full CEQA review is required before any approval is granted so that the public and decisionmakers can be fully informed as to the environmental impacts of DOGGR's proposed decision to allow gas injection at Aliso Canyon.

Indeed, DOGGR's proposal of numerous mitigation measures demonstrates that injection of gas into Aliso Canyon may have a significant impact on the environment. For example, DOGGR has proposed mitigation measures such as:

- Limiting gas injection and withdrawal to the well's production tubing (inner steel pipe);
- Requiring gas storage well heads to be inspected at least daily using gas leak detection technology such as infrared imaging;
- Requiring various discretionary operational changes and limitations to the facility;
- Setting the maximum pressure in the storage reservoir lower than levels requested by SCG.²⁶

Accordingly, an EIR should be prepared to inform the public and decisionmakers of the project's full environmental impacts and to explore mitigation measures.

²⁵ For similar reasons, to the extent DOGGR claims that it can rely on previous environmental analyses of the facility, to the extent they exist, a supplemental or subsequent EIR is necessary because the circumstances have changed substantially and new information is available. *See* Public Resources Code, § 21166; 14 Cal. Code Regs., § 15162.

²⁶<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M172/K641/172641497.pdf>

XIV. The County Requests That DOGGR Prepare, and Make Available to the Public, Written Responses to All Written Public Comments, Including the County's, Prior to A Decision to Authorize Injection.

Posted on the DOGGR website on November 1, 2016 was a document entitled "Statement from Division of Oil, Gas, and Geothermal Resources on SCG's Request to Restart Injection at Aliso Canyon"²⁷ which states, "[b]efore injection can resume, the Division and California Public Utilities Commission (CPUC) must concur that all the conditions have been met and all public comments have been taken into account." (*Id.* (Emphasis added.)). To ensure that all public comments have been taken into account, the County requests that DOGGR provide written responses to these written comments, and all written comments, it receives on this matter, and posts those responses on its website so that the public can review them. The County requests a written response to its comments prior to DOGGR approving.

XV. DOGGR and the CPUC Should Commit to Holding Another Public Meeting After Written Responses are Provided to All Comments.

County representatives attended, and spoke at, the public meetings on February 1 and 2, 2017. It was unfortunate that there was essentially no statement or presentation from DOGGR and CPUC about the safety review or the possible approval of gas injection. Though members of the public made comments at the meetings, there was no opportunity for question and answer, and there was no explanation from DOGGR or the CPUC about the process, the timing of the root cause analysis, or the timing of any possible decision to approve gas injection.

To demonstrate to the public that it has taken their comments into account, DOGGR and the CPUC should hold another public meeting prior to approval of injection to explain their proposed decision, to gather public comment, and to maximize public participation. If DOGGR intends to approve injection, the County requests that a future public meeting be held after written responses to comments are published to the public, to explain the rationale for the proposed decision and to provide the public with an opportunity to comment.

²⁷http://www.conservation.ca.gov/dog/Documents/Aliso/DOC_statement_on_SC_G_request_to_re-start_injection.pdf.

XVI. Alternatively, Any Approval by DOGGR Should be Limited in Scope and Duration and Must Be Subject to Additional Mitigation Measures Based on the Results of the Root Cause Analysis, the Additional Seismic Studies and a Complete Risk Management Plan.

Alternatively, the County respectfully requests that any approval from DOGGR that allows SoCalGas to begin gas injection be extremely limited in duration and only include the absolute minimum amount of gas DOGGR and the CPUC believe are necessary. Furthermore, any such approval should be limited in time and subject to further consideration after the completion of the root cause analysis, the seismic studies, and other risk management investigations and requirements that will be completed in the future.

XVII. The County Requests that DOGGR Consider the Following Documents to Be Included in the Administrative Record.

The County specifically requests that DOGGR consider all of the documents referenced in this letter, including those below, prior to making a decision to approve injection, and include them in the administrative record of this proceeding. Additional documents for review and inclusion in the administrative record are:

- All documents currently accessible through the DOGGR webpages entitled "Aliso Canyon Update and Resources" and "Archived Aliso Canyon Resources" and all documents that may be posted on those webpages in the future prior to a decision to approve injection.
- All documents on the CPUC's "Aliso Canyon Well Failure" webpage and all documents that may be posted on that webpage in the future prior to a decision to approve injection.
- The transcripts from the February 1 and 2, 2017 public meetings.
- All written comments received by DOGGR regarding the safety review and possible approval of injection of gas at Aliso Canyon.
- All written comments received by the CPUC regarding the safety review and possible approval of injection of gas at Aliso Canyon.
- All documents responsive to the County's January 31, 2017 public records act request to DOGGR.
- All documents responsive to the County's January 31, 2017 public records act request to the CPUC.

- Documents on the DPH website related to the Aliso Canyon gas leak and its public health impacts
- Electronic data and files from the SoCalGas ENVOY website <https://scgenvoy.sempira.com/> for the time period December 1, 2016 through February 1, 2017.
- Documents on the gas storage rulemaking process that DOGGR is currently undertaking, including those found on the DOGGR webpage: <http://www.conservation.ca.gov/dog/Pages/UndergroundGasStorage.aspx>; http://www.conservation.ca.gov/dog/Documents/GasStorage/August_2016_Gas_Storage_Presentation.pdf
- All documents currently available on the SoCalGas website related to Aliso Canyon, including those accessible through the following web addresses: <https://www.alisoupdates.com/main>; <https://www.socalgas.com/newsroom>; <https://www.socalgas.com/stay-safe/pipeline-storage-safety/aliso-canyon-storage-facility>; https://www.alisoupdates.com/1443738294190/N16K0022A_Aliso-Cyn-General-FAQ-v9-FINAL.pdf
- Presentations at Department of Energy conference on gas storage: <https://energy.gov/sites/prod/files/2016/12/f34/Appendix%20I%20-%20Well%20Integrity%20Working%20Group%20Report.pdf>; <https://drive.google.com/file/d/0B3KTfL4IfhRFRXp4Q0Z5QnhRMkk/view>
- DOGGR presentation at Department of Energy conference on gas storage: <https://drive.google.com/file/d/0B3KTfL4IfhRFNjZtaG9nVWNseGc/view>
- *Aliso Canyon gas field should stay closed as questions remain open: Guest commentary, Henry Stern and Kathryn Barger, Daily News, January 31, 2017: <http://www.dailynews.com/opinion/20170131/aliso-canyon-gas-field-should-stay-closed-as-questions-remain-open-guest-commentary>*
- <http://www.dailynews.com/general-news/20170130/aliso-canyon-meetings-agenda-revised-after-save-porter-ranch-complaints>
- <http://www.dailynews.com/business/20170201/public-hearing-on-aliso-canyon-gas-field-cut-short-as-tempers-flare>
- <http://www.dailynews.com/business/20170202/state-hearing-on-aliso-canyon-wraps-up-with-more-calls-to-shut-down-gas-field>
- <http://www.latimes.com/visuals/photography/la-me-public-hearing-aliso-canyon-20170202-htmllstory.html>

- <http://www.latimes.com/local/lanow/la-me-aliso-20170202-story.html>
- <http://www.latimes.com/projects/la-fi-electricity-capacity/>

Conclusion: DOGGR Should Not Approve New Gas Injection at Aliso Canyon Until it Complies with SB 380, its Own Emergency Regulations and Checklists, and CEQA.

For all of the reasons discussed in this letter and the comments attached to it, the County requests that DOGGR not approve SoCalGas' request to inject gas into the Aliso Canyon storage facility. DOGGR does not have the benefit of the root cause analysis, has not complied with the requirements of SB 380, has not complied with CEQA, and has not fulfilled its duty, which is stated in SB 380, to "prevent damage to life, health, property, and natural resources[.]"

Should you have any questions, please contact me at (213) 974-1852.

Very truly yours,

MARY C. WICKHAM
County Counsel

By



SCOTT KUHN
Principal Deputy County Counsel
Property Division

Attachments: Fire Department Comments
DPH Comments
Northstar/Calvin Barnhill Comments
EES Comments

- c: Supervisor Ken Harris, via email to Ken.Harris@conservation.ca.gov
Justin Turner, via email to: Turner@conservation.ca.gov
CPUC Executive Director Timothy J. Sullivan, via email to:
timothy.sullivan@cpuc.ca.gov
California Senator Henry Stern
Assemblyman Dante Acosta
Congressman Steve Knight
Congressman Brad Sherman
Councilman Mitch Englander

Exhibits to County Comments

Exhibit 1 – November 10, 2016, letter from the County Board of Supervisors to DOGGR and the CPUC.

Exhibit 2 – Comments to DOGGR from California State University Northridge Professor of Geology Matthew d'Alessio on Seismic Risks and Mitigations.

Exhibit 3 – October 17, 2016 letter from SoCalGas to CPUC regarding internal corrosion assessments at Aliso Canyon pipelines used for injection and withdrawal

Exhibit 4 – DOGGR's January 17, 2017, press release announcing the public meeting and comment period stating that one Aliso Canyon well was still undergoing testing

Exhibit 5 – Email exchange between County and DOGGR re: *Emergency Response Plan* and October 5, 2016 letter.

Exhibit 6 – October 5, 2016 letter from DOGGR to SoCalGas re: risk management plan

Exhibit 7 – February 6, 2017 print out of DOGGR website pages listing documents on Aliso Canyon

Exhibit 8 – February 6, 2017 print out of CPUC website pages listing documents on Aliso Canyon

Exhibit 1 – November 10, 2016, letter from the County Board of Supervisors to DOGGR and the CPUC.



COUNTY OF LOS ANGELES BOARD OF SUPERVISORS

KENNETH HAIN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET, ROOM 383
LOS ANGELES, CALIFORNIA 90012
(213) 974-1811 • FAX (213) 620-0636

LORI GLASGOW
EXECUTIVE OFFICER

November 10, 2016

MEMBERS OF THE BOARD

HILDA L. SOLIS

MARK RIDLEY-THOMAS

SHEILA KUEHL

DON KNABE

MICHAEL D. ANTONOVICH

Kenneth A. Harris, Jr., State Oil and Gas Supervisor
California Department of Oil, Gas and Geothermal Resources
801 K Street, MS 18-05
Sacramento, CA 95814-3530

Dear Supervisor Harris:

We are writing to respectfully urge the Division of Oil, Gas, and Geothermal Resources (DOGGR) and the California Public Utilities Commission (CPUC) to continue restricting natural gas injection into the Aliso Canyon gas storage facility operated by Southern California Gas Company (SoCalGas). Gas injection should be restricted until the CPUC has completed a study to determine the feasibility of closing or reducing the capacity of the facility per SB 380 (Pavley) and until the CPUC and DOGGR have completed the root cause analysis of what caused the gas leak and shared those results with the public.

The natural gas well blow out at the Aliso Canyon gas storage facility on October 23, 2015, displaced thousands of families, released unprecedented amounts of greenhouse gases into the atmosphere, and has left thousands of County residents fearful of future leaks from the facility. The temporary cessation of gas injection was a prudent decision, and warnings of potential rolling black outs and energy shortages during the summer never came to fruition.

SB 380 requires the CPUC, no later than July 1, 2017, to open a proceeding to determine the feasibility of minimizing or eliminating use of the Aliso Canyon natural gas storage facility. We believe that this proceeding should be completed prior to allowing SoCalGas to begin injecting more gas into the storage facility.

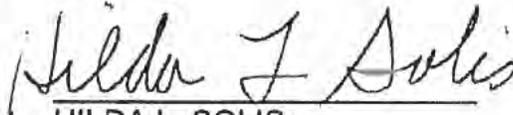
The CPUC and DOGGR are currently conducting a root cause analysis on the cause of the leak, the results of which are important to know prior to allowing gas to be reinjected into the storage facility. Common sense and good public policy dictate that we know the cause of the leak so that we can make sure that all feasible measures are taken to prevent a future leak. Additionally, we request that DOGGR and the CPUC independently verify the gas injection levels requested by SoCalGas and the basis for its request.

Mr. Kenneth A. Harris
November 10, 2016
Page 2

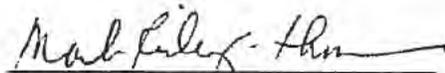
We respectfully request that a report detailing the proposed decision be prepared and how the state will monitor compliance before resumption of gas injections are authorized for Aliso Canyon. After this report is made public, we request that a public meeting on the proposed injection be held and that public comment be taken.

On behalf of the 10 million residents of the County of Los Angeles, your consideration of this important issue is greatly appreciated.

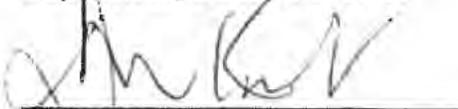
Sincerely,



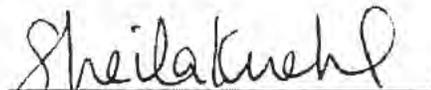
HILDA L. SOLIS
Chair of the Board
Supervisor, First District



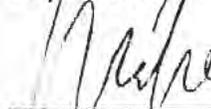
MARK RIDLEY-THOMAS
Supervisor, Second District



DON KNABE
Supervisor, Fourth District



SHEILA KUEHL
Supervisor, Third District



MICHAEL D. ANTONOVICH
Supervisor, Fifth District



COUNTY OF LOS ANGELES BOARD OF SUPERVISORS

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LORI GLASGOW
EXECUTIVE OFFICER

November 10, 2016

MEMBERS OF THE BOARD

HILDA L. SOLIS

MARK RIDLEY-THOMAS

SHEILA KUHIL

DON KNABE

MICHAEL D. ANTONOVICH

Timothy Sullivan, Executive Director
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Executive Director Sullivan:

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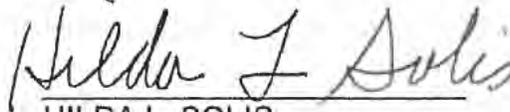
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Mr. Timothy Sullivan
November 10, 2016
Page 2

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On behalf of the 10 million residents of the County of Los Angeles, your consideration of this important issue is greatly appreciated.

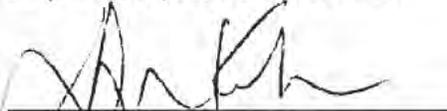
Sincerely,



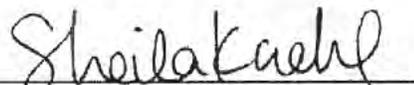
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Chair of the Board
Supervisor, First District



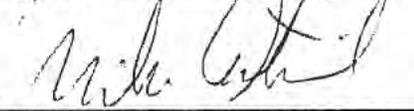
MARK RIDLEY-THOMAS
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DON KNABE
Supervisor, Fourth District



SHEILA KUEHL
Supervisor, Third District



MICHAEL D. ANTONOVICH
Supervisor, Fifth District

**Exhibit 2 – Comments to DOGGR from California State University
Northridge Professor of Geology Matthew d'Alessio on Seismic
Risks and Mitigations.**

February 6, 2016

Department of Conservation
Division of Oil, Gas, and Geothermal Resources
Attn.: Ken Harris, Supervisor
801 K Street, MS 24-02
Sacramento, CA 95814
Via Email to Alisocomments@conservation.ca.gov

RE: Aliso Canyon Comprehensive Safety Review

Dear Mr. Harris and DOGGR:

Summary

Seismic hazards are significant at Aliso Canyon and should be quantified and mitigated before Aliso Canyon is permitted to reopen. SoCalGas should submit results showing the effects of ground shaking and fault rupture on the surface and underground facilities. Once they have fully identified these risks, they should be required to mitigate them before the facility is permitted to operate. Mitigation measures should include the installation of subsurface safety valves that protect against leaks caused by seismic events.

Background

The Aliso Canyon gas storage facility is located directly above the Santa Susana fault and associated structures. The state recognizes this fault as active and has designated an Alquist-Priolo special study zone around the fault. The state maps have a note that the precise surface expression has not been officially investigated in the area of Aliso Canyon. However, we can see evidence of numerous subsurface fault crossings in the mud logs of the oil and gas wells drilled at Aliso Canyon. The wells cross the north strand of the Santa Susana fault around 1000 feet, the southern strand around 2500 feet, the Frew fault around 4500 feet, and various other unnamed structures at depth. These faults appear on geologic cross sections specifically because we know of their existence from where the oil and gas wells crossed them. If these wells were houses being built at the surface, the state would mandate a special study and specific mitigation measures. I prepared the attached geologic cross section graphic to illustrate the faults underlying Aliso Canyon.



Geologic cross section through the Santa Susana mountains by Dibblee (1992)¹ overlain on a Google Earth perspective view.

According to the Uniform California Earthquake Rupture Forecast (UCERF3) developed by the USGS², the Santa Susana fault is capable of producing a M7 earthquake, and we know that the eastern section of the fault ruptured in 1971, terminating just east of the Aliso Canyon field. We currently have no information about the last rupture of the section beneath Aliso Canyon. Based on standard models³, the average slip along the Santa Susana fault will be approximately three feet in size during the next large earthquake and could easily be twice that amount in certain locations.

How would a gas well handle being sheared by three to six feet? We don't have a lot of examples, but in 1949, 200 wells in the Wilmington oil field were damaged when a fault slipped less than one foot and tore the casing apart. In 1983, 14 wells failed by casing collapse or shearing due to shaking in the Coalinga earthquake even though they were not in the immediate epicentral area. And in 1961, an earthquake as tiny as M3.5 damaged nearly 150 wells in Wilmington. While modern casing is improved, 2-6% of the wells at Belridge fail every year from subsidence-induced shearing even in the 21st century⁴. In Table 1, I listed examples of earthquakes in southern California damaged oil and gas wells.

¹ Dibblee, T. W. (1992). *Geologic Map of the Oat Mountain and Canoga Park (north 1/2) Quadrangles: Los Angeles County, California*. H. E. Ehrenspeck (Ed.). Dibblee Geological Foundation. <http://www.dtsc-ssfl.com/files/maps/Geologic%20Map%20of%20Oat%20Mountain%20and%20Canoga%20Park%20-%20North%20Half.pdf>

² USGS Open File Report 2013-1165. <https://pubs.usgs.gov/of/2013/1165/pdf/ofr2013-1165.pdf>

³ Wells, D. L., & Coppersmith, K. J. (1994). New empirical relationships among magnitude, rupture length, rupture width, rupture area, and surface displacement. *Bulletin of the seismological Society of America*, 84(4), 974-1002.

⁴ Fredrich, J. T., Arguello, J. G., Deitrick, G. L., & De Rouffignac, E. P. (2000). Geomechanical modeling of reservoir compaction, surface subsidence, and casing damage at the Belridge diatomite field. *SPE*

The risk of damage is so real that the Aliso Canyon field has already experienced such damage. In the 1994 Northridge earthquake (which did not rupture the Santa Susana fault line that runs under Aliso Canyon) SoCalGas reports that well SS-40 collapsed at the Aliso Canyon field. According to their submission, the casing collapse thankfully sealed the well so that there was no uncontrolled leak. As I discuss in recommendation 6 (below), SoCalGas has not provided sufficient evidence that we can always expect such a favorable outcome.

Department of Energy Letter

Recommendation 1) Perform the actions recommended by DOE scientists

Six scientists from the Department of Energy signed a letter to DOGGR dated December 12, 2016. They agree that that “a risk exists from ground shaking and direct shearing/deformation of well casings.” The letter suggests several actions and I concur with all of them:

Recommendation 1.1) Perform Probabilistic Seismic Hazard Analysis (PSHA) and probabilistic fault displacement analysis (PFDA).

Recommendation 1.2) **Calculate site-specific shaking hazard rather than relying on the USGS PSHA map.** The 2009 data set present shaking estimates for the entire coterminous 48 states providing regional-scale estimates of shaking. The maps are smoothed and present data at resolution of about 5 km, which is too coarse in an area as geologically complex as Aliso Canyon. Shaking can vary dramatically within a 5 km radius based on the local geology, and DOGGR should require more localized models for a critical facility like this one.

Recommendation 1.3) **Determine a critical threshold for fault slippage as a result of fluid-injection.** Injection wells in Oklahoma have famously triggered earthquakes because of mismanagement of injection pressures. What volume of gas or injection pressure at Aliso Canyon is likely to trigger an earthquake? Supplement #2 includes a page of geomechanical equations and assumptions but never actually presents any findings, indicating that “the stability of the Aliso Canyon faults *will be* assessed...” (p. 8, emphasis on the future tense added).

Recommendation 1.4) **Carry out a detailed analysis of formation-wellbore interaction under seismic loading.** This is an essential step in quantifying seismic risk, but it will be very challenging. Because there is no industry-standard methodology for this, I have concerns that it will be too easy for an applicant like SoCalGas to make assumptions that favor decreased mitigation costs. The process

will require extensive peer review and consultation between those in the industry and outside to develop a reasonable methodology.

Recommendation 2) Quantitative Seismic Risk Analysis Should Not Wait

The DOE scientists state that necessary seismic studies "should be planned and executed in a deliberate manner" but claim that the studies can be done later. I strongly disagree. The DOE scientists base their judgement on professional instinct, but not on any specific data or quantification of known risk.

The risks and hazards of seismic events at Aliso Canyon requires immediate investigation and analysis before gas is reinjected at high pressure. We wouldn't allow a school to be built near an active fault, allow students to enroll in it, and then schedule a seismic hazard analysis to be completed at a later date. In fact, schools, hospitals, nuclear power plants, dams, housing developments, and even natural gas pipelines at the surface are all required by state or federal regulations to perform such analyses before they are allowed to operate. Gas storage facilities had fallen through the cracks when it comes to regulation, but state law SB380 now requires Aliso Canyon to remain closed to injection until DOGGR's "duty to prevent damage to life, health, property, and natural resources ... is satisfied." This duty clearly cannot be satisfied without quantifying and mitigating the seismic risks.

Supplement to SoCalGas' Storage Risk Management Plan #2

In their October 11, 2016 supplement, SoCalGas has set forth a long list of hazards faced at the facility. However, simply listing them is not sufficient to fully address them. Below, I outline several additional recommendations:

Recommendation 3) SoCalGas should be required to act on the mitigation measures spelled out in Section 3.3.10 regarding tectonic/seismic induced failure *prior* to reopening the facility.

Supplement #2 states, "Mitigating casing deformation and tectonically induced failure can be enhanced by well design and monitoring in new wells. Heavy wall, higher strength pipe and good casing cement jobs add strength to resist tectonic forces. The use of liners in existing damaged wells can add resistive strength." (p. 14)

Commentary: This section is entirely written in the hypothetical. These measures do nothing to mitigate the current risk exposure since they have not been implemented in the field.

Recommendation 4) SoCalGas needs to use the results of well integrity tests to calculate the risk of casing deformation.

Supplement #2 states, "The well integrity program currently being performed on the wells should determine if casing deformation is a significant threat to well integrity." (p. 14).

Commentary: Since the well integrity program is nearly complete, SoCalGas should provide a determination. Does casing deformation pose a significant threat?

Recommendation 5) SoCalGas should install Subsurface Safety Valves in Aliso Canyon

Supplement #2 states, "Also, SoCalGas supports the State's interest in examining the feasibility and efficacy of subsurface safety valves for gas storage fields, to address hazards and risks, and to determine if and what types of valves might be appropriate." (p. 14)

Commentary: It is time for DOGGR to act on this important issue. In the July 2016 working group in Denver about well integrity, the discussion consensus was, "One thing that is becoming clear after presentation: There are going to be places where there is a need for safety valves, but there are places where one can mitigate risk without safety valves."⁵ With Aliso Canyon located on top of the active Santa Susana fault and having a 78% chance of a major earthquake nearby in the next 50 years, Aliso Canyon should be one of those places where downhole safety valves *are* necessary. The risk from intense ground shaking, landslides and subsurface fault rupture are very real at Aliso Canyon, and SoCalGas acknowledges this.

It appears that the main concern is over the cost and operational down time of the valves. To perform a true cost-benefit analysis, SoCalGas needs to quantify the risks (and potential costs) from seismic hazards. The cost of a single well failure on SS-25 has been hundreds of millions of dollars. An earthquake can cause the failure of multiple wells simultaneously. Further, the actual costs of safety valves may be much smaller in the long term than operators anticipate. Discussion at the July working group on well integrity noted that safety valves manufactured today have higher reliability than they did in the past (i.e., operators may be working with a false preconception about their actual performance), and that "with time and work, they will also be able to manufacture ideas you currently may have only in your mind."⁶ In other words, requiring safety valves *now* may spur innovations that will enhance safety at significantly lower future costs.

Recommendation 6) SoCalGas needs to quantify the possible outcomes of casing/tubing damage.

Supplement #2 states, "The tectonically induced casing/tubing damage described above normally does not result in loss of hydrocarbon containment outside of the wellbore. Casing collapse and shear, by nature of the failure, pinches off the casing (and tubing) significantly reducing and often stopping flow potential." (p.11)

Commentary: This claim needs to be supported with references and quantified. Does 'normally' mean that wells get sealed 90% of the time they collapse? Or does normally imply 51%? And in the wells that do have a leak, is the flow reduced by 90%? Or is it more like 25% reduction. These numbers make a difference; if 90% of the wells are sealed but the remaining 10% of wells leak at just 10% of their normal flow rate, the result would still be a leak *bigger* than the SS-25 event ($114 * 0.1 * 0.1 = 1.14$). And unlike the SS-25 failure which was sealed with a single relief well, it would take months to deploy enough rigs to eliminate these simultaneous well failures.

⁵ <https://energy.gov/sites/prod/files/2016/12/f34/Appendix%20I%20-%20Well%20Integrity%20Working%20Group%20Report.pdf>, p. 19

⁶ Ibid.

Conclusion

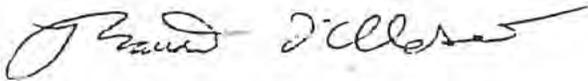
Under the current proposal, Aliso Canyon will store 29 billion cubic feet of flammable, climate-destroying, and health-disrupting natural gas. The state has responded to last year's gas leak with a range of productive safety enhancements, and they should be applauded for those regulatory improvements. However, DOGGR should require SoCalGas to finish the job and complete a seismic hazard analysis followed by appropriate mitigation measures before a decision is made about re-opening the facility.

Qualifications

I have a Ph.D. in Geology from the University of California, Berkeley with an emphasis on active tectonics. I have studied the San Andreas fault system as a researcher and postdoctoral fellow with the U.S. Geological Survey Earthquake Hazards Team and as a visiting professor at the University of Tokyo. Findings from my research are part of the input to the USGS UCERF 3 model of fault rupture hazards for California. I currently teach in the Department of Geological Sciences at California State University Northridge. I have attached a copy of my CV.

I request a written response to my comments prior to any final decision on approving gas injections at Aliso Canyon. Thank you for your consideration.

Sincerely,



Matthew d'Alessio
Associate Professor, Department of Geological Sciences

Enclosure: CV

Table 1: Previous Earthquake-induced Damage to Oil and Gas Wells in Southern California

Year	EQ Mag	Oil Field	Damage	Source
1941	4.9	Dominguez	15 Wells Damaged	7
1944	4.5	Rosecrans	16 wells found damaged by subsurface movement	8
1949	4.4	Wilmington	200 wells went out of production, many permanently closed, and some with lateral displacements of about 20 cm at ~500m depth.	9
1952	7.5	Tejon Ranch	6 wells had tubing that couldn't be pulled and had to be re-drilled next to them. 1 Well at South Coles Levee collapsed	10
1961	3.5	Wilmington	~130 wells failed, and another ~20 damaged	11
1963	3.4	Inglewood	Three wells damaged	12
1971	6.7	San Fernando	"A few wells" reported minor damage	13
1983	6.2	Coalinga	14 wells failed by casing collapse	14
1994	6.7	Aliso Canyon	1 well failed by casing collapse; landslides, cracked well cellars, tank farm damage, and pipe support damage	15

⁷ USGS Professional Paper 0679 (1969), p. 64; Bravinder (1942)

<http://pubs.usgs.gov/pp/0679/report.pdf>

⁸ USGS Professional Paper 0679 (1969), p. 64; Martner (1948)

<http://pubs.usgs.gov/pp/0679/report.pdf>

⁹ Kovach, 1974, <http://www.bssaonline.org/content/64/3-1/699.full.pdf+html>; Nicholson and Wesson (1992), p. 572, <http://earthquake.usgs.gov/research/induced/pdf/Nicholson-Wesson-1992-Pure-and-Applied-Geophysics.pdf>

¹⁰ <http://www.bssaonline.org/content/44/2B/201.full.pdf+html>

¹¹ Dusseault, M. B., Bruno, M. S., & Barrera, J. (1998). Casing shear: causes, cases, cures. In *SPE International Oil and Gas Conference and Exhibition in China*. Society of Petroleum Engineers. <http://www.geomechanicstechnologies.com/article/spe72060.pdf>

¹² USGS Professional Paper 0679 (1969), p. 65; Hudson and Scott (1965),

<http://pubs.usgs.gov/pp/0679/report.pdf>

¹³ USGS Professional Paper 0733, p. 118. <http://pubs.usgs.gov/pp/0733/report.pdf>

¹⁴ USGS Professional Paper 1487, p. 400 <http://pubs.usgs.gov/pp/1487/report.pdf>

¹⁵ SoCalGas Risk Management Plan, Supplement #2, p. 6.

[ftp://ftp.consrv.ca.gov/pub/oil/SCG Attachment/B/4 supplement socialgas storage risk management plan2 10-11-2016.pdf](ftp://ftp.consrv.ca.gov/pub/oil/SCG%20Attachment/B/4%20supplement%20socialgas%20storage%20risk%20management%20plan2%2010-11-2016.pdf)

**Exhibit 3 – October 17, 2016 letter from SoCalGas to CPUC
regarding internal corrosion assessments at Aliso Canyon pipelines
used for injection and withdrawal**



Rodger R. Schwecke
Vice President
Gas Transmission and Storage

Southern California Gas Company
555 W. 5th Street, GT21C3
Los Angeles, CA 90013
Tel: 213.244.2140

October 17, 2016

Elizaveta Malashenko
Director, Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102

RE: Safety and Enforcement Division's Directive to Southern California Gas Company to conduct Internal Corrosion Threat Assessment on all Aliso Canyon's Injection and Withdrawal Pipelines

Dear Ms. Malashenko:

The Aliso Canyon storage facility is critical to the reliability of natural gas and electricity service in Southern California, and SoCalGas remains committed to providing safe and reliable energy to the millions of Californians who rely on us each day. As directed in your September 20, 2016 letter to Mr. Jimmie Cho, SoCalGas initiated a root cause analysis of the pinhole leak at Ward 3A and conducted an Internal Corrosion Threat Assessment on injection and withdrawal pipelines at the Aliso Canyon Storage Facility. The purpose of this letter is to provide you with an update on the status of the follow-up activities we are undertaking, as described in Section IV of our letter dated September 26, 2016, written in response to SED's Directive for Aliso Canyon.

Status of Follow-Up Work

The following provides a status of each follow-up work item identified in our September 26, 2016 response letter.

Root Cause Analysis of the Pinhole at Ward 3

Det Norske Veritas / Germanischer Lloyd (DNV/GL) continues to make progress toward a finalized Root Cause Analysis (RCA) based on samples of the leak location that have been submitted to DNV/GL laboratories. The original four-week estimate from the time of the on-site inspection is still applicable to allow for all appropriate metallurgical testing to be completed. SoCalGas anticipates that a final report will be available near the end of October.

Examination of Three Additional Withdrawal Lines

SoCalGas identified lines that met the 80% “no flow” condition and reported the available results in the letter response dated September 26, 2016. In that letter, SoCalGas identified three additional withdrawal lines that met the 80% “no flow” condition and were scheduled for ultrasonic testing by SoCalGas. These three additional withdrawal lines were:

1. AMA1BWD (Mission Adrian (MA) – 1A)
2. AGWMA5 (Mission Adrian (MA) – 5A)
3. AGWFF34B (Fernando Fee (FF) – 34B)

SoCalGas committed to completing the assessments for these three lines by today. The results of that testing is as follows:

A total of five locations on these three withdrawal lines were examined. Two withdrawal lines identified for additional work (MA - 1A and FF - 34B) were buried and required excavation. There were three excavations associated with withdrawal line MA – 1A to perform the inspections at the potential low spots, and one excavation associated with FF - 34B. The other withdrawal line (MA – 5A) is aboveground.

All three withdrawal lines were inspected using B-Scan ultrasonic technology along the bottom half of the pipe to detect indications of internal corrosion. SoCalGas also surveyed the full circumference every five feet in order to confirm the average wall thickness of the pipe body. In all cases, the deepest detected wall loss areas are not susceptible to leakage, and remaining strength of the piping demonstrates satisfactory safety factors that are well in excess of minimum code requirements. Table 1 summarizes the B-Scan ultrasonic testing results by identifying the sample locations that had both the lowest safety factor and the deepest pit for each of the withdrawal lines inspected. Although some external anomalies were discovered during the inspection, none of the anomalies impact the integrity of the withdrawal lines.

TABLE 1

Well Name	Line	Location	Sample Point	MAOP (psi)	Diameter (in)	Grade (psi)	Wall Thickness (in)	Least Measured Thickness (in)	Pit Depth (in)	% Wall Loss	Predicted Failure Pressure (psi)	Safety Factor (Predicted Failure Pressure/MAOP)
MA - 5A	AGWMA5		26	710	8.625	42000	0.248	0.215	0.033	13%	2666	3.76
FF34B	AGWFF34B		1	710	4.5	35000	0.281	0.217	0.064	23%	4516	6.36
MA - 1A	AMA1BWD	I	1	710	8.625	35000	0.351	0.226	0.125	36%	2139	3.01

With the conclusion of the direct examination activities described above, all of the pipelines identified as an “80% no flow” condition have been inspected for indications of internal corrosion at low/flat location in the piping similar to that observed at the leak location on the Ward 3 withdrawal line. As stated above, the strength of all sampled piping demonstrates satisfactory safety factors that are well in excess of minimum code requirements, and the deepest detected wall loss areas for each withdrawal line are not susceptible to leakage. With the reporting of these results, SoCalGas considers the directive to inspect withdrawal piping systems with similar potential for internal corrosion as Ward 3 withdrawal piping to be complete.

Notwithstanding these positive test results, as described in our September 26 letter, work continues to proceed on the development and implementation of a comprehensive Underground Storage Corrosion Control Manual as part of the SoCalGas Storage Risk Integrity Management Plan submitted to the California Division of Oil, Gas, and Geothermal Resources in August, 2016. The manual will ultimately provide a structured framework for the corrosion control of all wells, piping, and reservoir within the Gas Storage organization.

Leak Patrol

SoCalGas recently completed a leak patrol and survey of the Aliso Canyon field (July 22, 2016), and we expect to perform additional surveys as part of upcoming efforts to commence re-injection. No indications of leaks were detected in the July survey.

SoCalGas' first priority is safety and SoCalGas has worked diligently to address the directives in your September 20, 2016 letter and validate the integrity of withdrawal lines at the Aliso Canyon storage facility. Results of the pending metallurgical testing will be made available once the results are finalized. Please do not hesitate to contact me if you have any further questions or concerns regarding the pinhole leak in the withdrawal line at Ward 3A.

Sincerely,



Rodger R. Schwecke
Vice President, Gas Transmission and Storage

cc: Edward Randolph, CPUC, Energy Division, Director
Jimmie Cho, Senior Vice President, Gas Operations & System Integrity
Doug Schneider, Vice President, System Integrity & Asset Management
Dan Skopec, Vice President, Regulatory Affairs

**Exhibit 4 – DOGGR’s January 17, 2017, press release announcing
the public meeting and comment period stating that one Aliso
Canyon well was still undergoing testing**



DEPARTMENT OF CONSERVATION

News Release

FOR IMMEDIATE RELEASE NR #2017-01
January 17, 2017

Contact: Teresa Schilling/Don Drysdale/Krista Watson/Staci Morrison
(916) 323-1886 or [REDACTED]

PUBLIC INVITED TO COMMENT ON SAFETY FINDINGS AND PROPOSED RESTRICTIONS AT ALISO CANYON

LOS ANGELES – State regulators seek public comment on a proposal to significantly limit the amount of natural gas that can be stored in the Aliso Canyon Storage Facility operated by the Southern California Gas Company (SCG) and to require more stringent safety measures, such as equipping all wells with real-time monitors and alarms, and to protectively encase wells that would be used to inject gas.

Regulators from the Department of Conservation’s Division of Oil, Gas, and Geothermal Resources (DOGGR) and the California Public Utilities Commission (CPUC) have completed their comprehensive review of the safety of wells at the facility and are in the process of determining whether it is safe to allow injection of natural gas to resume. Members of the public can learn about and comment on the state’s well safety review and proposed operational conditions at two upcoming meetings in Woodland Hills.

“We want to hear the public’s thoughts on the testing and inspections, and the steps being taken to ensure public health, safety, and environmental protection,” said Ken Harris, State Oil and Gas Supervisor and head of DOGGR. “We are responsible for ensuring that if the facility reopens, the wells are safe. The entire facility has undergone extensive inspection and each well has been thoroughly tested with stringent standards that were developed with experts at the Lawrence Berkeley, Lawrence Livermore, and Sandia National Laboratories.”

DOGGR ordered a halt to injection of natural gas at the Aliso Canyon storage facility after a leak was discovered in a well in October 2015. The leak was permanently sealed in February 2016.

After the leak was sealed, DOGGR immediately ordered SCG to conduct a rigorous battery of tests on all wells in the storage facility and to undertake numerous safety measures prior to requesting permission to resume injection. The comprehensive testing process was developed in close coordination with Lawrence Berkeley, Lawrence Livermore, and Sandia National Labs. SCG requested permission to resume injection on November 1, 2016.

Findings from the state’s full inspection of the facility include:

The Department of Conservation’s mission is to balance today’s needs with tomorrow’s challenges and foster intelligent, sustainable, and efficient use of California’s energy, land, and mineral resources.

PUBLIC AFFAIRS OFFICE

801 K STREET • MS 24-07 • SACRAMENTO, CA. 95814 • PHONE 916 / 323-1886 • FAX 916 / 323-1887 • TDD 916 / 324-2555

- 34 wells at the facility have passed the six-test series.
- 79 have been taken out of service, filled with protective fluid, and safely isolated from the gas storage field. These wells have one year to either pass all of the tests or be permanently plugged.
- One well is currently undergoing testing.
- Wells eligible for injection have new steel tubing, and a seal between the tubing and outer casing.
- Every well is equipped with real-time pressure monitoring of the tubing and casing. The pressure is continuously reported and monitored in SCG's operations center with alarms for any significant pressure changes.
- The production tubing and production casing of all the wells that may inject or withdraw natural gas have been pressure-tested to verify the strength of the double barrier.
- SCG has updated its spill contingency plan, including actions that will be taken if a well alarm sounds.
- SCG is conducting daily field scanning with infrared cameras to detect leaks.
- The CPUC directed SCG to conduct tests and corrosion assessments on its storage facilities and its withdrawal and injection pipelines. The CPUC and DOGGR have conducted joint inspections of storage facilities, and CPUC engineers reviewed records and conducted field verifications and tests of the SCG's critical safety measures.

Additional conditions the agencies propose to impose on SCG include:

- Limiting gas injection and withdrawal to the well's production tubing (inner steel pipe); injection and withdrawal through the production casing (steel pipe casing) will no longer be allowed.
- Gas storage well heads must be inspected at least daily using gas leak detection technology such as infrared imaging.
- Limiting gas storage in the facility to a maximum 29 billion cubic feet (BCF). The Aliso Canyon storage facility has a capacity of 83 BCF.
- Requiring a minimum of 15.4 billion cubic feet (BCF) of natural gas in the storage field in order to ensure there is a reserve of gas available during an extreme weather event.
- Conservatively setting the maximum pressure in the storage reservoir lower than levels requested by SCG.

"A decision about whether injection of gas into the storage field can resume will not occur until the surrounding communities and concerned public have an opportunity to weigh in," added Harris.

The public meetings will be held on consecutive days, from 5:30 p.m. – 9 p.m. on both Wednesday, February 1, and Thursday, February 2, in the Trillium Room of the Hilton Woodland Hills, 6360 Canoga Avenue, Woodland Hills, CA, 91367.

Details about the public meetings and the full results of the well safety review, including all test results, can be found on the Department of Conservation's (DOC) Aliso Canyon [web page](#).

The CPUC has been working with DOGGR to ensure the safety of the field and will participate in the meeting to discuss the facility's role in ensuring that the greater Los Angeles area has a reliable supply of natural gas. The CPUC also will provide information about how to participate in a future proceeding to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon facility.

At the meetings, the public also will have an opportunity to comment on the maximum and minimum pressure limits proposed for the Aliso Canyon facility as required by [Senate Bill 380, legislation enacted in May 2016](#).

Written comments about the comprehensive safety review and proposed safety requirements can be submitted to DOGGR now through Monday, February 6 at 5:00 p.m. in the following ways:

- ◆ via email to Alisocomments@conservation.ca.gov;
- ◆ by FAX to (916) 324-0948;
- ◆ by mail to Aliso Canyon Comprehensive Safety Review, Department of Conservation, 801 K Street MS 24-02, Sacramento, CA. 95814.

###

**Exhibit 5 – Email exchange between County and DOGGR re:
Emergency Response Plan and October 5 ,2016 letter.**

Scott Kuhn

From: Scott Kuhn
Sent: Tuesday, January 31, 2017 6:17 PM
To: 'Walker, Alan@DOC'
Cc: Uroff, Walter; Van Engelen, Brady@DOC; Harris, Ken@DOC; Turner, Justin@DOC; Marshall, Jason@DOC; McGee, Caelan
Subject: RE: RISK MANAGEMENT PLAN SoCalGas Update

Mr. Walker: Thank you. That was one of the two documents I was seeking. Per my prior email below, I was also looking for an "Emergency Response Plan" submitted to DOGGR on September 30, 2016 that is referenced in SoCalGas' October 11, 2016 letter. I could not find this document on the DOGGR website either. Could you please provide me the link on the DOGGR website if I am missing it, or please provide me an electronic copy of it prior to the Feb. 1 public meeting. Thanks.

Scott Kuhn
Principal Deputy County Counsel
Phone: 213-974-1852
Fax: 213-613-4751
skuhn@counsel.lacounty.gov

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From: Walker, Alan@DOC [mailto: [REDACTED]]
Sent: Tuesday, January 31, 2017 6:07 PM
To: Scott Kuhn
Cc: Uroff, Walter; Van Engelen, Brady@DOC; Harris, Ken@DOC; Turner, Justin@DOC; Marshall, Jason@DOC; McGee, Caelan
Subject: RE: RISK MANAGEMENT PLAN SoCalGas Update

Mr. Kuhn, I believe this is the correspondence you were looking for.

Thanks, Al Walker

From: Scott Kuhn [mailto: [REDACTED]@ov]
Sent: Tuesday, January 31, 2017 3:09 PM
To: Walker, Alan@DOC < [REDACTED]@ov>
Cc: Uroff, Walter < [REDACTED]@ov>; Van Engelen, Brady@DOC < [REDACTED]@ov>; Harris, Ken@DOC < [REDACTED]@ov>; Turner, Justin@DOC < [REDACTED]@ov>; Marshall, Jason@DOC < [REDACTED]@ov>; McGee, Caelan < [REDACTED]@ov>
Subject: RE: RISK MANAGEMENT PLAN SoCalGas Update

Walter: Just following up on my prior requests for an October 5, 2016 letter from DOGGR to SoCalGas. Can you please provide that to me. Thank you.

Scott Kuhn
Principal Deputy County Counsel
Phone: 213-974-1852
Fax: 213-613-4751
[REDACTED]

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From: Scott Kuhn
Sent: Sunday, January 29, 2017 11:31 AM
To: Walker, Alan@DOC
Cc: Uroff, Walter; Van Engelen, Brady@DOC; Harris, Ken@DOC; Turner, Justin@DOC; Marshall, Jason@DOC
Subject: Re: RISK MANAGEMENT PLAN SoCalGas Update

Mr. Walker: There is reference to an October 5, 2016 letter from DOGGR to SoCalGas in the October 11, 2016 letter from SoCalGas to DOGGR on the Risk Management Plan. I could not find the October 5, 2016 letter on the DOGGR website. Could you please provide me the link on the DOGGR website if I am missing it, or please provide me an electronic copy of it prior to the Feb. 1 public meeting.

Additionally, in the October 11, 2016 letter, there is reference to an "Emergency Response Plan" submitted to DOGGR on September 30, 2016. I could not find this document on the DOGGR website either. Could you please provide me the link on the DOGGR website if I am missing it, or please provide me an electronic copy of it prior to the Feb. 1 public meeting.

Thank you very much.

- Scott Kuhn

From: Walker, Alan@DOC <[REDACTED]@doc>
Sent: Wednesday, January 25, 2017 7:11 AM
To: Scott Kuhn
Cc: Uroff, Walter; Van Engelen, Brady@DOC; Harris, Ken@DOC; Turner, Justin@DOC; Marshall, Jason@DOC
Subject: FW: RISK MANAGEMENT PLAN SoCalGas Update

Mr. Kuhn, attached are the two supplements to the Risk Management Plan for Aliso Canyon submitted by SoCalGas. These are both specific and technical, so I would be happy to discuss these with you or staff.

Thank you, Alan Walker

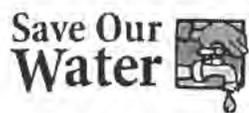
Alan J. Walker

Supervising Oil & Gas Engineer – Programs
Division of Oil, Gas & Geothermal Resources
California Department of Conservation
801 K Street, MS 18-05
Sacramento, CA 95814-3530



[Redacted]@ov

Every Californian should conserve water. Find out how at:



SaveOurWater.com - Drought.CA.gov

From: Scott Kuhn [mailto:[Redacted]@ov]
Sent: Thursday, January 19, 2017 3:10 PM
To: Walker, Alan@DOC <[Redacted]@ov>
Subject: RE: SC GAS RISK MANAGEMENT COMMENTS - LA COUNTY

Thanks for your email. Unfortunately, today won't work for a call for me. Could you please send the current Risk Management Plan so that Fire/County can review. Thanks.

Scott Kuhn

Principal Deputy County Counsel



[REDACTED]

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From: Walker, Alan@DOC [mailto:[REDACTED]]
Sent: Thursday, January 19, 2017 1:01 PM
To: Scott Kuhn
Cc: Harris, Ken@DOC; Habel, Rob@DOC
Subject: RE: SC GAS RISK MANAGEMENT COMMENTS - LA COUNTY

Mr. Kuhn, Mr. Harris is out on medical leave today and I would like to respond. I have spoken with Asst. Chief Walter Uroff about the SoCalGas RMP earlier and explained our progress.

Would it be convenient for me to call you between 3:00 and 3:30 today or after 4:30 p.m. today? I believe the correct number is 213-974-1852. I will follow up with an appropriate email to you and Chief Uroff.

Thank you, Al Walker

Alan J. Walker

Supervising Oil & Gas Engineer – Programs

Division of Oil, Gas & Geothermal Resources

California Department of Conservation

801 K Street, MS 18-05

Sacramento, CA 95814-3530

[REDACTED]

[REDACTED]

[REDACTED]

Every Californian should conserve water. Find out how at:

<image001.jpg>

SaveOurWater.com · Drought.CA.gov

From: Scott Kuhn [mailto:[REDACTED]]
Sent: Tuesday, January 17, 2017 11:15 PM
To: Harris, Ken@DOC <[REDACTED]@doc.gov>; Jones, Bill <[REDACTED]@doc.gov>
Cc: Angelo Bellomo <[REDACTED]@doc.gov>; Katherine Butler <[REDACTED]@doc.gov>
Subject: Re: SC GAS RISK MANAGEMENT COMMENTS - LA COUNTY

Mr. Harris: Could you please send us the final version of the SoCalGas risk management plan and please let us know if there any changes made to it in light of the County's comments. Thank you.

From: Harris, Ken@DOC <[REDACTED]@doc.gov>
Sent: Tuesday, January 3, 2017 3:27 PM
To: Jones, Bill
Cc: Angelo Bellomo; Scott Kuhn; Katherine Butler
Subject: RE: SC GAS RISK MANAGEMENT COMMENTS - LA COUNTY

Thank you for your comments.

From: Jones, Bill [mailto:[REDACTED]]
Sent: Tuesday, January 3, 2017 10:58 AM
To: Harris, Ken@DOC <[REDACTED]@doc.gov>
Cc: Angelo Bellomo <[REDACTED]@doc.gov>; Scott Kuhn <[REDACTED]@doc.gov>; Katherine Butler <[REDACTED]@doc.gov>
Subject: SC GAS RISK MANAGEMENT COMMENTS - LA COUNTY

Please see attached comments.

**BILL JONES, CHIEF | COUNTY OF LOS ANGELES FIRE DEPARTMENT | HEALTH HAZARDOUS MATERIALS DIVISION | 5825
RICKENBACKER RD, COMMERCE, CA | (323) 890-4042 | [REDACTED]**

**Exhibit 6 – October 5, 2016 letter from DOGGR to SoCalGas re:
risk management plan**



State of California • Natural Resources Agency
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street • MS 18-05
Sacramento, CA 95814
(916) 445-9686 • FAX (916) 319-9533

Edmund G. Brown Jr., Governor
Kenneth A. Harris Jr., State Oil and Gas Supervisor

October 5, 2016

Mr. Neil Navin
Southern California Gas Company
555 West 5th Street
Los Angeles, CA 91505

Dear Mr. Navin:

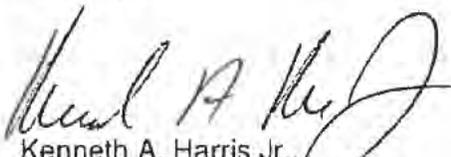
DEFICIENCIES IN AUGUST 5, 2016 RISK MANAGEMENT PLAN FOR UNDERGROUND GAS STORAGE FACILITIES

The Division of Oil, Gas and Geothermal Resources (Division) has done a preliminary evaluation of the Risk Management Plan (RMP) for Southern California Gas Company's underground gas storage facilities, dated and submitted to the Division August 5, 2016. The RMP has been found deficient with respect to the requirements of the emergency regulations for underground gas storage facilities, in particular as the RMP relates to Aliso Canyon facility, as Order 1109 specifically mandates that certain issues be addressed in the RMP. (Cal. Code Regs., tit. 14, § 1724.9, subdivision (g); State Oil and Gas Supervisor's Order 1109 (March 4, 2016).) Specifically, the Division found that the RMP did not address the following minimum requirements:

1. The requirement that mechanical integrity testing will be used in accordance with or exceeding the specifications in section 1724.9, subdivisions (g)(1) and (2), of the emergency regulations;
2. The requirement for "effective geologic and geotechnical hazard mitigation protocols" as required by Section IV, Item 11, of Order 1109, for example identification of the risk posed by the Santa Susana Fault and how to mitigate the risk to well integrity;
3. The requirement for inclusion of an "effective facility-wide emergency response plan" as required by Section IV, Item 11, of Order 1109.

Be advised that the Division's review of the RMP is still ongoing and in the course of its review the Division may identify additional analysis and information needed to complete the RMP. In the meantime, please evaluate the items listed above and contact Mr. Alan Walker at (916) 323-2258 or Alan.Walker@conservation.ca.gov to discuss the timeframe for supplementing the RMP to address these issues.

Sincerely,



Kenneth A. Harris Jr.,
State Oil and Gas Supervisor

**Exhibit 7 – February 6, 2017 print out of DOGGR website pages
listing documents on Aliso Canyon**



Home > DOGGR > Aliso Canyon

Aliso Canyon Updates and Resources

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division) has completed its comprehensive safety review at the Aliso Canyon Storage Facility. With safety as our top priority, the Division's extensive site inspections and review of Southern California Gas's testing -- in consultation with the Lawrence Livermore, Lawrence Berkeley and Sandia National Laboratories -- was completed on January 17, 2017.

A decision about whether injection of gas into the storage facility can resume will not occur until a public meeting is held and the public has an opportunity to comment on the findings of the comprehensive safety review.

- Webcast presentation of the rigorous testing done to all wells at the Aliso Canyon Storage Facility: <https://youtu.be/7rEOHVuqKf0>

Two public meetings have been scheduled to receive public input on the safety review:

Wednesday, February 1, 2017

5:30 p.m. - 9:00 p.m.

Hilton Woodland Hills

Trillium Room

6360 Canoga Avenue

Woodland Hills, CA 91367

Thursday, February 2, 2017

5:30 p.m. - 9:00 p.m.

- Public Meeting Notice
- Public Meeting Agenda (revised)

In addition to the public meetings, public comments may be submitted through Monday, February 6:

- Via email: [\[REDACTED\]](#)
- By FAX: (916) 324-0948
- By mail:

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814

Please join the Division's Aliso Canyon Updates email list to receive updates.

The links below contain additional news and information regarding the Aliso Canyon Oil Field.

Public Meeting Documents:

- Public Notice for Aliso Canyon Storage Facility
- Comprehensive Safety Review Findings regarding Aliso Canyon Storage Facility
- Recommended Minimum/Maximum Pressure Limits
 - Attachment 1: Estimated GeoMechanics Properties for the Aliso Canyon Gas Storage Field
 - Attachment 2: SCG Aliso Canyon Geomechanical Reports Regarding Minimum and Maximum Reservoir Pressure
 - Attachment 3: NL Aliso Canyon Minimum Operating Pressure
 - Attachment 4: SCG Aliso Canyon Minimum Reservoir Pressure Equation
 - Attachment 5: Surface Test Pressure Calculator S1 Analysis

Recent Correspondence:

- January 17, 2017: Letter of Findings for Aliso Canyon Storage Facility
- November 1, 2016: Letter from Southern California Gas to DOGGR and CPUC
 - Attachment A (Fitness for Service Analysis)
 - Attachment B
 - Attachment C (Declaration of Mr. Schwecke)
 - Attachment D (Confidentiality Request)
 - Southern California Gas' Withdrawal of Confidentiality
- November 1, 2016: DOGGR Acknowledgement of Receipt of Letter from Southern California Gas
- October 21, 2016: Letter to Southern California Gas

News Releases and Statements:

- January 17, 2017: Public Notice for Aliso Canyon Storage Facility
- November 1, 2016: Department of Conservation Statement - Statement from the Division of Oil, Gas, and Geothermal resources on Southern California Gas' request to restart injection at Aliso Canyon

Safety Testing and Review Requirements:

Aliso Canyon Well Test Results

- Steps to Determine Whether Injection May Resume at Aliso Canyon

- Checklist of Safety and Operational Steps

Southern California Gas Reports to the Division of Oil and Gas:

- [Click here to view the reports](#)

Additional Information:

- [Summary of Senate Bill 380](#)
- [Archived Aliso Canyon Resources](#)

Division of Oil Gas and Geothermal Contacts

- [Division Contacts](#)
- [Career Opportunities](#)
- [In Case of Emergency](#)

Technical Information

- [GIS/Maps](#)
- [Online Production and Injection](#)
- [Online Well Record Search](#)
- [Pre 1977 Production and Injection Scanned Documents](#)
- [Well Finder](#)

Programs

- [Aquifer Exemptions](#)
- [Construction Site Review](#)
- [Facilities](#)
- [Geothermal](#)
- [Renewal Plan](#)
- [SB 1281](#)
- [Underground Injection Control](#)
- [Well Stimulation Treatment](#)
- [Well Stimulation Treatment Program \(Interim Period\)](#)

Laws, Regulations and Publications

- [Field Rules](#)
- [Forms \(Geothermal\)](#)
- [Forms \(Oil & Gas\)](#)
- [Laws and Regulations](#)
- [Memoranda of Understanding - Memoranda of Agreement](#)

- Publications
- SB 4 Final EIR

[Return to...](#)

- Department of Conservation
 - Division of Oil, Gas & Geothermal Resources
-

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- Governmental
- Industry
- Miscellaneous



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[Home](#) [Information](#) [For Operators](#) [Online Data](#) [Education](#) [Injection/UIC](#)

[Geothermal](#)

[Home](#) > [DOGGR](#) > [Aliso Canyon](#)

Test Results of Aliso Canyon Wells

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources has ordered that all 114 injection wells be thoroughly tested for safety and competence before injection resumes into the Aliso Canyon natural gas storage field. The Division developed a protocol of six tests in consultation with the Lawrence Livermore and Berkeley National Laboratories. Test results are submitted by Southern California Gas, reviewed by Division staff, and then posted on this page. Wells must pass all tests within one year or be permanently sealed (plugged and abandoned).

Additional Aliso Canyon information – Southern California Gas is also required to file reports on its progress toward completing the safety review every first and third Friday of the month– can be found [here](#)

- [1st/3rd Friday Reports](#)
- [Test Definitions](#)
- [All Test Documents](#)
- [Click here for Map](#)

Well Safety Status Counts

Passed All Tests:	In Remediation:	Taken Out of Operation:	Plugged and Abandoned:	Pending Test Results:
35	0	78	0	1

[Click Here For Map](#)

API Number	Well Name	Temp Log Test	Noise Test Log	Casing Inspection Log	Cement Bond Test	Multi Arm Caliper Inspection	Positive Pressure Test
03721313	Fernando Fee 32F	Passed	Passed	Passed. Casing repaired.	Passed	Passed	Passed
03730374	Fernando Fee 32G	Passed	Passed	Passed	Passed	Passed	Passed
03724230	Fernando Fee 38A	Passed	Passed	Passed	Passed	Passed	Passed
03722044	Fernando Fee 34-A	Passed	Passed	Passed	Passed	Passed	Passed
03721457	Fernando Fee 35A	Passed	Passed	Passed	Passed	Passed	Passed
03730456	Fernando Fee 32H	Passed	Passed	Passed	Passed	Passed	Passed
03722302	Fernando Fee 34BR	Passed	Passed	Passed	Passed	Passed	Passed
03724232	Fernando Fee 38C	Passed	Passed	Passed	Passed	Passed	Passed
03721353	Porter 26C	Passed	Passed	Failed. Casing repaired.	Passed	Passed	Passed
03724144	Porter 24B	Passed	Passed	Failed. Casing repaired.	Passed	Failed. Casing repaired.	Passed
03724143	Porter 24A	Passed	Passed	Passed	Passed	Passed	Passed
03721279	Fernando Fee 35C	Passed	Passed	Passed	Passed	Passed	Passed
03700712	Porter 25R	Passed	Passed	Passed	Passed	Passed	Passed
03721359	Fernando Fee 32C	Passed	Passed	Passed	Passed	Passed	Passed
03724231	Fernando Fee 38B	Passed	Passed	Passed	Passed	Passed	Passed
03721872	Fernando Fee 32-A	Passed	Passed	Failed. Casing repaired.	Passed	Passed	Passed
03724337	Porter 50C	Passed	Passed	Passed	Passed	Passed	Passed
03724336	Porter 50B	Passed	Passed	Passed	Passed	Passed	Passed
03700731	Porter 44	Passed	Passed	Failed. Casing repaired.	Passed	Failed. Casing repaired.	Passed
03724136	Porter 68B	Passed	Passed	Passed	Passed	Passed	Passed
03722742	Porter 68A	Passed	Passed	Passed	Passed	Passed	Passed
03724130	Porter 69D	Passed	Passed	Passed	Passed	Passed	Passed
03724145	Porter 72A	Passed	Passed	Passed	Passed	Passed	Passed
03724128	Porter 69C	Passed	Passed	Passed	Passed	Passed	Passed
03724146	Porter 72B	Passed	Passed	Passed	Passed	Passed	Passed
03724127	Porter 69B	Passed	Passed	Passed	Passed	Passed	Passed
03724226	Porter 69F	Passed	Passed	Passed	Passed	Passed	Passed
03724236	Porter 69K	Passed	Passed	Passed	Passed	Passed	Passed
03724224	Porter 69J	Passed	Passed	Passed	Passed	Passed	Passed
03724223	Porter 69H	Passed	Passed	Passed	Passed	Passed	Passed
03724225	Porter 69G	Passed	Passed	Passed	Passed	Passed	Passed
03724138	Porter 69E	Passed	Passed	Passed	Passed	Passed	Passed
03700758	Standard Sesnon 5	Passed	Passed	Passed	Passed	Passed	Passed

APINumber	Well Name	Temp Log Test	Noise Test Log	Casing Inspection Log	Cement Bond Test	Multi Arm Caliper Inspection	Positive Pressure Test
03722063	Standard Sesnon 4-0	Passed	Passed	Passed	Passed	Passed	Passed
03730460	Standard Sesnon 4B	Passed	Passed	Passed	Passed	Passed	Passed
03700687	Fernando Fee 33	Passed	Passed				Passed
03721278	Fernando Fee 35E	Passed	Passed				Passed
03721277	Porter 32A	Passed	Passed				Passed
03721357	Porter 26B	Passed	Passed				Passed
03721319	Porter 26E	Passed	Passed				Passed
03700717	Porter 30	Passed	Passed				Passed
03721891	Mission Adrian 1A	Passed	Passed				Passed
03700669	Frew 6	Passed	Passed				Passed
03721458	Fernando Fee 35B	Passed	Passed				Passed
03721321	Fernando Fee 32E	Passed	Passed				Passed
03721356	Fernando Fee 32D	Passed	Passed				Passed
03721320	Porter 26D	Passed	Passed				Passed
03700665	Frew 2	Passed	Passed				Passed
03721453	Fernando Fee 35D	Passed	Passed				Passed
03700670	Frew 7	Passed	Passed				Passed
03700671	Frew 8	Passed	Passed				Passed
03721360	Porter 32C	Passed	Passed				Passed
03700701	Porter 12	Passed	Passed				Passed
03700693	Mission Adrian 3	Passed	Passed				Passed
03700667	Frew 4	Passed	Passed				Passed
03700668	Frew 5	Passed	Passed				Passed
03700686	Fernando Fee 32	Passed	Passed				Passed
03700713	Porter 26	Passed	Passed				Passed
03721362	Porter 26A	Passed	Passed				Passed
03721358	Fernando Fee 32B	Passed	Passed				Passed
03721892	Mission Adrian 1B	Passed	Passed				Passed
03721276	Porter 32B	Passed	Passed				Passed
03700723	Porter 36	Passed	Passed				Passed
03700721	Porter 34	Passed	Passed				Passed
03721877	Porter 42B	Passed	Passed				Passed

APINumber	Well Name	Temp Log Test	Noise Test Log	Casing Inspection Log	Cement Bond Test	Multi Arm Caliper Inspection	Positive Pressure Test
03721355	Porter 32D	Passed	Passed				Passed
03721878	Porter 42C	Passed	Passed				Passed
03700733	Porter 46	Passed	Passed				Passed
03700722	Porter 35	Passed	Passed				Passed
03700725	Porter 38	Passed	Passed				Passed
03700724	Porter 37	Passed	Passed				Passed
03721353	Porter 32E	Passed	Passed				Passed
03721354	Porter 32F	Passed	Passed				Passed
03700734	Porter 47	Passed	Passed				Passed
03722046	Porter 37-A	Passed	Passed				Passed
03700726	Porter 39	Passed	Passed				Passed
03700727	Porter 40	Passed	Passed				Passed
03721876	Porter 42A	Passed	Passed				Passed
03722051	Porter 69A	Passed	Passed				Passed
03700732	Porter 45	Passed	Passed				Passed
03700649	Sesnon Fee 3	Passed	Passed				Passed
03700654	Sesnon Fee 8	Passed	Passed				Passed
03700647	Sesnon Fee 1	Passed	Passed				Passed
03700040	Standard Sesnon 10	Passed	Passed				Passed
03700753	Porter Sesnon 42	Passed	Passed				Passed
03700768	Standard Sesnon 16	Passed	Passed				Passed
03700765	Standard Sesnon 13	Passed	Passed				Passed
03700764	Standard Sesnon 12	Passed	Passed				Passed
03700766	Standard Sesnon 14	Passed	Passed				Passed
03700763	Standard Sesnon 11	Passed	Passed				Passed
03700769	Standard Sesnon 17	Passed	Passed				Passed
03721322	Standard Sesnon 25A	Passed	Passed				Passed
03700755	Standard Sesnon 2	Passed	Passed				Passed
03700775	Standard Sesnon 24	Passed	Passed				Passed

APINumber	Well Name	Temp Log Test	Noise Test Log	Casing Inspection Log	Cement Bond Test	Multi Arm Caliper Inspection	Positive Pressure Test
03700757	Standard Sesnon 4	Passed	Passed				Passed
03700781	Standard Sesnon 31	Passed	Passed				Passed
03700756	Standard Sesnon 3	Passed	Passed				Passed
03721455	Standard Sesnon 44A	Passed	Passed				Passed
03721375	Standard Sesnon 4A	Passed	Passed				Passed
03721361	Standard Sesnon 44B	Passed	Passed				Passed
03700041	Standard Sesnon 29	Passed	Passed				Passed
03721323	Standard Sesnon 25B	Passed	Passed				Passed
03700780	Standard Sesnon 30	Passed	Passed				Passed
03700762	Standard Sesnon 9	Passed	Passed				Passed
03700759	Standard Sesnon 6	Passed	Passed				Passed
03700651	Sesnon Fee 5	Passed	Passed				Passed
03700648	Sesnon Fee 2	Passed	Passed				Passed
03700650	Sesnon Fee 4	Passed	Passed				Passed
03700192	Ward 3	Passed	Passed				Passed
03722306	Ward 3A	Passed	Passed				Passed
03700652	Sesnon Fee 6	Passed	Passed				Passed
03700653	Sesnon Fee 7	Passed	Passed				Passed
03700776	Standard Sesnon 25						
03700719	Porter 32	Passed. Rig on well.	Passed. Rig on well.				

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Home > DOGGR > Archived Aliso Canyon Resources

Archived Aliso Canyon Resources

Follow the links below for all the news and information regarding the Aliso Canyon Oil Field.

- [Current Aliso Canyon Updates and Resources](#) **NEW**

News Releases and Statements:

- February 18, 2016: Officials Confirm Gas Leak is Sealed - State officials, including the Department of Conservation's Division of Oil, Gas, and Geothermal Resources, confirmed that a leaking natural gas storage well in the Aliso Canyon facility has been permanently sealed
- February 11, 2016: The Department of Conservation's statement regarding Southern California Gas' announcement that it has temporarily sealed a leaking well in the Aliso Canyon natural gas storage facility
- February 5, 2016: Emergency regulations for natural gas storage facilities are now in place after approval by the Office of Administrative Law
- January 15, 2016: The California Department of Conservation issued public notice of its intent to issue emergency regulations for the state's natural gas storage facilities in response to a recent emergency proclamation by Governor Brown related to an ongoing leak in the Los Angeles area
- December 2, 2015: State Oil & Gas Supervisor's statement to Porter Ranch community

Safety Testing and Review Requirements:

- Requirements for comprehensive safety review of all wells in the Aliso Canyon storage facility
- Process to confirm the leaking well was sealed

Emergency Orders and Regulations:

- March 4, 2016: Order 1109 from State Oil & Gas Supervisor to SCG
- February 18, 2016: Public Notice confirming the Aliso Canyon leaking well was sealed
- February 5, 2016: Emergency Regulations
 - Approval by the Office of Administrative Law
 - View text of originally proposed Emergency Regulations
- January 15, 2016: Public Notice of proposed emergency rulemaking action
 - Pre-Rulemaking Discussion

- Notice of Proposed Rulemaking Action
- Department of Conservation Responses to Comments
- January 6, 2016: Governor Brown's emergency proclamation
- December 10, 2015: Emergency Order 1106 from State Oil & Gas Supervisor to SCG
- November 18, 2015: Emergency Order 1104 from State Oil & Gas Supervisor to SCG

Additional Information:

- Fact Sheet: The responsibilities of various state agencies with respect to this incident
- Governor's Office of Emergency Services, Aliso Canyon webpage
- Governor's Office of Emergency Services, Frequently Asked Questions
- Southern California Gas information page
- CPUC/DOGGR Joint Statement on Investigations
- Los Angeles County Department of Public Health
- Division of Oil, Gas, and Geothermal Resources fact sheet on Aliso Canyon
- Standard Sesnon 25: well records and testing results
- Aliso Canyon Gas Storage Project file
- California Public Utilities Commission
- South Coast Air Quality Management
- California Air Resources Control Board
- Office of Environmental Health Hazards Assessment

Division of Oil Gas and Geothermal Contacts

- Division Contacts
- Career Opportunities
- In Case of Emergency

Technical Information

- GIS/Maps
- Online Production and Injection
- Online Well Record Search
- Pre 1977 Production and Injection Scanned Documents
- Well Finder

Programs

- Aquifer Exemptions
- Construction Site Review
- Facilities
- Renewal Plan
- SB 1281

- [Underground Injection Control](#)
- [Well Stimulation Treatment](#)
- [Well Stimulation Treatment Program \(Interim Period\)](#)

Laws, Regulations and Publications

- [Field Rules](#)
- [Forms \(Geothermal\)](#)
- [Forms \(Oil & Gas\)](#)
- [Laws and Regulations](#)
- [Memoranda of Understanding - Memoranda of Agreement](#)
- [Publications](#)
- [SB 4 Final EIR](#)

Return to...

- [Department of Conservation](#)
- [Division of Oil, Gas & Geothermal Resources](#)

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- [Miscellaneous](#)



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**Exhibit 8 – February 6, 2017 print out of CPUC website pages
listing documents on Aliso Canyon**



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[Aliso Canyon Well Failure](#)

Aliso Canyon Well Failure

On October 23, 2015, a leak at a Southern California Gas Company natural gas storage well was discovered by crews at the Aliso Canyon storage field. State agencies are working with SoCalGas and local agencies to monitor the situation and ensure public safety. On this page you will find information about the CPUC's actions, and links to information that is available on other state agency websites.

- Feb. 1, 2017: CPUC Aliso Canyon Public Meeting Presentation
- Jan. 27, 2017: OII Issued that Sets Stage for Commissioner Consideration of Future of Aliso Canyon
 - [Read our press release](#)
- Jan. 2017: Aliso Canyon Demand-Side Management Impact Summary
- Jan. 24, 2017: SED Directive to SoCalGas to Conduct Leak Survey
- This Winter Withdrawal Protocol describes the process to be followed before making a withdrawal from the Aliso Canyon storage facility. The protocol was developed by the CPUC, the California Independent system Operator, and Los Angeles Department of Water and Power, with input from the California Energy Commission. The protocol revised the summer protocol, in recognition of the differences in the conditions that make up winter demand versus summer demand.
- Jan. 17, 2017: News Release - Public Invited To Comment On Safety Findings And Proposed Restrictions At Aliso Canyon
 - [DOGGR Public Notice](#)
- Jan. 17, 2017: Aliso Canyon Storage Facility comprehensive gas storage well safety review and related documents and information are available on DOGGR's website
- Jan. 17, 2017: The proposed minimum and maximum pressure for the Aliso Canyon Storage Facility and related documents and information are available on DOGGR's website
- Jan. 17, 2017: Draft Update to Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability for Reliability Report
 - Statute requires the CPUC to seek public comment on this report. Members of the public can comment on the report via mail to the CPUC's Public Advisor's Office, 505 Van Ness Ave., San Francisco, CA 94102, or via email to [REDACTED]. These comments should include "Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability" in the subject line of any written or emailed correspondence. Comments are due by January 26, 2017. Public comments received will help further inform the CPUC about reliability issues related to Aliso Canyon.

- Jan. 13, 2017: SoCalGas Notice Pursuant to PU Code Section 455.5

- Nov. 14, 2016: Aliso Canyon
 - Phase 1 RCA Protocol: Blade Site Evidence Collection and Documentation
 - Phase 2 RCA Protocol: SoCalGas Site restoration to Rig Readiness
 - Phase 3 RCA Protocol: Blade Tubing, Casing, Wellhead Extraction

- Nov. 10, 2016: CPUC Authorizes Winter Conservation Programs For SoCalGas Customers
- Nov. 1, 2016: Letter from SoCalGas requesting authorization for reinjection
 - Attachment A (Fitness for Service Analysis)
 - Attachment B
 - Attachment C (Declaration of Mr. Schwecke)
 - Attachment D (Confidentiality Request)
 - DOGGR's Acknowledgement of Request
 - CPUC's Acknowledgement of Request
 - Statement from DOGGR on SoCalGas Request to Restart Injection at Aliso Canyon

- Oct. 25, 2016: Aliso Canyon SS25 Well Leak Investigation Overview
- Oct. 21, 2016: CPUC/DOGGR Letter to SoCalGas re: Safety Review for Underground Gas Storage Facilities at Aliso Canyon
- Oct. 21, 2016: The Internal Corrosion Assessment that SoCal Gas submitted
- Oct. 18, 2016: Federal Interagency Task Force on Underground Natural Gas Storage Safety Report: Ensuring Safe and Reliable Underground Natural Gas Storage
- Sept. 28, 2016: CPUC Letter to SoCalGas
- Sept. 27, 2016: Aliso Canyon Demand Side Management Activity and Impact Summary
- Sept. 20, 2016: CPUC Directive to SoCalGas to Conduct Internal Corrosion Threat Assessment
 - Sept. 26, 2016: SoCalGas Response
 - Appendix B to SoCalGas Response
 - Confidentiality Declaration to SoCalGas Response

- Sep. 13, 2016: Letter from Energy Division Director to SoCalGas re Directing SoCalGas to File Winter Demand Response Programs for the Winter of 2016
- Aug. 25, 2016: CPUC Letter to SoCalGas Re: Authorization to Isolate and Remove from Service Wells Reserved for Withdrawal at Aliso
- Aug. 24, 2016: CPUC Letter to SoCalGas re: Authorization to Continue Flow Testing on Specified Wells
- Aug. 26 Workshop Notice to Discuss Action Plan to Preserve Southern California Energy Reliability This Winter
- Aug. 22, 2016: Energy Agencies Release Action Plan to Preserve Southern California Energy Reliability This Winter
- Aug. 18, 2016: CPUC approves contracts for SDG&E in continued support of the Governor's Emergency Proclamation to protect public safety by ensuring the continued reliability of natural gas

- and electric supplies while there is a moratorium on gas injections at Aliso Canyon Natural Gas Storage Facility
- Aug. 3, 2016: Authorization of Gas Reinjection at PG&E's McDonald Island
 - Aug. 1, 2016: CPUC Response Letter to SoCalGas July 28, 2016 Letter
 - July 28, 2016: Letter from SoCalGas - Authorization to Perform Flow Testing on Specified Wells at Aliso Canyon
 - Attachment to SoCalGas Letter - Proposed Tubing Flow Rate Verification Plan for Aliso Canyon

 - June 28, 2016: CPUC Issues Staff Report on Aliso Canyon Gas Availability and Reliability
 - Statute requires the CPUC to seek public comment on this report. Members of the public can comment on the report via mail to the CPUC's Public Advisor's Office, which is located at: CPUC Public Advisor, 505 Van Ness Avenue, San Francisco, CA 94102, or via email to [REDACTED]. These comments should include "Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability for Summer 2016 Reliability" in the subject line of any written or emailed correspondence. Comments are due by July 28, 2016. Public comments received will help further inform the CPUC about reliability issues related to Aliso Canyon.

 - June 20, 2016: SoCalGas letter to CPUC regarding testing
 - Attachment to letter (confidential information redacted)

 - June 15, 2016: CPUC Letter to SoCal Gas re Aliso Canyon Natural Gas Storage Facility comprehensive safety testing
 - June 15, 2016: DOGGR letter on Aliso Canyon Withdrawal Authorization
 - June 2, 2016: CPUC Letter to SoCalGas Regarding Aliso Canyon Withdrawals
 - May 26, 2016: CPUC Continues to Plan for Southern California Energy Reliability by Approving Storage Procurement for Edison
 - May 12, 2016: Resolution issued for comment authorizing expedited procurement of storage resources to ensure electric reliability in the Los Angeles Basin due to limited operations of Aliso Canyon Gas Storage Facility
 - May 6, 2016: Disposition approving proposed amendments to the California Solar Initiative-Thermal Program Handbook. The changes will only apply to solar water heating installations in SoCalGas service territory and will be temporary in order to respond to the major natural gas leak that occurred at the Aliso Canyon Natural Gas Storage Facility on October 23, 2015.
 - May 6, 2016: CPUC Letter to Edison on Accelerated Procurement to Address Reliability Risks Associated with the Moratorium on Injections into the Aliso Canyon Natural Gas Storage Facility
 - 2015 SoCal Gas Usage Data (by high, medium and low usage)
 - CARE Tables
 - Core Tables
 - Non-Core Tables
 - Total Tables

 - April 21, 2016: CPUC Continues to Support Conservation Efforts to Ensure Reliable Energy to Southern California Following Aliso Canyon Leak

- April 8, 2016: Energy Agencies Hold Workshop to Discuss Action Plan to Preserve Energy Reliability in Greater Los Angeles
- April 5, 2016: Risk Assessment Technical Report
 - April 5, 2016: Action Plan

- April 5, 2016: Energy Agencies Release Draft Action Plan to Preserve Energy Reliability in Greater Los Angeles This Summer in Wake of Aliso Canyon Leak
- April 8, 2016: Joint Agency Workshop: Aliso Canyon Action Plan for Local Energy Reliability in Summer 2016
- April 5, 2016: Key Energy Agencies Release Aliso Canyon Action Plan on Natural Gas Reliability for Greater Los Angeles Area
- March 23, 2016: Assigned Commissioner's Ruling on Demand Response
 - SoCalGas Response

- March 14, 2016: CPUC Issues Commissioner Ruling Directing SoCalGas and Edison to Enhance Energy Savings Assistance Program Efforts
- February 2016: SoCalGas Rates Fact Sheet
- Feb. 16, 2016: Preliminary CPUC Staff Analysis of Los Angeles Basin's 2016 Energy Demand and the Role of Aliso Canyon Storage
- Feb. 11, 2016: Letter to Senator Hill
 - Attachment 1 to Letter to Senator Hill
 - Attachment 2 to Letter to Senator Hill

- Feb. 5, 2016: CPUC Staff Directive to SoCalGas to Preserve Evidence
- Feb. 4, 2016: Aliso Canyon Reliability Briefing to the Porter Ranch Community Advisory Committee by CPUC Energy Division Director
- Feb. 1, 2016: CPUC/CEC/CAISO Letter to the Governor
- Jan. 26, 2016: CPUC/DOGGR Request for Information from SoCalGas
 - Jan. 29, 2016: SoCalGas Initial Response to CPUC/DOGGR Jan. 26 Request

- Jan. 26, 2016: CPUC Directive to Operators of Underground Gas Storage Facilities
 - Survey Results

- Jan. 22, 2016: CPUC Letter to SoCalGas on Selection of 3rd Party Contractor
- Jan. 21, 2016: Letter from Congressman Sherman to CAISO and CPUC
- Jan. 21, 2016: Letter from Congressman Sherman to the CPUC on Electric Reliability
- Jan. 21, 2016: Testimony of CPUC Safety and Enforcement Division Director, Elizaveta Malashenko
- Jan. 21, 2016: CPUC Letter to SoCalGas on Working Gas Level
 - Jan. 22, 2016: SoCalGas Response

- Jan. 20, 2016: CPUC Letter to SoCalGas on Records Retention
 - Response of SoCalGas to CPUC's Jan. 20, 2016 Letter on Records Retention
 - SoCalGas Records Management and Retention Legal Policy

- Jan. 18, 2016: CPUC letter to SoCalGas re: Methane Capture System Proposal

- Jan. 15, 2016: SoCalGas Cost Update
 - SoCalGas' spreadsheet from pdf

- Jan. 14, 2016: CPUC Data Request to SoCalGas
- Jan. 13, 2016: Letter to the CPUC from Assemblymember Gatto, Chair, Assembly Utilities and Commerce Committee on Records Retention
- Jan. 11, 2016: Greenpeace Public Records Request
- Jan. 4, 2016: CPUC directive to SoCalGas to provide district call center information and perform area leak surveys
- Dec. 24, 2015: PHMSA letter to CPUC
 - Jan. 5, 2016: CPUC response letter to PHMSA

- Dec. 23, 2015: CPUC Data Request to SoCalGas
 - SoCalGas Response I to CPUC Dec. 23 Data Request
 - SoCalGas Response II to CPUC Dec. 23 Data Request

- Dec. 23, 2015: CPUC Letter to SoCalGas re: Costs
- Dec. 21, 2015: Aguirre & Severson Public Records Request
- Dec. 17, 2015: Al Jazeera America Public Records Request
- Dec. 15, 2015: Frantz Law Group Public Records Request
- Dec. 15, 2015: Bloomberg News Public Records Request
- Dec. 15, 2015: State Agencies Detail Ongoing Investigations into Aliso Canyon Gas Leak
- Dec. 15, 2015: CPUC/DOGGR Joint Statement on Investigations
 - Appendix A
 - Appendix B
 - Appendix C

- Dec. 14, 2015: CPUC/DOGGR Letter to SoCalGas
 - SoCalGas' supplemental response Dec. 14, 2015, Data Request providing an update as of Jan. 15, 2016
 - Aliso Incident Costs through Dec. 31, 2015

- Dec. 14, 2015: CPUC Data Request to SoCalGas
 - January 2016: SoCalGas Response to Dec. 14 Data Request
 - SoCalGas' Aliso Canyon Costs as of November 30, 2015

- Dec. 11, 2015: CPUC Data Request to SoCalGas
 - Feb. 9, 2016: SoCalGas Response

- Dec. 9, 2015: Overview of Phone Conversation
- Dec. 9, 2015: Letter from Senator Pavley to DOGGR and CPUC
- Dec. 9, 2015: Letter from Senator Pavley to CPUC and DOGGR
 - Jan. 4, 2016: CPUC Response Letter to Senator Pavley

- Dec. 8, 2015: LA Weekly Public Records Request

- Dec. 4, 2015: Letter from City of Lancaster to CPUC
 - Jan. 4, 2016: CPUC Response Letter to City of Lancaster
- Nov. 25, 2015: Letter from City of Los Angeles to CPUC
 - Jan. 4, 2016: CPUC Response Letter to City of Los Angeles
- Nov. 23, 2015: Informal Complaint
- Nov. 4, 2015: Letter from EDF to CPUC
 - Jan. 4, 2016: CPUC Response Letter to EDF
- Oct. 27, 2015: Informal Complaint
- Oct. 25, 2015: Incident Report Notification of Leak
- Aug. 25, 2014: CPUC Incident Investigation Report
- May 15, 2014: CPUC Incident Investigation Report
- Feb. 15, 2011: Informal Complaint
- Apr. 11, 2008: CPUC Incident Investigation Report
- Nov. 29, 2007: CPUC Letter to SoCalGas
- Oct. 18, 2006: CPUC Letter to SoCalGas
- SoCalGas Aliso Canyon Emergency Action and Fire Prevention Plan
- Visit the SoCalGas website for more information.
- Visit the CalOES website for more information.
- Read the CPUC's Memorandum of Understanding with DOGGR
- Overview of SoCalGas System Operations and Aliso Canyon SS-25 Incident
- Pressures in a Well Fact Sheet
- Map of California Storage Fields and Capacity
- **FAQs for Aliso Canyon**

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COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

February 6, 2017

Aliso Canyon Comprehensive Safety Review
Mr. Kenneth A. Harris
State Oil and Gas Supervisor
Department of Conservation,
Division of Oil, Gas, and Geothermal Resources
801 K Street MS 18-05
Sacramento, CA 95814-3530
Via Email to [REDACTED]

COMMENTS ON THE SAFETY REVIEW FOR ALISO CANYON STORAGE FACILITY

Dear Mr. Harris:

The Los Angeles County Fire Department ("Department") and its Health Hazardous Materials Division ("HHMD") appreciates the opportunity to provide the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) comments on the safety review conducted at the Aliso Canyon storage facility and the possibility of starting gas injection at the facility. During the months-long leak at Aliso Canyon, this Department participated in the response to the Aliso Canyon leak and the eventual formation of the unified command incident management team. As first responders, this Department is on the front lines of responding to emergencies, including leaks, fires, and other incidents at industrial facilities. This Department regularly prepares after action reports, investigates the cause of fires and other incidents, and engages in prevention and risk management activities.

HHMD has extensive experience with risk management plans in the implementation of the California Accidental Release Prevention (CalARP) program. Both Cal-ARP regulations and DOGGR's Risk Management Plan (RMP) requirements are intended to prevent the accidental release of hazardous substances that can potentially cause serious harm to the public, facility employees and the environment, and minimize the impact and damage if a release does occur. Methane gas is highly flammable and this Department is concerned with hazards to employees, vendors and others associated with an explosion and/or fire

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	BRADBURY	CUDAHY	HAWTHORNE	LA HABRA	LYNWOOD	PICO RIVERA	SIGNAL HILL
ARTESIA	CALABASAS	DIAMOND BAR	HIDDEN HILLS	LA MIRADA	MALIBU	POMONA	SOUTH EL MONTE
AZUSA	CARSON	DUARTE	HUNTINGTON PARK	LA PUENTE	MAYWOOD	RANCHO PALOS VERDES	SOUTH GATE
BALDWIN PARK	CERRITOS	EL MONTE	INDUSTRY	LAKEWOOD	NORWALK	ROLLING HILLS	TEMPLE CITY
BELL	CLAREMONT	GARDENA	INGLEWOOD	LANCASTER	PALMDALE	ROLLING HILLS ESTATES	WALNUT
BELL GARDENS	COMMERCE	GLEN DORA	IRWINDALE	LAWDALE	PALOS VERDES ESTATES	ROSEMEAD	WEST HOLLYWOOD
BELLFLOWER	COVINA	HAWAIIAN GARDENS	LA CANADA-FLINTRIDGE	LOMITA	PARAMOUNT	SAN DIMAS	WESTLAKE VILLAGE
						SANTA CLARITA	WHITTIER

from an uncontrolled release of methane gas from Aliso Canyon. In addition, as our mission incorporates protection of public health and safety and the environment, the impacts of the chemicals of concern to the public, employees and environment are equally of concern.

Root Cause Analysis

DOGGR has essentially completed its safety review and appears ready to allow Southern California Gas Company (SoCal Gas) to begin gas injection at Aliso Canyon without the benefit of having completed a "root cause" investigation of the October, 2015 leak. A root cause analysis helps operators and regulators design and implement safety measures to prevent the incident from happening again. Without determining the cause of the Aliso Canyon leak, we cannot be sure that adequate steps are being taken to prevent such a leak from recurring. This Department recommends that no approval be given to SoCalGas to begin gas injection at Aliso Canyon without first completing the root cause investigation and incorporating improvements to the RMP based on the results of that investigation.

Following a pipeline leak at Aliso Canyon on September 12, 2016, the CPUC ordered SoCal Gas to conduct internal corrosion assessments at Aliso Canyon pipelines used for injection and withdrawal. In an October 17, 2016 letter from SoCal Gas to CPUC regarding this directive, SoCal Gas stated that it expected to have a final report on the root cause analysis of the leak in the future (see Attachment 1). To date, no final report has been made available to the public on the CPUC website. As discussed above, having the benefit of a root cause report is critical so that regulators and operators can incorporate the findings and implement appropriate mitigations into the RMP to prevent future leaks. Without knowing the results of the root cause analysis, neither DOGGR, nor the public, can be certain that SoCal Gas has taken necessary action to ensure that Aliso Canyon can handle new gas injections.

The October 17, 2016 letter also states that *"work continues to proceed on the development and implementation of a comprehensive Underground Storage Corrosion Control Manual as part of the SoCal Gas Storage Risk Integrity Management Plan submitted to the California Division of Oil, Gas, and Geothermal Resources in August, 2016. The manual will ultimately provide a structured framework for the corrosion control of all wells, piping, and reservoir within the Gas Storage organization."* Again, there is no further correspondence on the CPUC's website related to these issues. It appears that SoCal Gas has not developed or implemented a structured framework for the corrosion control of all wells, piping, and reservoir at Aliso Canyon. At this point, neither DOGGR nor the public can be certain that SoCal Gas has taken necessary action to ensure that it is safe to allow gas injection at Aliso Canyon. DOGGR should require SoCal Gas to implement a structured framework for the corrosion control of all wells, piping, and reservoir at Aliso Canyon before approving any new injection into Aliso Canyon.

Should another event occur, the timeframe for mitigation of a subsequent leak will be extremely important. One consideration is that the efforts to cap the well at Aliso Canyon and perhaps the experience at the BP oil spill in the Gulf of Mexico be studied and a report

be issued that would make recommendations on the course of events necessary to expeditiously contain the leak. This Department would be interested in the root cause analysis because it could influence how a future release might be better managed.

Seismic Study and Analysis

Documents posted on DOGGR's Aliso Canyon website indicate that the investigation and mitigation of seismic risks are not complete. In an October 11, 2016 submittal to DOGGR, SoCalGas acknowledged that *"there are geologic and geotechnical risks to operating and maintaining a natural gas storage facility" that range "from seismic activity to landslides, and could damage SoCalGas' assets above and below ground"* (see Attachment 2). Indeed, the 1994 Northridge earthquake damaged surface terrain at Aliso Canyon, including landslides, cracked well cellars and roads, tank farm damage, and pipe support damage. Per SoCalGas' October 11, 2016 Supplement Risk Management Plan #2 one well, SS4-O, experienced a collapsed casing which required the well to be plugged.

SoCal Gas further admits that *"localized landslides could pose a risk to the wellhead, wellsite piping, withdrawal/injection piping, and process equipment through debris fall induced through non-seismic events, such as heavy rain."* SoCal Gas states that it *"will undertake further study of the geologic and geotechnical hazards in the area to determine if other mitigation measures are warranted, and to determine if there are ways to better understand the probability of these events."* SoCal Gas acknowledges the need to submit additional data and information as it works collaboratively with DOGGR toward a final seismic analysis. Based on these statements by SoCalGas, additional study of geologic, geotechnical, and seismic hazards are required at the Aliso Canyon facility.

A December 12, 2016 letter from the Berkeley, Sandia and Lawrence Livermore National Laboratories ("National Laboratories") to DOGGR acknowledges that there are seismic risks to the Aliso Canyon facility from the Santa Susana fault system and other nearby faults (see Attachment 3). The National Laboratories agreed that further scrutiny of seismic hazards associated with the Santa Susana fault system is warranted. The National Laboratories also agreed that further study of the risk of damage to wells from fault slippage would better inform the level of hazard to consider.

Collectively, completing these additional investigations will provide a more detailed understanding of the seismic hazards at Aliso Canyon. The letter states that *"SoCalGas should then undertake the next step of using the improved knowledge of hazards to consider the risks to subsurface infrastructure" and "consultants with expertise in quantitative risk assessment of wellborne systems should be engaged in carrying out a detailed analysis of formation-wellborne interaction under seismic loading. A risk assessment should incorporate the designs of the wells being used at Aliso Canyon."* This Department believes that the most prudent approach would be to complete these additional seismic hazard investigations and fully evaluate the seismic risks, prior to allowing SoCalGas to inject more gas into Aliso Canyon. Indeed, DOGGR's emergency order 1109, dated March 2016, require that SoCalGas ensure that its RMP include *"an effective facility-wide emergency*

response plan and effective geologic and geotechnical hazard mitigation protocols." Without conducting the additional seismic investigations recommended by the National Laboratories and SoCalGas' own letter, the RMP fails to comply with the DOGGR emergency order.

Risk Management Plan

In response to a County request for the RMP for the Aliso Canyon facility, DOGGR provided the County an "initial draft submission" of the RMP along with a September 19, 2016 cover letter (see Attachment 4) in which DOGGR acknowledged that *"risk management planning for underground gas storage facilities is a new and complex requirement, and DOGGR anticipates the need for in depth and technical discussions with each of the gas storage operators regarding their initial submissions, likely leading to further developments of these plans."*

On January 3, 2017, this Department submitted detailed comments on the RMP for Aliso Canyon that was submitted by SoCal Gas to DOGGR. A copy of those comments is attached to this letter (see Attachment 5) and a list of inadequacies in the RMP from the Department's January 3, 2017 letter is summarized in Appendix A. On January 19, 2017, DOGGR sent an email to the County indicating that DOGGR would "make appropriate edits to the next cycle of the Underground Gas Storage permanent regulations to incorporate [the Department's] suggestions as potential requirements for the permanent regulations" but that DOGGR *"does not intend to require another revision of the RMP from SoCalGas"* until the permanent regulations have been approved. A copy of the email is attached hereto (see Attachment 6). The email from DOGGR indicated that the formal regulation procedure would begin in the next 60 days and that the *"RMP requirements will be expanded in the final regulations."* This Department recommends that improvements to the RMP be completed by SoCalGas before injection resumes, especially since Aliso Canyon just experienced the largest gas leak in United States history.

Additionally, SB 887, codified now as Public Resources Code section 3181 requires that *"The operator shall consult with local emergency response entities on the response plans."* This Department, along with the Los Angeles City Fire Department, are the local emergency response entities, yet SoCalGas has not consulted with either entity to our knowledge regarding its RMP. The RMP submitted does not contain all of the requirements listed in Public Resources Code section 3181.

The RMP is not specific to Aliso Canyon, but applies broadly to SoCalGas' three active underground storage facilities and to a former underground storage facility in Montebello. Site specific information is critical for an acceptable RMP. For example, the facility knows which fire department jurisdiction it falls under and who will be the responding agency to an emergency incident. Knowing this information allows the facility to work out emergency procedures with responding agencies before an incident occurs in order to maximize response coordination and minimize the impact to the surrounding community. An October 11, 2016 letter from SoCalGas to DOGGR on the RMP references an *"Emergency*

Response Plan" that SoCalGas says it submitted to DOGGR on September 30, 2016 (see Attachment 2). As of February 1, 2017, this document has not been made publicly available on the DOGGR website. Despite requests to DOGGR for this document by other Los Angeles County entities, a copy has not been provided.

On October 21, 2016, DOGGR and the California Public Utilities Commission (CPUC) sent a joint letter to SoCalGas (see Attachment 7) that contained a "*Checklist of Pre-Injection Safety Assurances*" to be completed prior to resuming the injection of gas at Aliso Canyon. The checklist requires SoCal Gas to provide RMP in accordance with DOGGR's emergency regulations that includes an effective facility-wide emergency response plan and effective geologic and geotechnical hazard mitigation protocols. As discussed above, the RMP was prepared without having the benefit of the root cause analysis or the seismic studies and analysis recommended by the National Laboratories. Accordingly, the RMP fails to comply with checklist prepared by DOGGR and the CPUC and gas injection should not be approved until these additional steps are completed.

SoCalGas sent a letter to DOGGR dated October 11, 2016 which contained two short supplements to the RMP. The one page Supplement to SoCalGas' Storage Risk Management Plan #1, states that the "*baseline assessment of wells will be completed no later than December 2019*" (see Attachment 2). A baseline assessment inspection of wells should be completed prior to allowing gas injection to begin.

According to SoCalGas' November 1, 2016 submittal to DOGGR regarding compliance with DOGGR regulations section 1724.9(a), SoCalGas stated that it "*is compiling the data required under Section 1724.7 of Title 14 of the California Code of Regulations (CCR) for the Aliso Canyon Storage Field, and will submit as soon as practicable*" (see Attachment 8). This data is required under DOGGR regulations and should be provided to DOGGR and the public prior to any decision to approve gas injection. Per SB 380, such data should be posted on the DOGGR website for public access. Without such data, neither the DOGGR, nor the public, can be sure that SoCalGas has complied with State law and regulations.

As stated, the RMP submitted by SoCalGas lacks critical detail and information to provide an accurate and complete understanding of the potential threats/risks and corresponding safeguards and mitigation measures at the Aliso Canyon facility. The RMP is incomplete and should not be approved by DOGGR until it complies with all requirements, incorporates the comments of this Department, and is informed by the lessons learned from the yet to be completed root cause analysis and seismic studies. As stated in the October 11, 2016 letter, SoCal Gas acknowledges the need to submit additional data and information as it works collaboratively with DOGGR toward a final SRMP. As of February 3, 2017, there were no documents related to the RMP on the DOGGR website that post-date October 11, 2016. Based on the documents available on the DOGGR website, the current version of the RMP does not mention the December 12, 2016 recommendations from the National Laboratories, or the January 3, 2017 recommendations of the Fire Department.

A document entitled "*Aliso Canyon Emergency Binder*" is posted on the DOGGR website. It contains various documents that, based on the date cited, have not been updated since the

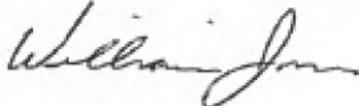
October 23, 2015 leak at Aliso Canyon. Of particular concern to this Department are: "*Natural Disaster or Major Emergency - Employee Instructions*" dated 2011 and, last reviewed 2012; "*Field Services Emergency Plans*" last review October 6, 2015; "*Mutual Assistance Agreement*" last reviewed on September 23, 2015. These are collectively attached as Attachment 9). This binder also contains a Public Awareness Plan (see Attachment 10) which has not been updated since April 4, 2014 - 18 months prior to the leak. Many other documents in the binder also indicate that they have not been updated since the October 23, 2015 leak at Aliso Canyon. This Department recommends and requests that SoCalGas be required to thoroughly review and update its emergency binder to take into consideration lessons learned and feedback from the community and regulatory agencies prior to the RMP considered for final approval and prior to any gas injection.

For all of the reasons set forth in this letter, and in the Fire Department's January 3, 2017 letter, it is the professional opinion of the Fire Department and its HHMD that SoCalGas' RMP is inadequate and fails to comply with the letter or spirit of applicable risk management requirements. The Fire Department strongly encourages DOGGR to require SoCalGas to conduct the further studies, incorporate further mitigations, and make all of the improvements to the RMP discussed herein. All of these actions are intended to improve the RMP and should take place prior to DOGGR approving gas injection at Aliso Canyon.

This Department recognizes and appreciates the hard work performed by DOGGR staff both during the event and after the well was capped. We believe the Fire Department can add value to your ongoing work and would appreciate your due consideration of the comments herein. While the Fire Department presented some oral comments at the public meetings on February 1 and 2, 2017, there was no response provided during those meeting from DOGGR regarding our comments. Accordingly, we ask that you please provide us with written responses to these comments. Additionally, we would appreciate meeting with you and your staff to further discuss our comments.

Should you have any questions, please do not hesitate to contact me at (323) 890-4042 or Assistant Chief Walter Uroff at (323) 890-4061.

Sincerely,



WILLIAM JONES, M.S., CHIEF
HEALTH HAZARDOUS MATERIALS DIVISION

WJ:fk

Attachments

Appendix A: Inadequacies in the RMP Raised in Fire Department's January 3, 2017 Letter That Have Not Been Addressed by DOGGR

- Overall, the RMP provides a broad outline or a model of an RMP, once the RMP elements become implemented. The RMP, in its current state, lacks sufficient critical detail and information to provide an accurate and complete understanding of the potential threats/risks and safeguards at the facility.
- The RMP fails to provide a schedule for submission of risk assessment results to the Division, as required in 14 CCR Section 1724.9(g).
- Section SRMP.2, page 2 of 6, 1. Overview, 1.2., Responsibilities — There is mention that the Underground Storage (UGS) Data Management Team has overall responsibility for the well and reservoir data; however, there is no mention of who, whether the owner or another designated representative, will certify the RMP and attest that the information submitted is accurate, complete, and true.
- Section SRMP.2, Data Collection and Management — The section fails to consider or discuss software changes, and updates for data collection and access to critical data and servers during power outages or emergencies, including those related to cyber security and terrorism. There is no discussion regarding management of change procedures with regards to data collection and management.
- Section SRMP.2, page 6 of 6, Data Collection and Management, 4.3, Data Reliability — Data integrity and reliability is managed by “periodically” performing data audits... The term “periodic” is utilized in this section and throughout the RMP, without specific clear definitions of frequency parameters. “Periodic” should be clearly defined within each relevant section.
- Section SRMP.3, page 5 of 9, Threat Identification and Risk Analysis, 5, Risk Overview — Table 2: Asset Category Risk Models lists the underground storage asset categories and risk model used; the table states wells utilize a “Relative Assessment” risk model, and reservoirs and well laterals utilize a “Subject Matter Experts” or SME model. There is no rationale or justification provided regarding the risk model selection. There is no pertinent or actual data or information provided in this section in terms of risk ranking, likelihood of failure (LOF) or consequences of failure (COF). The section broadly discusses the basis for risk models; however, it appears that the risk analysis has not yet been completed or implemented.

- Section SRMP.3, page 6 of 9, Threat Identification and Risk Analysis, 6.1, Well Threat Identification – It is noted that for well threat identification, an algorithm is used to generate scores for each threat category; however, it does not specify what the algorithm is. It should specify algorithm utilized.
- Section SRMP.3, page 7 of 9, Reservoirs, 7.1, Geologic Uncertainty – It is noted that "SoCalGas has a geologic data set that provides a comprehensive understanding of the overall geology and the boundaries of each storage reservoir." It is also noted that the SoCalGas' SME based review of reservoir history and data has led to the determination that each of the reservoir threat categories has a substantially low potential to act as a source of loss, damage, or harm-and each reservoir threat will be considered inactive. There is no information provided regarding the methodology utilized for the risk determination.
- Additionally, there is no information provided on whether or how the geologic uncertainty affects the wells and well laterals within the reservoir, whether the risk has been assessed, and what RMP elements should be in place to address those risks. If there is no risk from geologic uncertainty affecting the wells and well laterals, than the risk assessment should be documented. There is no information provided regarding seismic threats or an assessment of those threats.
- Section SRMP.4, page 6 of 9, Integrity Assessments and Mitigation, 5, Validation, 5.1, Examination based Validation – It is noted the direct examination method involves direct comparison of inspection based measurements to measurements made directly at flaw locations to determine inspection tool accuracy. There is no information regarding how flaw locations are defined or determined.
- Section SRMP.4, page 6 of 9, Integrity Assessments and Mitigation, 5, Validation, 5.3.1, Well Laterals – It is noted that actionable condition are repaired or replaced; however, it does not define what actionable conditions are. Additionally it is stated scheduled anomalies should be mitigated prior to the next scheduled assessment; however, there is no information provided regarding the assessment schedule, or the next inspection. The assessment and inspection frequency should be documented and provided.
- Section SRMP.5, page 4 of 7, Preventative and Mitigative Measures, 3, General requirements – There is a list preventative and mitigative measures, such as post – assessment, leak survey, valve maintenance, internal corrosion monitoring; however, there are no procedures regarding how those activities are conducted or performed. Additionally, there is no information regarding the frequency for the evaluations.

- Section SRMP.5, page 7 of 7, Preventative and Mitigative Measures, 5, Recordkeeping — It is noted documentation will be kept according to the corporate record retention policy; however, it does not state what the policy is.
- The RMP broadly states it is based on guidance sections from API Recommended Practice 1171, Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs. The RMP, however, fails to consider many critical sections of the Standard, such as Emergency Preparedness/Emergency Response Plan, Training, Blowout contingency Plan, Cyber Security, Management of Change, Safety and Environmental Programs, Public Awareness and Damage Prevention, etc.

Attachments to Fire Department Comments

Attachment 1 - October 17, 2016 letter from SoCal Gas to CPUC Re: internal corrosion assessments at Aliso Canyon pipelines used for injection and withdrawal.

Attachment 2 - October 11, 2016 letter from SoCalGas to DOGGR

Attachment 3 - -December 12, 2016 letter from the Berkeley, Sandia and Lawrence Livermore National Laboratories to DOGGR re: seismic risks at Aliso Canyon

Attachment 4 - -September 19, 2016 cover letter from DOGGR to County

Attachment 5 - January 3, 2017 letter from County Fire Department to DOGGR on RMP

Attachment 6 - January 19, 2017, email from DOGGR to the County re: Fire Department's Risk Management

Attachment 7 - October 21, 2016, letter from DOGGR and the CPUC to SoCalGas

Attachment 8 - SoCalGas' November 1, 2016 submittal to DOGGR regarding compliance with DOGGR regulations section 1724.9(a)

Attachment 9 - Pages from SoCalGas *Aliso Canyon Emergency Binder* posted on the DOGGR website.

Attachment 10 - Pages from SoCalGas *Aliso Canyon Emergency Binder* posted on the DOGGR website related to a Public Awareness Plan

**Attachment 1 - October 17, 2016 letter from SoCal Gas to CPUC
Re: internal corrosion assessments at Aliso Canyon pipelines used
for injection and withdrawal.**



A  Sempra Energy utility

Rodger R. Schwecke
Vice President
Gas Transmission and Storage

Southern California Gas Company
555 W. 5th Street, GT21C3
Los Angeles, CA 90013
Tel: 213.244.2140

October 17, 2016

Elizaveta Malashenko
Director, Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102

RE: Safety and Enforcement Division's Directive to Southern California Gas Company to conduct Internal Corrosion Threat Assessment on all Aliso Canyon's Injection and Withdrawal Pipelines

Dear Ms. Malashenko:

The Aliso Canyon storage facility is critical to the reliability of natural gas and electricity service in Southern California, and SoCalGas remains committed to providing safe and reliable energy to the millions of Californians who rely on us each day. As directed in your September 20, 2016 letter to Mr. Jimmie Cho, SoCalGas initiated a root cause analysis of the pinhole leak at Ward 3A and conducted an Internal Corrosion Threat Assessment on injection and withdrawal pipelines at the Aliso Canyon Storage Facility. The purpose of this letter is to provide you with an update on the status of the follow-up activities we are undertaking, as described in Section IV of our letter dated September 26, 2016, written in response to SED's Directive for Aliso Canyon.

Status of Follow-Up Work

The following provides a status of each follow-up work item identified in our September 26, 2016 response letter.

Root Cause Analysis of the Pinhole at Ward 3

Det Norske Veritas / Germanischer Lloyd (DNV/GL) continues to make progress toward a finalized Root Cause Analysis (RCA) based on samples of the leak location that have been submitted to DNV/GL laboratories. The original four-week estimate from the time of the on-site inspection is still applicable to allow for all appropriate metallurgical testing to be completed. SoCalGas anticipates that a final report will be available near the end of October.

Examination of Three Additional Withdrawal Lines

SoCalGas identified lines that met the 80% “no flow” condition and reported the available results in the letter response dated September 26, 2016. In that letter, SoCalGas identified three additional withdrawal lines that met the 80% “no flow” condition and were scheduled for ultrasonic testing by SoCalGas. These three additional withdrawal lines were:

1. AMA1BWD (Mission Adrian (MA) – 1A)
2. AGWMA5 (Mission Adrian (MA) – 5A)
3. AGWFF34B (Fernando Fee (FF) – 34B)

SoCalGas committed to completing the assessments for these three lines by today. The results of that testing is as follows:

A total of five locations on these three withdrawal lines were examined. Two withdrawal lines identified for additional work (MA - 1A and FF - 34B) were buried and required excavation. There were three excavations associated with withdrawal line MA – 1A to perform the inspections at the potential low spots, and one excavation associated with FF - 34B. The other withdrawal line (MA – 5A) is aboveground.

All three withdrawal lines were inspected using B-Scan ultrasonic technology along the bottom half of the pipe to detect indications of internal corrosion. SoCalGas also surveyed the full circumference every five feet in order to confirm the average wall thickness of the pipe body. In all cases, the deepest detected wall loss areas are not susceptible to leakage, and remaining strength of the piping demonstrates satisfactory safety factors that are well in excess of minimum code requirements. Table 1 summarizes the B-Scan ultrasonic testing results by identifying the sample locations that had both the lowest safety factor and the deepest pit for each of the withdrawal lines inspected. Although some external anomalies were discovered during the inspection, none of the anomalies impact the integrity of the withdrawal lines.

TABLE 1

Well Name	Line	Location	Sample Point	MAOP (psi)	Diameter (in)	Grade (psi)	Wall Thickness (in)	Least Measured Thickness (in)	Pit Depth (in)	% Wall Loss	Predicted Failure Pressure (psi)	Safety Factor (Predicted Failure Pressure/MAOP)
MA - 5A	AGWMA5		26	710	8.625	42000	0.248	0.215	0.033	13%	2666	3.76
FF34B	AGWFF34B		1	710	4.5	35000	0.281	0.217	0.064	23%	4516	6.36
MA - 1A	AMA1BWD		1	710	8.625	35000	0.351	0.226	0.125	36%	2139	3.01

With the conclusion of the direct examination activities described above, all of the pipelines identified as an “80% no flow” condition have been inspected for indications of internal corrosion at low/flat location in the piping similar to that observed at the leak location on the Ward 3 withdrawal line. As stated above, the strength of all sampled piping demonstrates satisfactory safety factors that are well in excess of minimum code requirements, and the deepest detected wall loss areas for each withdrawal line are not susceptible to leakage. With the reporting of these results, SoCalGas considers the directive to inspect withdrawal piping systems with similar potential for internal corrosion as Ward 3 withdrawal piping to be complete.

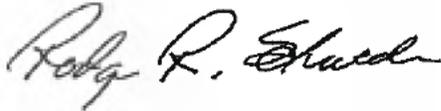
Notwithstanding these positive test results, as described in our September 26 letter, work continues to proceed on the development and implementation of a comprehensive Underground Storage Corrosion Control Manual as part of the SoCalGas Storage Risk Integrity Management Plan submitted to the California Division of Oil, Gas, and Geothermal Resources in August, 2016. The manual will ultimately provide a structured framework for the corrosion control of all wells, piping, and reservoir within the Gas Storage organization.

Leak Patrol

SoCalGas recently completed a leak patrol and survey of the Aliso Canyon field (July 22, 2016), and we expect to perform additional surveys as part of upcoming efforts to commence re-injection. No indications of leaks were detected in the July survey.

SoCalGas' first priority is safety and SoCalGas has worked diligently to address the directives in your September 20, 2016 letter and validate the integrity of withdrawal lines at the Aliso Canyon storage facility. Results of the pending metallurgical testing will be made available once the results are finalized. Please do not hesitate to contact me if you have any further questions or concerns regarding the pinhole leak in the withdrawal line at Ward 3A.

Sincerely,



Rodger R. Schwecke
Vice President, Gas Transmission and Storage

cc: Edward Randolph, CPUC, Energy Division, Director
Jimmie Cho, Senior Vice President, Gas Operations & System Integrity
Doug Schneider, Vice President, System Integrity & Asset Management
Dan Skopec, Vice President, Regulatory Affairs

Attachment 2 - October 11, 2016 letter from SoCalGas to DOGGR



A  Sempra Energy utility

Neil Navin
Director of Storage Risk Management

555 W. 5th Street
Los Angeles, CA 90013

(213) 244-2731


October 11, 2016

Kenneth A. Harris Jr.
State Oil and Gas Supervisor
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street – MS 18-05
Sacramento, California 95814

Re: Supplement to Risk Management Plan Pursuant to DOGGR Emergency Regulations Section 1724.9(g) of Title 14 of the California Code of Regulations (CCR)

Dear Mr. Harris:

Pursuant to your October 5, 2016 letter, Southern California Gas Company (SoCalGas) hereby submits a supplement to its Storage Risk Management Plan (SRMP) provided to the Department of Conservation, Division of Oil, Gas and Geothermal Resources (the "Division" or "DOGGR") on July 29, 2016, in response to the Requirements for Underground Gas Storage Projects (Emergency Regulations) dated February 5, 2016.

SoCalGas addresses the items detailed in your October 5, 2016 letter as follows:

1. The requirement that mechanical integrity testing will be used in accordance with or exceeding the specifications in section 1724.9, subdivisions (g)(1) and (2), of the emergency regulations (see Attachment 1);
2. The requirement for "effective geologic and geotechnical hazard mitigation protocols" as required by Section IV, Item 11, of Order 1109, for example identification of the risk posed by the Santa Susana Fault and how to mitigate the risk to well integrity (see Attachment 2);
3. The requirement for inclusion of an "effective facility-wide emergency response plan" as required by Section IV, Item 11, of Order 1109 (see Emergency Response Plan submitted to DOGGR on September 30, 2016).

SoCalGas is confident that the enclosed documents and the Emergency Response Plan submitted to DOGGR on September 30, 2016, satisfy the requirements detailed in your October 5, 2016 letter.

We appreciate any feedback and look forward to continuing to work with DOGGR in the development of our SRMP.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Neil Navin', with a long horizontal flourish extending to the right.

Neil Navin
Director of Storage Risk Management

Enclosure

cc: Rodger Schwecke, SoCalGas
Alan Walker, DOGGR
Daniel Dudak, DOGGR
Pat Abel, DOGGR

Supplement to SoCalGas' Risk Management Plan #1

SoCalGas' Storage Risk Management Plan (SRMP) mechanical integrity testing protocols (SRMP.4, *Integrity Assessments and Mitigation*) are aligned with the guidance outlined in API 1171, Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs. API 1171 outlines a risk-based methodology, which involves data collection, documentation and review, hazard and threat identification, risk assessment, preventative and mitigative measures, and periodic review and reassessment. Consistent with the requirements set forth in 14 CCR 1724.9(g)(1), SoCalGas considers, among other characteristics, age, construction, and operation of the wells, to prioritize the baseline assessments of each well. The baseline assessment of the wells includes casing mechanical integrity inspections. These mechanical integrity inspections include magnetic flux leakage and ultrasonic tools for internal and external corrosion assessment, and multi-finger calipers for internal corrosion assessment. Cathodic protection profile logs may also be employed to monitor protection levels. Additionally, other inspection tools are utilized in combination with the mechanical integrity inspection tools referenced above, including cement bond and nuclear logs. Spinner surveys and other production-based inspection methods may be used to assess for the presence of leaks or the potential for future leaks. Further, noise and temperature logs will be run on an annual basis irrespective of when mechanical integrity inspections are conducted. Pressure tests of the tubing, casing, and tubing/casing annulus may also be performed. Pressure test plans will be site-specific and based on the maximum operating pressure allowed by DOGGR at each storage facility. The baseline assessment inspections of the wells will be completed no later than December 2019.

Tubing and Casing Integrity Monitoring and Verification Protocol

The well casing and tubing inspection protocol will include guidelines for tubing/casing inspection frequency based primarily on API 579 Level II assessment of wall loss to determine the most severe remaining anomaly. The most severe remaining anomaly will be used to determine the shortest estimated remaining life of a well, and the maximum reassessment interval will be limited to no greater than half the calculated remaining life (not to exceed ten years). Inspection methods for each well may include both indirect and direct methods. Indirect methods include a variety of downhole inspection tools. Direct methods include pressure testing of the tubing and/or tubing casing annulus and direct examination. For each well, the inspection tools and methodology will be selected based upon as-built well conditions, prior mechanical integrity inspection log results, and the well's risk profile.

For storage wells with no prior history of enhanced downhole casing mechanical integrity logs, SoCalGas' casing inspection protocol will include a full suite of baseline inspection logs, including cement bond log, nuclear log, magnetic flux-leakage log, caliper log, ultra-sonic inspection log, noise and temperature logs, as well as pressure testing of the tubing string and tubing casing annulus (if one exists). For wells completed with tubing on a packer, the tubing will be pulled from the well and trucked to a third-party non-destructive testing contractor for direct examination.

Supplement to SoCalGas' Storage Risk Management Plan #2

1. OVERVIEW

1.1 Purpose

This supplements SoCalGas' Storage Risk Management Plan (SRMP) dated July 29, 2016, which was submitted pursuant to DOGGR Emergency Regulations Section 1724.9(g) of Title 14 of the California Code of Regulations (CCR). Specifically, this supplement addresses (i) the requirement in DOGGR Order No. 1109 that the SRMP includes "effective geologic and geotechnical hazard mitigation protocols" (Para. 11); and (ii) the request in DOGGR's letter dated October 5, 2016, from Kenneth A. Harris Jr. to Neil Navin, for additional information about those risks and mitigation protocols for the Aliso Canyon facility.

1.2 Approach

This submission identifies and assesses the potential geologic and geotechnical hazards to SoCalGas' Aliso Canyon natural gas storage facility, and outlines the company's protocols to mitigate risk from those hazards. Section 2 describes the potential geologic and geotechnical hazards and risks, using models and other methods to analyze them. Section 3 outlines what preventative and mitigative measures SoCalGas has implemented, will implement, and will investigate further to ensure well integrity at its Aliso Canyon facility.

This submission incorporates by reference SoCalGas' SRMP dated July 29, 2016, specifically SRMP.3, *Threat Identification and Risk Analysis* and SRMP.5, *Preventative and Mitigative Measures*. The combined submissions provide SoCalGas' approach to storage facility risk management and the policies, objectives, and processes that will guide the Company's risk identification and analysis, its preventative and mitigation efforts, and its efforts to continually improve the SRMP and reduce risks to its underground storage facility assets.

1.3 Summary

As shown below, there are geologic and geotechnical risks to operating and maintaining a natural gas storage facility in the Ventura Basin. The hazards range from regional seismic activity to landslides, and could damage SoCalGas' assets above and below ground. Preventative and mitigative measures can significantly reduce the likelihood of risks that might affect the integrity of the Aliso Canyon storage facility, and can minimize the consequences of any event.

The following efforts will necessarily improve and evolve as SoCalGas gathers additional data, refines its processes, and responds to additional DOGGR regulations. SoCalGas acknowledges the need to submit additional data and information as it works collaboratively with DOGGR toward a final SRMP.

2. GEOLOGIC AND GEOTECHNICAL HAZARDS AND RISKS

2.1 Overview

Hazard identification is an evaluation of each hazard that has the potential to cause loss, damage, or harm. Risk is the consequence of a realized hazard multiplied by the likelihood of its occurrence. This Section identifies and assesses those hazards and risks.

2.2 Geologic and Geotechnical Hazards and Risks

The geologic and geotechnical hazards assessed here are the following:

- Regional seismic activity (2.2.1)
- Well integrity and tectonic/seismic activity (2.2.2)
- Surface Subsidence and Subsurface Compaction (2.2.3)
- Landslides from non-seismic events (2.2.4)

2.2.1 Regional seismic activity

2.2.1.1. The Santa Susana Fault

The Santa Susana Fault is near horizontal at the surface but dips 55°-60° at depth, with the deepest well control being about 1 km below sea level at the Santa Susana and Cascade oil fields and at about 1.5 km below sea level in the Aliso Canyon Field. Yerkes and Lee (1987) associated one magnitude 2.1 earthquake with the Santa Susana Fault. The focal plane solution for this (Event 428) indicates the fault continues to dip about 60° to a depth of 11 km. The depth of this Event is deeper than the Aliso Field storage zones. At the base of brittle crust, the fault may flatten into a horizontal decollement (Hadley and Kanamori, 1978; Yeats, 1981). Within the Aliso Canyon Field, there are two major strands of the Santa Susana fault, referred to as the Older and Younger strands (Lant, 1977), but elsewhere there is only one major fault strand. The fault steps left Gillibrand Canyon due to a lateral ramp. According to Yeats and others, total displacement along the fault is in excess of 2480 meters with 1860 meters since deposition of the Modelo Formation approximately 4 million years ago. Caltech's Southern California Earthquake Data Center lists a slip rate of 5 to 7 mm/year for the Santa Susana Fault in its entirety. According to Yeats, the apparent stratigraphic separation across the Santa Susana fault system is at least 4,000 m, which includes about 2,000 m of reverse offset and 3,200 m of left-lateral strike slip (Yeats and others, 1977).



Figure 1: Map of the surface trace of the Santa Susana Fault in relation to the Aliso Canyon Field. U.S. Geological Survey 10 meter elevation model; California Division of Oil Gas and Geothermal Resources, Oil Field outlines (<http://www.conservacion.ca.gov/dog/maps>); U.S. Geological Survey and California Geological Survey, 2006, Quaternary fault and fold database for the United States, accessed May 31, 2016, from USGS web site: <http://earthquake.usgs.gov/hazards/qfaults/>.

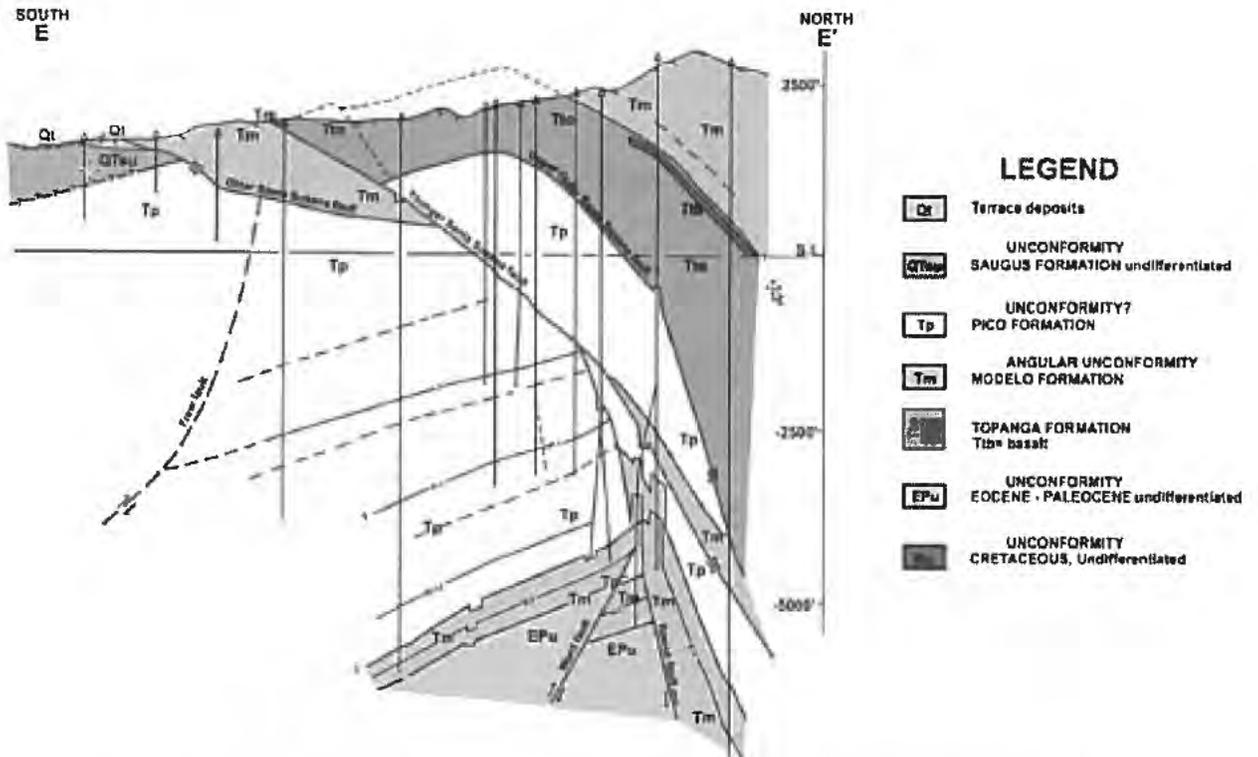


Figure 2: Cross-section through Aliso Canyon Field by Lant 1977, modified by Davis and others, (2015).

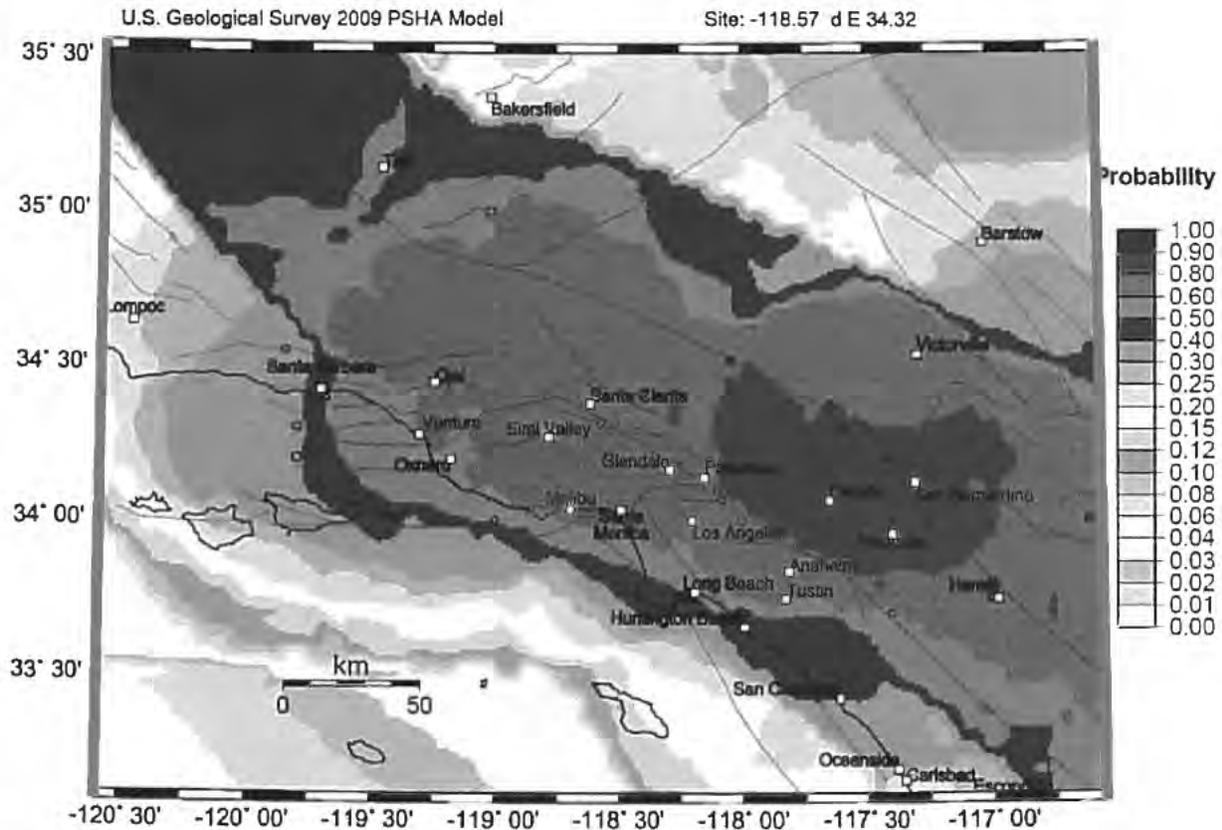
Small left-lateral and reverse displacements occurred along the trace of the Santa Susana fault as a result of the 1971 San Fernando Earthquake (Weber, 1975). Saul noted 1 foot left-lateral displacement in 1971 along the Santa Susana fault; however, most of the surface breaks were confined to a single zone along the trace of the Santa Susana thrust, probably as a result of local amplification of ground shaking and not fault rupture (Saul, 1975).

Leighton and Associates (1977) excavated 28 trenches across the fault, 17 at Porter Ranch and 11 at Tapo Canyon, reported by Lung and Weick (1987). At one site Lung and Weick (1987) documented the probable age of last movement of the fault as greater than $10,010 \pm 580$ years (^{14}C date). The surface expression of the fault zone ranges from 0.25 to 1.5 km in width due to the nearly horizontal dip of the fault. Lung and Weick noted difficulties in attempting to trench the fault due to the near horizontal angle of the fault near the surface, brecciated Monterey formation, landslides obscuring the fault, and complexity and width of the fault zone. A tar seep was found in one of the trenches exposing the Saugus Formation. Tar seeps have been found along the Santa Susana Fault (Lung and Weick, 1987). Tar is also observed in the shallow Modelo formation and noted in mudlogs from wells drilled in Aliso Canyon (away from the fault).

Modern seismicity on the Santa Susana fault is relatively low and occurs along two lateral ramps where the fault surface bends to the left (Yeats, 1987) (see Figure 2). The fault slip rate has been estimated between 3 to 7 mm/year and a rate of 5 mm/year is used for probabilistic seismic hazard determination (Treiman, 2000). According to Yeats, the Younger Santa Susana fault branch has been active more recently and should be considered potentially active. (Yeats and others, 1978). The current state definition of an "active fault" is one with a surface displacement within the last 11,500 years. This definition is applicable only to potential impacts to habitable structures. Just like Aliso Canyon, most oil and gas fields in California are inherently bounded by or otherwise constrained by Holocene faults.

Probability of an earthquake larger than Magnitude 6.3 within 50 years and 50 km of Aliso Canyon was calculated using the U. S. Geological Survey 2009 PSHA Model online. This model predicts a high probability that an earthquake larger than Magnitude 6.3 will occur within 50 km of the Aliso Canyon Field (small triangle in the center of the map) in the next 50 years. Notably, many of the faults in the Ventura and LA Basins are subject to the same probability; thus the likelihood of such a seismic event is no higher than elsewhere within the greater urbanized Los Angeles region. Further scrutiny of this modeled probability may be warranted.

Probability of earthquake with $M > 6.3$ within 50 years & 50 km



GMT 2018 Oct 7 16:43:38 EQ probabilities from USGS OFR 08-1128 PSHA. 50 km maximum horizontal distance. Site of interest: triangle. Fault traces are brown; rivers blue. Epicenters $M \geq 6.0$ circles.

Figure 3: U.S. Geological Survey 2009 PSHA Model showing the probability distribution of a magnitude 6.3 earthquake occurring in the next 50 years, within 50 km of the Aliso Canyon field.

2.2.1.2 Nearby Faults

The two most significant recent seismic events (in geological terms) are the 1971 San Fernando earthquake and the 1995 Northridge earthquake. Both events caused loss of life and considerable damage in the San Fernando Valley area.

The San Fernando earthquake on February 9, 1971 (magnitude 6.6) caused ground accelerations in the range of 0.5 to 0.75 g, with several high frequency peaks to 1 g. That earthquake caused surface displacement on segments of the Santa Susana fault and triggered aftershocks on the lateral ramp in the fault (Yeats, 1987).

The Northridge earthquake of January 17, 1994 (magnitude 6.7) was the most costly U. S. earthquake since the San Francisco earthquake in 1906. The earthquake resulted from more than 3 meters of slip on a 15 kilometer long south dipping thrust fault. The fault did not break the surface but uplifted the Santa Susana Mountains by as much as 70 cm. (Jones, and others, 1994).

The 1994 Northridge earthquake damaged the surface terrain at the Aliso Canyon facility, including landslides, cracked well cellars and roads, tank farm damage, and pipe support damage. An immediate investigation of storage well integrity following the earthquake indicated that only one well - SS4-O - was affected, and it experienced a collapsed casing in a section above the gas storage zone. A workover rig repaired the damaged well and, with regulatory oversight provided by DOGGR, SoCalGas successfully drilled around the damaged section and placed abandonment cement below the collapse and into the storage zone. SoCalGas recovered a section of the casing and noted that the collapsed casing sealed the well. The well was subsequently plugged in accordance with DOGGR plug and abandonment regulations.

Since the 1994 Northridge earthquake, there have been no incidents of casing failure from seismic events at the Aliso Canyon facility.

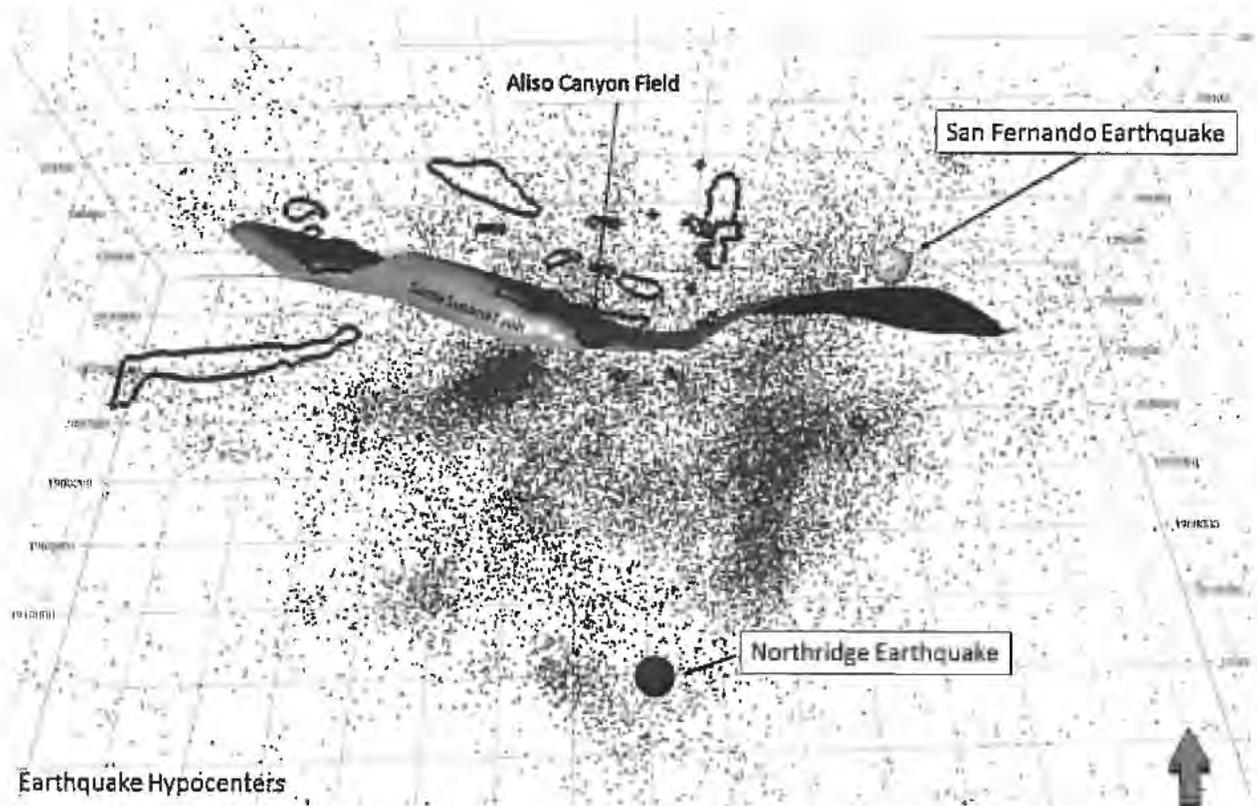


Figure 4: Three dimensional model of earthquake hypocenters oil fields and the main shock locations of the 1971 San Fernando and 1994 Northridge earthquakes. The view is looking down the Santa Susana fault surface. The grid squares are 20,000 feet apart. Southern California Earthquake Center, Earthquake data base, and Community Fault Model for 3D Santa Susana Fault (Plesch and others 2007); and Oil Field outlines from California Division of Oil Gas and Geothermal Resources, Oil Field outlines.

2.2.1.3 Well and Caprock Integrity

Containment of subsurface fluids, such as natural gas in underground natural gas storage fields like Aliso Canyon, depends on several factors, including fault stability and caprock/top-seal integrity.

Faults and caprock/top-seal sequences can provide barriers or baffles to flow of subsurface fluids in oil and gas fields, geothermal fields, carbon dioxide sequestration fields, and underground natural gas storage fields (see e.g., Schultz et al., 2016 and references therein). The caprock of the storage zone at Aliso Canyon served as a seal to the native ~100 bcf of gas within the gas cap, and an additional 50 bcf of gas dissolved within oil, before serving as a seal to storage gas. SoCalGas analyzed the thickness, porosity, permeability, and other properties of the caprock as an important mitigative effort.

Fault stability is determined by the frictional strength of the fault, which depends upon the driving forces acting on it. The driving forces are defined by the stress state and reservoir (pore) pressure, and the forces within the fault that resist frictional sliding. Frictional sliding is defined by the fault's frictional and cohesive strengths (e.g., Zoback, 2007). Fault slip can occur when the driving forces exceed the resisting forces, so the comparison between the two provides an estimate of the stability, or tendency to slide, of a fault under a given state of stress. Although sliding on a fault can be either seismic (i.e., an earthquake with ground shaking if large enough in magnitude) or aseismic (i.e., no felt effects at the surface), both can be assessed by using the approach described here.

The integrity of a caprock/top-seal sequence refers to its ability to withstand breakage, flow of subsurface fluids, or both. In the context of underground natural gas storage fields, mechanical integrity is the more commonly addressed factor and is related to a comparison between the driving and resisting forces acting on the caprock/top-seal sequence associated with reservoir operations. Driving forces include the pressures (and pressure changes) within the reservoir due to gas injection and withdrawal. Resisting forces are given by some combination of the tensile, compressive, and/or shear strength of the caprock/top-seal sequence. The most commonly used criterion for estimating the ability of the reservoir or caprock/top-seal sequence to withstand reservoir-induced pressure changes is the fracture gradient (Lesage et al., 1991). This value is calculated by comparing the values of the minimum principal stress S_{hmin} and the pore (formation) pressure at given depth. Fracture gradient was used to assess the strength of the reservoir at Aliso Canyon by GeoMechanics Technologies (2016).

The stress state in the subsurface can simply be characterized by five (5) parameters:

1. The vertical principal stress S_v
2. The least horizontal principal stress S_{hmin}
3. The greatest horizontal principal stress S_{Hmax}
4. The azimuth of the greatest horizontal principal stress $S_{Hazimuth}$
5. The formation pore-fluid pressure, P

All five of these are needed to provide a robust screening-level estimate of fault and caprock/top-seal stability. If faults are not present or considered, the fracture gradient is calculated from two of these values (usually S_{hmin} and P) as a proxy for tensile failure of the appropriate formation. Because fluid pressures from an injection well (P) can safely exceed the formation's minimum compressive stress value (S_{hmin} , commonly taken as an approximation of the formation's tensile strength), fracture gradient is commonly used as a measure of the safety of injection pressures relative to reservoir strength (e.g., American Petroleum Institute, 2015).

Values of some of these stress state parameters were estimated by GeoMechanics Technologies (2016). That report suggested that the fracture gradient (S_{hmin}), determined in several wells and at

various depths, was given by approximately 0.6-0.7 psi/ft., corresponding to values of approximately $S_{hmin} = 4,300\text{-}5,000$ psi for a true vertical depth (TVD) of approximately 7,200 ft. This is the average TVD of the middle of the storage zone. The GeoMechanics Technologies report also assumed that the caprock may have a fracture gradient of approximately 0.75-0.8 psi/ft.

Reservoir pressures (P) related to gas injection were estimated by GeoMechanics Technologies (2016) from bottom-hole pressures of 3,500 psi at 7,200 ft. depth, assuming gas density of 3000 psi and an average temperature between surface and that depth of 90.5° C.

A value for the vertical stress S_v can be estimated by assuming an average dry-rock density of 2.45 g/cm³, appropriate to porous sedimentary rocks such as sandstones and silts at Aliso Canyon (e.g., Paterson and Wong, 2005), $g = 9.8$ m/s², and depth of 7,200 ft. (2,195 m). Using these values, S_v is given approximately by 7,644 psi at 7,200 ft., or 1.06 psi/ft. This estimated value may be improved by summing density logs at Aliso Canyon and by incorporating actual values for pore-water pressure above the field.

Using values of $S_v = 7,644$ psi, $S_{hmin} = 4,300\text{-}5,000$ psi, and $P = 3,500$ psi at 7,200 ft. depth, a value of S_{Hmax} is required to assess fault stability, following the interpretation of a strike-slip or reverse-faulting stress state at Aliso Canyon noted in GeoMechanics Technologies (2016). In the absence of calculated or measured values, a value of S_{Hmax} of twice that of S_v , or 15,000 psi at 7,200 ft. depth, is chosen to illustrate the stability of faults in this Report. Analysis of the borehole breakouts cited by GeoMechanics Technologies (2016) for the horizontal stress orientation, in combination with rock-property values for the appropriate formations, may suggest better bounded values for S_{Hmax} .

Fault Strength

Data are being collected for use in a geomechanical study of fault strength. The stability of the Aliso Canyon faults will be assessed, among other ways, using a Mohr diagram, on which the stress state, fault, and frictional strength are all compared (e.g., Zoback, 2007). An investigation of potential fault slippage under fluid injection conditions at Aliso Canyon may be warranted to determine criticality.

Caprock/Top-Seal Strength

In oil and gas fields, containment of reservoir fluids can be assessed by comparing the reservoir pressure under production conditions (e.g., injection) to the fracture gradient of the overlying caprock/top-seal sequence. Using values from GeoMechanics Technologies (2016), reservoir (bottom-hole) pressures inferred in that report of 3,500 psi were less than the inferred fracture gradient (i.e., S_{hmin}) of the reservoir, 4,300-5,000 psi, implying safe operation. The value of fracture gradient for caprock/top-seal sequence suggested in that report, 5,400-5,760 psi (corresponding to 0.75-0.8 psi/ft. at 7,200 ft. depth) provides an upper, more conservative bound on operating pressure in the reservoir assuming that faults are not present or considered.

More refined estimates of slip tendency and of caprock/top-seal integrity would benefit from improved values for stress state, rock-property determination, and fault orientation. In particular, fault slip analyses commonly rely upon values of average reservoir pressure such as those here; injection wells near faults would necessitate using bottom-hole pressures that, if higher than average reservoir

pressure, might further promote fault slip along the most favorably oriented and closest faults. SoCalGas has carefully monitored, and will continue to carefully monitor, down-hole pressures in the injection and withdrawal wells to guard against the unlikely event of a fault slip due to excessive bottom-hole pressures.

2.2.1.4 Landslides triggered by seismic activity

There are 7 mapped Quaternary age landslide deposits within the boundary of the Aliso Canyon Field.

The 1971 San Fernando earthquake triggered more than 1000 landslides in an area of 250² kilometers. Landslides ranging from 15 m to more than 300 m in length were mapped from aerial photographs. Rock falls, soil falls, debris slides and avalanches, and slumps were the major types of landslides. Surficial (0.2 to 1 m thick) debris slides and avalanches were probably the most widespread. Landslide distribution was controlled primarily by the intensity of ground shaking. (Morton, 1971).

The 1994 Northridge earthquake triggered more than 11,000 landslides over an area of about 10,000 km². Most of the triggered landslides were of highly disrupted falls and slides within weakly cemented Tertiary to Pleistocene clastic sediment between 1 to 5 meters thick. The larger slides commonly had runout paths of more than 50 meters, and a few traveled as far as 200 meters from the bases of steep parent slopes. Deeper (> 5m thick) rotational slumps and block slides numbered in the tens to perhaps hundreds and a few of these exceeded 100,000 m³ in volume. Most of these were reactivations of previously existing landslides (Harp and Jibson, 1995).

Notably, despite the numerous landslides triggered by the San Fernando and Northridge earthquakes, the Aliso Canyon Facility has experienced few uncontrolled landslides in the last several decades. Historical landslides and liquefaction have been mapped by the State of California Seismic Hazard Zones Oat Mountain Quadrangle (Feb. 1, 1998).

Parise and Jibson (1995) determined susceptibility of formations to landsliding (Figure 5). This indicates that the Pico and Towsley Formations are the most susceptible; however, the Modelo and Topanga Formation outcrop over most of the field (Dibbles, 1992), and they are more moderately susceptible.

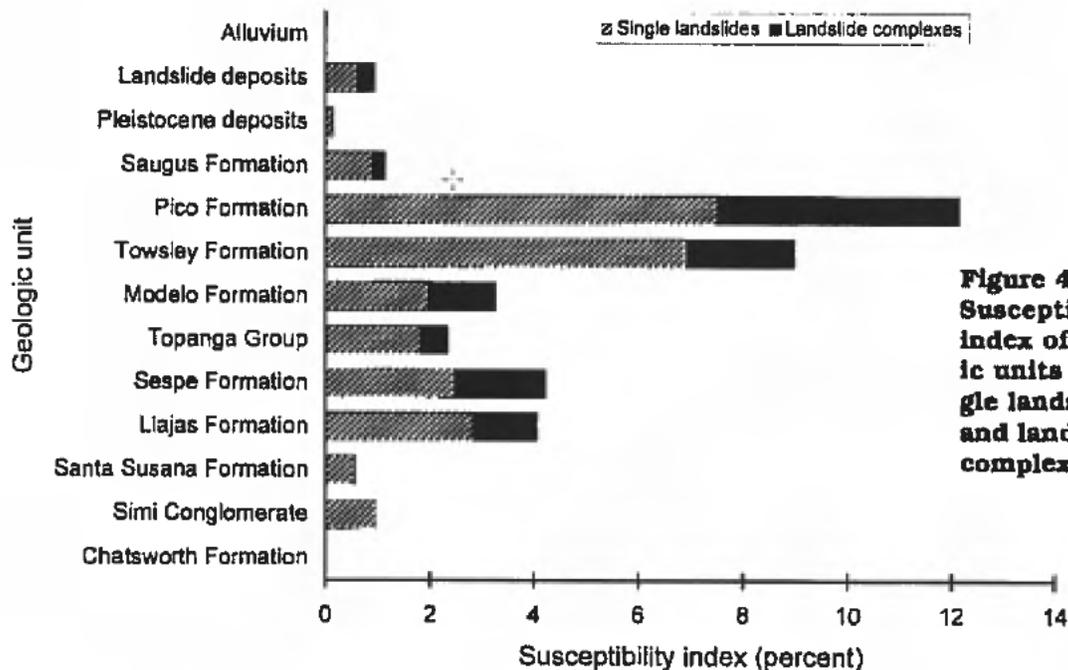


Figure 4. Susceptibility index of geologic units for single landslides and landslide complexes.

Figure 5. Landslide susceptibility index (= landslide area of unit / outcrop area of unit). From Parise and Jibson, 1997.

2.2.2 Well integrity and tectonic/seismic activity

The wells in Aliso Canyon intersect faults, such as the Santa Susana fault, between the surface and the Sesnon/Frew storage reservoir. This discussion will address this risk assuming both a shearing event (earthquake with fault shifting) and the horizontal stresses that tend to ovalize or collapse casing.

Casing ovality and shear in highly tectonically active areas have been documented in technical literature.¹ Casing ovality tends to occur rapidly (first few months) after running and cementing the casing in the new wellbore, as the stress induced by drilling the borehole returns to equilibrium. Once equilibrium is reached the progression of ovality slows significantly.

The primary problem with casing ovality is mechanical access to the wellbore such as running packers and bridge plugs. Ovality by itself usually does not reduce the internal pressure integrity of the casing and can typically pass a pressure test. An increase in internal pressure will tend to reduce pipe ovality. Therefore, moderate ovality will not necessarily result in a well integrity issue; however, it may have an impact on equipment used in the well caused by reduced internal diameter.

Casing collapse can occur if the primary horizontal stress exceeds the yield strength of the cement and pipe(s). Casing collapse runs the risk of tearing a hole along the length of the pipe where

¹ One example is on the Eastern foothills of the Andes in Colombia, documented in IADC/SPE 74561 "Case Studies of Casing Deformation due to Active Stresses in the Andes Cordillera, Colombia."

the folded pipe exceeds the yield strength. Casing collapse usually will damage the production/injection tubing.

Casing shear can occur along active moving faults. If the fault width is very wide and in soft or fractured rock, the casing shear will likely be less severe and may just result in casing damage while maintaining pressure integrity.

The tectonically induced casing/tubing damage described above normally does not result in loss of hydrocarbon containment outside of the wellbore. Casing collapse and shear, by nature of the failure, pinches off the casing (and tubing) significantly reducing and often stopping flow potential. Additionally, the area around the collapsed pipe will be filled with drilling mud, cement or formation, which should further impede or stop flow.

2.2.3 Surface subsidence and subsurface compaction

Surface subsidence and subsurface compaction can occur due to reduced pore pressure and the resulting decrease in porosity within a reservoir. The Company has not experienced subsurface or surface subsidence issues.

2.2.4 Landslides from non-seismic events

Localized landslides could pose a risk to wellhead, wellsite piping, withdrawal/injection piping, and process equipment through debris fall induced through non-seismic events, such as heavy rain. Other factors in landslide potential are the steepness of the terrain, bedding dip, and water saturation. These factors could lead to slumps and landslides during a heavy rain event. SoCalGas has an extensive rain drainage network designed to mitigate water runoff erosion that might threaten wells and facilities. SoCalGas also employs surface safety valves, wellsite block valves, and isolation valves that can be operated to isolate a breach in piping due to a landslide event.

3. MITIGATION OF GEOLOGIC AND GEOTECHNICAL HAZARDS AND RISKS

3.1 Overview

Preventative and mitigative actions are conducted to reduce the risks to storage facilities by reducing the likelihood (preventative) or the consequences (mitigative) of events related to hazards.

This Section provides the applicable mitigation protocols that have been implemented, will be implemented, or could be investigated for possible implementation at the Aliso Canyon facility.

The risks to SoCalGas' storage facility at Aliso Canyon are low, and are routinely mitigated by appropriate engineering design. Although it is difficult to reduce the *likelihood* of some events, such as seismic activity, in and around the facility, it is possible to reduce the *consequences* of those events. SoCalGas has implemented a number of measures to mitigate risk to well integrity, including equipping its wells and pipeline network with surface safety systems, designing them with auxiliary wellsite kill piping, and undertaking other work to mitigate landslides. Additional well integrity will be achieved by requiring all gas injection and production through the tubing only. The Company is committed to

investigating other possible technologies and best practices to enhance well integrity at its Aliso Canyon facility.

3.2 Earlier Submissions

In its SRMP dated July 29, 2016, SoCalGas identified a number of preventative and mitigative efforts to reduce risks to its underground storage facility assets. Those efforts include data collection and management, continual threat identification and risk analyses, ongoing verification and demonstration of the mechanical integrity of each asset, and diligent implementation of preventative and mitigative measures. The measures are conducted to reduce the likelihood of events related to threats listed in API RP 1171, and consist of performing routine condition monitoring and analysis for threats to wells, reservoir and well laterals. The Company's earlier submission also set out the teams responsible for the preventative and mitigative measures, the processes for ensuring proper work flow, and specific measures to address the threats.

SoCalGas provided additional data in its July 29th, 2016 response describing the Aliso Canyon storage zone caprock properties, and demonstrating an understanding of the geologic conditions and appropriate operating conditions. This highlights existing mitigative efforts including, but not limited to, setting a maximum operating pressure less than discovery pressure of the Sesnon/Frew storage zone. The submitted maps, petrophysical analysis, and GeoMechanics report, of the Aliso Canyon caprock show a thick ~200' zone with permeability of less than 1mD, and low porosity 11-17%. This submission, and past geologic studies of Aliso Canyon, reflect past mitigative assessment.

3.3 Mitigation Measures for Geologic and Geotechnical Hazards

In response to DOGGR's October 5, 2016 letter, SoCalGas identifies and provides the following preventative and mitigative measures to reduce the risks posed by geologic and geotechnical hazards:

3.3.1 Prepositioned equipment

SoCalGas will identify and acquire the materials and equipment to respond to future leaks at the Aliso Canyon facility and to protect public health. The feasibility of prepositioning some or all of these assets at the facility will be determined.

3.3.2 Real-time pressure monitoring

SoCalGas has installed real time pressure monitoring at each gas storage well to detect pressure anomalies that could result from seismic or landslide events damaging well infrastructure. Tubing, casing, and surface casing annulus pressures are monitored in real time and notifications are immediately provided should pressure readings fall outside normal operating pressure range. In addition to the Company's current wellhead monitoring programs, SoCalGas has committed to installing new methane monitoring equipment at Aliso and will be performing methane leak patrols, including use of infrared camera daily around each well.

3.3.3 Surface safety systems

All Aliso Canyon gas storage wells are equipped with surface safety systems designed to shut in the well to mitigate gas loss in the event of damage to the wellhead or surface piping. The surface

safety system consists of fail-close pneumatic operated valves located on the wellhead and designed to close by any of the following:

- Low pressure pilot – shuts in well if a break in the piping causes the wellhead pressure to drop below a threshold value
- High pressure pilot – shuts in well if pressure in the withdrawal line exceeds a threshold value
- Sacrificial sand erosion probe – shuts in well upon excessive erosive sand production
- Fusible plug – shuts in well if a fire occurs in the well cellar
- Remote shut down station – allows for wells to be shut-in manually from a safe distance from the wellhead

Additionally, there are shut-off valves in the surface pipes and compressors.

3.3.4 Auxiliary wellsite kill piping

Aliso Canyon gas storage wells are designed with auxiliary piping connected to the wellhead that provide a means of pumping kill fluid into the wellbore from a remote safe distance from the wellhead. The remote pump could be utilized in the event of a breach in the downhole tubing/casing or surface piping, if access to the well is compromised.

3.3.5 Slope stabilization and mud slides

SoCalGas addresses slope stabilization and mud slides in the following ways: (i) wells located in areas prone to falling rocks and boulders are equipped with rock guards to protect wellhead and wellsite piping; (ii) Aliso Canyon has built an extensive drainage system to mitigate mud slides in heavy rain events; (iii) roads are paved; and (iv) wellsites have gravel or base. Also, critical infrastructure such as metering, controls, and compressors are located in sheds and buildings.

3.3.6 Surface and subsurface subsidence

SoCalGas conducts field-wide LiDAR data collection at Aliso Canyon to identify new or previously unrecognized hazards such as landslides, erosion/reveling, rock fall, terrain changes and poorly routed drainpipes/culverts.

SoCalGas utilizes the Digital Elevation Model (DEM) of the Northwest Los Angeles area to provide snapshots of the Aliso Canyon terrain. DEMs have various uses, such as calibrating hillshade, monitoring surface changes, and cartographic mapping.

3.3.7 Withdrawing from tubing string only

All wells employed in the gas storage injection project are to be equipped with tubing and packer completions that isolate the tubing-casing annulus. And all injection and production will be through the tubing only. This removes the casing annulus as a flow path for injection and withdrawal, and provides the well with an additional well barrier in the event of a tubing or casing breach.

3.3.8 Leak Patrol and Methane Monitoring

In addition to the previously described well pressure monitoring of the casing annuli, SoCalGas is installing a series of methane monitoring systems that will test for the presence of methane at Aliso Canyon, including after seismic events. SoCalGas will safely suspend operations at Aliso Canyon within a reasonable time following a major event, such as a seismic incident impacting Aliso Canyon, to conduct additional leak patrols of the facility.

3.3.9 Further study of geologic and geotechnical hazards

In its earlier SRMP, SoCalGas analyzed the thickness, porosity, permeability, and other properties of the caprock at the Aliso Canyon Facility. The Company will undertake further study of the geologic and geotechnical hazards in the area to determine if other mitigative measures are warranted, and to determine if there are ways to better understand the probability of these events.

3.3.10 Tectonic/seismic induced failures

Mitigating casing deformation and tectonically induced failure can be enhanced by well design and monitoring in new wells. Heavy wall, higher strength pipe and good casing cement jobs add strength to resist tectonic forces. The use of liners in existing damaged wells can add resistive strength. The well integrity program currently being performed on the wells should determine if casing deformation is a significant threat to well integrity. Also, SoCalGas supports the State's interest in examining the feasibility and efficacy of subsurface safety valves for gas storage fields, to address hazards and risks, and to determine if and what types of valves might be appropriate.

TERMS, DEFINITIONS AND ACRONYMS

SoCalGas incorporates by reference the terms, definitions and acronyms set out in its submission dated July 29, 2016.

REFERENCES

SoCalGas can provide references upon request.

Attachment 3 - -December 12, 2016 letter from the Berkeley, Sandia and Lawrence Livermore National Laboratories to DOGGR re: seismic risks at Aliso Canyon

December 12, 2016

Ken Harris, PG
State Oil & Gas Supervisor
California Department of Oil, Gas & Geothermal Resources
801 K Street, MS 18-05
Sacramento, CA 95814

Re: Seismic Hazards at Aliso Canyon

Dear Mr. Harris,

This letter is in response to your request for the Lab Team's consideration of the seismic hazards and risks at the Aliso Canyon Gas Storage facility. We have been provided Supplement #2 to Southern California Gas' Storage Risk Management Plan, which addresses geologic and geotechnical hazards. SoCalGas' Supplement #2 correctly points out the fact that Aliso Canyon exists in an area with a high probability of a significant earthquake in the next 50 years. The extensive faulting of the region and the hazards at Aliso Canyon, which are endemic to the wider San Fernando Valley, are well known and documented by the USGS and others.

Given the Santa Susana fault system transects the Aliso Canyon wells and the existence of other nearby faults, a risk exists from ground shaking and direct shearing/deformation of well casings. The hazards from ground shaking can be determined through accepted methodologies, such as performing quantitative probabilistic seismic hazard analysis (PSHA). Similar to ground shaking, methods exist for the description of probabilistic fault displacement analysis (PFDA).

The methodology for translating a probabilistic seismic shaking hazard into a risk through structural analysis of buildings and surface infrastructure follows well known processes. However, in our review of published literature and in discussions with hazard and risk practitioners, we have not yet identified a formal seismic risk assessment process specific to oil and gas wells. The richest body of supporting science for assessment of impacts of fault slippage on wells can be found in the oil and gas industry's analysis of formation compaction, which considers deformation of casing induced by formation strains. The work of Abou-Sayed et al., (2004) and Dusseault et al., (1998) analyze casing strain as a result of formation deformation. The South Belridge Field near Bakersfield, California has undergone significant compaction and has a high percentage of wells that have failed from casing deformation. Detailed elasto-plastic geomechanical finite element modeling was used by Hilbert Jr. et al., (1999) to understand the complex interaction between the engineered casing-cement system and the surrounding rock at Belridge Field.

In our review of Supplement #2, we highlight two additional considerations for hazard assessment. The first consideration concerns Section 2.2.2.1 - The Santa Susana Fault, where the U. S. Geological Survey 2009 PSHA online model has been utilized to broadly look at risks in the greater San Fernando Valley. The last sentence states, "further scrutiny of this modeled probability may be warranted." We concur with this statement and believe a more granular review of the site-specific ground shaking hazard associated with the Santa Susana fault system will provide better insight into the seismic hazard at Aliso Canyon.

Our second consideration is in regards to damage to wells caused by fault slippage. Supplement #2 notes in section 2.2.1.3 – Well and Caprock Integrity that data are being collected for use in a geomechanical study of fault strength. It goes on to state that "An investigation of potential fault

slippage under fluid injection conditions at Aliso Canyon may be warranted to determine criticality." We concur and believe that a PFDA conducted for the faults transecting the Aliso Canyon wells will better inform the level of hazard to consider.

Following the two considerations above (performing a refined PSHA and PFDA) will provide a more detailed understanding of the seismic hazards at Aliso Canyon. We believe that Southern California Gas should then undertake the next step of using the improved knowledge of the hazards to consider the risks to subsurface infrastructure. Consultants with expertise in quantitative risk assessment of wellbore systems should be engaged in carrying out a detailed analysis of formation-wellbore interaction under seismic loading. A risk assessment should incorporate the designs of the wells being used at Aliso Canyon. We would like to emphasize that this type of study is not commonly undertaken and to our knowledge there is no industry wide accepted methodology or design standard for seismic risk to wellbores. Supplement #2 Section 3.3.7 'Withdrawal from Tubing String Only' indicates that operation through tubing/packer improves the resiliency of the wellbore. We concur that this is a reasonable assumption, but believe that detailed structural analysis of the Aliso Canyon wellbore designs incorporating the results from a PSHA and a PFDA of the Santa Susana Fault System will better inform the risk management process for operation of Aliso Canyon.

Supplement #2 Section 3.3: 'Mitigation Measures for Geologic and Geotechnical Hazards' details Southern California Gas' activities to address geotechnical hazards. As such, we do not believe that the recommended detailed seismic studies require immediate action, but they should be planned and executed in a deliberate manner. The recommended seismic risk analysis can be incorporated into a continuous improvement process for risk management at Aliso Canyon and inform future risk mitigation activities. We envision a two-step process where the initial step will be to perform a PSHA and PFDA focused on the Santa Susana fault system at Aliso Canyon. Once the hazard analysis has been completed, the severity of the hazards can then be used to develop a detailed work plan for risk evaluation.

References:

Abou-Sayed, A.S., Meng, F.H., and Wang, G., Compaction-induced wellbore failure and fault instability: a hybrid approach, ARMA/NARMS 04-594, presented at Gulf Rocks 2004, the 6th North America Rock Mechanics Symposium, Houston, TX, June 5-9 2004.

Dusseault, M.B., Bruno, M.S., and Barrera, J., Casing shear: causes, cases, cures, SPE 48864, presented at 1998 SPE Intl. Oil and Gas Conference and Exposition, Beijing, November 2-4 1998.

Hilbert Jr., L.B., Gwinn, R.L., Moroney, T.A., and Deltrick, G.L., Field-scale and wellbore modeling of compaction-induced casing failures, SPE Drill. & Completion, 14 (2) June 1999.

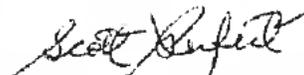
Sincerely,



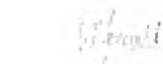
Barry M. Freifeld



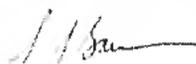
Douglas A. Blankenship



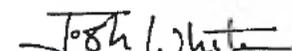
Scott A. Perfect



William Foxall



Steve Bauer



Joshua White

Lawrence Berkeley National
Laboratory

Sandia National Laboratory

Lawrence Livermore National
Laboratory

**Attachment 4 - -September 19, 2016 cover letter from DOGGR to
County**



State of California • Natural Resources Agency
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street • MS 18-05
Sacramento, CA 95814
(916) 445-9686 • FAX (916) 319-9533

Edmund G. Brown Jr., *Governor*
Kenneth A. Harris Jr., *State Oil and Gas Supervisor*

September 19, 2016

Mr. Scott Kuhn
Principal Deputy County Counsel
Office of County Counsel
500 W. Temple, Suite 648
Los Angeles, CA 90012
[REDACTED]

Dear Mr. Kuhn:

In response to your request, please find enclosed the risk management plan that Southern California Gas Company (SoCalGas) submitted to the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Division) for the Aliso Canyon underground natural gas storage facility.

As you review the enclosed document, be aware that this is the operator's initial draft submission. The Division has not yet completed its review of the submission and this document has not been approved as a complete risk management plan for the facility. SoCalGas did submit its initial draft plan in a timely manner in accordance with the emergency regulations recently adopted by the Division. (Cal. Code Regs., tit. 14, § 1724.9, subd. (g).) However, risk management planning for underground gas storage facilities is a new and complex requirement, and the Division anticipates the need for in depth and technical discussions with each of the gas storage operators regarding their initial submissions, likely leading to further development of these plans. Once completed, the Division will be making the risk management plans available to the public on its website.

If you have any questions about the risk management plans or other Division requirements for underground gas storage facilities, please contact me at (916) 323-1777.

Sincerely,

Kenneth A. Harris Jr.,
State Oil and Gas Supervisor

**Attachment 5 - January 3, 2017 letter from County Fire Department
to DOGGR on RMP**



COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

January 3, 2017

Kenneth A. Harris Jr.,
State Oil and Gas Supervisor
Division of Oil, Gas, and Geothermal Resources
Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814

Dear Mr. Harris:

SOUTHERN CALIFORNIA GAS COMPANY'S STORAGE RISK MANAGEMENT PLAN

This Department's Health Hazardous Materials Division (HHMD) appreciates the opportunity to comment on the *Storage Risk Management Plan (SRMP)* and the *Supplement to SoCalGas' Storage Risk Management Plan #2*, submitted by Southern California Gas Company (SoCalGas), to the Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR), for the Aliso Canyon underground natural gas storage facility.

The RMP provides an overall broad outline or a model of an RMP, once the RMP elements become implemented. The RMP, in its current state, lacks sufficient critical detail and information to provide an accurate and complete understanding of the potential threats/risks and safeguards at the facility. Additionally, there is no specific or unique information, including geologic data provided in regards to the Aliso Canyon underground natural gas storage facility. The information is a generic model that the SRMP states is applicable to four active underground gas storage facilities: Aliso Canyon, Honor Rancho, La Goleta, and Playa del Rey.

- The RMP fails to provide a schedule for submission of risk assessment results to the Division, as required by 14 CCR Section 1724.9(g).

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	BRADBURY	CUDAHY	HAWTHORNE	LA HABRA	LYNWOOD	PICO RIVERA	SIGNAL HILL
ARTESIA	CALABASAS	DIAMOND BAR	HIDDEN HILLS	LA MIRADA	MALIBU	POMONA	SOUTH EL MONTE
AZUSA	CARSON	DUARTE	HUNTINGTON PARK	LA PUENTE	MAYWOOD	RANCHO PALOS VERDES	SOUTH GATE
BALDWIN PARK	CERRITOS	EL MONTE	INDUSTRY	LAKEWOOD	NORWALK	ROLLING HILLS	TEMPLE CITY
BELL	CLAREMONT	GARDENA	INGLEWOOD	LANCASTER	PALMDALE	ROLLING HILLS ESTATES	WALNUT
BELL GARDENS	COMMERCE	GLENORA	IRVINDALE	LAWDALE	PALOS VERDES ESTATES	ROSEMEAD	WEST HOLLYWOOD
BELFLOWER	COVINA	HAWAIIAN GARDENS	LA CANADA-FLINTRIDGE	LOMITA	PARAMOUNT	SAN DIMAS	WESTLAKE VILLAGE
						SANTA CLARITA	WHITTIER

- Section SRMP.2, page 2 of 6, 1. Overview, 1.2., Responsibilities - There is mention that the Underground Storage (UGS) Data Management Team has overall responsibility for the well and reservoir data; however, there is no mention of who - whether the owner or another designated representative - will certify the RMP and attest that the information submitted is accurate, complete, and true.
- Section SRMP.2, Data Collection and Management - The section fails to consider or discuss software changes, and updates for data collection, and access to critical data and servers during power outages or emergencies, including those related to cyber security and terrorism. There is no discussion regarding management of change procedures with regards to data collection and management.
- Section SRMP.2, page 6 of 6, Data Collection and Management, 4.3, Data Reliability - The data integrity and reliability is managed by "periodically" performing data audits. The term "periodic" is utilized in this section and throughout the RMP, without specific clear definitions of frequency parameters. "Periodic" should be clearly defined within each relevant section.
- Section SRMP.3, page 5 of 9, Threat Identification and Risk Analysis, 5, Risk Overview - Table 2: Asset Category Risk Models lists the underground storage asset categories and risk model used; the table states wells that utilize a "Relative Assessment" risk model and reservoirs, and well laterals utilize a "Subject Matter Experts" (SME) model. There is no rationale or justification provided regarding the risk model selection. There is no pertinent or actual data or information provided in this section in terms of risk ranking, likelihood of failure (LOF), or consequences of failure (COF). The section broadly discusses the basis for risk models; however, it appears that the risk analysis has not yet been completed or implemented.
- Section SRMP.3, page 6 of 9, Threat Identification and Risk Analysis, 6.1, Well Threat Identification - It is noted that for well threat identification, an algorithm is used to generate scores for each threat category; however, it does not specify what the algorithm is. It should specify the algorithm utilized.
- Section SRMP.3, page 7 of 9, Reservoirs, 7.1, Geologic Uncertainty - It is noted that "SoCalGas has a geologic data set that provides a comprehensive understanding of the overall geology and the boundaries of each storage reservoir". It is also noted that the SoCalGas' SME based review of reservoir history and data has led to the determination that each of the reservoir threat categories has a substantially low potential to act as a source of loss, damage, or harm, and each reservoir threat will

be considered inactive. There is no information provided regarding the methodology utilized for the risk determination.

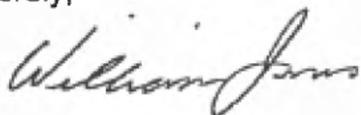
- Additionally, there is no information provided on whether or how the geologic uncertainty affects the wells and well laterals within the reservoir, whether the risk has been assessed, and what RMP elements should be in place to address those risks. If there is no risk from geologic uncertainty affecting the wells and well laterals, then the risk assessment should be documented. There is no information provided regarding seismic threats or an assessment of those threats.
- Section SRMP.4, page 6 of 9, Integrity Assessments and Mitigation, 5, Validation, 5.1, Examination based Validation - It is noted that the direct examination method involves a direct comparison of inspection based measurements to measurements, made directly at flaw locations, to determine inspection tool accuracy. There is no information regarding how flaw locations are defined or determined.
- Section SRMP.4, page 6 of 9, Integrity Assessments and Mitigation, 5, Validation, 5.3.1, Well Laterals - It is noted that actionable conditions are repaired or replaced; however, it does not define what actionable conditions are. Additionally, it is stated that scheduled anomalies should be mitigated prior to the next scheduled assessment; however, there is no information provided regarding the assessment schedule or the next inspection. The assessment and inspection frequency should be documented and provided.
- Section SRMP.5, page 4 of 7, Preventative and Mitigative Measures, 3, General Requirements - There is a list of preventative and mitigative measures, such as post - assessment, leak survey, valve maintenance, and internal corrosion monitoring; however, there are no procedures regarding how those activities are conducted or performed. Additionally, there is no information regarding the frequency for the evaluations.
- Section SRMP.5, page 7 of 7, Preventative and Mitigative Measures, 5, Recordkeeping - It is noted that documentation will be kept according to the corporate record retention policy; however, it does not state what the policy is.
- The RMP broadly states it is based on guidance sections from API Recommended Practice 1171, Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs. The RMP, however, fails to consider many critical sections of the Standard, such as: Emergency Preparedness/Emergency

Response Plan, Training, Blowout contingency Plan, Cyber Security, Management of Change, Safety and Environmental Programs, Public Awareness and Damage Prevention, etc.

In their July 29, 2016, letter to DOGGR, SoCalGas readily admits that "the SRMP will necessarily improve and evolve as we gather additional data, as our SRMP processes and models mature, and in response to additional DOGGR regulations." By submitting these comments, it is our hope that the final SRMP meets stringent risk management safety criteria in order to protect the health of our communities and environment from an accidental release.

Please refer any questions or comments to Walter Uroff, Assistant Chief, at (323) 890-4061, or via email at [REDACTED]

Sincerely,



WILLIAM JONES, M.S., CHIEF
HEALTH HAZARDOUS MATERIALS DIVISION

WU:fk

c: Kuhn, S
Bellomo, A
Butler, K

**Attachment 6 - January 19, 2017, email from DOGGR to the County
re: Fire Department's Risk Management**

Scott Kuhn

From: Walker, Alan@DOC <[REDACTED]>
Sent: Thursday, January 19, 2017 5:01 PM
To: Scott Kuhn; Uroff, Walter
Cc: Harris, Ken@DOC; Habel, Rob@DOC; Boyd, Richard@DOC; Wynne, Daniel@DOC
Subject: RISK MANAGEMENT PLAN SoCalGas Update

Mr. Kuhn and Mr. Uroff,

The Division of Oil, Gas, and Geothermal Resources appreciates your comments on the SoCalGas Risk Management Plan. We will make appropriate edits to the next cycle of the Underground Gas Storage permanent regulations to incorporate your suggestions as potential requirements for the permanent regulations. The Division does not intend to require another revision of the RMP from SoCalGas or other storage operators, until the permanent regulations have been approved.

The submission of the current RMP was in response to the Emergency Regulations which required an RMP not later than August 5, 2016. Those Emergency Regulations have been extended to January 1, 2019 by SB 887 or until superseded by permanent regulations. The first cycle of the permanent regulations were provided for informal public comment in July 2015. The next cycle will be the formal procedure and the Division plans to begin that process in the next 60 days. The RMP requirements will be expanded in the final regulations.

I do not know if you shared your comments with SoCalGas, but I can do that through my normal contacts with them. If you have any questions on the Division's RMP or Underground Gas Storage oversight, please contact me.

Thanks, Al Walker

Alan J. Walker

Supervising Oil & Gas Engineer – Programs
Division of Oil, Gas & Geothermal Resources
California Department of Conservation
801 K Street, MS 18-05
Sacramento, CA 95814-3530

[REDACTED]
[REDACTED]
[REDACTED]

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SaveOurWater.com · Drought.CA.gov

Attachment 7 - October 21, 2016, letter from DOGGR and the CPUC to SoCalGas



State of California • Natural Resources Agency
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street • MS 18-05
Sacramento, CA 95814
(916) 445-9886 • FAX (916) 319-9533

STATE OF CALIFORNIA
EDMUND G. BROWN JR., *Governor*
PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 21, 2016

Mr. Rodger Schwecke
Vice President
Transmission and Storage
Southern California Gas Company
555 West 5th Street, GT21C3
Los Angeles, CA 91505

SAFETY REVIEW FOR UNDERGROUND GAS STORAGE FACILITIES AT ALISO CANYON

Dear Mr. Schwecke,

The Division of Oil, Gas, and Geothermal Resources (Division) and the California Public Utilities Commission (Commission) have prepared a preliminary joint checklist of the necessary safety evaluations to be completed at the underground gas storage facility at Aliso Canyon. The Division and Commission will not consider approval of a request from Southern California Gas Company (SoCalGas) for authorization to resume injections at the facility prior to SoCalGas' completing all of the items so designated on the checklist. The enclosed checklist includes requirements from the Governor's State of Emergency Proclamation, the Division's Order 1109, and Senate Bill 380, as well as other evaluations that the Division and the Commission have identified as necessary steps to demonstrate the safety of the facility.

Be advised that the joint review of safety issues at Aliso Canyon is ongoing. In the course of its review, the Division or the Commission may identify additional requirements needed to complete the evaluation. In the meantime, please review the checklist and contact us to discuss the time frame and any issues related to meeting these requirements.

Sincerely,

Kenneth A. Harris Jr.,
State Oil and Gas Supervisor
Division of Oil, Gas, and Geothermal
Resources

FOR
TIMOTHY SULLIVAN

Timothy J. Sullivan,
Executive Director
California Public Utilities Commission

Enclosure

**California Public Utilities Commission
and
Division of Oil, Gas, and Geothermal Resources
Checklist for Pre-Injection Safety Assurances**

October 21, 2016

In connection with consideration by the Division of Oil, Gas, and Geothermal Resources (Division) and the California Public Utility Commission (Commission) of a request from Southern California Gas Company (SoCalGas) for authorization to resume injections at the underground gas storage facility at Aliso Canyon, following is a list of tasks that SoCalGas must complete in order to ensure the safety of the facility.

Prior to Request for Authorization to Resume Injection:

- Provide a detailed, current, and accurate status report for all 114 wells at the facility, identifying whether the wells have: (1) passed Battery 1 and Battery 2 testing, (2) conducted Battery 1 testing and been isolated from the reservoir, or (3) been fully plugged and abandoned.
- Provide proposed maximum field working pressure for withdrawals, injections, and any well stimulations – for the field and for each operating well.
- Equip all active storage wells at the facility with tubing-and-packer completions that isolate the tubing-casing annulus.
- Provide a Risk Management Plan in accordance with the Division's emergency regulations that includes an effective facility-wide emergency response plan and effective geologic and geotechnical hazard mitigation protocols.
- Provide a current spill contingency plan in accordance with the Division's regulations.
- Provide the internal corrosion assessment and mitigation plan to the Commission as stated in SoCalGas' September 26, 2016, letter to the Commission.

Prior to Authorization to Resume Injection:

- Three days prior to resuming injection, provide a fitness-for-service analysis, signed by SoCalGas's President, Chief Operating Officer, or Chief Executive Officer, that demonstrates that Aliso Canyon is safe to resume injection operations. As part of this fitness-for-service analysis, SoCalGas shall explain how the Aliso Canyon facility is safe to operate prior to completion of the Root Cause Analysis on how and why SS-25 failed:
 - Provide a master list of all equipment and pipelines associated with the gas injection and withdrawal system.
 - Provide test results and/or a function inspection verification report of the listed equipment and pipelines associated with the gas injection and withdrawal system including the Emergency Shutdown Devices (ESD).
 - Provide a list of all dual purpose pipelines (bi-directional flow pipelines injection/withdrawal) and associated block demarcation valves and the facility's ESD inspection records.
- Provide a proposed maximum operating pressure for each operating well.
- Prior to resuming injection, equip all wells to be employed at the facility with real-time pressure monitors in the tubing and the tubing-casing annulus. The continuous annulus pressure monitoring devices should be equipped with alarms. An action plan should be provided to the Division that contains the alarm level settings for each pressure being monitored and a response plan for steps that will be taken after an alarm is sounded.

- Complete a leak survey for the entire facility at least a week prior to resuming injection operations, with all results reported to the Commission within three days of completion and prior to resuming operations.
- Prior to resuming injection, provide a written procedure for dealing with any production tubing leaks and production casing/tubing annulus pressure increases – include the “make safe” procedure and any follow-up actions.
- Provide function test records to the Division for each downhole device.
- At least once during the two-week period prior to resuming injection, conduct a downwind flight to measure total site methane emissions.

After Injection Resumes:

A detailed work plan for each of these tasks must be approved by the Division and the Commission before resumption of injection will be approved:

- Complete a leak survey for the entire facility within 72 hours after resuming injection operations, with results reported to the Commission and the California Air Resources Board (CARB) within three days of completion of the survey. Reportable leaks shall be immediately reported to the appropriate agencies as required by law.
- In addition to the daily monitoring for leaks required under the Division’s regulations, complete leak surveys for the entire facility immediately after one month of injection operations and quarterly thereafter for one year (five surveys total), with results reported to the Commission and CARB within seven days of completion. After the first year, leak surveys must be completed in line with applicable CARB regulations.
- Provide a leak detection protocol consistent with the Division’s emergency regulation, Senate Bill 887, best practices as reflected in current and pending state rulemakings, and based on a consultation with CARB.
- Report daily reservoir pressure estimates to the Commission/the Division during the first 30 days of resuming injection.
- Report daily reservoir injection and withdrawal volume measurements to the Commission and the Division during the first 30 days of resuming injection.
- Report average daily tubing and annulus pressure measurement to the Commission and the Division during the first 30 days of resuming injection.
- Function test each downhole device at least once every six months and provide function test records to the Division.
- Complete testing or fully plugging and abandoning each well that was isolated within one year of isolation.
- Address all data gaps in the project file that the Division has identified.
- After injection has resumed, conduct two downwind flights to measure total site methane emissions. The two post-injection measurements must be within one week of each other. If both measurements show the site to emit below 250 kg CH₄/hour, then no further flights will be required. If the measurements suggest that there are leaks, then the flights must continue until the leaks have been fixed, no new leaks have been found, and emissions are below 250 kg CH₄/hour. The exact timing of the flights will be dependent on meteorology allowing for the flights to make successful measurements of total methane emissions from the site.

**Attachment 8 - SoCalGas' November 1, 2016 submittal to DOGGR
regarding compliance with DOGGR regulations section 1724.9(a)**

1724.9. Underground Gas Storage Projects – Aliso Canyon Storage Field

1724.9(a): SoCalGas is compiling the data required under Section 1724.7 of Title 14 of the California Code of Regulations (CCR) for the Aliso Canyon Storage Field, and will submit as soon as practicable.

1724.9(a)(1):

For caprock petrophysical properties, permeability, lithology, lithologic variation, and characteristics of fractures, please see enclosed the Aliso Canyon Caprock Petrophysical Properties Review. For caprock mechanical properties and formation fracture gradient, please see the enclosed GeoMechanics Report on the Aliso Canyon Storage Field and Aliso Canyon Operating Pressure Memorandum. The threshold pressure of the caprock cannot be determined with existing data, and will be assessed when SoCalGas drills a new well at Aliso Canyon and takes core samples. For caprock structure and isopach maps, including location of faults, please see the enclosed Miocene Pliocene Marker Map. SoCalGas is preparing an Isopach Map and will provide as soon as practicable.

Caprock Fault Characteristics: The Sub-Frew fault is a southwest dipping reverse fault located structurally below, and truncated by, the Frew fault. The Sub-Frew fault is dated late Pliocene to early Pleistocene. The Ward fault is a south-dipping reverse fault, responsible for 400-800 feet of displacement during the late Pliocene. The Ward fault is truncated by, and thus older than, the Roosa fault. The Roosa fault is a north dipping thrust fault with 800-1,300 feet of displacement. The Roosa fault is estimated to be Late Pliocene in age. Fault V is a normal fault, downthrown to the south. Fault V has approximately 150 feet of displacement and was active during the late Miocene to early Pliocene. Younger Santa Susana Fault trends west-to-east and is part of the north dipping Santa Susana thrust fault complex. The Younger Santa Susana Fault approximately parallels the Roosa fault.

1724.9(a)(2): Please see the enclosed Babson and Burns Reserves Study which indicates approximately 90,611,000 STB of oil and 91.3 Bcf of gas in place as of January, 1971. An additional 865,000 STB of oil and 7.6 Bcf of gas were produced resulting in approximately 89,746,000 STB of oil and 83.7 Bcf of gas reserves prior to storage operations.

1724.9(a)(3): Six underground gas storage wells at Aliso Canyon utilize a Surface Controlled Subsurface Safety Valve (SCSSV). SCSSVs are tested semi-annually to ensure proper operation per the procedure outlined in “Company Operations Standard 224.0000 – Testing Surface Controlled Subsurface Safety Valve.” Records of the results of safety valve tests are maintained in the field. As a precaution to enhance safety, SCSSVs are integrated with the Surface Safety System at the control panel and configured to fail closed when pressure is lost. The wells with SCSSVs are listed below:

Well	API #
Frew 2	3700665
FF33	3700687
SS10	3700040
SS29	3700041
SS3H	3700756
SS9	3700762

(a)(4): The waste water disposal method utilized at Aliso Canyon is underground injection. There are two water disposal wells and six water flood wells. All are completed above the gas storage zones. A list of the water disposal and water flood wells are listed below.

Well	Type	API #	Zone
Fernando Fee 36	Water Disposal	3706293	Lower Porter and Upper Del Aliso 1
Fernando Fee 37	Water Disposal	3700011	Aliso 1 (A1)
Porter 23	Water Flood	3700710	Aliso 36 (A36) & Upper Porter
Porter 24	Water Flood	3700711	Aliso 36 (A36) & Upper Porter
Porter 50	Water Flood	3700735	Upper Porter
Porter 52	Water Flood	3700737	Aliso 1 (A1)
Porter 53	Water Flood	3700738	Aliso 1 (A1)
Porter 73	Water Flood	3720642	Aliso 36 (A36) & Upper Porter

1724.9(b)(1):

American Gas Association API Recommended Practice 1171 states: “the design basis for maximum reservoir pressure can employ analysis of fracture gradient, initial pressure, or other means.” A fracture gradient analysis of the Aliso Canyon Gas Storage Field by GeoMechanics Technologies yielded an estimate of 0.6-0.7 psi/ft. The attached report and letter recommend 90% of fracture pressure, equating to 3,900 psi at 7,200’ TVD. Please see the enclosed Aliso Canyon Operating Pressure Memorandum and GeoMechanics Report on the Aliso Canyon Storage Field.

Sesnon zone discovery well, Porter 12, had an initial pressure of 3,595 psi at a depth of 5,150’ vertical sub-sea (base of Sesnon zone). Porter 12 has a surface elevation of 1,971’; the vertical depth to point of discovery pressure measured is 7,121’. This corresponds to 0.505 psi/ft discovery pressure gradient.

SoCalGas has elected to use initial reservoir pressure as the design basis for Aliso Canyon, thus the field-average maximum operating bottom hole pressure for the Sesnon and Frew storage zones will be 3,595 psi. From 1999 through 2015, maximum surface operating pressure at the wellhead (rated for 5,000 psi) has been about 3,000 psi. The high pressure shut-down limits on the compressors are 3,200 psi (reciprocating compressors) and 3,450 psi (turbine driven compressors).

1724.9(b)(2):

A geomechanical study of Aliso Canyon Gas Storage Field recommends a minimum field average operating bottom hole pressure of 900 psi. Please see the enclosed Aliso Canyon Operating Pressure Memorandum and GeoMechanics Report on Aliso Canyon Storage Field.

Under current conditions, the field-average minimum operating bottom hole pressure for the Sesnon and Frew storage zones in Aliso Canyon is 1,080 psi. This bottom-hole pressure corresponds to zero working inventory (0 Bcf). Minimum operating pressure is not constant, but changes over time due to changes in reservoir space – such as changes in cushion gas volume, or net water and net oil production. Liquids production and processing is limited by the Free Water Knockout (FWKO) vessels, which have a combined capacity of 6,400 bbl/day. This design limit is adequate to handle oil and water production from the storage reservoir. In 2014, the Aliso Canyon storage inventory was 6.9 Bcf at the end of the withdrawal season. As shown in the following table, average daily liquids production (oil and water) was less than the liquids handling capacity of the surface facilities.

Aliso Canyon 2014 Storage Fluid Production (bbl/day)				
Month	Oil	Water	Total	Average Daily
Jan	13111	15100	28211	928
Feb	10881	28586	39467	1298
March	1624	6676	8300	273
April	0	0	0	0
May	453	5330	5783	190
June	841	3765	4606	152
July	1373	3959	5332	175
Aug	2091	4567	6658	219
Sept	3520	5933	9453	311
Oct	6141	6723	12864	423
Nov	5290	11497	16787	552
Dec	11361	35237	46598	1533
2014 Totals	56686	127373	184059	504

In the future, as oil production naturally declines with time, additional spare process capacity will be available. Produced water is injected into two disposal wells and six waterflood injection wells; maximum injection capacity is 14,300 bbl/day.

Under current conditions, SoCalGas elected to use 0 Bcf working inventory as the design basis for Aliso Canyon. Thus, the field-average minimum operating bottom hole pressure for the Sesnon and Frew storage zones is 1,080 psi.

Attachment 9 - Pages from SoCalGas *Aliso Canyon Emergency Binder* posted on the DOGGR website.



**Company Operations Standard
Gas Standard
Gas Operations**

Natural Disaster or Major Emergency - Employee Instructions	SCG:	183.0040
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NOTE: Do not alter or add any content from this page down; the following content is automatically generated.
Brief: Document was reviewed for annual O&M Plan review and remains valid.

Document Profile Summary	
Responsible Person:	Funches, Belinda
Published On:	11/14/2012
Last Full Review Completed On:	10/21/2011
Writer:	Alex Morua
Document Status:	Active
Document Type:	GAS
Category (Prior FCD system only):	
If Merged, Merged To Document Number:	
Utility:	SoCalGas
Department:	Emergency Services
Number of Common Document (if applicable):	G8208
Contains OPQUAL Covered Task:	No
Part of SoCalGas O&M Plan:	Yes
Part of SDG&E O&M Plan:	No
Last O&M Review date:	2015-10-30
O&M 49 CFR Codes & Impacted Sections of Document:	192.615(a)(3); Entire Doc
Part of Non-O&M Parts 191-193 Plan	No
Non-O&M 49 CFR Codes & Impacted Sections of Document	
Part of Distribution IMP (DIMP)	No
Part of Transmission IMP (TIMP)	No
Impacts GO112E	No
GO112E Codes & Impacted Sections of Document	
Impacts GO58A	No
GO58A Codes & Impacted Sections of Document	
Impacts GO58B	No
GO58B Codes & Impacted Sections of Document	
Indices/Binders in Which Document is Filed:	CSF, DISTM, EMGM, MR
NOP Learning Module (LM) Training Code:	NOP00268



Company Operations Standard Gas Standard Gas Operations

Field Services Emergency Plans	SCG:	183.0015
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NOTE: Do not alter or add any content from this page down; the following content is automatically generated.
Brief: Section 2.2, added OEM information and "push" dates.

Document Profile Summary	
Responsible Person:	Banuelos, Edward
Published On:	10/06/2015
Last Full Review Completed On:	11/18/2014
Writer:	Ed Banuelos
Document Status:	Active
Document Type:	GAS
Category (Prior FCD system only):	
If Merged, Merged To Document Number:	
Utility:	SoCalGas
Department:	Emergency Services
Number of Common Document (if applicable):	
Contains OPQUAL Covered Task:	No
Part of SoCalGas O&M Plan:	Yes
Part of SDG&E O&M Plan:	No
Last O&M Review date:	2015-10-06
O&M 49 CFR Codes & Impacted Sections of Document:	192.615(a)(2): 5.4 192.615(b)(1): 4.2 192.615(b)(2): 3.1 192.615(b)(3): 3.2 192.615(c)(1): 5.4.3, 5.4.5 192.615(c)(2): 5.4.2 192.615(c)(4): 5.4.4
Part of Non-O&M Parts 191-193 Plan	No
Non-O&M 49 CFR Codes & Impacted Sections of Document	
Part of Distribution IMP (DIMP)	No
Part of Transmission IMP (TIMP)	No
Impacts GO112E	No
GO112E Codes & Impacted Sections of Document	
Impacts GO58A	No
GO58A Codes & Impacted Sections of Document	
Impacts GO58B	No
GO58B Codes & Impacted Sections of Document	
Indices/Binders in Which Document is Filed:	EMGM, STOR
NOP Learning Module (LM) Training Code:	NOP00264



Company Operations Standard Gas Operations

Mutual Assistance Agreement	SCG:	183.02
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NOTE: Do not alter or add any content from this page down; the following content is automatically generated.
Brief: Job titles changed to reflect the new organizational structure. Changes made in section 2.1.2.

Document Profile Summary	
Responsible Person:	Smith, Paul
Published On:	09/23/2015
Last Full Review Completed On:	09/23/2015
Writer:	
Document Status:	Active
Document Type:	STAND
Category (Prior FCD system only):	
If Merged, Merged To Document Number:	
Utility:	SoCalGas
Department:	Emergency Services
Number of Common Document (if applicable):	
Contains OPQUAL Covered Task:	No
Part of SoCalGas O&M Plan:	No
Part of SDG&E O&M Plan:	No
Last O&M Review date:	
O&M 49 CFR Codes & Impacted Sections of Document:	
Part of Non-O&M Parts 191-193 Plan	No
Non-O&M 49 CFR Codes & Impacted Sections of Document	
Part of Distribution IMP (DIMP)	No
Part of Transmission IMP (TIMP)	No
Impacts GO112E	No
GO112E Codes & Impacted Sections of Document	
Impacts GO58A	No
GO58A Codes & Impacted Sections of Document	
Impacts GO58B	No
GO58B Codes & Impacted Sections of Document	
Indices/Binders in Which Document is Filed:	EMGM
NOP Learning Module (LM) Training Code:	NOP00279

Attachment 10 - Pages from SoCalGas *Aliso Canyon Emergency Binder* posted on the DOGGR website related to a Public Awareness Plan



**Company Operations Standard
Gas Standard
Pipeline Safety & Compliance**

Public Awareness Plan	SCG:	PA-1
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APPENDIX P. REVIEW AND REVISION LOG

This Public Awareness Plan must be reviewed annually to assure that there has been a self-assessment of the implementation of this plan. Any *substantial* changes to this Plan will be reflected in the reviews and/or revisions log.

Date	Change	Revision Justification	Prepared By
4/7/2008	Date change from 12/20/07 to 4/7/08		Marc Mechlowicz
4/7/2008	Specified the Federal Regulations 49 CFR 192.616		Marc Mechlowicz
4/7/2008	Reformatted the document to incorporate bullets, new header, new sections		Marc Mechlowicz
4/7/2008	Added clarity in Table 1 and previous Section 6.4 to define how the 660 buffer is measured		Marc Mechlowicz
4/7/2008	Added details to Table 2 so that audience, messages and delivery methods are clearer		Marc Mechlowicz
4/7/2008	Formatted Section 6.9 so that the table is clearer and reformatted Appendix A to have wider columns		Marc Mechlowicz
4/7/2008	Reformatted Appendix B		Marc Mechlowicz
12/31/2009	Date change from 4/7/08 to 12/31/09		Marc Mechlowicz
12/31/2009	Changed SoCalGas mileage from 46,000 to 47,500 , services from 47,000 to 49,000 and Transmission from 4,100 to 4,000		Marc Mechlowicz
12/31/2009	Changed SDG&E mileage from 8,000 to 8,300 miles, services to 6,700 from 6,200, and Transmission pipelines from 250 to 240		Marc Mechlowicz
12/31/2009	Added additional details about how HCAs are determined and notification occurs under "Gas Engineering-Pipeline Design" in Section 3.1		Marc Mechlowicz
12/31/2009	Added information about communicating annually to Senior VP of Gas Operations is the responsibility of "Gas Engineering-Pipeline Design" in Section 3.1		Marc Mechlowicz
12/31/2009	Refined job duties in Section 3.3 to accurately articulate departmental responsibilities		Marc Mechlowicz
12/31/2009	Added paperless billing as a way to identify customers in "Table 1"		Marc Mechlowicz
12/31/2009	Expanded "Communications Summary" to include that all communications are approved by Gas Engineering-Pipeline Design and Legal is responsible for reviewing materials		Marc Mechlowicz
12/31/2009	Reformatted "Table 2" and updated with information from Section 3.3		Marc Mechlowicz
12/31/2009	In Section 6.1-changed the number of customers and meters to reflect current numbers: 20.5 M and 5.7 M meters. SDG&E services 900,000 meters		Marc Mechlowicz



Company Operations Standard Gas Standard Pipeline Safety & Compliance

Public Awareness Plan		SCG:	PA-1
4/4/2014	Added Message Content Table by audience Reformatted the "Summary and Rationale of Planned Communications" section: added references to Table 2. Definition of Target Audience and Table 3. Messages Content; added Delivery Methods/ Materials, Message Frequency, Records and Responsible Party table to each audience.	To clarify required messages and frequencies by audience.	Dina Chanysheva
4/4/2014	Added supplemental County Emergency Response Coordinators survey. The survey to be conducted every four years at a minimum.	To clarify communication requirements by audience. To evaluate Company's County Emergency Response Coordinators communications.	Dina Chanysheva
4/4/2014	Added "Liaison with Emergency Responders" section. Added explanation of why the diameter of pipelines is not provided in NPMS maps (see "Liaison with Emergency Responders" section)	To clearly define how we maintain relationship with emergency officials.	Dina Chanysheva
4/4/2014	Revised Appendix A - Public Awareness Support Team Members: updated names/ titles/ departments	n/a	Dina Chanysheva
4/4/2014	Added Appendix M - Third-Party Vendors	To update names/ titles/ departments.	Dina Chanysheva
4/4/2014	Updated and moved "Communications Required by Targeted Audience" table to the appendix section. Added that groups that oversee company's major projects are responsible for creating, delivering and keeping track of communications with the affected public and public/emergency officials.	To list all third-party vendors.	Dina Chanysheva
4/4/2014		n/a	Dina Chanysheva
4/4/2014		To clarify responsibilities.	Dina Chanysheva



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February 6, 2017

Kenneth A. Harris Jr.
State Oil and Gas Supervisor
Division of Oil, Gas, and Geothermal Resources
Department of Conservation
801 K Street, MS 18-05
Sacramento, CA 95814-3530

Dear Mr. Harris:

SUBJECT: PUBLIC HEALTH IMPLICATIONS OF FINDINGS FROM THE GAS STORAGE WELL SAFETY REVIEW AND PROPOSED PRESSURE LIMITS FOR THE ALISO CANYON STORAGE FACILITY

The Los Angeles County Department of Public Health (LADPH) appreciates the opportunity to comment on the findings from the Aliso Canyon Storage Facility safety review that the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Division) conducted in accordance with Senate Bill 380 (SB 380).

The Division ordered that all 114 injection wells be thoroughly tested before injection resumes, and has reported that 35 wells have passed all of the safety and competence tests. Overall, the safety review conducted by the Division in coordination with independent experts, including Lawrence Livermore and Berkeley National Laboratories, was focused on an evaluation of well integrity. However, the safety review does not adequately address environmental and health threats that the injection of gas into Aliso Canyon Storage Facility poses to nearby communities. This review is missing critical information to determine community health and safety risks if Southern California Gas Company is allowed to start injecting gas into its Aliso Canyon Storage Facility:

- The safety review includes no results from the root-cause analysis. The root-cause analysis is expected to confirm the origin, mechanism, and nature of the leak that lead to this community-

wide public health disaster. This analysis may provide key information to prevent the occurrence of a similar disaster. LADPH expects that the Division and California Public Utility Commission (CPUC) are fully committed to preventing another disaster or other adverse event at this field, and will therefore delay the decision to reinject at Aliso Canyon until after the root cause analysis is finalized.

- The safety review does not adequately address the need for continuous, comprehensive air monitoring for the complex network of wells, pipelines and related infrastructure at Aliso Canyon. It is vital to include best management practices, monitoring technologies, and reporting practices that the operator should have in place to closely monitor and evaluate the facility on a continuous basis. The 2016 Department of Energy (DOE) Task Force has reported that monitoring and leak detection practices were likely inadequate to maintain safe operations. DPH expects the root cause analysis findings to further inform this critically important monitoring plan for the facility.
- The safety review does not consider public health risk factors identified by the DOE Task Force in the evaluation of natural gas storage safety. These include geologic factors (e.g. seismic activity), potential for human error, and severe weather events. The Aliso Canyon field is situated on a geologic fault, therefore seismic activity must be anticipated, further evaluated, and incorporated into comprehensive risk management and emergency response plans.
- The safety review does not identify the chemical composition of the natural gas in the wells or reservoir. In the petrochemical industry, oil refineries routinely “fingerprint” oil mixtures. This practice should take place at Aliso Canyon. LADPH advises the Division to conduct fingerprinting analysis periodically for Aliso Canyon and other natural gas storage facilities, in order to understand potential impacts on public health.

LADPH has continuously responded to thousands of health-related impacts and ongoing recovery efforts since the natural gas disaster began in October 2015. Over 8,000 families were relocated from their homes, including many as far away as seven miles from the well failure. The attached graphic prepared by SoCalGas illustrates the location of relocated residents as a result of the Aliso Canyon leak (see attached). The primary reason for relocation was to gain relief from daily exposures to noxious odors. An equally important reason was the uncertainty associated with magnitude and duration of exposures from the Aliso Canyon field. The extremely large number of people impacted by the Aliso Canyon disaster was unprecedented in the experience of LADPH. Never before have so many people had to be relocated in the County due to an industrial disaster. Indeed, this was the largest natural gas leak in the history of the United States.

LADPH understands that some residents may have experienced exposure to natural gas odors for several years prior to this disaster. Reported and confirmed natural gas-type odors continue to this day in Porter Ranch, with the most recent recorded occurrence on January 17, 2017. These events continue to result in similar symptom reporting experienced by residents during the original disaster, including nausea, headaches, bloody noses, and eye, nose, and throat irritation. Therefore, in addition to the aforementioned data gaps, LADPH advises the Division and CPUC to conduct a thorough assessment of the environmental and health threats and continue to hold the operator responsible for future environmental and health assessment.

LADPH attended the community meetings held in Woodland Hills on February 1 and 2, 2017. Many of the health symptoms reported by residents during the public meeting were consistent with resident

complaints received by LADPH. After addressing the community and CPUC and DOGGR officials at these meetings, LADPH formally submits the following requests:

1. CPUC and DOGGR should postpone indefinitely the decision to resume injection operations at Aliso Canyon to allow time for the root cause analysis to be completed and for the other issues in this letter to be addressed.
2. CPUC and DOGGR should complete and publish the root-cause analysis, allowing sufficient time for pertinent agencies to review and comment on its findings.
3. CPUC and DOGGR should require Southern California Gas Company to commit to a comprehensive, community health study to the scope and specifications approved by LADPH, AQMD, and an independent panel of scientific agencies and experts.

We request a written response to this letter. Thank you for this opportunity to inform you of important public health issues that must be resolved before a decision is made regarding future operations at the Aliso Canyon field. Please do not hesitate to contact us to discuss.

Sincerely,

A handwritten signature in black ink that reads "Cyrus Rangan M.D. FAAP FACMT". The signature is written in a cursive style with some capital letters.

Cyrus Rangan M.D., FAAP, FACMT

Attachment

Northstar Exploration Company

A Registered Professional Engineering Company

P.O. Box 5-A Lafayette, Louisiana 70505

(337) 233-0830 Fax (337) 233-9772

February 3, 2017

Analysis of DOGGR's Findings Regarding the Completion of Requirements in the October 21, 2016 Safety Checklist for the Aliso Canyon Storage Facility – DOGGR Letter to SCG dated January 17, 2017

Executive Summary

SoCalGas (SCG) has adopted a “dual-barrier” concept for its well construction design as one of its primary requirements for “fitness for service” of its underground gas storage (UGS) wells. This approach follows the “no single point of failure” philosophy adopted by the California Division of Oil, Gas and Geothermal Resources (DOGGR) in the proposed Title 14 Requirements for UGS wells. Northstar wholeheartedly agrees with the use of dual-barriers for UGS wells to prevent leaks and potential uncontrolled flow of gas; both underground and at the surface. However, based upon Northstar's review of the SCG Aliso Canyon Safety Review, there is a gap in dual-barrier protection at the wellhead. Based on current design, UGS wells would have single barrier protection across that portion of the well's wellhead/Christmas tree system (wellhead) between any surface safety valve [SSV] and the top of the wellbore tubulars. If a wellhead fails or is damaged where there is no secondary barrier to contain and prevent a gas leak, gas would escape to the atmosphere. Surface protection of the wellhead components between any SSVs and the top of the wellbore tubulars could be insured and the dual-barrier gap eliminated by adopting the use of surface controlled sub-surface safety valves [SCSSV] designed to secure the well in the event of an unintended loss of wellhead integrity.

Review and Comments

Background:

Prior to any resumption of underground gas storage operations at Aliso Canyon, DOGGR and the California Public Utilities Commission [CPUC] required SCG to conduct a project Safety Review that conforms to conditions outlined in CA Title 14/Chap 4/Subchap 1/Article 3 [Title 14-3] Section 1724.9 – UGS Emergency Regulations, DOGGR Formal Order 1109, and, Senate Bill 380. With such conditions in mind, DOGGR issued a letter to SCG dated October 21, 2016 and provided a list of 23 Requirements to be included in its Aliso Canyon Safety Review. On November 1, 2016, SCG submitted the required Safety Review and requested that it be allowed to resume injection operations at Aliso Canyon.

Following an evaluation of the SCG Safety Review and on-site inspections by DOGGR, CPUC and California Air Resources Board [CARB], a letter was sent to SCG on January 17, 2017 whereby DOGGR finds that SCG has fully satisfied Requirements 1 through 6 [prior to injection resumption request]; partially satisfied Requirements 7 through 13 [prior to DOGGR/CPUC authorization to

resume injection]; and, approved work plans that will satisfy Requirements 14 through 23 [after injection resumes].

Summary:

A review of the findings suggests that SCG did not sufficiently address a key component of the injection/withdrawal flow system which, in turn, compromises one of its primary arguments in support of its Fitness-for-Service Analysis. The review also found that several of the Requirements that DOGGR deemed to be in compliance were conditioned on SCG performing further testing or providing additional information. These Requirements are summarized below:

1. The SCG Storage Risk Management Plan [SRMP] does not adequately consider Wellhead Threats along with related Prevention and Mitigation Measures. As a primary component in the tubing-only gas flow system adopted by SCG, wellheads should be included within the Underground Storage Asset Categories detailed in the SRMP [Requirement #4].
2. The SCG Fitness for Service Analysis does not consider the wellhead in its discussion of a dual-barrier design to protect its tubing-only gas flow system [Requirement #7].
3. DOGGR conditioned compliance of the SCG SRMP contingent on additional study of Seismic Activity Threats and Mitigation as recommended by the National Laboratories. Without the results of such a study, current mitigation methods may be found to be inadequate upon completion of the study [Requirement #4].
4. The SCG Fitness For Service Analysis rationale for resumption of injection operations prior to the results of the SS-25 Root Cause Analysis [RCA] is based on the completion of a rigorous well integrity testing program; gas flow system design changes; and, an updated surveillance protocol. There may be additional system design benefits resulting from the completion of the RCA [Requirement #7].
5. Detection of biogenic gas during the on-site inspection of the pressure monitoring equipment led to an SCG agreement to update the existing methodology for verification/response. DOGGR found SCG to be compliant with Requirement #9 based on the existing verification/response methodology. The presence of biogenic gas in integrity tested wells raises questions which need to be addressed to which well types and annular sources the gas was detected [Requirement #9].
6. DOGGR found that the Pressure Monitoring Plan does not adequately address Sustained Surface Pressure Issues [Requirement # 11].
7. DOGGR found that the Leak Detection Protocol requires an update for greater detail on the use of certain gas detection equipment and inclement weather alternatives [Requirement #16].

Discussion:

1. The SCG SRMP submitted in compliance to Requirement #4 and based on Title 14-3 Section 1724.9 (g) UGS Emergency Regulations does not consider the wellhead in its study of Threat Identification/Risk Analysis and Preventive/Mitigative Measures. Both the wellhead and Christmas tree are defined in the Terms, Definitions and Acronyms section of the SRMP; however, the items are not included in any of the described Underground Storage Asset Categories within the plan. The Christmas tree is the assortment of valves and related equipment between the wellhead and the well laterals. For purposes of this discussion, the wellhead is considered to be the above-ground equipment from the tubing/casing connectors to the well laterals [i.e. including the Christmas tree], and, is a critical component within the flow system that transfers injected/withdrawn gas between the reservoir and surface processing equipment [See Figure A].

Since Well Laterals [i.e. connecting flowlines between the wellhead and surface processing facilities] are designated as an Asset Category in the SRMP and are typically considered as above-ground equipment, the same Threats could apply to wellheads. The SRMP Identified Threats are Third Party Damage [wellhead collision] and Weather Related Outside Force [non-seismic landslides]. Additionally, SRMP Supplement 2, required by DOGGR to specifically address local geologic/geotechnical hazards, considers the possibility of seismic induced landslides and other seismic events. An example of a Third Party Damage Threat could be some type of external force acting on the vertical section of the wellhead resulting in a failure at a wellhead connector and causing a gas leak [See Figure B]. The external force could be impacts caused by a well servicing vehicle, extreme weather, seismic activity or landslide debris such as rocks or surface equipment loosened by the event.

SCG is incorrect when it explains that its surface safety systems are “designed to shut in the well to mitigate gas loss in the event of damage to the wellhead or surface piping”. The primary surface shut-in device is a “fail-close pneumatic operated valve” [Surface Safety Valve – SSV] which, when shut in, will mitigate gas loss in the surface piping only. Even if the SSV is located on a master valve in the vertical section of the wellhead instead of the more common placement in the horizontal or wing section, a section of the wellhead remains unprotected in the event of wellhead damage. SCG’s SRMP does not adequately address methods to mitigate threats to wellheads and is a serious omission to DOGGR’s dual-barrier criterion.

2. In several sections of its Fitness for Service Analysis dated November 1, 2016, SCG discusses the adoption of a dual barrier design along with its tubing-only gas flow system for all of the wells currently tested and equipped for injection/withdrawal operations at Aliso Canyon. The adoption of dual safety barriers in the analysis well construction protocol is based on the “no single point of failure” design guideline recently recommended by the Interagency Task Force Report [October 2016]. However, there is no provision for a dual barrier at the wellhead. The tubing-only designation is to highlight the fact that the Aliso Canyon wells will not be using the production casing to transfer withdrawal/injection gas volumes, and, that the gas will be confined to the tubing-only while relying on the production casing to be its secondary barrier. However, when considered as a system, tubing-only gas flow also generally includes a subsurface isolation packer, wellhead and surfacing piping to the surface processing facility. Like the tubing, the subsurface packer utilizes the production casing as its secondary barrier. Although not

specifically designated as a secondary barrier, the use of an SSV as described in Section 3.3.3 in the SRMP Supplement 2 effectively acts as a secondary barrier when shut-in and mitigates gas losses if the surface piping or surface processing equipment is damaged.

As previously stated, because of its location in the tubing-only flow system, a shut-in SSV cannot mitigate leaks within the wellhead section below the valve. The potential threats from wellhead collision, landslides and seismic activity should require SCG to utilize dual-barrier design for wellheads too. Such design could incorporate the installation of Surface Controlled Subsurface Safety Valves [SCSSV] as a component in the tubing string at depths of 300 to 500 feet below surface. If the wellhead fails, the SCSSV is designed to close and contain gas within the flow system below the valve [See Figure C]. In effect, the SCSSV can act as a secondary barrier to wellhead failures. The utilization of dual-barrier design for wellheads is also supported by the proposed Title 14/Chap 4/Subchap 1/Article 4 [Title 14-4] which includes a design requirement for primary and secondary mechanical barriers for storage gas transferred from the reservoir to the surface [1726.5 (b) (1)].

It should also be noted that, as stated in Enclosure 1 Requirement #12 of the DOGGR Findings document, none of the wells tested and equipped for injection/withdrawal operations have an SCSSV installed. The inclusion of such equipment in the wells currently scheduled for upgrades would provide an effective secondary barrier for the wellhead and satisfy the dual barrier requirement adopted by SCG.

3. Subsequent to the initial SRMP submittal, DOGGR requested additional information on potential hazards related to local Geologic/Geotechnical events [seismic activity]. SCG SRMP Supplement 2 Section 2.2 Hazards and Risks includes a discussion of the regional Santa Susana fault system. Of note in the discussion is SCG's use of a U.S. Geological Survey 2009 PSHA Model [probabilistic seismic hazard analysis] to predict the probability of earthquake occurrence within the Aliso Canyon area. The model predicts a high probability of an earthquake having a magnitude greater than 6.3 "within 50 years and 50 km of Aliso Canyon" and added that "further scrutiny of this modeled probability may be warranted".

Following a DOGGR request for input on SRMP Supplement 2 by the National Laboratories, the Laboratories concurred with the seismic activity mitigation measures included in the supplement. However, the Laboratories also recommended the implementation of a risk analysis study specific to the Santa Susanna fault system noting that the results of such a study along with field specific structural analyses, could "inform future risk mitigation activities". DOGGR deemed SCG compliant with respect to Requirement #4 contingent on additional study beginning in 2017. Even when one considers the margin of error inherent in a prediction model along with appropriate mitigation measures in place, SCG should move with urgency to conduct such a study.

4. One of the objectives of the Fitness For Service Analysis is to explain why a resumption of injection should be authorized prior to the results of the SS-25 RCA. The SCG rationale for pre-results resumption is based on the completion of an integrity testing regimen; updating the gas flow system design to include tubing-only flow and adoption of dual barriers; replacing the existing tubing with new tubing; operational enhancements relative to maximum/minimum operating pressures and inventory management supported by geotechnical/geologic studies; and, the development and execution of a comprehensive

field surveillance program. The results of the RCA could provide supplemental information that could further enhance field safety such as changes in new well casing design, or, alternative approaches to corrosion mitigation through packer fluid design. SCG should act expeditiously to incorporate any such information into relevant designs/programs.

5. DOGGR reported that they detected the presence of Biogenic gas in "one or more" of the casing annuli and provided no other information. The presence of biogenic gas raises questions regarding well types the gas was found in [injection/withdrawal, observation, plugged & isolated, etc.]; and, the annular source [tubing/production casing, production/surface casing, etc.]. At DOGGRs request, SCG agreed to develop a methodology update to its Aliso Canyon Well Pressure Monitoring Policies and Procedures that addresses such occurrences. SCG should provide such a methodology update and make it available to the public as soon as possible.
6. SCG defined Sustained Surface Casing Pressure [SSCP] in their Aliso Canyon Well Pressure Monitoring Policies and Procedures as revised on October 11, 2016. Upon review, DOGGR found that the issue of SSCP was not adequately addressed and required SCG to update the document expanding on its treatment of SSCP along with clarification of annulus labeling. Since this requirement has to be satisfied prior to injection authorization, SCG should immediately complete the update.
7. DOGGR determined that the SCG Well Inspection and Leak Detection Protocol as revised on September 26, 2016, did not contain sufficient information on the OGI detection equipment along with inclement weather alternatives. SCG was required to provide modifications to the protocol in conjunction with CARB input. SCG should immediately complete the required modifications.

Northstar Summary

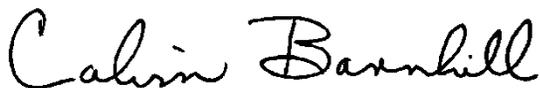
The Northstar personnel assigned to and working on this project on behalf of the County of Los Angeles are all highly experienced engineers and technical personnel. All have decades of experience working in their prospective fields. Calvin Barnhill, who is serving as project manager, has both undergraduate and graduate degrees in Petroleum Engineering, to include graduate work in environmental science. Mr. Barnhill has 47 years of work experience in the oil and gas industry and has worked on oil and gas projects worldwide. The project work performed by Mr. Barnhill has involved all phases of Petroleum Engineering to include downhole well issues, well control issues and surface facilities issues. He has also worked on a number of underground petroleum storage related issues. Furthermore, he has certified offshore oil and gas production facility safety systems for compliance under federal regulation.

The highest profile situation Mr. Barnhill has dealt with is the BP Macondo well blowout that occurred in the US Gulf of Mexico on April 20, 2010. He was retained the night of the blowout to provide technical support in determining the nature of the problem. Later he was asked to provide analysis and input as to what occurred and why it occurred and then to serve as a technical expert on behalf of the drilling contractor, Transocean, whose rig, the Deepwater Horizon, was drilling the Macondo well at the time of the blowout.

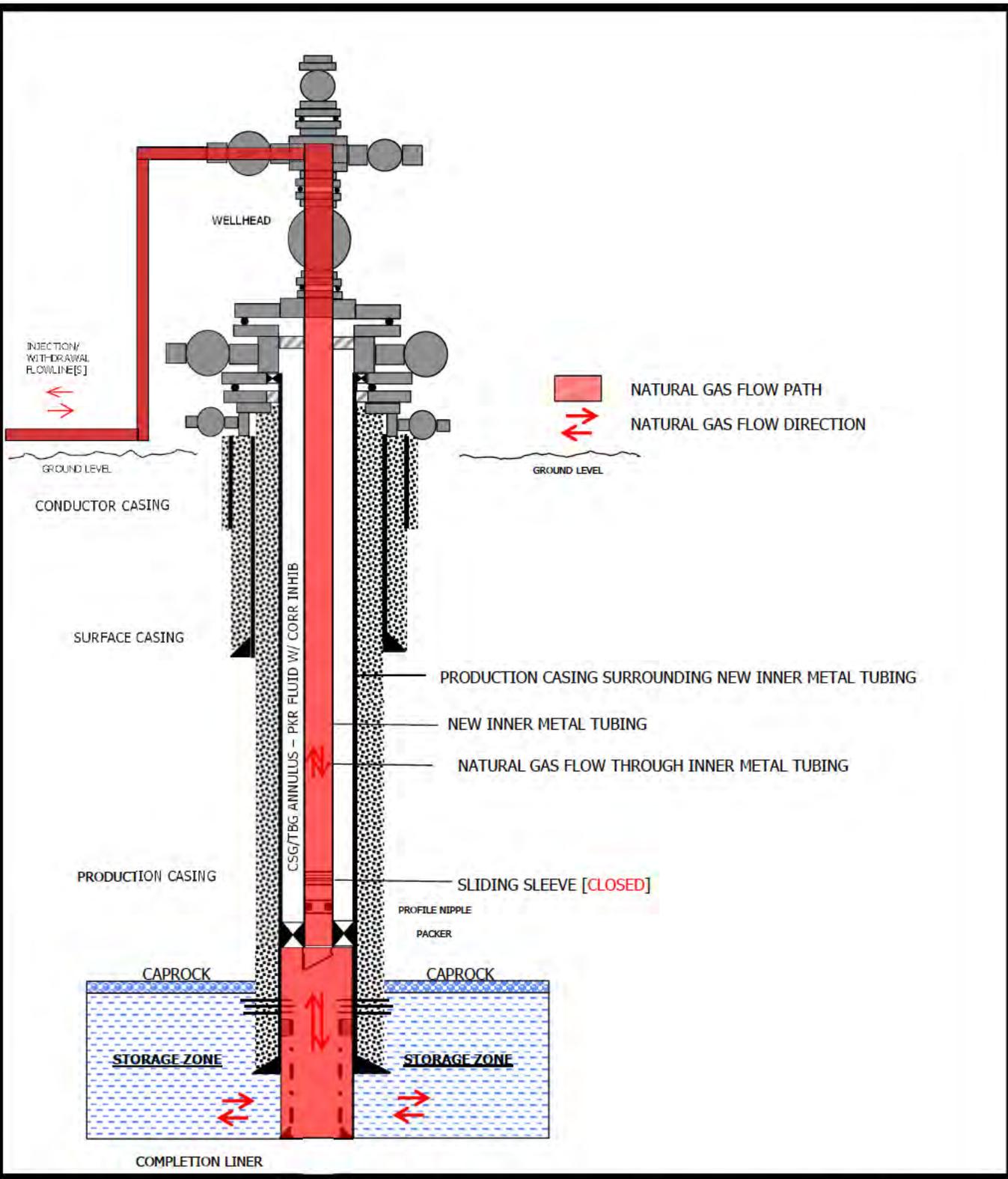
Mr. Barnhill has also been active for many years in teaching various industry courses dealing with the construction of wells and surface facilities, well control and other Petroleum Engineering related topics. He has taught courses for various universities, to include the University of Texas, Louisiana State University and the University of Louisiana, as well as various industry entities worldwide.

Please be advised these comments are based on the information and data available and the work performed to date. As additional information and data is reviewed and work performed these comments may be modified.

Northstar Exploration Company

A handwritten signature in black ink that reads "Calvin Barnhill". The signature is written in a cursive, flowing style.

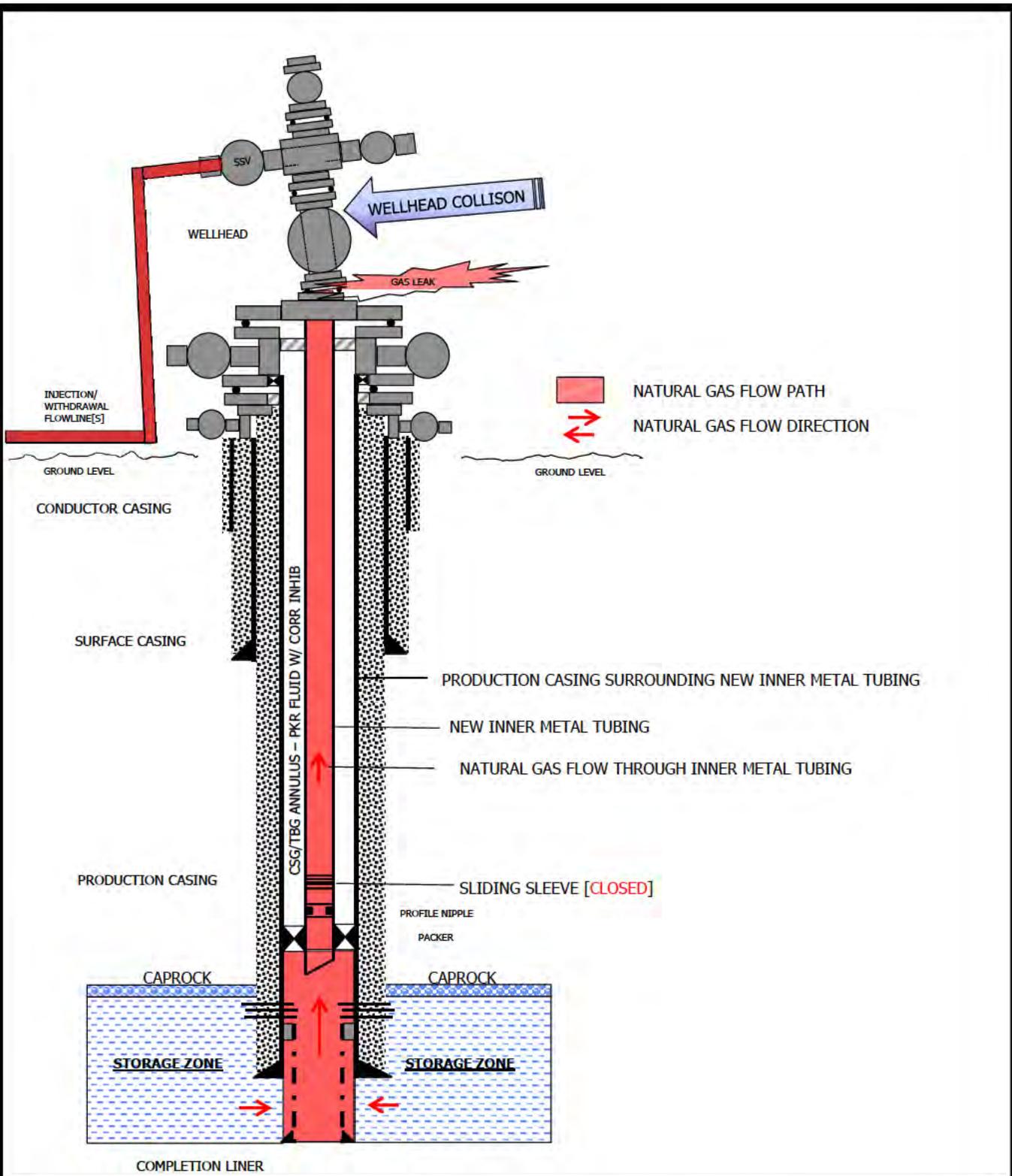
Calvin Barnhill



WELL ON INJECTION /WITHDRAWAL – NO SCSSV INSTALLED

ALISO CANYON WELL EXAMPLE – NOW
 LOS ANGELES COUNTY, CA
 - NOT TO SCALE -

FIGURE A
 BY: jpa DATE: 2/3/17

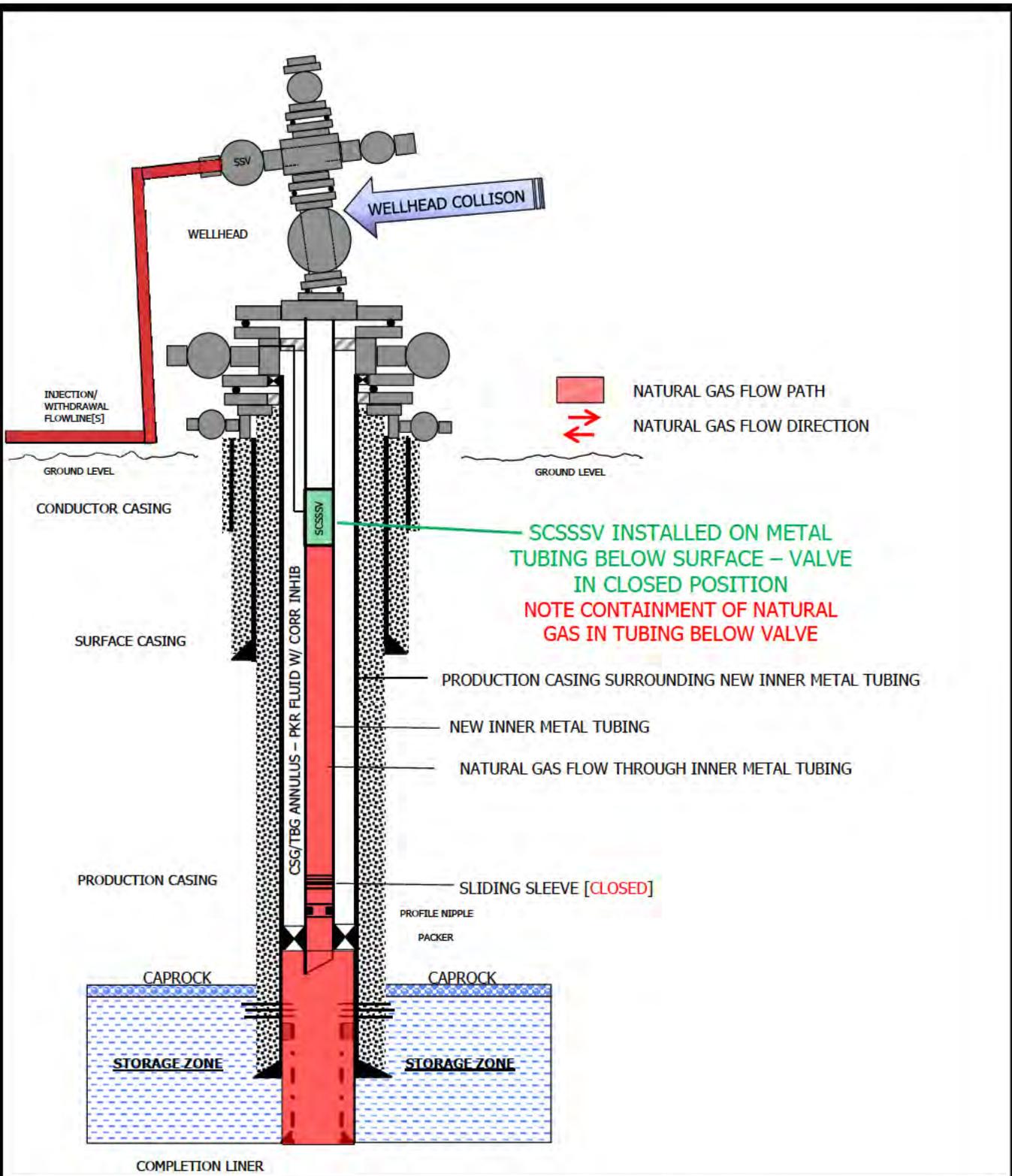


WELLHEAD FAILURE – NO SCSV INSTALLED

ALISO CANYON WELL EXAMPLE – NOW
 LOS ANGELES COUNTY, CA
 - NOT TO SCALE -

FIGURE B

BY: jpa DATE: 2/3/17



SCSSV INSTALLED ON METAL TUBING BELOW SURFACE – VALVE IN CLOSED POSITION
 NOTE CONTAINMENT OF NATURAL GAS IN TUBING BELOW VALVE

WELLHEAD FAILURE – SCSSV INSTALLED

ALISO CANYON WELL EXAMPLE – NOW LOS ANGELES COUNTY, CA
 - NOT TO SCALE -

FIGURE C
 BY: jpa DATE: 2/3/17

February 6, 2017

County of Los Angeles
Attn: Mr. Scott Kuhn, Principal Deputy County Counsel
500 West Temple, #648
Los Angeles, CA 90012

SUBJECT: Analysis of Alternatives to Withdrawing Gas from Aliso Canyon Natural Gas Storage Facility

Dear Mr. Kuhn:

EES Consulting, Inc. (EES)¹ was asked by the County of Los Angeles (County) to evaluate the alternatives that would largely mitigate or possibly eliminate the need to withdraw gas from the Aliso Canyon natural gas storage facility (Aliso Canyon) during remaining 2016-17 winter months, the summer months of 2017, and the winter of 2017-18. The County is monitoring developments before the Division of Oil, Gas and Geothermal Resources (DOGGR) and the California Public Utilities Commission (CPUC) relating to Aliso Canyon.

The Southern California Gas Company (SoCalGas) has historically used Aliso Canyon to provide natural gas balancing during winter peak demands and to supply natural gas for electric generation during summer electrical peaks. In response to a massive natural gas leak, orders from DOGGR, a proclamation of Governor Jerry Brown, and legislation prohibited new injections of gas at Aliso Canyon until certain specified actions could be completed, including a comprehensive safety review and public meetings.

¹EES Consulting, Inc. is a registered professional engineering and management consulting firm, established in 1978, that provides a variety of project solutions to clients involved with electric, natural gas, telecommunications, water, wastewater, and other energy and natural resource related businesses. See Appendix B for further qualifications.

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Kirkland, Washington 98033

Telephone: 425 889-2700

Facsimile: 425 889-2725

A registered professional engineering corporation with offices in
Kirkland, WA and Portland, OR

Executive Summary

Below are EES's assessments of the need to utilize the Aliso Canyon gas storage facility in the short- and long-term.

Winter 2016-17

The approval of gas injection in February 2017 would have no material impact on gas reliability for the two remaining months of this winter season.

The CPUC Revised Report on Aliso Canyon Working Gas Inventory, Production Capacity, Injections Capacity, and Well Availability for Reliability dated January 17, 2017² states that "even if injections were authorized this winter a fairly minimal volume of gas could be injected into the field to impact winter reliability" and "even assuming optimistic production rates," there are not a sufficient number of wells available "to assure reliability in the short term"³. There "will not be enough completed wells for the 2016/17 winter season nor will there be sufficient wells available to meet a peak summer day demand."⁴ The report further states that "[a]fter January, the forecast peak day declines[.]"⁵ EES agrees that given the timing of any such approval to allow injection, coupled with the time it would take to inject gas, the approval of gas injection in the short term would have no material impact on gas reliability for the time period February – June 2017.

Summer 2017

Mitigation measures are proving to be successful in reducing the overall demand for gas and gas withdrawals from Aliso Canyon should not be necessary during the summer of 2017.

A recent study posted on the CPUC website, "Aliso Canyon Demand-side Management Impact Summary"⁶, demonstrates that the policies implemented to reduce the demand for natural gas in Southern California are working. Continuing to aggressively implement these mitigation measures is the best way to avoid the need to utilize Aliso Canyon. Additionally, the large amounts of rain and snowfall will result in greater generation from hydroelectric facilities during the summer of 2017. The increase in

²CPUC (January 17, 2017) *Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity and Well Availability for Reliability*.

http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/AlisoGas1-9-715.pdf

³Ibid., p. 2, 5

⁴Ibid., p. 5

⁵Ibid., p. 10

⁶CPUC (January 25, 2017) *Aliso Canyon Demand-Side Management Impact Summary*.

http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/2017_AlisoDSMImpactSummary_01-25.pdf

hydroelectric generation will buy the region time to put additional mitigation measures in place.

While EES believes that the combination of increased hydroelectric generating capabilities and mitigation measures will eliminate the need to withdraw gas from Aliso Canyon, even if there was a desire to withdraw gas the CPUC report noted above indicates that there will not be sufficient wells available at Aliso Canyon to meet peak summer day demand.”⁷

Absent an unlikely extreme worst-case case scenario, there should not be a need to withdraw gas from Aliso Canyon during summer 2017.

Winter 2017-18

There is sufficient time to aggressively implement demand-side management and other mitigation measures that will eliminate the need to utilize withdrawals from Aliso Canyon during the Winter 2017-18 season.

As discussed above, the continued and aggressive implementation of demand-side management and other mitigation measures will continue to reduce the demand for natural gas and preclude the need to withdraw gas from or inject gas into Aliso Canyon.

Use of Aliso Canyon as a Last Resort for Withdrawals Can Continue Without Any New Injections.

The minimum gas storage requirement at Aliso Canyon is 5 Bcf. Currently, 14.8 Bcf of gas is stored at Aliso Canyon. Thus, almost 10 Bcf of gas is currently available for withdrawal. Based upon the minimum gas storage requirement of 5 Bcf at Aliso Canyon⁸, if needed, gas could be withdrawn at the same rate as the recent withdrawals on January 24 and 25, 2017, for 326 days without the need for any further injections. On January 24 and 25, 2017, an average of 0.025 Bcf per day of gas was withdrawn. Based on the current amount of gas in storage at Aliso Canyon (14.8 bcf), 0.025 Bcf of gas could be withdrawn for 326 days before reaching the 5 Bcf minimum. This strongly supports the argument that there is no need for additional gas injection at Aliso Canyon.

CPUC/California Energy Commission Reports

The various CPUC/California Energy Commission (CEC) reports are confusing, utilize different measurement standards and fail to provide the public with a complete picture of the impact of mitigation measures and the need for withdrawals from Aliso Canyon.

⁷CPUC Jan. 2017 Reliability Report, p. 5

⁸http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Letter%20to%20Jimmy%20Cho%20on%20Aliso%20Canyon%20withdrawals.pdf

The January 2017 "Aliso Canyon Demand Side Management Impact Study" that was recently published on the CPUC website is perplexing in that it offers a summary of mitigation efforts calculated in Bcf, kilowatts, megawatts and therms, without establishing either a common measurement standard or baseline to determine the effectiveness of each mitigation measure. Further, the study improperly converts kilowatt-hours to therms based upon the equivalent amount of energy, rather than the actual therms of natural gas that would have been required to generate those kilowatt-hours, resulting in an underreporting by a factor of three or more. As such, there is no summary that synthesizes how effective the mitigation measures have been in meeting demand.

Additionally, reliability reports from the CPUC and CEC on peak demand and the system's ability to supply that demand without Aliso Canyon are confusing and inconsistent. For example, SoCalGas's Triennial Cost Allocation places peak demand at 5.293 Bcf, but its 2016 California Gas Report sets peak demand at 4.939Bcf. At the same time, the Aliso Canyon Gas and Electric Reliability Winter Action Plan states that SoCalGas can provide a maximum of 4.5 Bcf per day without Aliso Canyon, and the report concludes that while risks to energy infrastructure still exist due to the uncertainty of weather and system conditions without Aliso Canyon, conservation and other mitigation measures are expected to meet the energy needs of Southern California in the winter of 2016-17. Yet, on January 24 and 25, 2017, when demand was less than 4.1 Bcf, SoCalGas determined that it was necessary to withdrawal extremely nominal amounts (0.03 Bcf on January 24th and 0.02 Bcf on January 25th) of gas from Aliso Canyon. The SoCalGas withdrawals appear to be inconsistent with the data provided in the action plan and the publicly available information we have reviewed suggests that several avoidable factors led to the withdrawal at Aliso Canyon. A new report on the current reliability situation, which concisely factors in the success of mitigation measures and explains to the public the current reliability situation should be prepared as soon as possible.

Based on CPUC reliability studies, no withdrawal of gas from Aliso Canyon should have been necessary on January 24 and 25, 2017.

An assessment of the winter of 2016-17 identified additional mitigation measures that were expected to help meet demands during the winter of 2016-17, although it found that a winter peak day could drive the need to curtail between 0.3 and 0.7 Bcf of natural gas without the use of gas from Aliso Canyon. The "Aliso Canyon Gas and Electric Reliability Winter Action Plan" dated August 22, 2016⁹ states that SoCalGas "can provide a maximum of 4.5 Bcf per day without Aliso Canyon, assuming pipeline capacity of 95

⁹ CPUC (August 22, 2017) *Aliso Canyon Gas and Electric Reliability Winter Action Plan*.
http://docketpublic.energy.ca.gov/PublicDocuments/16-IEPR-02/TN213406_20160901T073434_Aliso_Canyon_Gas_and_Electric_Reliability_Winter_Action_Plan.pdf

percent.”¹⁰ The plan also states that “under normal weather conditions, with no gas withdrawn from Aliso Canyon and reasonable assumptions about utilization rates on pipeline delivering into SoCalGas, the gas system will be able to meet each months daily demand for the winter season from November 1 through March 31.”¹¹

As noted above, on January 24 and 25, 2017, SoCalGas delivered “almost 4.1” Bcf of gas per day, including withdrawals from Aliso Canyon of 0.03 Bcf of gas on January 24th and 0.02 Bcf of gas on January 25th. The “Aliso Canyon Gas and Electric Reliability Winter Action Plan” stated that it was only on a winter peak day, defined as the coldest day forecasted in a 1-in-10-year period for noncore customer demand (plus 1-in-35 demand for core customers) that there would be a need to curtail about 0.3 Bcf. The weather on January 24 and 25, 2017 was not a winter peak day under this definition. Based upon temperature data obtained from the National Oceanic and Atmospheric Administration’s *Climate Data Online*, the lowest temperature observed at Los Angeles International Airport on those two days was 40 degrees. Similar temperatures have been observed at the same location in 22 of the past 30 years. Based on the August 2016 action plan, there should not have been a need to withdraw gas from Aliso Canyon.

The peak rate at which gas was withdrawn on these two days could have been reduced nearly in half by SoCalGas’ planned conservation pilot rebate program. No results or activities have been reported on this program since it was approved by the CPUC. The gas withdrawn could also have been offset, in part, by the partial curtailment of natural gas power plants. Based upon the peak gas withdrawal rate, at the most approximately 1,700 MW of electric generation would have needed to be curtailed. This amount of LA Basin generation could likely have been offset by demand response and/or the import of additional electric generation from outside the LA Basin. California has surplus of electric generation and is projected to be able to produce at least 21 percent more energy than it needs by 2020¹². The 21 percent projection is well above the state mandated 15 percent planning reserve margin.

The nature of these withdrawals and the extent to which other mitigation measures could have been utilized has yet to be fully reported and thoroughly investigated. Several groups have asked the state attorney general to open an investigation into possible manipulation by SoCalGas¹³. Publicly available data obtained from SoCalGas’ Envoy system and provided in Appendix C indicates that SoCalGas scheduled less gas to be delivered to their system on January 24th and 25th than on the prior two days, which were warmer. The difference between the amount of gas scheduled on the 23rd and the

¹⁰Ibid., p. 4

¹¹Ibid., p. 4

¹²Los Angeles Times, February 5, 2017, “Californians are paying billions for power they don’t need”.

¹³Los Angeles Times, January 24, 2017, “Southern California Gas taps Aliso Canyon amid conservation warnings”.

amount of gas scheduled on the 24th and 25th exceeds the amount gas withdrawn from Aliso Canyon.

The protocols for winter withdrawals from Aliso Canyon¹⁴ omit one requirement present in the summer withdrawal protocol¹⁵ that states:

Within 30 days after a withdrawal, SoCalGas shall provide the Energy Division of the CPUC and the Division of Oil Gas and Geothermal Resources with a full description of the events leading up to the withdrawal, all actions taken prior to the withdrawal, and any observations and/or recommendations concerning future withdrawals. Further, SoCalGas shall provide a statement certifying that they took all actions needed to avoid electric curtailment and/or a curtailment of gas supply to core customers, consistent with this protocol.

The information outlined in this requirement would provide valuable information on the nature of the January 24th and 25th withdrawals that has not yet been made public. Adding this requirement to the recent withdrawals as well as any future withdrawals is recommended.

Review of Mitigation Measures

In response to the prohibition on the use of Aliso Canyon, SoCalGas, the Los Angeles Department of Water and Power (LADWP), Southern California Edison (SCE), and San Diego Gas & Electric (SDG&E) implemented a series of mitigation measures to ease strain on the natural gas system within the LA Basin. Those measures included changes to how the gas and electric systems are managed as well as the implementation of distributed energy resources, such as energy efficiency, demand response, and battery energy storage.

In the summer of 2016, those mitigation measures prevented the need for any curtailments of natural gas use and forestalled the need to withdraw natural gas from Aliso Canyon to maintain electric system reliability. Additional mitigation measures have come on-line since the summer of 2016. For example, in response to the moratorium on gas withdrawals at Aliso Canyon, Tesla Motors Inc. and SCE brought one of the world's largest energy storage facilities, a collection of lithium-ion batteries, on-line on January 30, 2017 at SCE's Mira Loma substation in Ontario, California¹⁶. In addition, storage facilities of similar size are will be brought on-line by SDG&E with AES

¹⁴http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Winter_2016-17_Protocol.pdf

¹⁵http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Letter%20to%20Jimmy%20Cho%20on%20Aliso%20Canyon%20withdrawals.pdf

¹⁶Los Angeles Times, January 30, 2017, "Edison and Tesla unveil giant energy storage system"

Energy Storage and by Greensmith Energy Partners with AltaGas. In total, the projects will add 77.5 megawatts of energy storage to the region¹⁷.

The 31 mitigation measures that have been identified are included as Appendix A to this report. Work on implementing many of these measures is listed as “underway” or “continuing”, and even some listed as “done”—such as reprioritizing energy efficiency—can continue to be further implemented. The results of energy efficiency, electric demand response, and battery energy storage work done to date in response to Aliso Canyon was reported on September 27, 2016 by the California Public Utilities Commission. However, the results from other mitigation measures, such as the changes to how the electric and gas systems were operated as well as the implementation of natural gas demand response programs by SoCalGas have yet to be analyzed and the impact of *all* mitigation measures generally seems to be excluded from consideration in the technical studies identifying the need to use natural gas from Aliso Canyon.

The success of these mitigation measures is underscored by the reductions in withdrawals from Aliso Canyon over the last year. According to SoCalGas, over the 3-year period from 2012-2015, they withdrew gas from Aliso Canyon an average of 134 out of 151 “winter” days and 70 out of 214 “summer” days¹⁸. However, since the implementation of mitigation measures over the last year, during which Aliso Canyon was shut down, SoCalGas has withdrawn gas from Aliso Canyon only twice. This demonstrates that the mitigation measures have been extremely successful.

Based upon publicly available studies summarized in Table 1 below, EES finds that there is more than sufficient potential for demand response, energy storage, and energy efficiency to offset the needs for curtailment identified in even the worst scenarios of the technical studies during summer months.

¹⁷Ibid

¹⁸Table 2 of “Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin”.

Table 1
Assessment of Demand Response, Energy Storage and Energy Efficiency Measures

Mitigation Measure	Levelized Cost	Summer (MW)	Winter (MW)	Winter (MMcf)
Demand Response				
SCE 2025 Potential ⁽¹⁾	<\$200/kW-yr	2,917	2,263	-
LADWP 2025 Potential ⁽²⁾	<\$200/kW-yr	583	453	-
SoCalGas Potential ⁽³⁾		-	-	TBD
Energy Storage				
Potential ⁽⁴⁾	\$321 - \$658/MWh	∞	∞	
Energy Efficiency				
SCE 2016-24 Potential ⁽⁵⁾⁽⁶⁾⁽⁷⁾	n/a	1,931	1,448	-
SCG 2016-24 Potential ⁽⁵⁾⁽⁶⁾	n/a	-	-	26,340
Total		5,431 - ∞	4,163 - ∞	TBD

- 1) SCE Peak Shedding Demand Response Potential as reported in LBNL 2015 California Demand Response Potential Study.
- 2) LADWP DR Potential has been estimated by scaling SCE DR Potential by the relative share of load.
- 3) SCG has implemented natural gas demand response programs, but no results have been estimated or reported.
- 4) Cost source: Lazard's Levelized Cost of Energy Storage, Version 1.0. There is no upper limit on the amount of electric storage that could be implemented.
- 5) Energy Efficiency Potential and Goals Study for 2015 and Beyond.
- 6) No levelized cost supply curve was provided as part of the potential study, but the values provided here are the cost-effective market potential.
- 7) Although energy efficiency will reduce both summer and winter demand, no winter demand reduction was provided. It has been estimated here.

Recommendations

Based on our findings, EES has the following recommendations for future actions.

Recommendation #1: Continue and, where possible, expand the implementation of mitigation measures already identified and implement additional mitigation measures. Table 2 provides a summary of the mitigation measures that EES believes should be expanded and/or added to future action plans.

Table 2
Mitigation Measure Recommendations

1	Improve coordination between gas and electric scheduling procedures
2	Tighter balancing rules for gas scheduling for non-core customers and non-core customers should be put on notice that frequent Operational Flow Orders may be required
3	Improve utilization of the Castaic pumped storage project to serve peak summer loads
4	Better coordination of gas pipeline maintenance; to the extent possible, schedule maintenance in the shoulder months of October, November and March through May
5	Accelerate investments in demand response programs including smart thermostats, Emergency Curtailment, and Competitive DR Solicitation programs and expand demand response program offerings to target residential customers
6	Invest in custom demand response programs targeted at the areas that would most help alleviate the need for Aliso Canyon withdrawals; prioritize projects that will provide the most relief
7	Encourage the adoption of solar water heating, especially in homes with gas water heating systems
8	Increase customer participation in residential and non-residential AC cycling and agricultural pumping interruptible programs and increase curtailment rights to non-core customers
9	Increase public message efforts to reduce electric and gas usage including Flex Alerts for electric customers and a similar program for gas customers.
10	Use data from SoCalGas advanced meters to target customers who have high gas usage on peak days
11	Accelerate the development and installation of electricity storage projects in the LA basin including, but not limited to, customer-sited storage, thermal energy storage and using EV for storage.
12	Reprioritize energy efficiency projects to target those that would most help alleviate the need for Aliso Canyon withdrawals
13	Offer Strategic Energy Management programs to the largest customers to build energy savings and demand response participation
14	Future energy efficiency projects should target large commercial and industrial customers with seasonal load shapes that peak during peak gas (winter) and electric (summer) seasons
15	SoCalGas should implement behavioral/feedback programs as a way to achieve energy savings with large portions of its customer base quickly
16	Increase gas and electric energy efficiency programs targeted at low income customers that otherwise would likely not invest in such programs
17	Consider investing in demand response programs in the southwest (Nevada, Arizona) in order to free up generation and transmission capacity through contractual relationships that recognize that investments are made in exchange for the rights to gas-fired generation during summer peaking events in the LA basin

Recommendation #2: The parties that prepared the Aliso Canyon winter and summer risk assessments should prepare a report that details the impact to date, and in the future, from the 21 mitigation measures included in the August 2016 "Aliso Canyon Gas and Electric Reliability Winter Action Plan" (Appendix A of this report). The report should include consideration of additional mitigation measures as well as expansions of the existing mitigation measures. The assumptions in the winter and summer risk assessments should be updated accordingly to include the impacts of the mitigation measures.

Recommendation #3: The parties that prepared the Aliso Canyon winter and summer risk assessments should re-evaluate whether or not 1-in-10 and 1-in-35 planning criteria

for non-core and core customers, respectively, are appropriate. An assessment of the likelihood of Scenario 4 (overlapping gas storage and pipeline outages) should also be provided. The curtailments identified in Scenario 4 should be tempered with a statement regarding the actual potential for this scenario to occur.

Background on Aliso Canyon Natural Gas Storage Facility

Aliso Canyon is an oil field and natural gas storage facility in the Santa Susana Mountains in Los Angeles County, California, north of the Porter Ranch neighborhood of the City of Los Angeles. Discovered in 1938 and quickly developed afterward, the field peaked as an oil producer in the 1950s, but has remained active since its discovery. One of its depleted oil and gas producing formations, the Sesnon-Frew zone, was converted into a gas producing storage reservoir in 1973 by the Southern California Gas Company, the gas utility servicing the southern half of California. This reservoir is the second-largest natural gas storage site in the western United States, with a capacity of over 86 billion cubic feet (Bcf) of natural gas.

Historically, the gas storage reservoir was accessed through 115 gas injection wells, along with approximately 38 miles of pipeline internal to the field. Three operators are active on the field: Southern California Gas Company, the Termo Company, and Crimson Resource Management Corp.

A dramatic break somewhere along the length of an 8,750-foot injection well casing resulted in a large methane eruption from the field on October 23, 2015, spewing on the order of 60 million cubic feet of methane per day at first, before the pressure was reduced. The well, Standard Sesnon 25 ("SS 25") had originally been installed in 1953, and re-worked as a gas injection well in 1973, but lacked a blowout prevention valve, as it had not been considered a priority given the well's position, at the time, far from a populated area. Fallout from the methane cloud, in the form of oily droplets and persistent noxious odors, caused the evacuation of approximately 2,000 families. On December 4, 2015, SoCalGas commenced drilling a relief well to stop the natural gas leak by plugging the leaking well at its base. The relief well intercepted the base of the leaking well on February 11, 2016, and the company began pumping heavy fluids to temporarily control the flow of gas out of the leaking well. SoCalGas was able to plug the leak permanently on February 18, 2016. Overall, the well is estimated by the California Air Resources Board to have released over 100,000 metric tons of methane as well as other hydrocarbons, the largest such release in U.S. history.

On April 28, 2016, the California State Assembly passed a bill that bans the injection of additional natural gas in Aliso Canyon, effectively shutting it down until a detailed list of actions occur. In addition, Governor Jerry Brown issued an executive order banning natural gas injection until all of the wells have been thoroughly tested for corrosion and leaks. The bill, known as Senate Bill 380, extended the moratorium on gas injection, and

requires the CPUC to consider the feasibility of permanently shutting down Aliso Canyon.

Aliso Canyon is used for two primary functions – to provide gas balancing in the winter for winter natural gas peaking requirements and to provide gas to natural gas peaking generation in the summer during electric system peak demand periods. As part of EES's scope of work, we evaluated alternative options to using natural gas turbines to meet summer electrical peak requirements.

Aliso Canyon provides natural gas service to 17 natural gas fired plants, large hospitals, oil refineries and other large gas consumers. There are three other gas storage facilities in SoCalGas' system, Honor Rancho, Playa Del Rey, and La Goleta. As set forth below in Table 3, the working gas maximum inventory of these three storage facilities is 49 Bcf and the withdraw capacity is 1.8 Bcf.¹⁹ According to a November 2014 SoCalGas Storage Expansion Study prepared by SoCalGas, a 2 Bcf increase in the storage capacity at Honor Rancho is under consideration and, if implemented, could provide additional supply during critical peak periods.

Table 3
SoCalGas Underground Gas Storage Fields Key Operation Characteristics²⁰

Field	Location	Working Gas Maximum Inventory (Bcf)	Withdrawal (Bcf/d)	Injection (Bcf/d)
Aliso Canyon	San Fernando	86.2	1.9	0.4
Playa del Rey	Marina del Rey	1.8	0.4	0.2
Honor Rancho	Santa Clarita	27.0	1.0	0.07
La Goleta	Santa Barbara	20.2	0.4	0.2
TOTAL		136.1	3.8	1.1

Gas storage facilities provide additional gas delivery capacity when gas demand exceeds the amount of gas flowing based on gas schedules submitted the prior day. SoCalGas relies on its storage facilities to manage the mismatch between the gas supplies and gas usage. The withdrawal capabilities are used during the summer to supply gas to natural gas-fired generating plants during peak hourly load events that occur throughout summer day. These events cannot be met with flowing supplies because of the speed and magnitude that these peaks occur.

¹⁹ http://www.energy.ca.gov/2016_energy/policy/documents/2016-04-08_joint_agency_workshop/Aliso_Canyon_Action_Plan_to_Preserve_Gas_and_Electric_Reliability_for_the_Los_Angeles_Basin.pdf

²⁰ Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin, Prepared by the Staff of the California Public Utilities Commission, California Energy Commission, the California Independent System Operator, and the Los Angeles Department of Water and Power, p. 7.

Summary of Summer 2016

As noted above Aliso Canyon gas storage has primarily been used to provide gas to natural gas peaking generation in the summer during electric system peak demand periods. EES is tasked with determining the feasibility of not using Aliso Canyon gas withdrawals for summer electric peaking purposes. In the summer of 2016, the region was able to do just that. This feat was, in part, due the fact that no “extreme” (1-in-10-year) events occurred but also due to the mitigation measures identified in the “Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin” (April 2016) and employed by gas and electric utilities. The measures included changes to the way the gas and electric systems are managed by the utilities such as tightening the gas balancing rules as well as efforts to make gas and electric customers aware of the risks of curtailments and how they could help avoid curtailments. A full list of the mitigation measures is included as Appendix A to this report.

The measures also included assuring that the 15 Bcf of gas currently stored at Aliso Canyon could be used if needed to avoid curtailments. The “Aliso Canyon Risk Assessment Technical Report” (April 2016) noted that the 15 Bcf of gas available in Aliso Canyon was sufficient to meet the summer reliability needs so long as the necessary gas withdrawal capability was available when needed and effectively managed to meet reliability.

Below is a summary of the highlights of summer 2016.

- The summer reliability assessment estimated that there were 14 days of potential electricity outages that could occur under certain contingencies without the use of Aliso Canyon.
- The Summer Action Plan included 21 mitigation measures that could be used to reduce the risk of electric outages.
- LADWP utilized several of the measures including operating its system differently than under normal conditions to lock in gas burn, halting forward sales and complying with tighter balancing rules.
- There were two heat waves in the summer of 2016 (one in June 18-20 and one in July) and SoCalGas did not withdraw any of the 15 Bcf of gas stored at Aliso Canyon (the last resort before curtailments).
- The following mitigation measures were deployed in response to the heat waves: Flex Alerts, requests for conservation in state buildings, Operational Flow Orders (for gas) for low inventory at the 5% level and SoCalGas warned customers via its Envoy website and other mechanisms.
- An estimated 630 MW and 400 MW of demand response was called on by LADWP and SCE in June and July, respectively, to help reduce demand.

As noted above, mitigation measures were successfully implemented to ensure safe and reliable service within the Los Angeles Basin without withdrawing natural gas from Aliso Canyon.

Summary of Winter 2016-17

As noted above, Aliso Canyon gas storage is primarily used to provide gas balancing in the winter for winter natural gas peaking requirements. The assessment of winter 2016-17 found that conservation and other mitigation measures are expected to help meet the energy needs of southern California this winter; however, on a winter peak day (coldest day forecasts in a 1-in-10 for noncore customers plus a 1-in-35 demand for core customers), there is a need to curtail of between 0.3 and 0.7 Bcf of natural gas. The forecasted demand under such a peak day was forecast to be 4.939 Bcf in SoCalGas' most recent 2016 California Gas Report.

In addition, the LADWP/CAISO joint power-flow study found that electric reliability can be satisfied for a 1-in-10-year winter peak electric load conditions.²¹ The "Aliso Canyon Gas and Electric Reliability Winter Action Plan" (August 2016) identified 10 new measures, in addition to the 21 measures included in the action plan developed for the summer of 2016, to help reduce the possibility of gas curtailments large enough to cause electricity service interruptions. The new measures included extending tighter gas balancing rules for noncore customers (generating plants, oil refineries, hospitals and other large users) in the winter, creating new balancing rules for SoCalGas when it schedules gas for core customers (residential and commercial customers), setting advance limits on gas consumption by gas-fired generation plants on peak days, initiating focused messaging asking customers to reduce gas use and creating demand response programs to reward lower gas use.

The Aliso Canyon Gas and Electric Reliability Winter Action Plan dated August 22, 2016²² stated that SoCalGas "can provide a maximum of 4.5 Bcf per day without Aliso Canyon, assuming pipeline capacity of 95%."²³ The CPUC Aug. 22 Reliability Plan also stated that "under normal weather conditions, with no gas withdrawn from Aliso Canyon and reasonable assumptions about utilization rates on pipeline delivering into SoCalGas, the gas system will be able to meet each month's daily demand for the winter season from November 1 through March 31."²⁴

On January 24 and 25, 2017, SoCalGas delivered "almost 4.1" Bcf of gas, yet withdrew gas from Aliso Canyon. The prior analysis stated that the SoCalGas system had a

²¹Page 31 of August 23, 2016 "Aliso Canyon Winter Risk Assessment Technical Report"

²²CPUC (August 22, 2016) *Aliso Canyon Gas and Electric Reliability Winter Action Plan*.

http://docketpublic.energy.ca.gov/PublicDocuments/16-IEPR-02/TN213406_20160901T073434_Aliso_Canyon_Gas_and_Electric_Reliability_Winter_Action_Plan.pdf

²³Ibid., p. 4

²⁴Ibid., p. 4

capacity without Aliso Canyon that was in excess of this level of demand. The weather on January 24 and 25, 2017 was not a winter peak day under this definition. Many have raised concerns about SoCalGas' withdrawal of gas from Aliso Canyon on January 24 and 25, 2017.²⁵ Further investigation into the circumstances surrounding the timing and necessity of these gas withdrawals is warranted.

Mitigation Measures

There are 31 mitigation measures included in the summer and winter action plans to help avoid gas and electricity curtailments. The measures generally fall into the following categories:

Efficient use of Aliso Canyon, noncore (electric generator, oil refineries, local governments, hospitals and other large users) gas tariff changes, greater operational coordination, LADWP-specific measures, and measures aimed at reducing natural gas and electricity consumption. The full list of mitigation measures is provided as Appendix A of this report.

As noted in Appendix A, some of the mitigation measures have not been fully developed. Some of the notable measures that have not been fully developed include:

- 1) Use new and existing programs asking customer to reduce gas and electricity consumption
- 2) Expand gas and electric efficiency programs targeted at low income customers
- 3) Expand demand response programs
- 4) Reprioritize existing energy efficiency towards projects with potential to impact usage
- 5) Reprioritize solar thermal program spending to fund projects
- 6) Accelerate electricity storage

An analysis of the impact of the closure of Aliso Canyon will show increased likelihoods for curtailments during periods when projected hydro generation is relatively low due to low snowpack (bad water years) and fewer potential curtailments during average and better than average water years. If an analysis were performed for the summer of 2017 the better than average water year we are currently experiencing should result in fewer projected curtailments (all other things being equal). The above average water year may be a short-term circumstance as next year could be another poor water year with low hydro generation; however, the higher hydro generation in the summer of 2017 does buy the region time to put other mitigation measures in place such as Distributed

²⁵See Southern California Gas Taps Aliso Canyon Amid Conservation Warnings, Los Angeles Times, January 24, 2017 <http://www.latimes.com/business/la-fi-southern-california-gas-20170124-story.html>;
Letter from Consumer Watchdog and Food & Water Watch dated January 24, 2017
<http://www.consumerwatchdog.org/resources/lettertobecerrafeuersocalgas1-24-17.pdf>

Energy Resources (DER), demand response, customer communication systems, electricity storage, reprioritization of EE (including low income), solar thermal programs and gas demand response programs.

The success of these mitigation measures is underscored by the reductions in withdrawals from Aliso Canyon over the last year. According to SoCalGas, over the 3-year period from 2012-2015, gas was withdrawn from Aliso Canyon an average of 134 out of 151 “winter” days and 70 out of 214 “summer” days²⁶. However, since the implementation of mitigation measures, gas has only been withdrawn from Aliso Canyon on two days. This demonstrates that the mitigation measures have been extremely successful.

Southern California was fortunate that there were no “extreme” peak events during the summer of 2016. However, many of the mitigation measures can be expanded and/or fully implemented to help reduce the potential for curtailments in future summer periods. The remaining sections of this report focus on the mitigation measures that can and should be expanded in order to eliminate the need for any future Aliso Canyon gas storage withdrawals.

Demand Response

In response to the moratorium on Aliso Canyon gas withdrawals, the CPUC directed SCE to target demand response (DR) programs in the LA Basin. SCE responded by engaging in targeted marketing to increase enrollment in their Air Conditioning (AC) Cycling program, increasing enrollment in their emergency curtailment program, offering a rebate for smart thermostats and enrolling in the Peak Time Rebate program, and offering a competitive demand response solicitation.

The results of these efforts as of September 2, 2016, as well as those expected by the end of 2016, are summarized below in Table 4.

Program	Results as of Sept 2, 2016	Expected 2016 Results
AC Cycling	9.5 MW	10 MW
Emergency Curtailment	10 MW	10 MW
Smart Thermostats Load Control	1.5 MW	12 MW
Competitive DR Solicitation	11 MW	11 MW
Total	32 MW	43 MW

Source: CPUC Aliso Canyon Demand Side Management Activity and Impact Summary (9/27/16)

In addition, LADWP began its own demand response program in the summer of 2016. The program, called SummerShift, targets large commercial and industrial customers and provides a \$10/kW incentive for reducing demand during peak summer periods.

²⁶ Table 2 of “Aliso Canyon Action Plan to Preserve Gas and Electric Reliability for the Los Angeles Basin”.

Demand response provides a valuable resource for managing peak demands, without the need for natural gas generation. In addition, demand response resources can provide additional value by helping to manage system outages, integrate renewable energy resources, and respond to high market prices. More than 600 MW of demand response was called upon in the summer of 2016 to successfully manage peak summer loads, resulting in up to 540 MW of demand reductions at the highest, on July 28.

A 2016 study of California demand response potential by Lawrence Berkeley National Laboratory (LBNL) estimated SCE's peak shedding demand response potential at 2.9 GW in 2025. Clearly, there is plenty of potential for additional demand response to be acquired.

In addition to the electric demand response discussed above, the CPUC directed SoCalGas to proceed with three natural gas demand response programs, likely the first of their kind in the nation. These programs include:

- A campaign to stimulate voluntary reductions in natural gas use among core customers when the system is expected to be stressed, similar to CAISO's "Flex Alert" campaign
- Another voluntary program for non-core, non-electric generation customers using SoCalGas' electronic bulletin board as a communication channel
- An incentive program offered to 70,000 residential customers with advanced meters that will pilot a rebate used to incent natural gas conservation in response to notifications.

In the January 2017 DSM impact summary, survey responses were provided about perceptions and actions taken for the first of these three programs, but no results have been provided on the natural gas demand impact for any of the three.

The following steps could be considered to further the availability of demand response within the LA Basin.

- While the AC Cycling program has acquired enough customers and load to be a worthwhile demand response resource, it ultimately targets the same loads and the same customers as the Smart Thermostats Load Control program. Smart thermostats offer the additional benefit of energy efficiency savings for utilities and ratepayers, in addition to greater functionality and comfort for homeowners. SCE should consider focusing resources on the program that offers the greatest value and appeal to customers.
- Continue to expand the demand response resources available under the Emergency Curtailment and Competitive DR Solicitation programs. As identified in the LBNL

study, much of SCE's demand response potential is in the commercial and industrial sectors.

- In addition to demand response resources within the LA Basin, SCE or LADWP should consider pursuing demand response resources *outside* of the LA Basin, wherein the programs could be used to free up additional generation and/or transmission resources outside the Basin, that could then be redirected to serve demand within the LA Basin. SCE should also consider acquiring demand response resources from LADWP for a similar outcome.
- LADWP should expand its demand response program offerings to target residential customers.
- In addition to targeting a select set of high-usage customers for its demand response incentive pilot, SoCalGas should use data from its advanced meters to target customers who have high usage *on peak days*.
- SoCalGas should evaluate and publish the impacts of its natural gas demand response programs.

Electric Storage

Similar to demand response programs, electric energy storage can also assist with meeting peak electric system demands. Unlike demand response programs, the potential storage capacity is not limited to the controllable load of end use equipment. In total, 91 MW of storage capacity is expected to be online by January 2017²⁷.

The CPUC also directed SCE to pursue an expedited procurement of energy storage. The CPUC required that the storage resources must:

- Be located in front of the meter
- Be operational by the end of 2016
- Interconnect in a location that alleviates Aliso Canyon-related reliability concerns
- Qualify for Resource Adequacy credit
- Be price competitive with previous solicitations
- Have a maximum contract term of 10 years

As a result of this solicitation, SCE procured 27 MW of third-party owned storage, but was also acquiring turn-key utility owned storage and storage sited at two natural gas-fired peaking plants. SDG&E received Commission approval for 37.5 MW of lithium-ion storage to be located at two SDG&E substations. According to the January 25 demand side management update, a total of 98.5 MW of storage was online as of January 2017, including the recently completed 80 MWh project that SCE completed with Tesla.

²⁷ September 2016 "CPUC Aliso Canyon Demand Side Management Activity and Impact Summary"

The following actions should be considered in order to continue the acquisition of energy storage technologies:

- Consider the multiple benefits that customer-sited storage can offer, since it can be operated as a backup resource or used to maximize the use of solar PV production in addition to providing utility-scale grid services.
- Thermal energy storage also provides a viable solution. While some technologies store ice to provide peak cooling needs, other technologies turn hot water tanks into thermal energy batteries, with options to provide load shifting, demand response, and other functions.
- With increasing numbers of electric vehicles (EV) on the road, consider working with EV manufacturers to pilot the two-way use of EV batteries. Such functionality is currently thought to violate battery warranties, but is key to unlocking the full range of grid benefits for electric vehicles.

Energy Efficiency

Energy efficiency measures reduce energy consumption and, as such, have the potential to reduce the peak demand of both electricity and natural gas consumption. The response to the moratorium on Aliso Canyon gas withdrawals included a three-pronged approach toward energy efficiency measures.

1. Increase incentive rates and budgets for solar water heating systems
2. Intensify efforts to acquire energy savings in low-income communities affected by the Aliso Canyon leak
3. Reprioritize existing energy efficiency programs

The expected 2016 savings from these initiatives are summarized in Table 5 below. Note, however, that much of the savings from reprioritizing energy efficiency programs comes from long-standing codes and standards advocacy, and not a response to Aliso Canyon.

While an updated assessment of impacts was published on January 25, 2017, the report uses an improper energy conversion to convert kilowatt-hours to therms. Rather than converting kilowatt-hours to therms on an energy equivalency basis, kilowatt-hours should be converted based upon the equivalent amount of natural gas that they offset at a power plant. Such an assessment would take into consideration the line losses of the electric system and the efficiency of the power plant. As such, the natural gas impact of electric savings may be as much as three times what was reported, or more.

Table 5
Expected 2016 Energy Efficiency Savings

Approach	Expected 2016 Savings
Increase Incentives & Budget for Solar Thermal	140,472 therms
Low-Income Energy Efficiency	353,064 therms (SoCalGas) 710,354 kWh (SCE)
Reprioritize Existing Energy Efficiency	29,100,000 therms
Total	29,593,536 therms 710,354 kWh

Even with the valuable codes and standards work that is a part of energy efficiency programs, the highest contributor to energy efficiency savings is custom industrial projects, which were expected to contribute over 10 million therms in 2016.

The energy efficiency projects at industrial sites should be continued, and future work should be targeted towards customers with high energy consumption as well as customers with load profiles that consume more electricity and natural gas in the peak seasons. SCE and SoCalGas could also consider offering Strategic Energy Management programs to their largest customers. In addition to providing significant energy savings, Strategic Energy Management fosters energy awareness at facilities and may lead to higher participation in energy efficiency and demand response programs.

In the residential and small commercial sector, SoCalGas appears to be targeting measures that can be deployed quickly and easily. In addition to the voluntary reduction and incentive pilots described above, SoCalGas may also consider behavioral/feedback programs as a way to achieve energy savings with large portions of its customer base quickly. After an initial push with quickly-deployed energy efficiency measures, a logical next step would be to strategically target high users with low load factors for more substantial savings with building weatherization and HVAC system measures.

County and Southern California Region Energy Network (SoCalREN) Energy Efficiency Projects

Energy efficiency projects throughout the region are administered by the County through the SoCalREN. The County Office of Sustainability works on energy efficiency projects throughout the County and with over 200 cities through SoCalRen program. As can be seen from an April 6, 2016 letter to the CPUC, the County and SoCalREN have been, and continue to be, ready to assist the CPUC by implementing energy efficiency programs and projects that will help reduce the demand for natural gas in Southern California. A copy of this letter is attached as Appendix D. The County letter provides a list of projects under development that could result in a savings of over 20 million kWh. As more of these projects are funded and come on line, these kWh reductions will be realized.

Natural Gas Scheduling

SoCalGas owns and operates high-pressure gas pipelines that can accept as much as 3.875 Bcf per day of natural gas from several pipelines that connect California to gas producing regions in the southwest and Rocky Mountains. The interaction between constraints on gas deliveries, systems operations features, rapid changes in electricity demand and electric transmission constraints that limit imports into the region is complex.

Noncore gas customers, including natural gas-fired generating plants, are not required to balance their demand and delivery of gas each day. Instead these large users are only required to match up monthly gas demand and gas delivery within a tolerance band of plus or minus 10 percent. Noncore customers can be out of balance by up to 10 percent of their monthly gas use and make up the difference the next month. This is critical because the mismatch between scheduled and actual deliveries is cited as the major reason for withdrawing gas from Aliso Canyon.

The large tolerance band for noncore gas customers was made possible by the large amount of gas storage available in southern California. With the loss of Aliso Canyon, permanent reductions to the tolerance band should be adopted due to the reduction in gas storage availability in southern California. If the tolerance band applied to noncore users was reduced the need for Aliso Canyon gas and the risk of gas and/or electric curtailments could be significantly reduced.

The exception to gas balancing rules occurs when SoCalGas calls on Operational Flow Orders (OFO). An OFO is a warning to customers that the gas system is so far out of balance that the use of storage facilities cannot resolve the imbalance. An OFO notifies customers that they must more closely match their deliveries with their schedules. OFO are considered extreme events. However, OFOs simply order gas users to use the gas supply system more efficiently by forecasting and scheduling their gas supply more closely.

Tightening gas balancing rules for noncore gas users is included in the mitigation measures (as shown in Appendix A). However, a further tightening of the gas balancing rules should be explored and the rules should be made permanent.

Another reason for the inefficient use of the gas supply system is the lack of coordination between electric system and gas system scheduling procedures. Gas purchasers, including electric generators, schedule their gas for the next day at 9:30 am. Those same generators then bid into the California ISO's day-ahead electricity market at 10 am. The California ISO informs bidders if their generation was accepted (i.e. awarded) at 1 pm. The gas pipelines confirm gas deliveries at 2:30 pm, based on the gas schedules that were submitted at 9:30 am. If the generators bid was not accepted by

the California ISO, then the generator is left with scheduled gas and no market for its electricity. The lack of coordination between electric and gas scheduling procedures leads to large mismatches between gas schedules and gas deliveries.

An increase in electric and gas operational coordination is included in the mitigation measures. Starting last summer during a period of gas curtailments, LADWP interacted with SoCalGas and the California ISO to better coordinate gas fuel usage and system planning. This allowed LADWP to better forecast and plan its resources for the next schedule day. This type of coordination should be expanded and the potential to further improve the coordination between gas and electric scheduling procedures should be explored and, ultimately, implemented.

The primary driver behind the expansion of the western Energy Imbalance Market (EIM) is that an EIM will result in the lowest cost and most efficient dispatch of electric generating resources. However, the mismatch between gas and electric scheduling procedures results in large inefficiencies in the manner in which natural gas, an energy commodity, is consumed. The closure of Aliso Canyon could be the impetus to the development of better coordination between gas and electric scheduling and increasing the efficiency of the energy generation.

Castaic Hydroelectric Pumped Storage

The Castaic power plant, designed, built, and operated under a cooperative agreement between DWR and LADWP, is located at the northern end of Castaic Lake's west branch in NW LA County. Regulatory storage for Castaic is provided by Pyramid Lake and Elderberry Forebay. Castaic has seven generators with a maximum rated capacity of 1,275 megawatts.

Water from Pyramid Lake flows through Castaic into Elderberry Forebay, also operated by LADWP, and it can be pumped back through the plant into Pyramid Lake. This type of operation is called pumped storage. Elderberry Forebay has a maximum storage capacity of 32,480 acre-feet and also provides submergence of the pump-generator units when the lake is at its lowest operating levels. Elderberry Forebay is at the southernmost end of the West Branch FERC license boundary.

The "Aliso Canyon Winter Risk Assessment Technical Report" notes that some real-time electric load requirements can be shifted from gas-fired generation to Castaic²⁸. Castaic's ability to provide real-time energy deliveries is limited by reservoir elevation and the plant cannot be counted on to provide maximum output for more than a few hours, especially on successive days. In the future reservoir levels should be coordinated such that Castaic's full capability is available during summer peak days. In the short-term, the relatively good water year should help with this coordination. In

²⁸ Page 38 of the August 22, 2016 "Aliso Canyon Winter Risk Assessment Technical Report"

addition, Castaic's maintenance schedule should be set such that peak summer and winter load periods are excluded.

The loss of Aliso Canyon will result in the decrease of natural gas-fired generating plant's ability to respond to surges in electric load during peaking events in the summer. To compensate for this loss, measures should be put in place to assure that the Castaic pumped storage project's reservoir elevation is maintained during summer days with potentially high peak electric system demands. This will assure that the plant is available to ramp up its generation to meet summer peak demands as they occur.

Transmission Capacity

There is 4,000 MW of north-south transmission capability between northern California and southern California. The availability of capacity on this path during summer peak hours depends on many variables, including loads in the Northwest and California as well as the operating capabilities of hydro, solar, wind and thermal generating plants in both regions.

At peak, approximately 72 percent of the LADWP's electric transmission system's available import capability is committed to importing LADWP, Burbank and Glendale resources from external wind, solar, geothermal, coal and nuclear resources owned by these entities. That leaves 28 percent of LADWP's transmission capacity available to import electricity from outside its system. There is approximately 3,000 MW of transfer capability between the California ISO and LADWP that can, if necessary, be used to replace a portion of its LADWP's natural gas-fired generation. However, typically during the summer 2,500 MW is already flowing with energy from LADWP resources located outside the Los Angeles basin which leaves only 500 MW of capability for additional import energy. The total imports into the LADWP Balancing Authority is approximately 4,700 MW.²⁹

There is 10,100 MW of east-to-west transmission capability between the California ISO and Nevada and Arizona. On December 1, 2015 NV Energy joined the western EIM operated by the California ISO. NV Energy's participation in the EIM increased the real-time transfer capability between Nevada and southern California which increased the California ISO's flexibility to respond to real-time gas curtailments.

The ability to increase real-time energy deliveries from the southwest is limited by the relatively small amount of supply available in the southwest. Given the availability of transmission capacity, LADWP and SCE should consider developing or, through PPAs, promoting the development of generating resources in the region. LADWP and SCE should also explore investing in demand response programs in the southwest as a means of freeing up natural gas-fired generation located in the southwest that can

²⁹Pages 17-18 and 48 of the April 2016 "Aliso Canyon Risk Assessment Technical Report"

provide power to the LA Basin during summer peaking events. Investments in the southwest should be tied to access to generation from natural gas plants located in the southwest during peak summer days in the LA basin.

Gas Pipeline Maintenance/Compliance Testing

All gas pipeline maintenance and compliance testing schedules that impact southern California gas supply should be set such that the work is not performed during either the high electric demand days in the summer or the high gas demand winter season. Gas pipeline testing and maintenance should be scheduled for low electric and gas demand seasons (i.e. the fall and early spring).

For example, one of the contributing factors to SoCalGas calling for an emergency localized curtailment for the Los Angeles basin on July 1, 2015 was that SoCalGas was completing required compliance testing on a key transmission pipeline (Line 4000). However, in order to end the curtailment episode SoCalGas modified the testing schedule by moving a portion of the work to October. This re-scheduling moved the work away from potentially high electric demand days in the summer while still allowing the pipeline work to be completed before the start of the higher gas demand winter season. This incident highlights the need to schedule gas pipeline work during the shoulder months of October and November and March through May.³⁰

An example of poor maintenance planning may have led to the withdrawal of gas from Aliso Canyon on January 24-25, 2017. On January 23, 2017 planned maintenance began at the Honor Rancho storage facility that reduced the available capacity at Honor Rancho by 0.04 Bcf³¹. On January 24th 0.03 Bcf of gas was withdrawn from Aliso Canyon and on January 25th 0.02 Bcf was withdrawn. The 0.04 Bcf reduction in storage capacity at Honor Rancho is nearly identical to the 0.05 Bcf was gas withdrawn from Aliso Canyon in the two days immediately following the beginning of the planned maintenance period at Honor Rancho. This event highlights the need for improved scheduling of planned maintenance. Enduring reduced pipeline and storage facility capabilities due to unplanned maintenance caused by emergencies would be understandable during the winter and summer peak demand months. However, all planned maintenance should be scheduled outside of the peak summer and winter months.

³⁰ Appendix A of the April 2016 "Aliso Canyon Risk Assessment Technical Report"

³¹ Southern California Gas Company Pipeline/Station Maintenance Schedule, https://scgenvoy.sempra.com/ebb/attachments/1485825973551_SYSIMPT.pdf

Lessons Learned from Shut Down of San Onofre Nuclear Generating Station

The San Onofre Nuclear Station (SONGS), which had a capacity of 2,246 MW, was retired in 2012. Following the unexpected shut down of SONGS the region worked together to address the threats to reliability that could arise due to the loss of 2,246 MW of capacity. This process was similar to the process currently in place to contemplate the reliability threats due to the loss of Aliso Canyon.

During daytime hours solar generating resources, which ramp up in the morning and back down in the evening, made up most of the energy lost due to the closure of SONGS. Natural gas-fired generating resources have been used to maintain local reliability during the shoulder hours when solar projects are ramping up and down. Gas-fired resources are also relied on to balance supply and demand during volatile periods when variable resources like wind and solar are not fully used or unavailable.

The loss of SONGS was made possible by a significant increase in the solar generation in the region and relying on natural gas-fired plants to serve load when solar projects are ramping up and down. The loss of Aliso Canyon impacts the ability of gas-fired projects to ramp up and down. As such, on an energy basis the loss of Aliso Canyon is not nearly as significant as the loss of SONGS. On a resource flexibility basis, the loss of Aliso Canyon is a more significant event. However, with better coordination between electric and gas scheduling and tighter balancing rules for gas scheduling (as discussed above), gas plants should be able to continue to provide the services currently being provided.

Natural Gas-Fired Resources

As noted above, Aliso Canyon provides natural gas to 17 natural gas-fired power plants. The combined capacity of these plants is 9,838 MW. There are some gas-fired generation plants located in southern California, such as the High Desert Generation Facility, that can take gas supply from non-SoCalGas pipelines. These facilities can be used to help mitigate gas curtailments to gas-fired resources on the SoCalGas system. The gas supply to natural gas plants should be coordinated so as to minimize the reliance on Aliso Canyon. Gas plants that have access to other gas pipelines and/or other storage facilities should be mandated to make use those facilities first and rely on Aliso Canyon for emergency purposes only, or not at all.

Renewable Resources

The "Aliso Canyon Winter Risk Assessment Technical Report" notes that, depending on weather conditions, solar and wind in southern California can be used to compensate for electric generation lost due to gas curtailment. Given this, additional solar and wind generation should be expedited in southern California and incentivized with long-term

contracts with the LADWP and SCE. Existing mandates and the growth of renewable energy hungry Community Choice Aggregators (CCAs) in the region should result in additional, significant increases in renewable energy projects in the region. However, priority should be given to the development of renewable resources sited in locations that will lessen the impact of the loss of Aliso Canyon.

Programs Directed at Consumers

The Flex Alert program has been used to encourage electric customers to reduce electric energy consumption. This program was credited with helping alleviate potential curtailments during the summer of 2016. This program should be expanded and used on a routine basis to communicate with electric customers.

There is no similar program for natural gas customers. The only tool used thus far is general marketing campaigns aimed at informing natural gas customers of the need to generally conserve on gas consumption. Marketing campaigns do not result in real-time changes in consumption patterns during peaking events. A program to encourage and, perhaps, incentivize reductions in gas consumption among core (i.e. residential and commercial) customers should be employed in southern California. Incentivizing the purchase and installation of smart programmable thermostats should be pursued as well.

Upcoming CPUC Proceeding on the Future of Aliso Canyon

The CPUC will be opening a proceeding on the future of Aliso Canyon and a final decision is expected by mid-2018.

On January 27, 2017, the CPUC issued a press release stating that at its February 9, 2017, Voting Meeting, the CPUC is expected to vote on opening an Order Instituting an Investigation that will determine the feasibility of minimizing or eliminating the use of Aliso Canyon.³² The CPUC documentation indicates that it expects a final decision in the matter in mid-2018. Based on the success of the mitigation measures in reducing gas demand, and the recommended actions in this letter, it is EES's opinion that withdrawals from Aliso Canyon are very unlikely to be necessary between now and the end of 2018. As a result, there is time to complete that important CPUC proceeding and the important insights that it will provide on the future of Aliso Canyon.

Cumulative Effect of Mitigation Measures

The loss of the ability to withdraw gas from Aliso Canyon has resulted in significant changes to the manner in which natural gas and electric power are managed and procured. Operating changes, such as tightening the balancing rules for gas balancing,

³²<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M173/K201/173201227.PDF>

have led to a more efficient dispatch of energy (natural gas). The loss of Aliso Canyon has also resulted in the acceleration and re-prioritization of demand response, energy efficiency and energy storage projects. The changes are the result of the 31 mitigation measures included in Appendix A of this report. Several of the measures should also be expanded and additional measures should be explored.

The mitigation measures are largely responsible for the fact that there were no curtailments in the summer of 2016. The mitigation measures greatly improved the efficiency of the gas and electric systems and should be made permanent. In addition, the mitigation measures make good business sense in that they increase the efficiency of the overall use of energy resources. From this standpoint, expanding the mitigation measures and considering the adoption of the additional measures would be a benefit to the region.

Table 6 below summarizes the estimated potential impacts from only demand response, energy storage and energy efficiency programs. The estimates are based on publicly available studies. The impacts of the other mitigation measures should be analyzed and reported, as they are necessary to understanding the full potential impacts of the mitigation measures.

Mitigation Measure	Levelized Cost	Summer (MW)	Winter (MW)	Winter (MMcf)
Demand Response				
SCE 2025 Potential ⁽¹⁾	<\$200/kW-yr	2,917	2,263	-
LADWP 2025 Potential ⁽²⁾	<\$200/kW-yr	583	453	-
SoCalGas Potential ⁽³⁾		-	-	TBD
Energy Storage				
Potential ⁽⁴⁾	\$321 - \$658/MWh	∞	∞	
Energy Efficiency				
SCE 2016-24 Potential ⁽⁵⁾⁽⁶⁾⁽⁷⁾	n/a	1,931	1,448	-
SCG 2016-24 Potential ⁽⁵⁾⁽⁶⁾	n/a	-	-	26,340
Total		5,431 - ∞	4,163 - ∞	TBD

- 1) SCE Peak Shedding Demand Response Potential as reported in LBNL 2015 California Demand Response Potential Study.
- 2) LADWP DR Potential has been estimated by scaling SCE DR Potential by the relative share of load.
- 3) SCG has implemented natural gas demand response programs, but no results have been estimated or reported.
- 4) Cost source: Lazard's Levelized Cost of Energy Storage, Version 1.0. There is no upper limit on the amount of electric storage that could be implemented.
- 5) Energy Efficiency Potential and Goals Study for 2015 and Beyond.
- 6) No levelized cost supply curve was provided as part of the potential study, but the values provided here are the cost-effective market potential.
- 7) Although energy efficiency will reduce both summer and winter demand, no winter demand reduction was provided. It has been estimated here.

As shown above in Table 6, the total potential demand reduction in 2025 without energy storage programs is near 4,200 MW in the winter and 5,400 MW in the summer. The potential capacity associated with energy storage devices are shown as infinite in Table 6. On a resource potential basis this is accurate. The cost-effectiveness of energy storage programs needs to be assessed on a case by case basis, but the multiple value streams provided by energy storage should be considered. As shown above, energy storage devices range in costs from \$321 to \$658/MWh.

Table 6 of the April 2016 "Aliso Canyon Risk Assessment Technical Report" shows deficits ranging from 1,077 MW in scenario 2 (storage outage) to 4,800 MW in Scenario 4 (storage and pipeline outages). The report shows a 725 MW surplus in Scenario 1 (no outages). The potential savings from demand response and energy efficiency programs shown above in Table 6 are greater than the projected shortages identified in the April 2016 report, demonstrating that these measures could be successfully used to eliminate the need for gas withdrawals from Aliso Canyon.

Conclusions

Based on our investigation and review of relevant materials, EES has the following conclusions.

Conclusion #1: Approval of gas injections at Aliso Canyon beginning in February 2017 would have no material impact on gas reliability for the time period February through June 2017.

Conclusion #2: Mitigation measures are proving to be successful in reducing the overall demand for gas and gas withdrawals from Aliso Canyon should not be necessary during the summer of 2017.

Conclusion #3: Mitigation measures already identified should be continued and aggressively expanded. Table 2 provides a summary of the mitigation measures that EES believes should be expanded and/or added to future action plans.

Conclusion #4: There is sufficient time to aggressively implement demand-side mitigation measures that will eliminate the need to withdrawal gas from Aliso Canyon during the next winter season, winter 2017-18.

Conclusion #5: Use of Aliso Canyon as a last resort for withdrawals can continue without injecting additional gas into the facility. If absolutely necessary, 9.8 Bcf of gas could be withdrawn before the gas storage level was at the mandated minimum of 5 Bcf. Gas could be withdrawn for 326 days at the same rate that it was withdrawn on January 24 and 25, 2017, approximately 0.025 Bcf per day, without the need for any gas injections.

Mr. Scott Kuhn
February 6, 2017
Page 28

Conclusion #6: Based on publicly available information, there is no indication that the January 24-25, 2017 gas withdrawals from Aliso Canyon were necessary to avoid curtailments. Further investigation is necessary by the CPUC and others to determine the circumstances surrounding the withdrawal and its necessity.

Conclusion #7: The parties that prepared the Aliso Canyon winter and summer risk assessments should prepare a new report that explains the success of the 21 mitigation measures included in the August 2016 "Aliso Canyon Gas and Electric Reliability Winter Action Plan" (Appendix A of this report) and details the ongoing impacts that can be expected in upcoming winter and summer seasons from those and other mitigation measures. The report should include consideration of additional mitigation measures as well as expansions of the existing mitigation measures.

Conclusion #8: All planned maintenance at gas storage facilities and pipelines should be scheduled outside of the peak summer and winter months.

Conclusion #9: The parties that prepared the Aliso Canyon winter and summer risk assessments should re-evaluate whether or not 1-in-10 and 1-in-35 planning criteria for non-core and core customers, respectively, are appropriate. Should you have any questions, please contact me.

Very truly yours,

A handwritten signature in blue ink that reads "Gary S. Saleba". The signature is written in a cursive style with a large initial "G".

Gary Saleba
President

Appendix A: Mitigation Measures from Summer and Winter Action Plans

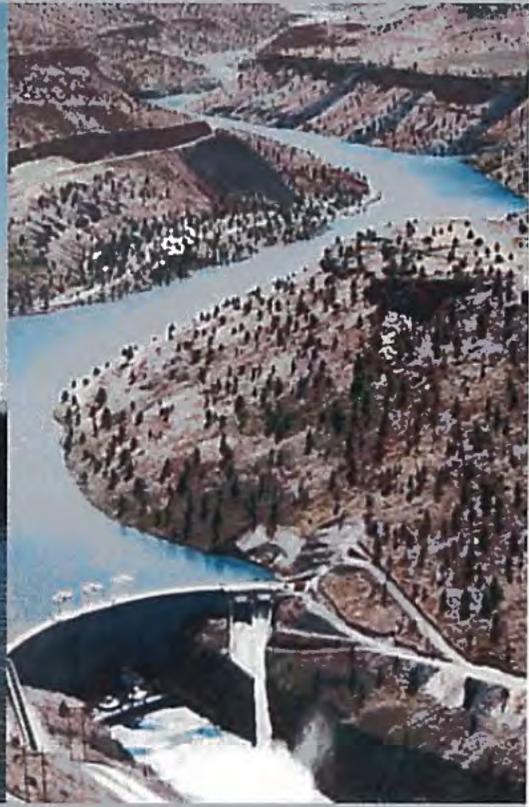
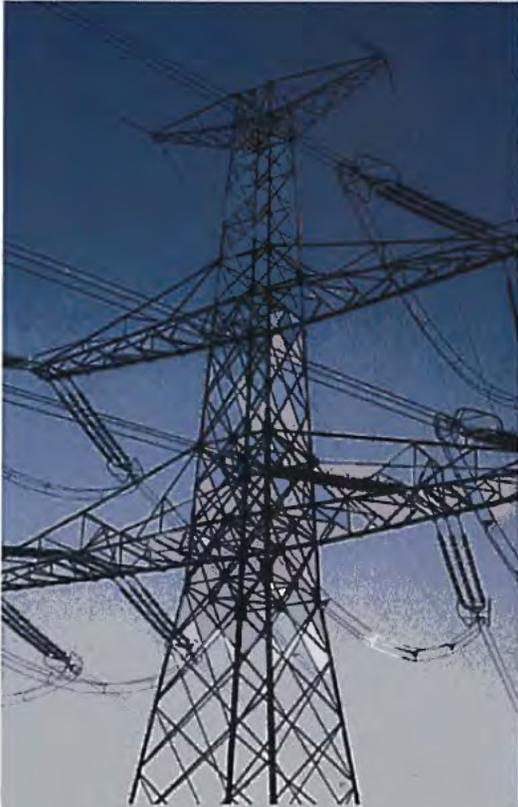
CATEGORY	MITIGATION MEASURE	Status
Prudent Aliso Canyon Use	Make available 15 bcf stored at Aliso Canyon to prevent summer electricity interruptions	Done
	Efficiently complete the required safety review at Aliso Canyon to allow safe use of the field	Underway
Tariff Changes	Implement tighter gas balancing rules. Implement the curtailment settlement agreement (as required by settlement approximately 90 days after Commission Decision, i.e. on or about November 1.	Done; see below for changes for Winter
	Modify operational flow order rule (OFO)	Done
	Call Operational Flow Orders Sooner in Gas Day	On Hold
	Provide market information to generators before cycle 1 gas scheduling	Done
	Consider ISO market changes that increase gas-electric coordination	Continuing
Operational Coordination	Increase electric and gas operational coordination	Done
	Establish more specific gas allocation among electric generators in advance of curtailment	Done
	Determine if any gas maintenance tasks can be safely deferred	Done
LADWP Operational Flexibility	Curtail physical gas hedging	Continuing
	Stop economic dispatch	Continuing
	Curtail block energy and capacity sales	Continuing
	Explore dual fuel capability	Done through September 13, 2016; continue through winter
Reduce Natural Gas and Electricity Use	Use New and Existing Programs Asking Customers to Reduce Natural Gas and Electricity Energy Consumption	Underway
	Expand gas and electric efficiency programs targeted at low income customers	Underway
	Expand Demand Response Programs	Underway for Electricity
	Reprioritize existing energy efficiency towards projects with potential to impact usage	Done
	Reprioritize solar thermal program spending to fund projects for summer and by end of 2017	Underway
	Accelerate Electricity Storage	Underway
Market Monitoring	Protect California Ratepayers	Underway
Gas-targeted Programs to Further Reduce Usage		
	Develop and Deploy Gas Demand Response Program	New for Winter
	Develop and Deploy Gas Cold Weather Messaging	New for Winter

CATEGORY	MITIGATION MEASURE	Status
Winter Operations Changes	Create Advance Gas Burn Operating Ceiling for Electric Generation	New for Winter
	Keep the Tighter Noncore Balancing rules	New for Winter
	Add Core Balancing Rules	New for Winter
Use of Gas from Aliso Canyon	Update the Aliso Canyon Withdrawal Protocol and Gas Allocation Process	New for Winter
Reduce Gas Maintenance Downtime	Submit Reports Describing Rapid Progress on Restoring Pipeline Service	New for Winter
Increase Supply	Identify and solicit additional gas supply sources including more California Natural Gas Production	New for Winter
	Prepare to Buy LNG	New for Winter
Refineries	Monitor Natural Gas Use at Refineries and Gasoline Prices	New for Winter

EES Consulting, Inc.

STATEMENT OF QUALIFICATIONS

January 2017



EES Consulting, Inc.

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Kirkland, Washington 98033
Telephone: (425) 889-2700

1455 NW Irving Street, Suite 200
Portland, Oregon 97209
Telephone: (503) 223-5900

A registered professional engineering
and management consulting firm
www.eesconsulting.com

Background and Experience

Experience

EES Consulting, Inc. (EES) is a registered professional engineering and management consulting firm, established in 1978, that provides a variety of project solutions to clients involved with electric, natural gas, telecommunications, water, wastewater and other energy and natural resource related businesses. Our professional staff members have backgrounds in the areas of engineering, economics, finance, public administration, operations, research and general management. For over 30 years, EES has assisted electric power public utility clients, Independent Power Producers, and large retail customers in North America in meeting the challenges of evolving competitive, regulatory and technical environments. We have a proven track record of success in arenas where the results of a particular project may have far reaching effects on the viability of an organization and the local community.

EES has assisted Los Angeles County, Coachella Valley Association of Governments (CVAG), San Bernardino Associated Governments (SANBAG) and Western Riverside Council of Governments (WRCOG), County of Alameda, City of Solana Beach and the City of San Jose in analyzing the potential for developing CCA programs within their jurisdictions. This analysis included a technical feasibility study, business plan, researching Joint Powers Authority governing documents, discussing marketing plans, and drafting the CPUC required Implementation Plan/Notice of Intent. In addition, EES staff has submitted filings on behalf of LA County in CPUC proceedings. EES Staff continually participate and monitor CPUC proceedings related to rate design issues, such as SCE ERRR filing (A.16-05-009), SCE's request to implement a new non-bypassable charge for Biomass (R 08-08-009), Distributed Energy Resources proceeding (R.14-10-003), Energy Storage & PCIA proceedings (A.15-12-003 & A.15-12-004), IRP & Long-Term Procurement Planning proceeding (R.16-02-007), and Energy Efficiency proceeding (R.13-11-005).

EES brings more than 30 years of experience in effectively helping our clients navigate and even shape California's energy and electrical markets. EES has extensive experience in assisting municipal electric utilities and local government jurisdictions in California with a host of demand side management and electric utility engagements. For example, EES has performed retail revenue requirement, cost of service, and rate design studies for the Municipal Electric Utilities in Palo Alto, Anaheim, Pasadena, Glendale, Alameda, Roseville, and Colton. EES has recently completed engineering/operations studies for the Riverside and Burbank electric systems. A management and operational staff audit was performed by EES on behalf of the Turlock Irrigation District.

At EES, our experienced team of engineers and financial analysts are focused on responsive and cost-effective solutions to the client's power supply needs. EES has developed Integrated Resource Plans for utilities in order to examine the economic, engineering, environmental and

other attributes associated with various generation options. EES's approach is to identify issues associated with the existing resources and power supply contracts, identify options for resolving the issues identified, and conduct a comparison of options in terms of effectiveness, economic costs and benefits, compatibility with existing resources, and any other relevant factors. The results of an integrated resource plan provide a planning framework for moving forward with generation capital projects. As part of providing these services, EES continue to monitor wholesale electric and gas power markets and develop wholesale power price forecasts for our clients.

EES has provided expert testimony for the prudence of the operations and financial accounting for the City of Redding's power supply planning and operations department. EES also helped the municipalities of Moreno Valley, Corona, San Marcos, Palm Desert, Indian Wells, Palm Springs, Cathedral City, and Desert Hot Springs evaluate the formation of a municipal electric utility. This analysis included the forecast of wholesale electric power cost forecast, including delivery costs, as well as the development of each electric utility's power supply costs and non-power supply costs in order to determine the electric utility power revenue requirement and cost of service.

With respect to utility retail rate setting and design, the project team has completed over 500 retail rate studies for electric power public utilities. This area of expertise is a primary business line for EES. The project team routinely conducts training for utility technicians on rate setting on behalf of the California Municipal Utilities Association, the American Public Power Association, the American Water Works Association, and the Northwest Public Power Association.

Key Personnel

EES has a staff of consultants experienced in the area of electric power and natural gas utility studies, and Community Choice Aggregation (CCA) studies.

EES has a senior staff of consultants with over 20 years' experience in advising electric power utilities in financial analysis, cost of service, rate design and wholesale power acquisition. EES has been in operation since 1978 and has assisted electric power and natural gas utilities in North America since the inception of the firm.

Resumes of all key EES personnel are included as Attachment A.

Gary Saleba, President/CEO

M.B.A., Finance, Butler University, Indianapolis, IN

B.A., Economics and Mathematics, Franklin College, Franklin, IN

Gary Saleba has over 35 years of experience in providing consultant services to electric power utilities. Gary started EES in 1978 and has worked for our electric power utility clients ever since. Gary's areas of specialty include overall quality control for EES's projects as well as development of corporate management, financial and strategic planning models primarily for

electric, natural gas and water utilities. He has extensive experience in the areas of utility rate design, revenue requirement analysis, Cost of Service, financial planning, management audits, professional development educational seminars, marketing, consumer research, forecasting, integrated resource planning, cost-benefit analyses, overall strategic planning, power procurement, and mergers and acquisitions.

Having worked as a utility employee, Gary combines an extensive background as both a utility industry expert and a management consultant. He is able to draw upon this professional and educational experience to manage projects including comprehensive water, wastewater, gas and electric cost of service studies, strategic planning, and management critiques for clients throughout North America. His experience extends to alternative fuel cost comparisons, econometric forecasting models, resource planning and reliability studies. Gary has participated in numerous generic utility proceedings, testified before over 200 regulatory bodies and courts of law and coordinated over 500 financial planning, rate study, resource acquisition, and strategic planning studies.

Gary has served on numerous energy and natural resource-related trade associations, including as Chairman of the American Water Works Association Financial Management Committee and Management Division. He has also served on the board of directors for the Northwest Public Power Association and on the Board of Directors for ENERconnect, Inc., a bulk power aggregation and procurement entity serving the municipal utilities in the Province of Ontario. Gary is located in our Kirkland, Washington office.

Anne Falcon, Senior Associate

M.S., Operations Research, Stanford University

B.A., Economics, University of San Francisco, Summa Cum Laude

Anne Falcon has over 20 years of experience providing financial analysis, cost of service and rate design services to electric utility clients. She has been employed by EES since 1993 and she has provided financial analysis assistance to our electric power utility clients since then. Anne provides project management and technical support for all types of economic studies. She has managed projects concerning cost of service and rate design analyses, financial planning including estimation of power and non-power supply costs, and regulatory proceedings for electric, natural gas, water, and wastewater utilities. Her expertise includes restructuring, strategic planning, forecasting, unbundled cost-of-service studies, optimization research, and specialized statistical studies.

Through her research and analysis of the current state of the industry, Anne has assisted many California and Northwest electric power utility clients in preparing for the changes that are taking place. Her work has included developing wholesale power price forecasts, unbundled rates, average embedded and marginal cost-of-service studies, analysis of stranded costs, development of direct access programs, research on Independent System Operators (ISOs) and power markets, development of customer choice programs and conservation, market-based and green rate designs.

At EES, Anne has been involved in all aspects of the integrated resource planning process from the initial identification of demand and supply-side resources to the final ranking of resource portfolios. She has developed numerous decision models for United States and Canadian utilities and performed resource evaluations by applying social costing principles and risk analysis.

Anne applies her extensive economic and technical knowledge in the development of resource-related computer models for use by electric, gas, water, wastewater, and solid waste utilities. Her work also includes the development of a multitude of econometric forecasts for electric, gas, and water utilities. She has developed disaggregate energy and demand forecasts using a variety of forecasting and econometric tools. Anne is located in our Kirkland, Washington office.

Gail Tabone, Senior Associate

M.S., Agricultural and Applied Economics, University of Minnesota
B.S., Economics, University of Minnesota

Gail has over 30 years of experience in short- and long-term utility planning related to both operations and financial analysis. Gail has managed projects concerning power supply planning, load aggregation, cost of service and rate analyses, and regulatory proceedings. Her experience includes power supply management for a large public utility district in the Northwest that diversified from the Bonneville Power Administration. This project included load forecasting, optimization of resource and contract options, procurement and negotiations for power supply, power supply cost estimation, negotiating transmission contracts, auditing of scheduling and dispatching services, rate design and devising customer choice programs.

Gail participated in the deregulation process very early on when she assisted an Alberta municipal utility through the deregulation that occurred in that province resulting in the establishment of a power pool and a grid operating company. She was involved in strategic planning and regulatory intervention for the utility and performed an unbundled cost of service study incorporating the new power supply and transmission costs.

Gail has been actively involved in resource planning, evaluating resource proposals and negotiating contracts for numerous utilities. She has assisted a group of Northwest public utility districts and municipal utilities with load aggregation, evaluation of power supply proposals, and negotiations for supply and transmission contracts. She has also assisted municipal utilities in California in the area of transmission rate design and has worked for municipal utilities with respect to participation in the California ISO.

Gail is skilled at determining clients' needs in the changing utility environment. She develops unique approaches to the analysis of issues facing each client. While her primary focus is economic, she also has a thorough knowledge of the technical issues related to power supply diversification. Gail is located in our Kirkland, Washington office.

Steven Andersen, Manager, Project Evaluations

B.S., Electrical Engineering, University of Washington

Steve has over 15 years of experience in developing wholesale power supply pricing and financial analysis for electric utilities. Steve has been with EES since 1995. Steve's broad knowledge of the engineering field enables him to handle most technical issues and provide economic and technical analyses for utility and industrial clients of EES. He has evaluated power supply proposals for many utilities in the northwest. He has calculated the potential savings in total power supply costs offered by competing suppliers. With his background in power engineering, he is able to assess the technical barriers to potential savings in today's changing electric industry.

Steve has been responsible for managing the interplay of multiple power supply contracts for a major Northwest utility. He has monitored the hourly loads and power schedules of the utility and recommended changes to economically optimize the utility's various resources. He has also negotiated and implemented short and long-term power supply and transmission contracts on behalf of the utility.

Steve has prepared integrated resources plans for both large and small utilities and has performed resource feasibility studies for both utility and industrial clients. He has performed cost of service analyses for many utilities. This analysis includes developing rates for residential, commercial and large industrial customer classes. He has also audited the power supply costs of large industrial corporations and suggested options for reducing their overall costs.

Steve has experience monitoring gas and electric markets and recommending purchases based on potential savings in total power supply costs. He is familiar with the functionality of hourly, daily, monthly, and long-term energy markets. Steve is located in our Portland, Oregon office.

Amber Nyquist, Senior Project Manager

M.A., Economics, Simon Fraser University

B.A., Economics, Western Washington University

Amber has over 10 years of experience. Amber provides analytical expertise for EES in support of economic and financial studies. She offers experience and knowledge to a wide range of topics related to regulated utilities. Her background includes cost of service analysis, electric rate design, Bonneville Power Administration's tiered rate methodology, and other power supply costs or related information. She assists in Integrated Resource Planning as well as independent resource evaluation. Specific resources include demand-side and conservation resources, geothermal, wind, renewable energy credits, gas-fired, and other resources.

In addition to resource planning, Amber uses her background in econometrics and data analysis to develop load forecasts, normalize electric loads according to weather, and to develop market price forecasts. She also conducts conservation program evaluations and provides utilities with statistically significant results, which assist in utility program planning, data collection, and presentation.

Finally, Amber and her staff have performed over 50 conservation potential assessment studies for electric utilities on the west coast. Amber is located in our Kirkland, Washington office.

Colin Cameron, Senior Analyst

M.S., Environmental Science and Engineering, University of North Carolina, Chapel Hill
B.A., Neuroscience and Behavior, Columbia University

Colin provides analytical expertise for EES on economic and regulatory issues. He brings experience in least-cost and econometric model development, benefit-cost analysis, and regulatory research.

Prior to joining EES, Colin worked on energy system modeling teams at the U.S. Environmental Protection Agency and the International Institute for Applied Systems Analysis in Vienna, Austria. In these roles, Mr. Cameron led analysis of energy subsidies, emission taxation, and rapid implementation of new power generation technologies. He has published research on water-energy nexus issues in the United States and on fuel affordability in South Asia. Colin is located in our Kirkland, Washington office.

Ted Light, Project Manager

B.S., Aeronautical & Aerospace Engineering, Purdue University
Certified Energy Manager (CEM)

Mr. Light is a Project Manager with a specialty in energy efficiency and demand-side management. He brings nearly nine years of experience to EES, having worked previously for the Energy Trust of Oregon, the non-profit energy efficiency and renewable energy program administrator for Oregon's investor-owned utilities. He has expertise and knowledge on a broad array of energy efficiency program management and planning topics including: conservation/DSM potential assessments, conservation program planning, program data analysis, and cost-benefit analyses. Mr. Light is a Certified Energy Manager with the Association of Energy Engineers and holds a B.A. in Aerospace Engineering from Purdue University.

Experience and Technical Competence

Through our on-going work in California, EES is presently engaged in designing 20-year resource plans that meet or exceed requirements for renewable energy purchases, energy storage, distributed resources, demand side resources and resource adequacy. Below is a summary of EES's recent and relevant work with four entities.

Name of Firm/Project Title:	Western Riverside Council of Governments Coachella Counsel of Governments San Bernardino Associated Governments Community Choice Aggregation Study
Dates of Service:	07/16 – 07/17
Value or Cost of Service:	\$150,000
Contact:	Barbara Spoonhour, Director of Energy Programs spoonhour@wrcog.cog.ca.us , (951) 955-8313, (951) 787-7991 (Fax) Katie Barrows, Director of Environmental Resources kbarrows@cvag.org , (760) 346-1126, (760) 340-5949 (Fax) Duane Baker, Deputy Executive Director d[REDACTED]@ov , (909) 884-8276, (909) 885-4407 (Fax)
Team Members Participating:	Saleba, Falcon, Tabone, Andersen, Cameron
Services Provided:	<ul style="list-style-type: none"> ■ Demonstrated to stakeholders that a CCA is feasible and cost-effective, using an overall financial comparison to Southern California Edison (SCE). ■ Developing CCA technical business plan; electric wholesale power market forecast, developed Investor-Owned Utility rate forecast, provided in-depth analysis of electric load forecasts and wholesale power supply costing scenarios, including delivery that includes different levels of renewable supply and demand-side management (DSM). ■ Evaluated non-power related costs, examined the potential for energy efficiency and demand reduction and performed an extensive sensitivity analysis that considers variables such as gas and electricity prices, loads, program participation rates, discount rates, and financing scenarios. ■ Developed CCA electric power retail rate forecast.

Name of Firm/Project Title:	Los Angeles County Customer Choice Aggregation Business Plan
Dates of Service:	10/15 – Present
Value or Cost of Service:	\$300,000
Contact:	Howard Choy, General Manager, Office of Sustainability [REDACTED]@ov , (323) 267-2006, (323) 260-5237 (Fax)
Team Members Participating:	Saleba, Falcon, Andersen, Tabone, Cameron
Services Provided:	<ul style="list-style-type: none"> ■ Developed CCA technical business plan; electric wholesale power market forecast, Investor-Owned Utility rate forecast, CCA electric power retail rate forecast, emissions cap-and-trade program impact study; cost-effectiveness of co-generation plants. ■ Developed Southern California Edison (SCE) and CCA electric power retail rate forecasts. ■ Monitored and participate in electric power retail rate proceedings at CPUC on behalf of LA County.

Name of Firm/Project Title:	Richland Energy Services Integrated Resource Plan
Dates of Service:	06/15 – 06/16
Value or Cost of Service:	\$70,000
Contact:	Sandi Edgemon, Business Services Manager sed: [REDACTED] (509) 942-7613, (509) 942-7405 (Fax)
Team Members Participating	Saleba, Falcon, Andersen, Tabone, Nyquist
Services Provided:	<ul style="list-style-type: none"> ■ EES evaluated existing resources to determine future net energy and capacity requirements. Evaluated the costs and benefits associated with Richland’s existing resources and a variety of alternatives resources that could be deployed to serve Richland. EES also completed a 20-year electric load forecast.

Name of Firm/Project Title:	Anchorage Municipal Light & Power (ML&P) Integrated Resource Planning Assistance, Engineer-of-Record
Dates of Service:	06/02 – Present
Value or Cost of Service	\$750,000 for 3 years (Contract since 2002)
Contact:	Mark Johnston, General Manager and Chief Operating Officer JohnstonMA@ci.anchorage.ak.us , (907) 223-0942, (907) 263-5828 (Fax)
Team Members Participating	Saleba, Falcon, Andersen, Tabone, Nyquist
Services Provided:	<ul style="list-style-type: none"> ■ Developed the load forecast for resource and financial planning as well as cost of service analysis for the last several years. In addition, the load forecast is used to estimate needed natural gas purchases for ML&P’s generating resources. This project is updated every two years. ■ EES is also ML&P’s Engineer-of-Record, which entails a periodic assessment of ML&P’s generation, transmission, and distribution facilities to determine adequacy, operational efficiency, and maintenance procedures. Developed ML&P’s Cost of Service study and provide regulatory support to ML&P in filing with the Regulatory Commission of Alaska.

In addition, EES has provided integrated resource planning services to the following clients.

IRP and Resource Planning Studies

■ Los Angeles County	■ San Bernardino County
■ Riverside County	■ City of San Jose
■ Skamania County PUD	■ Montana Power
■ City of Tacoma	■ Northwestern Energy
■ City of San Marcos	■ Moon Lake Electric Corporation
■ Kootenai Electric	■ Lakeview Light & Power
■ Flathead Electric Cooperative	■ City of Ellensburg
■ Emerald PUD	■ Benton REA
■ Chelan County PUD	■ Springfield Utility Board
■ West Kootenay Power	■ Western Montana G&T
■ Aquila Canada	■ Centra Gas
■ Intermountain Gas	■ Kentucky American Water Company
■ Gas Company of New Mexico	■ PEPCO
■ Benton County PUD	■ Yellowstone Valley Electric Cooperative
■ Clallam County PUD	■ City of Indian Wells
■ Clark Public Utilities	■ City of Moreno Valley
■ Cowlitz County PUD	■ City of Port Angeles
■ Franklin County PUD	■ City of Red Deer
■ Grays Harbor County PUD	■ City of Lethbridge
■ Klickitat County PUD	■ City of Medicine Hat
■ Lewis County PUD	■ City of Richland
■ Mason County PUD #3	■ City of Palo Alto
■ Mason County PUD #1	■ City of Anaheim
■ Okanogan County PUD	■ Municipal Electric Association of Ontario
■ Pacific County PUD	■ Northwest Territories Power Corporation
■ Pend Oreille County PUD	■ Ontario Hydro
■ Peninsula Light Company	■ Lower Valley Power & Light

Conservation Plans

EES completed over 30 conservation potential assessments, and specialize in utilizing several different models:

- Completed conservation potential assessments for numerous west coast utilities
- Developed "Handbook for Potential DSM Assessments"
- Developed the Utility Potential Calculator for DSM

EES has developed a reference guide called the "Handbook for Potential DSM Assessments". This handbook provides information on how to conduct potential assessments.

Appendix C: SoCalGas ENVOY Data

Gas Flow Date	Cycle	Receipt Point	Total Scheduled (Dth)
1/22/2017	5	California Producers - Line 85	42,140
1/22/2017	5	California Producers - North Coastal	11,256
1/22/2017	5	California Producers - Other	14,475
1/22/2017	5	Northern Zone	1,316,773
1/22/2017	5	Southern Zone	974,051
1/22/2017	5	Wheeler Ridge - Zone	845,730
		Total	3,204,425
1/23/2017	5	California Producers - Line 85	42,004
1/23/2017	5	California Producers - North Coastal	11,256
1/23/2017	5	California Producers - Other	14,337
1/23/2017	5	Northern Zone	1,358,587
1/23/2017	5	Southern Zone	982,273
1/23/2017	5	Wheeler Ridge - Zone	858,080
		Total	3,266,537
1/24/2017	5	California Producers - Line 85	25,593
1/24/2017	5	California Producers - North Coastal	10,956
1/24/2017	5	California Producers - Other	14,168
1/24/2017	5	Northern Zone	1,288,411
1/24/2017	5	Southern Zone	903,597
1/24/2017	5	Wheeler Ridge - Zone	838,104
		Total	3,080,829
1/25/2017	5	California Producers - Line 85	36,240
1/25/2017	5	California Producers - North Coastal	11,256
1/25/2017	5	California Producers - Other	13,213
1/25/2017	5	Northern Zone	1,334,510
1/25/2017	5	Southern Zone	1,030,279
1/25/2017	5	Wheeler Ridge - Zone	758,687
		Total	3,184,185
1/26/2017	5	California Producers - Line 85	33,917
1/26/2017	5	California Producers - North Coastal	10,567
1/26/2017	5	California Producers - Other	12,538
1/26/2017	5	Northern Zone	1,297,028
1/26/2017	5	Southern Zone	978,460
1/26/2017	5	Wheeler Ridge - Zone	799,092
		Total	3,131,602

Data obtained from <https://scgenvoy.sempra.com> on 2/1/2017.

"Available Capacity vs. Scheduled" Microsoft Excel Export for the month of January 2017.

Data has been formatted for clarity.



County of Los Angeles
INTERNAL SERVICES DEPARTMENT

1100 North Eastern Avenue
 Los Angeles, California 90063

Telephone: (323) 267-2101
 FAX: (323) 264-7135

"To enrich lives through effective and caring service"

County of Los Angeles
 Internal Services Department
 1100 N. Eastern Avenue
 Los Angeles, CA 90063

April 6, 2016

Edward Randolph
 Energy Division Director
 California Public Utilities Commission

Dear Ed,

Thank you for your call on Thursday, March 24, 2016 inquiring about how the SoCalREN might assist the CPUC to respond to potential energy shortages related to operational failures at the Aliso Canyon gas storage facility. We understand that the issue of concern is that rolling brownouts and blackouts may occur this summer and through the fall due to the restricted availability of natural gas for electricity generation in Southern California.

The SoCalREN stands ready to assist the CPUC and the IOUs to avert energy shortages through a targeted and effective local government education and engagement campaign in affected communities. In addition, the SoCalREN also proposes to accelerate implementation of public agency facility retrofit projects.

Local Government Community Engagement Strategy

As trusted voices in the community, local governments play an important role to engage their communities to understand the concern and take urgent and necessary action to reduce energy demand. **In addition, because local governments are charged with ensuring safety and security in their communities, they have a keen interest in avoiding the disruptive consequences and costs associated with responding to energy outage consequences.**

The SoCalREN is well positioned and prepared to implement an engagement strategy to motivate local governments to promote energy conservation and other energy usage reductions within their own communities through stakeholder engagement, customized messaging, and ongoing support.

The SoCalREN is uniquely positioned to assist with this effort as it has the existing institutional framework and established relationships with the 200+ cities and counties in the affected region. SoCalREN is also experienced in successfully coordinating directly with IOU's as a Program

Administer of energy efficiency programs. The SoCalREN will build on its existing outreach strategies and tailor strategies that will be effective, credible and cause local governments and their constituents to act.

Working in coordination with the CPUC and the local utilities, the SoCalREN will focus on identified target areas of projected energy shortages and implement engagement strategies and messaging for local governments to take action -- all of which can be appropriately timed in anticipation of potential energy supply constraints.

Our team is well situated and prepared to take the following actions to help communities achieve measurable energy reductions:

- Collaborate with CPUC, CAISO, IOUs and affected Public Utilities on messaging and coordination strategies;
- Leverage the SoCalREN's extensive network of local governments and stakeholders to disseminate targeted messaging to affected communities using trusted messengers -- beyond cities and counties, this Network includes local Council of Governments, Association of Governments, League of California Cities and other trusted agencies;
- Reach out to leadership and communication leads (Public Information Officers and agency staff) in order to leverage existing local government communication channels to engage the community; i.e: newsletters, public network and channel videos, websites, social media and more;
- Design outreach and education materials that complement and supplement current local utility messages and are customizable for each local government's particular needs, and aligned with the agency's preferred community outreach and communication channel;
- Act as a liaison among local governments and local utilities to answer questions about potential energy shortages and provide resource connections;
- Speak to the compelling local government concerns to avoid energy shortages due to negative repercussions from increased costs, economic and social disruption, community safety concerns, etc;
- Coordinate with local governments to share messages with influential community leaders and organizations, and;
- Ensure the most disadvantaged community members are reached with appropriate in-language messaging and access to additional resources & programs.

As a result of these actions, we anticipate community awareness and actions that will be both significant and timely in response to this potential energy crisis.

While the proposed approach is a seamless incremental addition to the SoCalREN's current outreach activities, the proposed Aliso Canyon action plan is beyond the scope of the current SoCalREN budget. The SoCalREN is in discussions with Gas Company representatives about how the SoCalREN can support planned outreach and mitigation efforts. SoCalREN urges that the CPUC direct Gas Company to coordinate with the SoCalREN on a local government community engagement campaign and to provide appropriate supplemental funding for these expanded SoCalREN activities.

Accelerated Implementation of Public Agency Facility Retrofits

In response to the CPUC's request for the SoCalREN to evaluate opportunities to expedite energy project completion, the SoCalREN anticipates it can realize 18 to 20 million kWh annual savings by December 31, 2016.

The SoCalREN has identified the following tangible actions that the IOUs and the CPUC can take to support expedited completion of public agency projects.

IOU ACTIONS

1) Apply the SCE 3 cent per kWh additional incentive to all public agency projects.

Discussion: Current SCE Local Government Partnership programs receive a 3 cent additional incentive per kWh saved. Providing this same level of incentive to all public agency programs will drive implementation of more energy efficiency projects.

2.) Review and approve incentive & OBF applications within 30 days of submittal.

Discussion: Currently it takes an average of 2 to 3 months for approval of incentive applications. If the project includes an OBF application, then the approval time may take 3 to 4 months. This overly long approval process delays the timely and cost-effective completion of energy efficiency projects by public agencies.

3) Allow project using customized incentives to start prior to final OBF & incentive approval.

Discussion: Currently projects cannot start prior to incentive approval or the project becomes ineligible for incentives. To expedite energy efficiency projects, IOUs can allow projects to move forward absent incentive approval, with the caveat that the public

agency will accept the IOU final review decision regarding the incentive and OBF amounts.

4) Revise the maximum OBF repayment term from 10 to 15 years.

Discussion. The IOUs should relax the strict OBF requirements to provide more flexibility in repayment terms. Public agencies cannot take more than 10 years to repay OBF. Many energy efficiency measures have an expected useful life much longer than ten years. As a result, a ten year repayment requirement reduces the ability to undertake more complex and comprehensive projects, such as those involving mechanical systems. Also, with the longer repayment term agencies will be able to bundle a greater number of longer term payback measures with their shorter term payback measures.

5) Allow bundling of OBF projects among service accounts.

Discussion: A public agency should be allowed to submit a single OBF application for a project. For example, the SoCalREN was required to submit 27 different applications for 1 city street light project. This costs time and money and is an unnecessary burden to agencies.

6) Double the OBF funding limit per project from \$1 million to \$2 million.

Discussion: Currently the total OBF project limit is \$1 million. For a number of agencies their total eligible project exceeds \$1 million. The SoCalREN works with agencies to achieve deeper and more comprehensive savings, in alignment with CPUC goals. The current \$1 million limit does not support this comprehensive approach for cost effective energy efficiency retrofits.

8) Reinstate recently removed energy efficiency measures (EEM) affecting currently developed Public Agency projects.

Discussion: At the beginning of 2016, a significant number of EEMs were removed from incentive eligibility. In some cases, this change affected projects already under design and which were relying on those incentives for funding. To ensure projects move ahead, the IOUs should reinstate those EEMs.

CPUC ACTIONS

1) Accelerate the Energy Division Parallel Review process.

Discussion. Currently the Energy Division, through the Parallel Review process, may select a project for review prior to the IOU approval of the incentive. The Review is intended to be done in parallel with the IOU process but, in fact, often happens

sequentially, which may add as much as six months delay to a project. To resolve this issue, the Energy Division can ensure it adheres to or reduces its current 30 day review requirement. Also, the Energy Division should ensure that the Parallel Review process occurs, in fact, in parallel and not sequentially with the IOU process. In addition, projects will benefit if the CPUC allows projects to proceed prior to completion of the Energy Division review. This expedited process should be applied to projects in Southern California that will mitigate the effects from Aliso Canyon.

2) Approve the original request of the SoCALREN to fund a Public Agency Revolving Loan Fund.

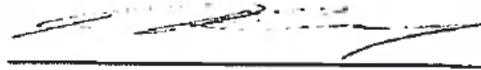
Discussion. This action solves an initial capitalization challenge for public agencies to do energy efficiency projects. Most public agencies do not have energy efficiency projects in their approved budgets. To take action, agencies need 100% funding availability before they can commence a project. If a project is not budgeted but is fully funded through OBF and incentives, the public agency needs interim funding until the project is constructed, the incentive is paid and the OBF is issued. This funding gap typically will be six months during which time the public agency has to carry the project costs. This can be a significant barrier to many projects being started. The RLF will provide the bridge funding for the typical six month gap. This fund is then repaid once the incentives and OBF funds are received. In this way, other agencies can leverage this 'gap' funding. An RLF amount of \$1.5 million will expedite the delivery of public agency energy efficiency projects in 2016 and beyond.

3) Approve the PACE-Plus Program

Discussion. Los Angeles County launched a residential Property Assessed Clean Energy (PACE) Finance program in June of 2015. Since then, the County has financed, and approved the financing, of over 14,000 residential upgrades which include combinations of HVAC, insulation, ductwork and solar measures. As has been informally reported, many and most of these projects have not utilized CPUC/IOU approved Home Upgrade incentives. The County now has data for all measures implemented in the 14,000 projects implemented since June and has been working with residential PACE providers to develop and propose a new residential incentive (PACE-Plus) which encourages homeowners to go above current code or other energy label equipment baselines. We will soon propose this new incentive as a High Opportunity Program/Project (HOPPS) program under the SoCalREN. We propose that the data acquired from PACE providers in Los Angeles County and the timely review/approval of a PACE incentive can provide critical information to the CPUC and the IOUs/MOUs about what impacts residential PACE is actually having in California – and in particular, the Los Angeles region.

Ed Randolph
April 6, 2016
Page 6

In conclusion, the SoCalREN stands ready to assist the CPUC and the IOUs to help mitigate the effects of the Aliso Canyon failure. We look forward speaking again soon to answer any questions you may have and look forward to working with you on next steps.

A handwritten signature in black ink, appearing to read "Howard Choy", is written over a solid horizontal line.

Howard Choy
General Manager, Office of Sustainability
County of Los Angeles
Internal Services Department
Administrator of the Southern California Regional Energy Network (SoCalREN)

SOCALREN ENERGY EFFICIENCY PROJECTS UNDER DEVELOPMENT

(may be completed by FY 2016/2017 with CPUC incentives)

	Total Savings:	20,001,130
Agency	Project Name	Estimated kWh Savings
Cucamonga Valley Water District	Cucamonga Valley WD Well 19 Pumping	163,466
Cucamonga Valley Water District	Cucamonga Valley WD CTL 1B Pump 4 Pumping	28,382
Port of Hueneme	Port of Hueneme Harbor District Lighting	216,907
Conejo Valley Unified	Conejo Valley USD Various Lighting 2	1,874,564
Cucamonga Valley Water District	Cucamonga Valley WD Well 05 Pumping	134,214
Ventura Unified	Ventura USD Various Lighting	1,040,495
Los Angeles County	LAC Whittier Narrows Park Lighting	59,003
Santa Barbara	Santa Barbara Street Lighting 2	12,944
Culver City	Culver City City Hall Mechanical	93,230
Las Virgenes Municipal Water District	Las Virgenes Rancho Sump Pumps	87,068
Culver City	Culver City Police EMS	101,671
Culver City	Culver City Transportation Mechanical	15,990
Santa Monica	Santa Monica Pool Lighting	9,988
Santa Monica	Santa Monica Big Blue Bus Lighting	575,873
Palmdale	Palmdale Street Lighting	413,510
Cucamonga Valley Water District	Cucamonga Valley WD Station 3/3A Pumping	526,442
Long Beach	Long Beach Street Lighting (Phase 1)	752,500
Culver City	Culver City Transportation Lighting	82,263
Irvine	Irvine Transportation Center Lighting	7,577
Huntington Beach	Huntington Beach IISNS (B,C,D,E,F,K)	91,093
WMWD	Western Municipal WD Pumping	233,244
Mission Viejo	Mission Viejo Street Lighting	93,103
Los Angeles County	LAC Washington Security Lighting	29,889
Los Angeles County	LAC Charles White Lighting	12,569
Los Angeles County	LAC Roosevelt Park Lighting	167,218
Los Angeles County	LAC Obregon Park Lighting	50,697
Los Angeles County	LAC Various Pools Mechanical 2	360,623
Huntington Beach	Huntington Beach St. Lt.s (LS-3) g.2; g.3	96,116
Huntington Beach	Huntington Beach Pkg Lot & Park Lt.s (LS-3) H	38,726
Huntington Beach	Huntington Beach Pkg Lot, Park (GS,AL,TOU) J, I	324,995
Culver City	Culver City - City Hall EMS	111,969
Inland Empire Utilities Agency	Inland Empire Lighting Phase 1	228,035

Agency	Project Name	Estimated kWh Savings
Cucamonga Valley Water District	Cucamonga Valley WD Various Well Pumping	462,177
Cucamonga Valley Water District	Cucamonga Valley WD STA-1 B1 & B3 Pumping	91,871
Cucamonga Valley Water District	Cucamonga Pump System Optimization	546,563
Whittier	Whittier Palm Park Pool Mechanical	76,823
Whittier	Whittier Street Lighting	1,095,452
Whittier	Whittier Various Lighting	12,841
Whittier	Whittier Various Mechanical	173,152
Palmdale	Palmdale Various Mechanical 2	48,009
Palmdale	Palmdale Various Mechanical 1	487,796
Downey	Downey Street Lighting	300,000
Irvine	Irvine Safety Lights 1	106,764
Downey	Downey Various Parks Lighting	62,023
Culver City	Culver City Street Lighting	799,751
Palmdale	Palmdale Park Lighting	142,253
Pomona	Pomona Street Lighting	1,081,914
Los Angeles County	LAC Civic Center Mechanical	50,000
Claremont	Claremont Street Lighting	450,180
Las Virgenes Municipal Water District	Las Virgenes Westlake Filter Plant Pumps & VFD's Project	122,016
UWCD	United Water CD Pumping	493,810
Las Virgenes Municipal Water District	Las Virgenes Westlake Filter Plant LED Lighting Project	42,496
Los Angeles County	LAC Bonelli Pump Mechanical	50,545
Los Angeles County	LAC George Lane Park Lighting	53,513
Long Beach	Long Beach City Place Parking Structure Lighting	368,671
Carpinteria Sanitary District	Carpinteria SD Process Optimization	403,339
Los Angeles County	LAC DPW Headquarters Mechanical	446,556
UWCD	United Water CD Pump Sequence Optimization	565,456
Orange County	OC Manchester Parking Lot Lighting	652,995
Goleta Sanitary District	Goleta Sanitary District Process Optimization 1	658,581
Inland Empire Utilities Agency	Inland Empire Pumping Phase 1	782,879
Newport Beach	Newport Beach Street Lighting	1,150,000

Los Angeles County Building Projects (with completion date)

Energy Project Type/Location	Annual kWh Savings	Annual Therm Savings	Project Completion
RETROCOMMISSIONING			
Industry Sheriff Station	172,803	5,543	3/1/2016
La Cresenta Sheriff Station	104,668	3,741	3/1/2016
West Hollywood Sheriff Station	173,093	4,013	3/1/2016
Lomita Sheriff Station	92,690	3,816	3/1/2016
Los Padrinos Juvenile Hall	1,438,442	45,963	5/1/2016
Carson Library	132,448	4,768	Est. comp 1/1/2017
East Los Angeles Library	105,200	3,787	Est. comp 1/1/2017
Florence/Firestone DPSS	160,000	5,760	Est. comp 1/1/2017
Huntington Park Library	133,928	4,821	Est. comp 1/1/2017
Lancaster Library	194,884	7,015	Est. comp 1/1/2017
Metro East DPSS	262,000	9,432	Est. comp 1/1/2017
Norwalk Library	134,996	4,860	Est. comp 1/1/2017
Adams/Grand DPSS	861,756	31,023	Est. comp 1/1/2017
SUBTOTAL	3,966,908	134,542	
MONITORING BASED COMMISSIONING			
Cudahy DPSS	123,492	4,446	Est. comp 1/1/2017
Library Headquarters	540,972	19,475	Est. comp 1/1/2017
Sherman Block Building	500,000	18,000	Est. comp 1/1/2017
SUBTOTAL	1,040,972	41,921	
CHILLER RETROFITS			
Santa Clarita Civic Center	150,000	NA	8/31/2016
Public Works HQ Chiller	325,000	NA	7/1/2015
SUBTOTAL	475,000		
LIGHTING UPGRADES			
Olive View Medical Center - LED Parking Lot	155,215	NA	4/1/2016
DHS Administration - LED Parking Lot	93,819	NA	8/1/2015
Various Health Facilities - 28 watt	225,000	NA	2/1/2016
SUBTOTAL	474,034		

SOLAR PROJECTS			
DPW Waterworks - Lancaster Field Office	510,000	NA	6/30/2016
DPW Waterworks - Lancaster Maint Yard	208,500	NA	Est. 1/1/2017
Various LA County Sites	1,100,000	NA	Est. 6/30/2017
SUBTOTAL	1,818,500		
NET- ZERO ENERGY PROJECTS			
A C Bilbrew	419,715	NA	Est. 8/15/2016
Julian Dixon	451,233	NA	4/1/2016
SUBTOTAL	870,948		
PRESSURE REDUCING TURBINE GENERATOR			
DPW Waterworks - Palmdale Pumping Station	1,400,000		Est. 8/19/2016
GRAND TOTAL	10,046,362	176,463	



COUNTY OF LOS ANGELES
OFFICE OF THE COUNTY COUNSEL

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MARY C. WICKHAM
County Counsel

February 6, 2017

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Via email to timothy.sullivan@cpuc.ca.gov
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California Public Utilities Commission
Timothy J. Sullivan, Executive Director
505 Van Ness Avenue
San Francisco, California 94102

**Re: Aliso Canyon Working Gas Inventory, Production Capacity,
Injection Capacity, and Well Availability For Reliability -
Updated Report - Section 715 of the Public Utilities Code;
Aliso Canyon Safety Review Concurrence**

Dear Mr. Sullivan and the CPUC Public Advisor:

The County of Los Angeles ("County") hereby submits this comment letter to the California Public Utilities Commission ("CPUC") related to the potential approval of gas injection at the Aliso Canyon gas storage facility owned by the Southern California Gas Company ("SoCalGas"). This letter is also a comment on the CPUC's Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability For Reliability - Updated Report.

The County incorporates by reference into this letter its comments to Division of Oil, Gas, and Geothermal Resources ("DOGGR"), a copy of which is being submitted herewith. The County's comments incorporate comments from the County Department of Public Health ("DPH"), the County Fire Department, Health and Hazardous Materials Division, oil and gas expert Calvin Barnhill with Northstar Exploration Company, and EES Consulting, an expert consulting firm that reviewed the gas reliability/demand issues.

As of the date of this letter, DOGGR has not completed the safety review required by SB 380, has not provided the public, or the County, with access to

safety review related materials as required by SB 380, and the public meetings held by DOGGR did not comply with SB 380 because they were held prior to the completion of the safety review.

SB 380 requires all 114 wells to be tested and to either pass the tests, be isolated from the field, or be plugged and abandoned. As of February 6, 2017, DOGGR's Aliso Canyon webpage indicates that only 113 wells fall into those categories and that one well is still pending test results, Porter 32. No decision should be made by DOGGR to approve injection of gas into Aliso Canyon until: (1) a root cause analysis of the gas leak is completed, (2) the California Public Utilities Commission ("CPUC") concludes a legislatively required investigation to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon gas storage facility, (3) the safety review is actually completed and all safety review related materials are accessible to the public on DOGGR's website as required by SB 380, (4) DOGGR completes the additional investigations, actions, and mitigations outlined in the County's comments, and (5) DOGGR complies with the California Environmental Quality Act ("CEQA").

SB 380 requires that the prohibition on gas injection at Aliso Canyon cannot be lifted until after the Executive Director of the CPUC concurs via letter with the supervisor of DOGGR regarding the determination of safety. For the reasons set forth in the concurrently submitted letter to DOGGR, the County requests that you not grant your concurrence as to the safety review until the issues raised in the County's letter are fully addressed by DOGGR. In particular, the County urges you not to grant any concurrence until after the root cause analysis and the CPUC's legislatively mandated feasibility investigation relating to minimizing or eliminating the need for Aliso Canyon is complete.

As to the Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability For Reliability - Updated Report, the County is providing you with a copy of comments from EES Consulting, Inc. ("EES"), a registered professional engineering and management consulting firm, retained by the County to provide analysis and expert opinion regarding gas reliability issues. Based on EES's analysis, there is no need to utilize gas withdrawal from Aliso Canyon due to the success of mitigation measures. According to EES, the current level of gas in storage at Aliso Canyon, 14.8 Bcf should be sufficient for any necessary withdrawals until the end of 2018. By that time, the CPUC feasibility proceeding on the future of Aliso Canyon should be completed.

Use of Aliso Canyon as a last resort for withdrawals can continue without any new gas injection. The minimum gas storage requirement at Aliso is 5 Bcf.¹ The current amount of gas in storage at Aliso is 14.8 Bcf. Thus, 9.8 Bcf of gas is currently available for withdrawal without the need for any new injections. Based upon the minimum gas storage requirement of 5 Bcf² at Aliso Canyon, if needed, gas could be withdrawn at the rate of recent withdrawals on January 24 and 25, 2017, for 326 days without the need for any new injections. Since gas need only be withdrawn from Aliso Canyon on peak summer and winter days, Aliso Canyon can be used for emergency withdrawals on peak summer and winter days, if necessary, for years without the need to inject new gas into the facility. Thus, there is no current need for new gas injections at Aliso Canyon. The root cause analysis and CPUC feasibility investigation can and should be completed before injecting gas at Aliso Canyon.

Additionally, the County requests that the CPUC conduct a review of the circumstances surrounding SoCalGas' withdrawal of gas on January 24 and 25, 2017. EES found that based on publicly available information, there is no indication that these gas withdrawals were necessary to avoid curtailments. EES recommends investigation to determine the circumstances surrounding the withdrawal and its necessity.

Should you have any questions, please contact me at (213) 974-1852.

Very truly yours,

MARY C. WICKHAM
County Counsel

By 
SCOTT KUHN
Principal Deputy County Counsel
Property Division

SK:ll

¹http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/News_Room/News_and_Updates/Letter%20to%20Jimmy%20Cho%20on%20Aliso%20Canyon%20withdrawals.pdf

² *Id.*

CPUC – County Comments on Aliso Canyon
February 6, 2017
Page 4

Attachments: County February 6, 2017 Comment Letter to DOGGR
Fire Department Comments
DPH Comments
Northstar/Calvin Barnhill Comments
EES Comments
Comments from Geology Profession Matthew d'Alessio

c: Ken Harris, DOGGR, via email to: Ken.Harris@conservation.ca.gov
Justin Turner, DOGGR, via email to: Turner@conservation.ca.gov
California Senator Henry Stern
Assemblyman Dante Acosta
Congressman Steve Knight
Congressman Brad Sherman
Councilman Mitch Englander



Issam Najm,
President

Susan Gorman-Chang,
Vice President

Andrew Krowne,
Treasurer

Gabriel Khanlian,
Secretary

David Balen,
Signer

Asaad Alnajjar

Cheri Derohanian

Jason Hector

Alex Kim

Becky Leveque

Jennifer Milbauer

January 31, 2017

Submitted via email to:



Attn: Aliso Canyon Comprehensive Safety Review
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street, MS 24-02
Sacramento, California 95814

Re: Comments on the Findings from the Gas Storage Well Safety Review and the Proposed
Pressure Limits for the Aliso Canyon Storage Facility

***The opinions expressed in this document are those of the Porter Ranch Neighborhood
Council, and not necessarily those of the City of Los Angeles***

To Department of Conservation:

The Porter Ranch Neighborhood Council (PRNC) appreciates the opportunity to submit these comments to the Department of Conservation on the Safety Review completed by the Division of Oil, Gas, and Geothermal Resources (DOGGR) for the Aliso Canyon gas storage facility operated by the Southern California Gas Company (SoCalGas). The PRNC is comprised of 11 publicly elected representatives of the Porter Ranch community within the City of Los Angeles. As you are well aware, Porter Ranch is the community of 30,000 citizens of the State of California who endured through four months of the worst gas blowout accident in the United States, and who continue to endure through episodes of uncontrolled gas releases from the Aliso Canyon gas facility.

The PRNC has reviewed the documents released by DOGGR on Tuesday, January 17, 2017, regarding the Safety Review and wishes to address four main areas of concern regarding the findings:

1. The adequacy of the testing conducted
2. The risk of a seismically-induced failure
3. The determination of the maximum field pressure
4. Acceptable Methane Release

We ask that you seriously consider our concerns and do the right thing by the people of our community.

Adequacy of Well Integrity Testing

The document titled *Requirements of Comprehensive Safety Review of the Aliso Canyon Natural Gas Storage Facility* describes the well integrity testing that was required by DOGGR in accordance with the requirements of SB380. Table 1 lists the tests conducted, and the defect that each test is designed to detect.

Table 1 – Names and Functions of Tests Conducted under the Requirements of SB380

Test	Name	What it Detects
1	Temperature Log	This test is designed to detect gas leaking out of the well casing during the course of the test
2	Noise Log	This test is designed to detect gas leaking out of the well casing during the course of the test
3	Casing Wall Thickness Test	As its name indicates, this test looks for thinning of the casing along its depth.
4	Cement Bond Log	This is sonic test designed to detect loss of bonding between cement and the steel casing, as well as between the cement anchor and the cap rock over the reservoir.
5	Multi-arm caliper inspection	This test looks for deformations in the wall geometry and shape on the inside casing wall.
6	Pressure Test	This test includes pressurizing the interior tubing and the casing annulus space with water and monitor loss of pressure over time.

At first glance, these tests appear impressive. However, we draw your attention to the fact that *none of these tests has any ability to detect a hairline fracture or a corrosion pit in the casing, especially if the fracture or pit does not propagate the full thickness of the casing wall.* Even if the hairline fracture propagates the full thickness of the casing, the pressure test was conducted with water, which does not have the sensitivity required to quantify gas leak across the casing. In other words, gas can pass through cracks that water takes much longer to pass through, which would not register as a loss of pressure during the pressure- test.

Therefore, while these tests are better than what was required before, they fall very short of the goal of ensuring the safety of these wells. These casings have gone through decades of stresses from earth movement over multiple earthquakes that we know about, and numerous seismic activities that we don't even know about. We should also not forget the reckless practice of withdrawing gas through the annular space between the casing and the tubing over decades of operation. It is our understanding that this practice is actually not

allowed in gas production wells, but somehow that requirement did not extend to gas storage wells until the SS25 well failure.

We are hoping that the root-cause analysis would be able to determine if such stresses are in the casing. For this reason, it is imperative that the root-cause analysis be completed before the wells are used for any gas injection or withdrawal from the field.

Seismic Integrity

Seismic standards are typically limited to facilities and structures whose failure could result in direct harm to the public, and/or the loss of critical facilities. Ironically, they do not apply to gas wells. For the Aliso Canyon facility, while the seismic hazard remains unchanged, the seismic risk has increased dramatically since the opening of the facility in 1972. Not only due to the severe aging of the wells, but also because of the significant urban development around the facility and the impact of seismic field failure on the community.

Considering the consequence of a well failure in the absence of a down-hole blow-off preventer valve, some reasonable seismic code must be applied. At a minimum, there should be an evaluation of how much lateral load a casing and tubing can withstand, and how much of an up-thrust can they tolerate before they fail. A “straw” that is 6,000 ft long, whether 8-inches or 3-inches in diameter, could not possibly withstand the lateral force in any seismic zone, let alone in California. Indeed, the National Labs team stated in their report to DOGGR in relation to casing strain as a result of formation deformation from seismic activities that *“The South Belridge Field near Bakersfield, California has undergone significant compaction and has a high percentage of wells that have failed from casing deformation.”* The National Labs team then states that *“...a more granular review of the site-specific ground shaking hazard associated with the Santa Susana fault system will provide better insight into the seismic hazard at Aliso Canyon”*. Finally, the National Labs team states that *“We...believe that detailed structural analysis of the Aliso Canyon wellbore designs incorporating the results from a PSHA and PFDA of the Santa Susana Fault System will better inform the risk management process for operation of Aliso Canyon”*. With the above statements, we do not see how the facility can be allowed to reopen and resume operation before a seismic risk analysis is completed. Anything short of such analysis is playing “Russian Roulette” with the health of the people in our community.

We urge you not to ignore this fact, and to commission a seismic analysis of the wells before they are used for gas injection or withdrawal. Just because this is not “typically” done, does not mean it is not the right thing to do.

It is our understanding that there will be fluid in the annular space between the tubing and the casing, and that it will hold down the gas if there is a failure at the bottom. At 2,926 psi, it takes a water column of 6,700 ft to exert an equal amount of downward pressure. We realize there are chemical additives to the liquid to make it heavier, so we do not know how

far lower the required depth will be. However, we want to draw your attention to the fact that this liquid pressure only prevents the gas from lifting the plug at the bottom if gas is released below the plug. However, it does not prevent the gas from escaping into the annular space if there is a break in the tubing anywhere above the plug. Once this occurs, the casing will be under the full pressure of the field, and there will be nothing that can be done to release that pressure without repairing the tubing. A more catastrophic failure that results in the failure of both the tubing and the casing, such as a seismic event, would also result in other uncontrolled gas blowouts identical to that of SS25. Therefore, the heavy liquid will do nothing to prevent gas release in a seismic event. This is another reason why a down-hole blow-off preventer valve is absolutely necessary.

Determination of Maximum Field Pressure

In determining the maximum field pressure, DOGGR relied on the report by GeoMechanics Technologies, which was commissioned by SoCalGas. It is noted that GeoMechanics Technologies did not do a single test of any sample of the cap rock, or any numerical modeling of the stresses under various field gas storage volumes and repeated injection and withdrawal that has happened over the decades. They simply relied on information from injection tests data conducted in past years, and stated that, since the pressure applied during these tests was higher than the 3,000 psi pressure under which the field had operated in the past, then a 3,000 psi operating pressure is acceptable. In essence, *since the field operated at 3,000 psi in the past, there is no reason not to continue operating it at the same pressure.* We note that the report by GeoMechanics Technologies, Inc. has the following statement at the beginning of it:

“Neither GeoMechanics Technologies, members of GeoMechanics Technologies, nor any person acting on behalf of GeoMechanics Technologies makes any warranty or representation, express or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report.”

Basically, the single entity that did the study was paid by the Gas Company to do it, did not have a single sample of anything to work with, and then put a disclaimer to disavow themselves from anything that comes out of their analysis and refuse to stand behind the *accuracy, completeness, and usefulness* of anything they have in their report. We do not understand how DOGGR accepts this standard for its decision.

We also find it immensely disappointing that the National Labs team simply followed the same rationale and concurred with the same number without any further analysis. The National Labs are experts at conducting Risk Analysis on natural and man-made systems. We do not understand how the National Labs would completely ignore the Risk Analysis component to this decision.

To that end, we strongly disagree with the one-dimensional approach to this decision, and urge DOGGR to step out of its typical engineering approach, and implement a risk analysis approach to this question that goes beyond the *fracture gradient* calculation, and asks the question about the “*cost of being wrong*”. In other words, this determination is not supposed to be limited to an engineering calculation, but should also include a Risk Analysis component that assesses the impact of failure on the surrounding community. This must be an integral part of this decision. The outcome of this analysis is then to be incorporated into the safety factor required under SB380.

Per Figure 2 in the GeoMechanics Technologies Report, a pressure of 2,926 psi corresponds to a storage of about 86 Bcf in Aliso Canyon! This means that DOGGR is giving the green light to SoCalGas to store as much as 86 Bcf of gas in the reservoir if they so choose, which is the full capacity of the reservoir! This finding seems to have been made with complete and utter disregard to the fact that there was a catastrophic well failure just over a year ago. It is as if nothing has happened. We remind DOGGR that this analysis was not supposed to be just about the caprock, but also about the wells and the pressure that the wells can withstand. We fail to understand how DOGGR accepts the notion that the wells can be operated at the same maximum pressure under which they were operated before the well blowout.

Another factor not considered is the potential impact of past (and possibly ongoing) fracking practices in the field on the caprock and overlying ground cover.

Acceptable Methane Release

In the letter from Mr. Ken Harris of DOGGR to Mr. Rodger Schwecke of SoCalGas dated January 17, 2017, attachment 1 includes 23 requirements for the SoCalGas to implement. Requirement #23, in essence, states that the CPUC and DOGGR accept the release of gas from the facility into the atmosphere at a rate as high as 250 Kg of methane per hour, which translates into 6 tons of methane gas a day. The PRNC strongly objects to this allowance. The Community cannot tolerate ANY release from the facility, and we do not understand why we even have to make this statement. If SoCalGas cannot prevent any release from the facility, then we expect the CPUC and DOGGR to conclude that this facility should not be allowed to operate.

Summary

The PRNC urges DOGGR to consider the following:

1. The tests conducted on the wells, while they represent an improvement over past requirements, they fall far short of securing and ensuring the safety and integrity of the wells against another blowout.

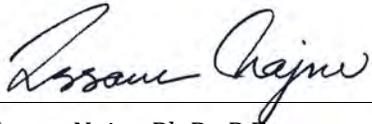
Porter Ranch Neighborhood Council

2. DOGGR should commission a thorough structural and seismic analysis to quantify the risk of seismic failure and its consequences. It is imperative that a seismic analysis of the wells and the formation be completed before the field is allowed to resume operation.
3. DOGGR should not limit the pressure determination to an engineering calculation, but should also include a thorough Risk Analysis. Without the Risk Analysis component, the pressure limit determination is incomplete.
4. The PRNC categorically rejects the notion that as much as 6 tons of methane can be released into the community every day from the Aliso Canyon facility. We do not understand how this can be acceptable to the CPUC and DOGGR. If this facility cannot contain its gas release, this should be a clear indication to the CPUC and DOGGR that this facility cannot be allowed to operate, and must be retired.

In the final analysis, the Porter Ranch Neighborhood Council finds DOGGR's willingness to give the Gas Company the green light to refill the Aliso Canyon facility with 100% of its capacity to be completely unacceptable, and a slap in the face to the people who lived through the well rupture disaster. We ask that DOGGR takes this decision back to the drawing board and incorporate a Risk Analysis component to it based on the history of the field, the age of the field, and the impact of potential failure on the people who are in the unenviable position of living next to this facility.

Respectfully Yours,

Porter Ranch Neighborhood Council



Issam Najm, Ph.D., P.E.
President

cc: The Honorable Edmund G. Brown, Jr., Governor, State of California
Mr. Timothy Sullivan, Executive Director, California Public Utilities Commission
Senator Henry Stern, California 27th District
Mr. Dante Acosta, California Assembly Member, 38th District
Ms. Kathryn Barger, Supervisor, Los Angeles County Board of Supervisors
Mr. Mitchell Englander, Councilman, Los Angeles City Council
Mr. Eric Garcetti, Mayor, City of Los Angeles
Mr. Steve Knight, United States Representative, CA-25
Mr. Brad Sherman, United States Representative, CA-30

From: [Donna Siers](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comments
Date: Monday, February 6, 2017 5:00:20 PM

Dear Department of Conservation:

RE: Aliso Canyon Comprehensive Safety Review

Public Comment Regarding SB

380's requirement that "the supervisor to continue the prohibition against Southern California Gas Company injecting any natural gas into the Aliso Canyon natural gas facility located in the County of Los Angeles **until . . . the supervisor's duty to prevent damage to life, health, property, and natural resources, and other requirement is satisfied**"

Please notify me by e-mail confirmation that you received my statement. My e-mail address is



I am a nearly 70 year old Porter Ranch resident, and grandmother of 10. Our family home is located near Tampa and Sesnon, a little over a mile from SR 25, and the still leaking SoCalGas gas storage field known as Aliso Canyon.

Although the facility was totally shut down from early January 2016, until SoCalGas' manipulation of the market (decreasing the amount of natural gas it was buying, while knowing that cooler weather was headed to Los Angeles and natural gas usage would increase) created a manufactured shortage (fake news), the facility still continued to leak, with an average of two leaks a day, according to a SoCalGas employee's August 2016, AQMD testimony. SoCalGas' latest gas withdrawal from Aliso Canyon caused us to smell gas and the

pollutants lingered over our community.

I did not know that SoCalGas even contemplated withdrawing any gas until it they were actually doing it

because while SoCalGas claims "improved communication with the community," I have yet to receive a text or e-mail notifying me about any of the six leaks or the recent gas withdrawal.

Even though I signed up numerous times and finally started taking screen shots of my

applications and their response: "your request has been processed," SoCalGas has

never followed through. My experience is not unique, as I know a number of people who have also signed up for notifications. But? like me, we're not notified as promised.

We are a nation of laws. As a civilized society, we all rely and depend on agencies and on the

people representing those agencies, like employees of the DOC and its subsidiaries to strictly enforce SB 380 in the best interest of people. Therefore,

we, my neighbors and I, (all innocent victims of the largest uncontrolled methane

blowout in United States history)
are asking you to please table
SoCalGas' request to the-open
their Aliso Canyon gas storage
facility, **until they can prove
they have met all aspects of the
legal requirements necessary to
fully comply with the law
codified in SB 380, the DOC
and DOGGER mission statements**
for the following reasons:

Damage to health, life and property is still continuing

When Aliso Canyon is leaking, and the wind is blowing the short term pollutants into our community,

I can tell if the short term

pollutants released from Aliso Canyon are negatively

impacting my health as soon as I step outside my house.

I am one of the 63% of residents the LA Department of Health reported are still suffering

symptoms. When the methane level is elevated and the wind is blowing the fumes toward our

homes, my body reacts as it did during the blowout when I would stop in Porter Ranch to check on my home: my nose starts running, and I feel some or all of the following: labored breathing, shortness of breath, dizziness, headache, nausea, light headed, raspy voice, the Porter Ranch cough, I feel like something is in my throat so I continually feel the need to clear it, when I blow my nose there is a bloody discharge, my body aches, and my muscles

spasm.

Some people might say, a lot of people who are nearly 70 and breathing totally clean air could feel the same symptoms, but if these symptoms were age related, the symptoms would continue 24-7 regardless of location and they don't. These symptoms only occur when I'm physically in Porter Ranch. When I leave the area, the symptoms diminish and cease to bother me.

Furthermore, since November 2015, I've had numerous sinus infections, bronchitis, and two kidney infections. There have been five (5) instances, each time was after I had been outside for an hour or so, that I ended up sick in bed for 10 days to two (2) weeks.

The first time I was sick enough to have to stay in bed was in November 2015, shortly after

returning home from a month of business travel. At that time, since the blowout was not national news, I had no idea that my symptoms were consistent with exposure to what was blowing out of the blowout well. My last negative reaction to the outside air, a reaction that again put me in bed, started a day after SoCalGas' recent withdrawal from Aliso Canyon. In fact, that is the reason I am sending my written statement instead of being at the public hearings.

Many of my neighbors are also continuing to deal with various and in numerous cases extremely serious medical issues, like cancer that has already been diagnosed.

Because SoCalGas contends that they are protected from having to release a complete list of what blew out of that old well, medical doctors have been precluded

from knowing all the toxic chemicals that blew out during the 112 days pollutants were spewing into atmosphere.

Without that knowledge, medical

personnel are limited in their
treatment options.

I've always believed that people who have nothing to hide welcome
people seeking the truth.

Those who know the results will
cast them in a negative light, or
those who are afraid of
exposure don't want a study, or
an investigation. They would
rather pretend everything is
fine, hide information and blame
everyone but themselves.

At a Porter Ranch Neighborhood Council meeting a few months ago,
I asked a AQMD representative
what stopped them and others from putting the needs of people
before the wishes of SoCalGas.

The answer "no health study."

Interestingly, the only entity that does not want a health study, and in
fact broke their promise to pay
for one, is SoCalGas. I suggest the
reason SoCalGas doesn't want one
conducted is because they know
the results will show that Aliso
Canyon is harmful to the health
and well being of the residents of

Porter Ranch and the entire North
San Fernando Valley. A harm
SoCalGas knows cannot be
eliminated thus mandating the
permanent closure of their underground natural gas storage facility.

While I believe an objective health study would help the affected
residents, in my opinion,
no one needs a separate Porter Ranch health study to see and know
that short term pollutants,
like the few blowout pollutants that SoCalGas couldn't hide, are
harmful.

The data already exists. In fact, in April 2016, the danger of short
term pollutants, including
methane, was addressed during
the debate over SB 1383 - a bill
SoCalGas supported.

On April 26, 2016, 34 health and medical organizations, and 25
medical professionals signed
a letter addressed to chairman Ricardo Lara and the Senate
Appropriations committee
members stating their "strong
support of SB 1383 - a bill that
when signed required reductions
in short lived climate pollutants or "super pollutants," like methane.

As the introductory paragraph said: "This bill is a vital public health
measure that will protect residents
across the state ...from health damaging air pollution, and bring

additional health benefits while reducing the health impacts of climate change."

The medical community goes on to say:

"Super pollutants contribute to and worsen California's longtime air pollution and health changes.

Short term "super" pollutants impact health in multiple ways. While those pollutants

exist a relatively short period of time in the atmosphere, they deliver an extremely

damaging dose of climate pollution"

"Methane leaked from oil and gas operations is accompanied by smog-forming pollutants and

air toxics such as benzene

[kidney problems], toluene, and

formaldehyde that are linked to

health impacts ranging from lung damage and asthma attacks

to premature deaths."

The American Lung Association's 2015, "State of the Air" report found that "health impacts from

air pollution range from asthma attacks, to lung and heart disease cancer, and premature death."

Furthermore "California pediatricians strongly supported SB 1383."

They supported a

bill that primarily affected people in less populated areas of the state, and Aliso Canyon effects a

heavily populated area. The harm

is the same, but because of the location of Aliso Canyon the

Impact is undeniably magnified.

As you heard from both parents,
children and an LAUSD Board
Member, the Aliso Canyon blowout
and continuing leaks are negatively
impacting the health of children in
our community.

The World Health Organization, could have been writing about the
impact SoCalGas' operation. In

Aliso Canyon has had, and is still
having, on the children living in the

San Fernando Valley when it wrote: "more than 80% of the current
health burden to the changing

climate occurs in children younger than 5 years old. **As climate
change accelerates the children**

will continue to suffer

disproportionally because they

**breathe faster and spend more
time outside, and therefore have
a greater opportunity for**

exposure to pollutants."

In fact, on September 19, 2016, **when Governor Brown signed SB
1383 into law he said, b"this**

bill curbs dangerous pollutants

and thereby protects public

health" According to

Courtroom News, Governor Brown

also said with the passage, of SB

1383, "we're protecting people's lungs and their health." That same protection should be available to the people of Porter Ranch, the San Fernando Valley, and everyone in the City and County of Los Angeles.

Knowing that the bill was designed to protect people's health by reducing short

term pollutants, like what blew out of Aliso Canyon for 112 days, and are still leaking from

that facility, on the day Governor Brown signed SB 1383 into law SoCalGas wrote in a press

release: "**SoCalGas commends**

SB 1383's sponsor Senator Ricardo Lara (D-33) and

Governor Brown for bringing

California this bold legislation

that will help drive innovation and

develop the market for renewable natural gas."

Interestingly, while the priority of the medical profession, the framers of the bill and the Governor were

on protecting people's health and

reducing short term pollutants,

SoCalGas' focus was on increasing their bottom line, just as they are currently doing.

According to the EPA, prior to the blowout, SoCalGas' normal operating procedure

resulted in Aliso Canyon being ranked the third most polluting field

in the country, and
since October 2015, things
haven't been normal for any of us.

SoCalGas can't have it both ways. On one hand they compliment
Governor Brown

for legislation that reduces short term pollutants to protect "people's
lungs and their health, and on the

other hand, they say, " no harm no foul. Without a Porter Ranch

health study none of you can
prove that the short term
pollutants coming from our
facility is harmful to your health."

The medical evidence is clear: Short term pollution negatively
impacts the health of everyone

- especially the health of residents

living next to one of SoCalGas' old, leaky, storage facility.

The mission statement of the DOC is very clear. The first goals listed
are "**to protect public health and**

safety." We all know that when

regulators follow the law, instead

of political motivation, people are safer. The law delineated by SB
380 is also very clear. The

health and safety of the residents living near Aliso Canyon is
paramount.

The law says, "**SoCalGas is prohibited** from injecting any natural
gas into the Aliso

Canyon natural gas facility located in the County of Los
Angeles **until** . . . the supervisor's

to prevent damage to life, health, property, and natural

resources, and other requirements is satisfied." It's not an either or requirement. All requirements listed in SB 380, which is the law in California, must be met.

The damage to our health is ongoing - the above legal requirement has not been

met. Thus, I respectfully suggest the ongoing health issues are enough to delay opening the

facility, but there are other concerns as well.

Without a root cause analysis so that the cause of the blowout can be address, a comprehensive review of the safety of the facility is incomplete.

SB 380 requires that SoCalGas be prohibited from injecting any natural gas until a comprehensive review of the safety **of the gas storage wells is completed.** The

law **does not exclude SR 25 from the comprehensive review requirement.**

So the real question is why has a comprehensive review of the well causing the closure of Aliso

Canyon been ignored by the DOC, the PUC, DOGGER, and every other agency who is required

by SB 380 to do a comprehensive review of all wells?

I don't know because no one has answered that question. However, if I were a betting person, I would

suggest the reason no root cause

investigation has even been

started is because SoCalGas is opposed to that investigation. Their

reticence is obvious

because they have refused to do or allow anyone to do a comprehensive review of

SR 25. In fact, my understanding is that there currently is no plan in place to even consider the process for starting a root cause investigation.

When buildings unexpectedly erupt in flames, when beautiful, sleek aircraft unexpectedly crash,

when people driving the same

vehicle unexpectedly lose control,

when someone unexpectedly dies, while they are called by different names, there are always root

cause investigations. An

unexpected blowout of such magnitude **should not be the**

exception, because, as we all know, problems cannot be solved,

repeats prevented or safety honestly assured without knowing the root cause of an event.

However, without knowing the root cause of the blowout, SoCalGas, DOGGER and the

PCU combined to conduct tours for the media and other people selected by SoCalGas

prior to any public hearing, and prior to any decision "allegedly" being made. In fact,

SoCalGas has said over and over that they have made extensive upgrades to the wells

and installed safety equipment, which is what they wanted presented to the public in

lieu of public comments, thus trying to deflect attention from the ongoing reasons Aliso

Canyon is not in a position to be reopened.

Furthermore, in violation of the Brown Act, the original DOC agenda called for presentations

on what SoCalGas has done and why the Committee believes the facility is safe. Public

comment was initially going to be stifled, which created the inference that politics, not

adherence to the law, is the driving force.

While the above actions make it look like the decision has already been made to violate

the requirements of SB 380 in regard to safety, health, lives, and property of the people adversely affected by SoCalGas, and to violate the requirement that all wells, without

exclusion need a comprehensive review, I hope that is not the case.

SoCalGas has continually focused on what they have done, ignoring the crucial elements

that need to be done to legally reopen Aliso Canyon. SoCalGas did not install the "infrastructure, technology and safety enhancements" as a result of the October 2015, blowout. That modernization and expansion is the result of a settlement agreement in

2008, that required SoCalGas to replace the turbines that were still in operation in

October 2015, with turbines that were twice as powerful, add pipeline, etc. The purpose

of the new design was to increase injection by 145 million cubic feet per day, resulting in

a 50% increase in storage capacity. It took almost 6 years to design and start the process

of Implementing the 2008 agreement as construction didn't start until March 2014.

One would think that the largest methane blowout in history would

have put a stop to the construction and SoCalGas would have reevaluated their 7 year old plan, in light of their

new information. But, that is not what happened.

SoCalGas continued to work 24-7 to

finish what was started in 2008, 7 years before SR 25 inexplicably blew-out.

Now

SoCalGas

Dear Department of Conservation:

RE: Aliso Canyon Comprehensive Safety Review

Public Comment Regarding SB 380's requirement that "the supervisor to

continue the prohibition against Southern California Gas Company injecting

any natural gas into the Aliso Canyon natural gas facility located in the County

of Los Angeles **until . . . the supervisor's duty to prevent damage to life, health,**

property, and natural resources, and other requirement is satisfied"

Please e-mail me a written confirmation that you received my statement at



I am a nearly 70 year old Porter Ranch resident, and grandmother of 10. Our family home is located near Tampa and Sesnon, a little over a mile from SR 25, and the still leaking SoCalGas gas storage field known as Aliso Canyon.

Although the facility was totally shut down from early January 2016,

until SoCalGas' manipulation of the market (decreasing the amount of natural gas it was buying, while knowing that cooler weather was headed to Los Angeles and natural gas usage would increase) created a manufactured shortage (fake news), the facility still continued to leak, with an average of two leaks a day, according to a SoCalGas employee's August 2016, AQMD testimony.

Furthermore, when SoCalGas made the withdrawal from Aliso Canyon, that action was not without problems, as the smell and pollutants lingered over our community.

I did not know that SoCalGas even contemplated withdrawing any gas until it was a

done deal, because while SoCalGas claims "improved communication with the

community," I have yet to receive a text or e-mail notifying me about any of the six (6) leaks or the gas withdrawal.

Even though I signed up numerous times and finally started taking screen shots of my

applications and their response: "your request has been processed," SoCalGas has

never followed through. My experience is not unique, as I know a number of people who have also signed up but, like me, not been notified.

We are a nation of laws. As a civilized society, we all rely and depend on agencies and people representing those agencies, like the DOC and its subsidiaries, to strictly enforce every aspect of the law for the betterment of all citizens. Therefore, we (my neighbors and I, all innocent victims of the largest blowout of uncontrolled methane in the history) are asking you to please **table** Southern California Gas' request to re-open their Aliso Canyon gas storage facility, **until they can prove they have met all aspects of the legal requirements necessary to fully comply with the law codified in SB 380, and DOC and DOGGER mission statements** for the following reasons:

Damage to health, life and property is still continuing.

When Aliso Canyon is leaking, and the wind is blowing the short term pollutants into our community, I can tell if the short term pollutants released from Aliso Canyon are negatively impacting my

health as soon as I step outside my house.

I am one of the 63% of residents the LA Department of Health reported are still

suffering symptoms. When the methane level is elevated and the wind is blowing the

fumes toward our homes, my body reacts as it did during the blowout when I would stop in Porter Ranch to check on my home: my nose starts running, and I feel some or all of the following: labored breathing, shortness of breath, dizziness, headache, nausea, light headed, raspy voice, the Porter Ranch cough, I feel like something is in my throat so I continually feel the need to clear it, when I blow my nose there is a bloody discharge, my body aches, and my muscles spasm.

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could feel the same symptoms, but if these symptoms were age related, the symptoms

would continue 24-7 regardless of location and they don't. These symptoms only occur

when I'm physically in Porter Ranch. When I leave the area, the symptoms diminish and

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Furthermore, since November 2015, I've had numerous sinus infections, bronchitis,

and two kidney infections. There have been five (5) instances, each time was after

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after returning home from a month of business travel. At that time, since the blowout

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to what was blowing out of the blowout well. My last negative reaction to the outside

air, a reaction that again that put me in bed, started a day after SoCalGas' recent

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statement instead of being able to attend the recent public meetings.

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complete list of what blew out of that old well, medical doctors have been precluded

from knowing all the toxic chemicals the blowout exposes everyone to during the

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the environment. Without knowledge, medical personnel are limited in their treatment

options.

I've always believed that people who have nothing to hide welcome people seeking the truth. Those who know the results will cast them in a negative light, or those who are afraid of exposure don't want a study, or an investigation. They would rather pretend everything is fine, hide information and blame everyone but themselves.

At a Porter Ranch Neighborhood Council meeting a few months ago, I asked the

AQMD speaker what stopped them and others from putting the needs of people before

the wishes of SoCalGas. The answer "no health study."

Interestingly, the only entity that does not want a health study, and in fact broke their

promise to pay for one, is SoCalGas. I suggest the reason SoCalGas doesn't want one

conducted is because they know the results will show that Aliso Canyon is harmful to

the health and well being of the residents of Porter Ranch and the entire North San

Fernando Valley. A harm SoCalGas knows cannot be eliminated thus mandating the

permanent closure of their underground natural gas storage facility.

While I believe an objective health study would help the affected residents, in my opinion,

no one needs a separate Porter Ranch health study to see and know that short term

pollutants, like the few blowout pollutants that SoCalGas couldn't hide, are harmful.

The data already exists. In fact, in April 2016, the danger of short term pollutants,

including methane, was addressed during the debate over SB 1383 - a bill SoCalGas

supported.

On April 26, 2016, 34 health and medical organizations, and 25 medical professionals signed a letter addressed to chairman Ricardo Lara and the Senate Appropriations committee members stating their "strong support of SB 1383 - a bill that when signed required reductions in short lived climate pollutants or "super pollutants," like methane.

As the introductory paragraph said: "This bill is a vital public health measure that will protect residents across the statefrom health damaging air pollution, and bring additional health benefits while reducing the health impacts of climate change."

The medical community goes on to say:

"Super pollutants contribute to and worsen California's longtime air pollution and health challenges."

Short term "super" pollutants impact health in multiple ways. While those pollutants exist a relatively short period of time in the atmosphere, they deliver an extremely damaging dose of climate pollution"

"Methane leaked from oil and gas operations is accompanied by smog-forming pollutants and air toxics such as benzene [kidney problems], toluene, and formaldehyde that are linked to health impacts ranging from lung damage and asthma attacks to premature deaths."

The American Lung Association's 2015, "State of the Air" report found that "health

impacts from air pollution range from asthma attacks, to lung and heart disease cancer

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Furthermore "California pediatricians strongly supported SB 1383."

They supported a

bill that primarily affected people in less populated areas of the state, and Aliso Canyon

affects a heavily populated area. The harm is the same, but because of the location of

Aliso Canyon, the impact is undeniably magnified. As you heard from both parents, children

and an LAUSD Board Member, the Aliso Canyon blowout and continuing leaks are negatively

impacting the health of children in our community.

The World Health Organization, could have been writing about the impact SoCalGas' operation in Aliso Canyon has had, and is still having, on the children living in the North San Fernando Valley when it wrote: "more than 80% of the current health burden to the changing climate occurs in children younger than 5 years old. **As climate change accelerates children will continue to suffer disproportionately because they breathe faster and spend more time outside, and therefore have a greater opportunity for exposure to pollutants."**

In fact, on September 19, 2016, **when Governor Brown signed SB 1383 into law he said,**

"this bill curbs dangerous pollutants and thereby protects public health" According

to Courtroom News, Governor Brown also said with the passage, of SB 1383, **"we're**

protecting people's lungs and their health." That same protection should be applied

to the people of Porter Ranch, the San Fernando Valley, and everyone in the City

and County of Los Angeles.

Knowing that the bill was designed to protect people's health by reducing short

term pollutants, like what blew out of Aliso Canyon for 112 days, and are still leaking

from that facility, on the day Governor Brown signed SB 1383 into law SoCalGas wrote

in a press release: **"SoCalGas commends SB 1383's sponsor Senator Ricardo Lara**

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Interestingly, while the priority of the medical profession, the framers of the bill and

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According to the EPA, prior to the blowout, SoCalGas' normal operating procedure

resulted in Aliso Canyon being ranked the third most polluting field in the country,

and since October 2015, things haven't been normal for any of us.

SoCalGas can't have it both ways. On one hand they compliment Governor Brown for legislation that reduces short term pollutants to protect "people's lungs and their health,"

and on the other they say "no harm no foul. Without a health study Porter Ranch you can't

prove the short term pollutants coming from our facility is harmful."

The medical evidence is clear: Short term pollution negatively impacts the health of

everyone - especially the health of residents living next to one of SoCalGas' old, leaky,

storage facilities.

The mission statement of the DOC is very clear. The first goals listed are "**to protect**

public health and safety." We all know that when regulators follow the law, instead

of political motivation, people are safer. The law delineated by SB 380 is also very clear.

The health and safety of the residents living near Aliso Canyon is paramount.

The law says, "**SoCalGas is prohibited** from injecting any natural gas into the Aliso

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took almost 6 years to design and start the process of

Implementing the 2008 agreement as construction didn't start until March 2014.

One would think that the largest methane blowout in history would have put a stop to the construction and SoCalGas would have reevaluated their 7 year old plan in light of their new information.

But, that is not what happened. SoCalGas continued to work 24-7 to finish what was started in 2008,

7 years before SR 25 inexplicably blew-out.

Now, seemingly, seemingly with the assistance of regulators who are legally supposed to

provide independent checks and balances, and are legally bound, to do a comprehensive

review **of all the wells** in Aliso Canyon, are trying to divert attention from the fact that

SS 25 was excluded from the required comprehensive review because someone prohibited a comprehensive root cause analysis.

So, because **the one well** that should have had the most comprehensive and scientific study was excluded from any review, and specifically from a review that would have determined the root cause of the blowout, **no one has a clue if we will be subject to another uncontrolled**

blowout. Therefore, since by definition the word "safe" means "not involving or likely to

involve danger, harm or loss," **the best this committee can say is they are assuming the**

facility is safe to open. And we all know what happens when people assume, which in this

case is legally unnecessary.

Both Ford and General Motors designed beautiful cars, with all new safety features included to protect consumers the year they put their gas tanks in the rear of their vehicles. Like SoCalGas, their public relations agencies touted safety features, and the upgrades that were designed to make those cars safer. The one thing they directed attention away from was the danger to occupants if a vehicle was involved in a rear end collision. It wasn't until after people were seriously burned, many dying of their burns, that independent investigations were conducted and discovered the problem was a design issue. Once the root cause was determined, the solution was to change the placement of the gas tanks to protect people. A safety change that was not required before such an analysis.

Without a root cause analysis, there is no way of knowing, or even safely guessing, let alone honestly saying, that the SoCalGas storage facility meets the reopening requirements specified in of SB 380.

Therefore, logic, and a bipartisan bill authored by Senators Stern and Wilk, say until the results of a root cause analysis is completed by independent experts, Aliso Canyon should remain closed.

Lack of a thorough analysis to determine the cause of the blowout is not the only thing that has been ignored in the rush to reopen Aliso Canyon.

Another problem that has apparently been overlooked, is that SoCalGas's storage facility sits on two Santa Susana fault lines. The Santa Susana fault lines have the capacity to creating a 6.5 to 7.3 magnitude earthquake according to experts in the field, who have predicted an earthquake of that magnitude will occur. The only

question is when not if.

Past experience shows an earthquake can and will cause harm to the storage facility. The wells are old, according to SoCalGas the average age of the wells is 52 years. The 1994 Northridge quake damaged a well drilled in 1944. Movement on the Santa Susana fault will more likely than not cause extensive damage to the storage facility resulting in harm to everyone living in Porter Ranch, and potentially everyone in the City and County of Los Angeles.

Earthquakes are a reality in California, but according to the Fire Department, SoCalGas is as unprepared for an earthquake as they were for the blowout. Their lack of a workable safety plan is disconcerting, especially since they are misleading the public with claims about how safe this facility currently is, in spite of the fact that the wells, in an allegedly closed facility are still leaking on a daily basis.

From my understanding during the public comment that was demanded by the residents, **the**

only people who addressed the issues, which according to SB 380 must be addressed and solved before reopening is considered, were residents and officials working in or representing our community.

None of the people who spoke in favor of reopening Aliso Canyon live in the area. None of them suffered any health issues. BUT, all of them had a connection to SoCalGas. Furthermore, even though they parroted the SoCalGas party line, every one of SoCalGas' outside supporters have all received 100% of the gas they needed without Aliso Canyon being operational.

You are the voice that is supposed to give life to the truth of your **mission statements,**

which, according to your websites, **mandate ensuring public safety, with health either**

being directly mandated or implicit in the public safety mandate.

The DOC's mission statement says "The mission of the Department of Conservation is to **protect public health and safety, ensure environmental quality,** and support the state's long term economic viability in the use of California's and mineral resources **through science and technology.**" Requiring an independent root cause analysis before deciding whether the cause of the blowout can be

prevented in the future would demand the use of science and technology to ensure environmental quality and protect public health and ensure safety.

According to the DOGGER website, the mission statement, in part includes "The wise development of oil, natural gas, and geothermal resources in the state **through sound**

engineering practices that protect the environment, prevent pollution and ensure public

safety."

"Wise," by definition means "based on good reasoning or information." We as people make the best decisions we can based on the information we have. Currently everyone, DOGGER included, is **missing** crucial information. **Information that will tell everyone what caused the blowout, and whether the cause preventable in the future.**

If an investigation of SS 25, using sound engineering and proper investigative practices, shows that the cause can be prevented with certain actions, then the opening of Aliso Canyon should be tabled to ensure public safety, until SoCalGas proves the proper remedies are in place to prevent another blowout in the future

If an investigation of SS 25, using sound engineering and investigative principles shows that SoCalGas cannot prove that the cause of the problem is solvable and future blowouts are both possible and probable, then the only way to protect the environment, prevent pollution and ensure public safety is to close Aliso Canyon permanently.

Timing is everything, and in my opinion, February 2017, is not the time to lift the SoCalGas prohibition for the following reasons:

1. **Damage to health, life and property is still continuing.**

2. **SB 380, did not exclude SS 25 from the comprehensive testing requirement, which in the case of SS 25 would**

**be conducted to determine
the cause of the blowout.**

3. Without a root cause analysis

**so that the cause of the
blowout can be addressed, a**

**comprehensive review of the
safety of the facility is
incomplete and thus based
on the law SoCalGas should
be prohibited from opening
their facility at this time.**

4. There is no need to reopen

**Aliso Canyon at this time, as
gas from Aliso Canyon is not
needed to meet demand in
this area. The nonresidents
who have verifiable
connections to SoCalGas
proved that point with their
statements. They have
always received 100% of
their need.**

I trust that, contrary to appearances, the DOC will not just rubber stamp what SoCalGas

wants, and that you, as the judges of the facts, will follow the law and to the right thing and table the vote

to reopen Aliso Canyon until a root

cause investigation has been completed to **ensure public safety.**

Thank you for your attention. If you have any questions, please do not hesitate to contact me.

Sincerely,

Donna B. Siers



Porter Ranch, CA

From: [Sharon](#)
To: AlisoComments@DOC
Cc: [Tom Phillips](#); [Farhad Dormani](#); [Mitchell Englander](#); [Scott Mark Schmerelson](#); [Congressman Steve Knight](#)
Subject: Aliso Canyon Storage Facility
Date: Monday, February 6, 2017 5:00:12 PM

Dear Sirs/Madames,

I am writing on behalf of myself, my husband, my children, and my community to relay to you our concerns about the possible reopening of Aliso Canyon Storage Facility.

After an exhaustive real estate search, we settled into our Porter Ranch home in May 2013.

We moved from South Bay to the Valley in search of good schools, clean air, safe, and affordable housing. We looked throughout the LA Basin from San Dimas in the east, Glendale to the north, Palos Verdes to the south, and Porter Ranch to the west.

One of our major concerns was air quality as our children had developed asthmatic symptoms living close to the oil refineries and port in South Bay. Therefore, we gave particular attention to the disclosure page listing known hazards. I recall reading about the dump in Granada Hills, the airport in Van Nuys, the seismic fault lines being disclosed but I do not recall ANYTHING that indicated that within one mile of my children's bedrooms was the **SECOND LARGEST NATURAL GAS HOLDING FACILITY IN THE USA**. If it had been known to us, we **NEVER WOULD HAVE PURCHASED OUR HOME**. To us, the hillside, which was much less developed than it is today, looked like an open recreational area for hiking and horseback riding.

So on the evening of September 25, 2015, I wrote about a strange metallic smell outside on Nextdoor.com. It was the second time that month that I'd noticed a strange smell around the outside of our home. The following month, we would learn of the massive blowout. But it would take an additional **EIGHT WEEKS** before I could remove my family from the poison spewing down onto our home, and community. During this time we suffered headaches, nausea, cough, sore throat, sinus issues, nose bleeds. Our pets suffered from vomiting and diarrhea. We relocated 40 miles away from December to June. Yet, if we returned for any reason, we were struck with symptoms such as brain fog, headaches, and nose bleeds. Some symptoms would last for several days after leaving the area.

Since being forced to return, we have continued to suffer health problems all while being officially told the facility is closed. I suffered from conjunctivitis for 6 weeks after returning. No antibiotic would clear it up. I also had mouth sores. My husband suffered just as long with daily headaches. And my daughter has had six nose bleeds since returning. Each time, we have checked fenceline.org and found that methane levels were above normal. **WE ARE NOT GUINEA PIGS!** There are absolutely no long term studies on the long term effects of the chemicals associated with gas and oil industries on residential people exposed for long periods of time.

Sempra/SoCal Gas has proved to be a negligent neighbor. We do not want them in our backyard. There is **NO GUARANTEE THAT ANOTHER BLOWOUT COULD OCCUR UNTIL WE KNOW WHY IT HAPPENED AND WHAT THE HELL CAME OUT OF SS25**.

The health of my family, my children, and my community rests in your hands. Would you gamble with your family's health? Your grandchildren's health? Please don't gamble with ours. We have suffered enough. There are another 114 outdated wells up there.
WE DON'T NEED THE GAS! CALIFORNIA DOESN'T NEED ALISO CANYON.

Sincerely,
SHARON DORMANI

[Sent from Yahoo Mail on Android](#)

From: [Celina Vela](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:59:26 PM

To whom it may concern,

I have health and safety concerns for my family and I with the possible re-opening of Aliso Canyon. We need to understand the root cause of the original leak and the long term health impacts to the community.

Thank you,

Celina Vela

Sent from my iPhone

From: [Kelly Browne](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:58:48 PM

I am writing this letter to you in brief as words cannot explain the horror that has occurred as a result of the Aliso Canyon Gas Leak and Blow Out in Porter Ranch by SoCal Gas – Sempra Utilities. I am happy to speak to the Committee at any time.

We are currently undergoing aggressive treatment to save my mother from Cancer due to the negligence of SoCalGas.

Please be advised: **My parent's lived less than one mile from the Aliso Canyon Storage Facility.**

I could not understand why I smelled gas in their backyard July 2015. I could not understand why my parent's dog's ears were turning black and rotting. Why they were sick every single night and once they were evacuated, their ears returned to normal. I could not understand why my parent's were so sick and complaining of feeling dizzy. Not being able to breathe for months on end. I could not understand why I was not advised by anyone, that there was a "no fly zone" imposed over their home – their home that was contaminated and filled with gas that caused their Viking refrigerator to catch on fire and burn up. Nor why when I alerted SoCal Gas to come for this emergency – they shrugged their shoulders. Were it not for the fire alarm that saved my parent's lives they could be gone. I begged for help to evacuate my parents – especially my mom who by December 2015 was so sick she was finally taken to the ER with a blood pressure of 210 – what has happened, has destroyed our lives. We begged and begged for hotel evacuation – it was a nightmare, but my parents were placed for a battle of seven months to then find out from the Health Department that their home had been contaminated. We were forced to beg SoCal Gas to clean it, which they did poorly with a Swiffer duster, and we immediately listed it and sold it. Giving most of what they owned away or into storage...including continuing to board their beloved dogs.

But it has only gotten worse...

My mother has been diagnosed with cancer – Multiple Myeloma as a result of chemical exposure and has been undergoing treatment at UCLA since November to save her life. The health effects on my mother's life were so severe that they had to sell their home and because the loss of the home was so substantial, they had to move in with my family to help. This has affected everyone in my family as we do not know on a moment-to-moment basis, if my mom will survive. I can not tell you the number of ER visits and Hospital stays we have endured. Most recently we were in the hospital for a week.

Is this the kind of chance you want to take with the thousands of lives in this community?

Let's be clear, there are over 100 wells in the region that are in the same condition as Aliso Canyon. It is also a fact that since this blowout was exposed, there have been dozens of methane and benzene leaks since, putting the community at risk for dozens of critical and catastrophic health complications and possible death.

My parent's were forced to leave their home of almost 40 years because of the negligence of SoCal Gas, but that negligence is costing us our lives – is it worth it? What price can you put on your mother's life? Or on the lives of all of us trying to recover from this and save her?

Thank you for your swift action to help us.

Best regards,

Kelly Browne

www.KellyBrowne.net



From: [Ginny Kheshvadjian](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:56:32 PM

To whom it may concern,

We have lived here for almost 15 years. But since last year we have been not enjoying our home or our neighborhood. We are getting headaches, and waking up in the morning with difficulty, and being in a "fog" and at times feeling nauseous. We do not enjoy our yard, we do not even take our dog outside. Even the dog has had bleeding issues. We feel that this is all due to the gas leak. Nobody in our family has ever had health issues like this. It is always in our minds that these symptoms are caused by everything at the Aliso canyon gas wells. The anxiety that this has created in our family is very difficult to control. There is not a day that goes by that we don't say we wish we could just lock our doors and leave- or just sell our home overnight and move. Unfortunately moving is not a decision we can make overnight. There are many factors to consider. Location, financial, family, work. We have been in such an uneasy place in our lives and would love that these gas wells would all be closed and we will be able to live comfortably without fear, anxiety, and health discomforts. Our kids are constantly worried that we are all exposed to very high health risks and ask us why we just can't move. I am a cancer survivor and I would not want anyone to go through whatever i did. But as a parent I feel so helpless that we cannot move immediately and that my family is exposed to such awful illnesses.

Ginny Kheshvadjian

Sent from my iPhone

From: [Jessica Kim](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:51:28 PM

Hello,

I just want to say that as a resident of Porter Ranch, Aliso canyon cannot and should not be reopened. People have been getting sick for some time, including myself and my family. Some residents' pets have died. Some kids ended up in the ICU.

This shouldn't even be a debate when it's clear that Aliso Canyon is not stable as SoCal Gas makes it sound to be. People are sick, we smell odor coming from the gas facility, etc.

PLEASE, do not reopen the facility.

Best,
J.K.

From: [Susan Haney](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:49:29 PM

To Whom It May Concern,

I am writing this to urge you to please shut the Aliso Canyon facility down or at the very least, have more thorough testing done before it is reopened.

This whole incident has been a nightmare for my family and myself. We were one of the many families who had to be relocated. Not just because of the smell but for our health sake. I'd ended up in urgent care during the blowout and had to be given an injection to open up my esophagus to then be given breathing treatments, because it aggravated my asthma something fierce. Had the injection not worked, they would have had to perform a tracheotomy. The doctor in urgent care told us that had we arrived ten minutes later, I might have died. This is not something I want to live thru again. Prior to the blowout, my asthma was totally under control to the point of hardly ever needing an inhaler. Now, both my daughter and I are on inhalers daily, as a result of the gas leak. We suffered thru varying degrees of asthma, extremely painful pounding headaches, bloody noses, foggy headedness, stomach cramps, nausea, dripping noses, dry throats and fatigue.

I'm well aware that the well has been capped. I've been hearing assurances thru the whole blowout and since then, that everything is fine. I hear this, but I don't believe this. Why? Because our bodies in this house tell us otherwise. Not a week has gone by since we moved back after the well was capped, that there are no symptoms. We're still dealing with bloody noses, asthma, those awful headaches, nausea, dripping noses, fatigue, etc., etc. Why is that? This house had been professionally cleaned TWICE! Why are we still facing health issues? We don't know the long term health affects of all this, and we're still dealing with symptoms!

This has been an unprecedented event. The worst in US history. I believe this needs more thorough testing, as laid out by the Porter Ranch Neighborhood Council, before the thought of reopening of this facility is even a possibility.

I'm afraid to open my windows to let in fresh air. Because it isn't. At least not here in Porter Ranch.

Sincerely,
Susan E Haney

Sent from my iPad

From: [Seza Kouyoumjian](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:46:26 PM

My family and I lived at Porter Ranch for the last 36 years. Prior to the infamous Aliso Canyon leak, we have repeatedly experiencing natural gas odors at the side of the house. I called the gas company, suspecting a leak, and after through examination of my pipes, and some testing, I have been told that we have no leaks outside our house but rather, the Gas Co. releases natural gas in to the air.

Satisfied with the results, we went on.

Now post 6 months leak, my family and I experienced very serious health issues, that despite the main problem, is over, WE ARE STILL EXPERIENCING VERY SERIOUS HEALTH ISSUES:

I, came down with very serious bronchitis, twice, repeated nose bleeds, even depression as a result of the move, the uncertainty of the short term, as well as long term effects of this ongoing problem on our health. Please note that I was in excellent health prior to this incident, never smoked, fit and watches her diet very carefully.

My husband, in poor health, from pre existing heart lung issue, is in horrible shape, he has been on antibiotics 6 times the last year to treat his bronchitis/ pneumonia. At the doctor's office 3 times a week.

My elderly mother, who lives with us experiencing a lot of health issues associated with this situation.

My youngest son, who still lives with us following his graduation from graduate school, is still experiencing health issues, like nose bleeds and skin problems like myself.

We have no idea, how much our health will deteriorate, if Aliso Canyon Gas facility reopens.

WE have exhausted other resources, such as relocating to another house, but after careful research, and property values skyrocketing, we are unable to afford that move, leaving us and OUR PRECIOUS HEALTH AT THE MERCY OF THE GREEDY GAS CO.

Thank you

Seza Kouyoumjian and family

 st

Porter Ranch Ca 91326

Tel: 818- 723-6828

Fax: 213-488-1588

Email: 

From: [Amelia T. Lacap](#)
To: AlisoComments@DOC
Subject: Fw: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:45:44 PM

Dear Department of Conservation's Division of Oil, Gas and Geothermal Resources (DOGGR):

I am writing today with a call to permanently shut down the Aliso Canyon facility for the health and safety of the residents of the Northern San Fernando Valley.

There are several major concerns I have regarding the Aliso Canyon Facility:

1. The facility cannot be deemed as safe without having a root cause analysis of how and why SS-25 failed.
2. There are wells in the facility like SS-25 that still lack safety valves.
3. Most importantly, the Porter Ranch, Northridge, Granada Hills and Chatsworth residents are still suffering from headaches, nosebleeds, dizziness and nausea and the safety review does not include any health studies from residents in these communities.

The Aliso Canyon facility has been closed since January 2016, so Los Angeles does not need this unreliable, antiquated and dangerous gas storage facility. For the sake of the Northern San Fernando Valley residents and especially our children, please do the right thing and shut it down forever.

Sincerely,
Chris and Amelia Lacap

From: [Wade Trimmer](#)
To: AlisoComments@DOC
Subject: Support for Aliso Canyon opening
Date: Monday, February 6, 2017 4:43:38 PM

As an advocate for people living in poverty in Los Angeles, I want to voice my support for the opening of the Aliso Canyon field. It is my understanding that if this field goes offline, gas prices will spike drastically which in turn will raise electricity costs. Many Angelenos already struggle to make ends meet and an increase in utility costs would be unwelcome.

Best Regards,

Wade Trimmer
Homeless Advocate

From: [Theresa Brady](#)
To: AlisoComments@DOC
Cc: [theresa brady](#); [Kent Minault](#); [Walker Foley](#)
Subject: aliso canyon comprehensive safety review
Date: Monday, February 6, 2017 4:42:04 PM

I want the Aliso canyon gas storage facility to remain closed . It is not safe to operate such a storage facility so close to residential areas.

The gas company owes something to the community, alongwith keeping the facility closed. There is one gesture that would improve reliability of hot water and be a gesture of good will toward the community. It would also lead to reduced global warming impacts. That is to offer solar hot water to any resident who wants it in the service area and especially in the areas that have been effected by gas leaks.

The 31 mitigation measures to avoid the need for storage at aliso canyon are working and should be continued.

The strongest reason to keep the gas field shut down is that to this date they are saying they have not determined the cause of the leak. A disaster that has not had its cause determined, could easily happen again, and prevention is nearly impossible without a determination of the cause. Please keep the aliso canyon gas field closed, and use mitigation measures in place, plus the solar hot water.

Sincerely,

Theresa Brady

From: [Nancy Hernandez](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:40:48 PM

To whom it may concern,

I am completely against the reopening of the Aliso Canyon facility. It is a tremendous danger to the health of all the adjacent communities. It leaks, it will always leak, and the possibility of another blow out is huge. It is a fire hazard. It is an earthquake hazard! It is not a matter of if, it's a matter of when the next disaster will occur there.

Aliso Canyon Storage facility must not coexist near populated communities. We are tired of living in fear. It needs to be shut down permanently.

Best regards,

Nancy Hernandez

From: [Richard M. Mathews](#)
 To: AlisoComments@DOC
 Subject: Aliso isn't safe, isn't needed
 Date: Monday, February 6, 2017 4:40:35 PM

The Aliso Natural Gas Storage Facility cannot be safely reopened, and is isn't needed.

The wells are too old. Most are 50-80 years old, and they were drilled with the intention of using them for oil extraction for just 20-30 years. Erosion has been excessive due to numerous bad practices including high flow rates and flowing gas through both inner and outer tubing at the same time. We still do not know the root cause of the blowout. There is no level of operation that we can know is safe.

Should it be reopened despite the inability to be able to demonstrate safety, the lower the pressures, the lower the maximum capacity utilization, and the lower the maximum flow rates the better. If it is to be allowed to operate, safety valves must be installed at the bottom of all wells. Even without knowing the root cause, lower pressures and the accompanying lower utilization will reduce the likelihood of another blowout. Lower flow rates will reduce erosion that could cause another blowout. The lower the better, and ZERO IS BEST.

We do not need to have Aliso operating in order to ensure energy reliability.

The Gas Company study claiming there could be blackouts is highly flawed, using self contradictory claims, false data, wrong physics, and ridiculous assumptions. I am a physicist and engineer, and I delight in building designs capable of withstanding two simultaneous system failures. To reach a conclusion of even a remote possibility of blackouts, So Cal Gas had to assume five concurrent system failures including unrealistic record-breaking peak loads, failure of the natural gas delivery system, and failure of the statewide electricity grid.

On the contrary, studies by Save Porter Ranch, Cal-ISO, and CPUC have shown that there is adequate capacity. Mitigation measures can be taken to protect against unexpected failures. We have the ability WITHOUT Aliso to provide 5.7 billion cubic feet per day, while our winter peak usage has been around 5.0. In recent years, it has been extremely rare to exceed 4.5.

The recent curtailment order by So Cal Gas was a scare tactic not based on facts. Rather than using the expected mitigation measure of increasing deliveries into their other storage facilities in the days before the cold weather hit, they were drawing down the storage level. When the coldest night hit on Jan 28, as shown in this screen capture from the EIA website (green ovals added), the demand did not peak. It plummeted drastically. This proves that the curtailment order was much more than necessary and probably complete unnecessary.



The L.A. Times just published an investigative report on how we have too much electricity generation capability in California. Rate payers are paying for plants we don't need. The Times says 7% surplus would be "bare knuckle" and 10% would be "fine." We are required to have 15% cushion, but we are on track to have 21% surplus not counting rooftop solar.

The homes closest to the facility (north of Sesnon between Tampa and Aliso Canyon) were built in 1966, before this facility was converted to natural gas storage. The facility never should have been allowed to be placed where it endangered those homes. Homes that were sold between then and 2015 did not come with disclosures of the danger of this facility, even though they did have disclosures with a long list of hazards such as the Sunshine Canyon landfill and the Santa Susana Field Laboratory.

As a resident of the Porter Ranch / Chatsworth area since 1964 and on behalf of the organizations I lead, I implore you to Shut It ALL Down.

Richard M. Mathews

Board Member, Save Porter Ranch
 President, North Valley Democratic Club

From: [Mitch Federer](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:39:48 PM

To Whom It May Concern:

As a resident of Porter Ranch, a homeowner with a stake in the community, and the father of a 14-month old baby, I am deeply concerned about the reopening of the Aliso Canyon gas storage facility. My family was forced to relocate during the blowout, and upon our return we have experienced physical illnesses, worry, and anxiety about when the next incident will happen.

Circumstances exist today that failed to exist when the facility was first opened. The Porter Ranch community has grown from non-existent to thousands of residence in multi-million dollar homes. As long as the gas storage facility is present, there is no amount of technology or safeguards or testing or infrastructure that can ensure the health and safety to the residents, facility workers or environment. The only remedy, and the only way to ensure the wellbeing of the residents of Porter Ranch and the greater San Fernando Valley is to remove the storage facility from our densely populated community.

Porter Ranch is such a beautiful community and amazing sanctuary in the middle of a sprawling metropolitan. Now that we are aware of the dangers that exist, let us not destroy such a community by reopening another disaster waiting to happen.

Thank you and I appreciate your time.

--

Mitchell P. Federer, Esq.

Phone: (813) 817-1372

Email: [REDACTED]

From: [Andrew Krowne](#)
To: AlisoComments@DOC
Subject: Public Comment - Aliso Canyon - Keep it shut down!
Date: Monday, February 6, 2017 4:39:23 PM
Attachments: [image001.png](#)

*** - I require email confirmation that this email has been received and included in the public comments that will be reviewed before a decision is made ***

To whom it may concern,

This is my public testimony from the February 1st and 2nd hearings.

Andrew Krowne, husband, father of 5 young children and treasurer Porter Ranch Neighborhood Council

Like just about everyone else in this room we all got sick. My family of 7 spent 5 months in a hotel. Before I can continue, I must point out the un-engaged and uncaring body-language as well as the looks of disdain and contempt on the faces of those sitting on the stage. I was under the impression, as our Facilitator has stated several times, that you were here to listen to the community. That you cared what the community had to say. So please, sit up, pay attention and listen to those who are affected by your decisions. ((hold up paper)) That is after all what your mission statement says, "... preventing damage to life, health, property and natural resources". DOGGR professes to be experts in the Oil & Gas Industry yet cannot properly refer to the SS-25 incident in industry accepted vernacular. ((hold up paper)). This was not a leak but rather a "blowout", a 4-month uncontrollable release of gas.

Is your rush to reopen Aliso Canyon money driven? I am here to tell you that SoCalGas doesn't need help in this area. ((hold up paper)) Their 1.4B dollar insurance policy is all the protection they need. Don't take my word for it ((hold up paper)), just look at their latest reported earnings showing over \$300M in operating profits this year. Last night we heard from LA County BizFed and VICA coming to the defense of one of their members. We can't be surprised. That's what \$60,000 a year in membership dues buys you. But please don't be fooled, NOT ONE BUSINESS IN THE LA BASIN HAS HAD A DISRUPTION IN GAS SERVICE SINCE ALISO CANYON WAS TAKEN OFFLINE. NOT ONE! All the evidence you need to prove that we don't need Aliso Canyon can be obtained over the last 15 months. ZERO blackouts! ZERO unfabricated supply shortages! But if that's not enough real-world evidence you have a report sent to you from the Porter Ranch Neighborhood Council as well as one from Bill Powers with numbers to back it up.

Now some additional facts:

*SoCalGas has **failed** to properly disclose the scope of the disaster, from day 1!*

*SoCalGas **failed** to have an emergency plan in place for a blowout disaster!*

*SoCalGas has **failed** to properly and timely reimburse residents!*

*SoCalGas has **failed** to properly maintain their facility in the interest of maximizing profits!*

*SoCalGas has **failed** to disclose everything they poisoned us with, preventing the acquisition of accurate medical care!*

*SoCalGas has **failed** the community by refusing to keep Green House Gas remediation money in this community!*

*SoCalGas has **failed** to timely notify the community during multiple subsequent leaks!*

*DOGGR has **failed** to refer to this disaster in accurate industry terminology – BLOWOUT!
DOGGR has **failed** to hold SoCalGas accountable for the largest blowout in US history!
DOGGR **failed** to notice that SoCalGas removed subsurface safety valves THIRTY YEARS AGO!
DOGGR has **failed** the environment – approving 6 tons of methane to be leaked per day on an ongoing basis!
DOGGR has **failed** in its certification of Aliso Canyon – dozens of odor and health complaints reported after just 6 hours of operation!!
DOGGR has **failed** in its primary mission of properly regulating Oil & Gas operations AND protecting the public!
The LAUSD, LA City Council, LA County Supervisors, State Senators, LA County Fire, LA Department of Health, US Senators and US Representatives ALL urge you to keep Aliso Canyon closed. What more do you want????
If you reopen this facility, the blood you see in pictures, is on your hands. With all that said, you have one more opportunity to do the right thing, before it's too late.
Keep Aliso Canyon Shut Down!*

All I would like to add is this:

Since Aliso Canyon has been closed there have been zero legitimate shortages and zero curtailments.

There is no further proof needed that Aliso Canyon is not needed for energy reliability in California. Conversely, operating Aliso Canyon causes immediate and severe negative health effects in the surrounding community.

The only ethical, moral and just thing to do is to decommission Aliso Canyon immediately



Andrew P. Krowne, Staff Accountant

KROWNE
CERTIFIED PUBLIC ACCOUNTANTS

tel (818) 831.6075 fax (818) 831.2045 website www.krowncpas.com

mobile [REDACTED]

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From: [Patricia Islikaplan](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:38:55 PM

To Whom It May Concern.

What follows is a brief review of the health problems my family has suffered in the past months:

In June of 2016 my husband, Zaven Islikaplan, was diagnosed with Myelofibrosis (a rare form for bone marrow cancer) which can be directly related to exposure to petrochemicals. This was a complete, unexpected, and unpleasant surprise to our family since in November of 2015 he was deemed healthy after a physical exam which included complete blood work, urinalysis, chest x-ray, stress test, EKG, sleep apnea test, and a comprehensive vital check by the physician.

After initial treatment with an oral chemo therapy it was found that the disease had progressed into Acute Myeloid Leukemia (AML), an aggressive form of blood cancer which can also be directly linked to exposure to benzene and toluene. He was hospitalized for chemo treatment at UCLA Medical Center in Westwood for 2 months from October 29, 2016 until December 22, 2016. He was scheduled for stem cell transplantation to start on January 20, 2017, however the AML relapsed. He is currently being treated at UCLA's Boyer Clinic with chemo therapy, platelet infusions, and blood transfusions on an outpatient basis and the life saving stem cell transplant has been postponed indefinitely.

This life changing event trumps all other health issues my family and I have suffered as a possible result of the gas leaking from the Aliso Canyon Storage Facility. I myself, have suffered from headaches, nausea, sleeping problems, dizziness, and fainting spells for which I have seen many specialist, endured multiple diagnostics, and was prescribed numerous medications all of which failed to cure or even diminish the symptoms... until the leak was closed. I am currently symptom free and as active and energetic as before.

I am telling you all this in an attempt to convince your organization to keep the Aliso Canyon Facility in Porter Ranch closed. Even though I am very aware of the fact that there is serious money involved in operating the facility, it can hardly be worth as much as human lives. And my husband's life may very well be at stake here.

Respectfully,
Patricia Islikaplan
[REDACTED]
Porter Ranch, Ca 91326
818 [REDACTED]

Sent from my iPad

From: [LESLIE MAGIDSOHN](#)
To: AlisoComments@DOC
Subject: "Aliso Canyon Comprehensive Safety Review"
Date: Monday, February 6, 2017 4:36:26 PM

To Whom It May Concern:

My husband and I have been residents of Porter Ranch for 37 years and are appalled at what has been going on re: gas leak. We have been very very sick at ages 72 and 80. We have been dizzy, nauseous, lethargic, exhausted (as in cant keep eyes open), itching and rashy all over, dry eyes, dry nose, burning eyes, headaches, weird sensations of intermittent sharp pain in head, nose bleeds, et. al.

This has changed our life dramatically. We were first relocated to the Marriott Warner Center, Woodland Hills, then that time ran out and we had to pack up and go to Hyatt Westlake Village and finally to a condominium in Westwood for SEVEN YES I REPEAT SEVEN MONTHS. My husbands practice is in Encino and it was an inconvenience for him and I had PTSD (post traumatic stress syndrome and seeing a therapist) AND LOST MY JOB OF TWENTY SIX YEARS BECAUSE I COULDN'T WORK.

It has been horrible and continues to be horrible. My symptoms recently came back as before and the itching is uncontrollable and not even cortisone helps so my dermatologist wants to put me on 10,000 IU of Vitamin A. Thats just the remedy for one of my problems. I made an appointment with my neurologist as my head feels foggy and not right. I have atrial fibrillation since this whole thing started and have been in and out of Cedars in patient and out for treatment.

I am a breast cancer survivor, 2011, brain tumor survivor 2000 and heart attack 2008. I am not inferring the gas leak had anything to do with it but then I will never know. I suspect the gas has been leaking for years and years. I can name twenty friends in the Porter Ranch area that have died or are currently suffering from cancer.

COME ON PEOPLE!!!!!!!!!!!!!!!!!!!!!!!!!!!!!! HELP US. SHUT IT DOWN. THIS CANNOT GO ON AND WE CANNOT LIVE OUT OUR SENIOR YEARS IN SUCH DISTRESS.

We recently attended two community meetings of about 500 people, covered by the press and I and myself and probably 99 other stood up at a podium and expressed what we have experience. Ironically so many of the complaints were identical.

It is unconscionable to me that an unprecedented event in the United States of America can go unnoticed by our governor and other regulatory agencies as well as the state, city and federal government. I am so

disillusioned.

I feel so unsafe and unprotected and angry.

PLEASE PLEASE, I IMPLORE YOU TO TAKE ACTION AND HELP US. THERE ARE A LOT OF PEOPLE 10'S OF THOUSANDS SUFFERING, SOME TOO ILL TO ATTEND RALLIES OR MEETINGS. THIS IS SO SERIOUS AND SHOULD GET YOUR IMMEDIATE ATTENTION.

THESE GOLDEN YEARS AREN'T GOLDEN AND NOT WHAT WE HAD PLANNED.

PLEASE SHUT DOWN ALISO CANYON AND LET US ALL LIVE OUR LIVES IN DIGNITY AND THE PEACE WE ALL DESERVE.

Many thanks for taking the time to read this.

Sincerely,

Leslie and Herman Magidsohn

[REDACTED]

From: sggc.dslextreme.com
To: AlisoComments@DOC
Subject: "Aliso Canyon Comprehensive Safety Review"
Date: Monday, February 6, 2017 4:34:15 PM

Public Comment from: Susan Gorman-Chang, Porter Ranch Resident; Regarding: DOGGR Aliso Canyon Safety Review

I have listened to the recording while viewing your power point entitled "Aliso Canyon Safety Review" posted on your <http://www.conservation.ca.gov/dog> website. I have viewed the testing results on this website as well. I appreciate all your efforts in these matters. However, I feel you have several glaring items that should be addressed, and are in fact unconscionable if not addressed.

First, your tests and reports make no mention of the fact that wells used by SoCalGas in Aliso Canyon Gas Storage Facility are re-purposed oil wells, which were never designed to withstand the pressure exerted on them from multiple, decades' worth of injection and withdrawal of natural gas. Natural gas is not oil; natural gas is stored under much greater pressure than when oil is simply extracted under conventional oil drilling methods, which is what occurred in Aliso Canyon before it was converted to gas storage use by SoCalGas. You make no acknowledgement of that fact. Why? Do you think somehow that is not relevant? This fact alone increases risk of another well blowout yet you are silent on this structural insufficiency of these wells. You seem to want to ignore this fact.

Second, SS#25 blew out in part (though this investigation is not concluded yet) because the subsurface SAFETETY VALVE had been removed decades ago. On your "Typical Well Diagram" you proudly mention that, from now on, only the inner tubing will be used for gas injection & withdrawal, but there is no mention of required safety valves, nor are they on the diagram at all. Why? How could your "top engineers" miss this? If your official position is that safety valves are truly unnecessary, you should have explained that and explained exactly why.

Third, your presentation states that 34 wells have passed all 6 tests, 1 is in transition, and remaining 79 wells have been "taken out of operation and isolated safely." What is the age of each of the 79 wells taken out of operations compared to the 34 wells that "passed?" Could it be the 34 wells are "younger" and that eventually they, too, will fail? I would like a list of each of the 34 wells that passed and each of the 79 wells that failed and the age of each well. That will be telling, won't it? This information is not anywhere on your website. And does it not pique your interest in the least, that 69%, which is the vast majority of the wells in the field, have failed. Does this not tell you this is an indication that the entire facility should be decommissioned? Every facility has a life span, whether it be a nuclear power plant or a gas storage field. Did you do any analysis of why and how each well cracked and/or was otherwise damaged? Were any damaged due to the Northridge Earthquake? Where is this analysis? The wells that failed are not permanently sealed, and my assumption is that they can blow just like SS#25 and no fluid can stop that!

Fourth, none of your tests estimated or measured for how much seismic activity each well could withstand, considering there are several identified (and many unidentified) faults that run across Aliso Canyon and intersect with many wells. How could you have geologists on your staff and not think of this? We are in Los Angeles County—earthquake country. How could you ignore this?

Fifth, how often will these battery of tests be conducted in the future? This is a one time test of these wells, but they are of course continuing to age. What is your schedule for repeating all of these tests? How unrealistic it is to test these wells only once, and somehow conclude that is enough, especially considering their age. Was your physical with your medical doctor, done when you were 15 years of age, sufficient for the rest of your life? I think not. There is testimony from a So Cal Gas executive who stated during a Town Hall Meeting shortly after SS#25 blew out, with Porter Ranch Neighborhood Council, on November 4, 2015, that testing of all the wells in Aliso would take 7 years, and yes we have this recorded. What is your plan to ensure this battery of tests is done **yearly**? How can you in good conscience, think this once in a lifetime testing in enough? Although SB-380 asked you to do this one time testing, do you not have a professional obligation to recommend this is done annually? Or would that be “rocking the boat?” Does corrosion ever cease? Does aging ever cease? Do earthquakes ever cease in Southern California? For example, you say Porter 44 “is now repaired and in a safe condition.” For today. How about tomorrow? The following week? A year? Two years? Although SB 380 asked only that you test every well, do you have no other overarching responsibility as an agency to recommend testing in the future? If this is expressly forbidden for you to suggest this, then I recommend you state that and show where in your mission statement it forbids such a recommendation.

Sixth, the root cause analysis for SS#25 is not complete. How can you reopen any of the wells in Aliso Canyon when you have absolutely no understanding of how that blow out occurred and why?

Seventh, no Health Study has been even started by SoCalGas, which they agreed to but then backed out of as part of the SCAQMD Abatement Order, and this issue is now in court. As you heard in testimony from the public Wednesday and Thursday, people are still experiencing negative health issues and chronic sickness. It is unconscionable for you to say “that is not my job” and to suggest we reopen Aliso Canyon Gas Storage Facility.

Eighth, your slide says “All pressure tests are done using completion fluid.” That is not the same a natural gas. Fluid reacts differently than gas. Even a layman know that.

Perhaps your job description is much narrower that the public understands it to be. Perhaps you are forbidden to make suggestions and would be fired for doing so. If that is true, you should have explained that in your power point online. You are not doing a good job at explaining your role and function, and your apparent lack of transparency is disconcerting. I understand this is complex, but in such a situation a government agency is better off giving more information than less. You give less and

it looks like you don't care or are not doing your job or are in cahoots with SoCalGas. Just being honest here. If you have limitations and restrictions, then explain them.

In conclusion, your once in a lifetime testing leaves much to be desired and does not show that Aliso Canyon Gas Storage Facility should be reopened. You have no plan looking forward for ongoing testing, so that is a glaring error. Aliso Canyon Gas Storage Facility was never designed for its current use, and furthermore it is extremely old and continues to age, and aging is a process which cannot be stopped. It should remain shut down.

Susan Gorman-Chang, Porter Ranch Resident

From: [Lauralynshaw Shaw](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:33:51 PM

To Whom it May Concern at DOGGR:

My family and I have been greatly impacted by the gas leaks at Aliso Canyon. We were relocated for several months throughout 2015's blowout. I am writing to you today to urge you to do anything and everything within your power to prevent the facility from reopening.

To date, in violation of their obligation and responsibility to conduct health studies, none have been performed. To date, full disclosure of all chemicals we have all been exposed to have not been provided. It is now common knowledge that the multitude of the storage wells there are far beyond their life expectancy. Besides the ongoing unpleasant odor, the health issues my family and I are continuing to deal with due to the environmental hazard we are forced endure are beyond unreasonable.

I realize much has been invested by all the government, corporate and political powers that be to make us believe there is no health hazard, as there is much at stake in the financial realm for everyone invested. But my family and I are living here, experiencing the toxicity, and we know better. This facility is hazardous to our health. Besides the obvious geographical hazards of its location pertaining to earthquakes, fires, etc, and the fact that we had no idea this facility even existed until a SoCalGas rep brought a flyer to my home when I reported what I believed was a gas leak at our home or possibly a neighbor's, it is unconscionable to favor Big business over the community's health and well-being.

On behalf of my family and I, I implore you to prevent Aliso Canyon from re-opening.

Thank you for your time; I would love the opportunity to provide vast detail for you regarding a myriad of reasons they should never be allowed to reopen.

Respectfully yours,

Laura Shaw



Northridge, CA 91326

From: [Sandie Minasian](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:32:56 PM

Thank you for the opportunity to submit my comments regarding the Aliso Canyon storage facility.

I'm writing to talk about the Aliso Canyon gas leak of 2017-2018. No, that is not a typographical error, I am seeing the future. A future that WILL happen if the Aliso Canyon facility is allowed to begin injecting and withdrawing again. And our family and community never want to go through that again.

My family was one of those who were forced to relocate from our home, staying 6 months because we were afraid to return home. We live about 1.5 miles from the well head and stayed home in Porter Ranch as long as we could. We only left when the symptoms overtook our lives. We suffered from headaches, bloody noses, lethargy, and my son felt like his heads was imploding. My daughter, who was always very healthy, got sick and could not get well for more than two months. She's mildly anemic, and studies have shown that exposure to toxins can combine to impact the immune system and make anemia more severe, both of which happened to her.

Even now, we suffer occasionally from bloody noses, lowered immune systems, headaches and overall achiness, and can almost always find that there is a spike on the Fenceline monitor during our worst episodes. I fully expect that we will all be more likely to have cancer because of our exposure to these toxins. Having the comprehensive health study done would be a start, but I believe we are 10 – 20 years away from seeing its true impact on our bodies.

Since the well has been closed there have been the well-publicized small leaks, during a time when the pressure is very low. We can only expect that if this well site is allowed to go back on line that the higher level of pressure will cause more leaks. That is just logical. Aren't the wells all connected just by virtue of being reservoirs in the ground?

We know there were tests conducted on the wells and, while they represent an improvement over past requirements, they fall far short of securing and ensuring the safety and integrity of the wells against another blowout.

Also, something that the health department knows about but isn't getting publicized, there have been dozens of occurrences of a burnt smell, something like a burnt skunk. Many, many neighbors have reported this to the health department. Not one of us knows what it is, but we definitely know where it's coming from. Should we have to endure this on a regular basis? And who knows how that is affecting our bodies.

Having the gas company in our neighborhood is not a good situation. A friend who is a professor from UCLA was coming for dinner. His comment was, "Do I need a Hazmat suit?!" Is that what we should be known as, the neighborhood that has a

health-threatening natural gas storage facility simmering just beneath our houses, just waiting for the next leak? The next earthquake? There is no amount of safety regulations that can be put on that facility that will make our family feel safe to stay in Porter Ranch if the facility comes back to life. If it goes back into operation we will be looking to move. I cannot keep poisoning my family.

We know that there is an extensive network of underground transportation pipes that delivered adequate gas for one entire year. I'm sure independent contractors could do a study that will convince anyone who is still unsure of the ability of SoCal Gas to keep our houses warm or cool without the facility. Let's be like Arizona and not store our gas, just transport it.

DOGGR should not limit the pressure determination to an engineering calculation, but should also include a thorough Risk Analysis. Without the Risk Analysis component, the pressure limit determination is incomplete.

But here's my question: Should SoCal Gas be allowed to continue to invest in this old, worn out infrastructure? Wouldn't it be better to have that money go into renewable energy to help bring California closer to its goal of achieving a cleaner, greener future? Let's shut the Aliso Canyon facility down and come into the 21st century.

Regards,

Sandie Minasian

[REDACTED]

Porter Ranch, CA 91326

From: [Loraine Lundquist](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:32:55 PM

[This is a repeat of a previous email with the correct subject line.]

Dear DOGGR officials,

First I want to sincerely thank you for all the **amazing work** you've put in regarding gas storage thus far. You've written new **safety guidelines for gas storage facilities** across the state. You've supervised dozens of **well tests** at Aliso Canyon — and I'm sincerely glad you did, because there were an awful lot of failures! That example you showed in your safety presentation of the “bad” well with the caliper test was pretty shocking. It's both comforting that you're doing these tests and frightening that the wells were allowed to operate in the state they were in.

There is no question all this work has made the field **safer**. With gas injection and withdrawal only allowed through the tubing, there are **two layers of protection**. Daily testing and monitoring provides more protection.

I am still concerned about two things. First, the **seismic hazard**. The letter from the national lab scientists states, "Aliso Canyon exists in an area with a high probability of a significant earthquake in the next 50 years" but "we have not yet identified a formal seismic risk assessment process specific to oil and gas wells." So basically, we really don't know whether these wells would hold under a significant earthquake. They recommend "a more granular review of the site-specific ground shaking hazard associated with the Santa Susana fault system will provide better insight into the seismic hazard at Aliso Canyon" and "An investigation of potential fault slippage under fluid injection conditions at Aliso Canyon may be warranted to determine criticality. “ They say these studies"should be planned and executed in a deliberate manner.” They seem to think it acceptable to take the risk of moving forward with opening without completing these studies. But whether the risk is worth it is a judgment call that should be made by policymakers, not scientists. According to SB 380, Aliso Canyon cannot reopen until "the risks of failures identified in the review have been addressed.” It seems to me the seismic risk identified in the review has not yet been addressed.

Second, there remains a **basic trust** concern with the community. SoCalGas has repeatedly operated in bad faith, for example by promising to fund a health study then fighting the details in court, failing to report the leak to the community in the first place, saying it was a routine problem when they did report it, refusing even now to reimburse many residents who were told they qualified for relocation, etc.

These are just a small sampling of the many breaches of trust. Even for DOGGR, it is challenging for the community to trust your agency when basic questions remain unanswered, such as: how was such a situation allowed to occur in the first place? Why did DOGGR not catch the **apparently falsified well records** that year after year showed a subsurface safety valve present on SS-25? What punishment will be issued for such falsifications? I don't understand why DOGGR has never addressed these latter issues in particular regarding well records. **Do you not have a basic obligation to explain these mistakes to the community?** The simple fact is that DOGGR and SoCalGas failures and are another "risk of failure" that have not been addressed in this review.

I fundamentally believe that you are approaching this investigation in good faith and that your efforts have made the facility safer. But these final two risks of failure (seismic risk, and an investigation into your own organization's failures to adequately police the well records) have not yet been addressed. Because of this, **the requirements of SB380 have not yet been satisfied.**

thank you for your consideration,
Loraine Lundquist

From: [Loraine Lundquist](#)
To: AlisoComments@DOC
Subject: Please keep Aliso Canyon closed
Date: Monday, February 6, 2017 4:17:12 PM

Dear DOGGR officials,

First I want to sincerely thank you for all the **amazing work** you've put in regarding gas storage thus far. You've written new **safety guidelines for gas storage facilities** across the state. You've supervised dozens of **well tests** at Aliso Canyon — and I'm sincerely glad you did, because there were an awful lot of failures! That example you showed in your safety presentation of the "bad" well with the caliper test was pretty shocking. It's both comforting that you're doing these tests and frightening that the wells were allowed to operate in the state they were in.

There is no question all this work has made the field **safer**. With gas injection and withdrawal only allowed through the tubing, there are **two layers of protection**. Daily testing and monitoring provides more protection.

I am still concerned about two things. First, the **seismic hazard**. The letter from the national lab scientists states, "Aliso Canyon exists in an area with a high probability of a significant earthquake in the next 50 years" but "we have not yet identified a formal seismic risk assessment process specific to oil and gas wells." So basically, we really don't know whether these wells would hold under a significant earthquake. They recommend "a more granular review of the site-specific ground shaking hazard associated with the Santa Susana fault system will provide better insight into the seismic hazard at Aliso Canyon" and "An investigation of potential fault slippage under fluid injection conditions at Aliso Canyon may be warranted to determine criticality. " They say these studies"should be planned and executed in a deliberate manner." They seem to think it acceptable to take the risk of moving forward with opening without completing these studies. But whether the risk is worth it is a judgment call that should be made by policymakers, not scientists. According to SB 380, Aliso Canyon cannot reopen until "the risks of failures identified in the review have been addressed." It seems to me the seismic risk identified in the review has not yet been addressed.

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These are just a small sampling of the many breaches of trust. Even for DOGGR, it is challenging for the community to trust your agency when basic questions remain unanswered, such as: how was such a situation allowed to occur in the first place? Why did DOGGR not catch the **apparently falsified well records** that year after year showed a subsurface safety valve present on SS-25? What punishment will be issued for such falsifications? I don't understand why DOGGR has never addressed these latter issues in particular regarding well records. **Do you not have a basic obligation to explain these mistakes to the community?** The simple fact is that DOGGR and SoCalGas failures and are another "risk of failure" that have not been addressed in this review.

I fundamentally believe that you are approaching this investigation in good faith and that your efforts have made the facility safer. But these final two risks of failure (seismic risk, and an investigation into your own organization's failures to adequately police the well records) have not yet been addressed. Because of this, **the requirements of SB380 have not yet been satisfied.**

thank you for your consideration,
Loraine Lundquist

From: [Sylvia Rostami](#)
To: AlisoComments@DOC
Subject: Tarzana effects from Aliso Canyon Gas Leaks
Date: Monday, February 6, 2017 4:31:48 PM

Hello,

I understand that, in general, the stakeholders of the Aliso Canyon gas leaks have been considered only those people who live within a 5 mile radius of the gas storage facility there. However, we live in Tarzana, 9 miles south of the gas leaks, and we too have been hurt by it. On windy days when the wind was blowing southbound, we had headaches and fatigue. Our neighbors reported having the same symptoms on such days. We were forced to buy expensive carbon/potassium filters to try to clean the toxins in the air a little and deal with the suffering it was causing us. This is why we expect that you will shut down the entire Aliso Canyon Gas Storage facility and NEVER OPEN IT AGAIN! Thank you.

Sincerely,
Sylvia Rostami

From: [Choi, Lori](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:31:27 PM

To whom it may concern:

Lori and Francis Choi residents of Porter Ranch are highly concerned about the continuing operations of the Aliso Canyon facility.

If we could trust the safety we would be at ease but breathing the air has been stressful on our lungs, especially for Francis who has severe asthma, which had been deactivated since the blowout.

As for me, I have a low immune system from Dermatomyositis and SAn Joaquin Valley fever.

My daughter has also been afflicted with nosebleeds.

Please consider our health before making any decisions.

Sincerely,
Lori and Francis Choi
[REDACTED]
Porter Ranch, CA 91326

818 [REDACTED]

Lori Choi
818 [REDACTED]

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Or if within the US,

Spirent Communications,
[REDACTED], Calabasas, CA, 91301, USA.
Tel No. 1-818-[REDACTED]

From: [Danny Caudillo](#)
To: AlisoComments@DOC
Subject: My concerns with Aliso Canyon Storage Facility re-opening
Date: Monday, February 6, 2017 4:30:08 PM

To Whom it May Concern:

I write as a concerned father, husband and resident of Porter Ranch. When this whole blowout began, my family and I were one of the first 100 families that was displaced. We were out of home for roughly eight months.

Hearing that the problem had been resolved and we were allowed to move back home, we were overjoyed. For months it felt like life was getting back to normal, until I started seeing chatter on the Facebook boards. It seems that something was happening again at Aliso Canyon.

And unfortunately, to my dismay, my family and I are continually experiencing symptoms of the gas blowout.

What is very problematic about this whole thing, is there is no way to pinpoint the root of our ailments. I have never once in my life had a bloody nose, even during the blowout I didn't have one. But within that past two months I have had three. Is this related to something in the air from Aliso Canyon, maybe, maybe not, but unfortunately I can not rule it out.

My wife has had several issues, from eye irritation, to an inflamed lymph node in her neck, to several bloody noses and the lists goes on. Again, does it has anything to do with the blowout and Aliso Canyon, we don't know, but it can not be ruled out.

My daughter has a whole list of issues that have risen over the past year, and again, we can't rule out the possibility of Aliso Canyon and the blowout.

Like many of my neighbors, and I think my friend said it best, "whenever we get sick, whenever we have a bloody nose, we would like to think that it isn't the gas leak, but there is always this little voice in the back of your head telling it is."

It was a huge government oversight or someone just lining their pockets for allowing SoCal Gas to use this facility for natural gas storage. Having such an aging facility that is bound to have further problems so close to residents isn't logical or safe. No matter what safety measures were/are taken, there is no guarantee that something major like this won't happen again.

I will end with some final evidence showing how small this recent disaster was compared to what it could be. Around three weeks ago in Spearman, TX a natural gas line exploded. There is not information about the cause, but luckily, no one was injured in the blast. The reason for this is because this gas line was located mile away from any residential or even industrial property. You can see the video from the link below:

<https://www.youtube.com/watch?v=hJ8eTQ38yfA>

At the end of the day, the Aliso Canyon Gas Facility needs to be shutdown and never re-opened.

Danny Caudillo

From: [Brian Skipper](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Gas Facility
Date: Monday, February 6, 2017 4:30:05 PM

Dear Sir:

I am very concerned about the re opening of this facility. I live in the neighborhood. We have seen what bad things can happen when there is a well rupture and this was not even caused by an earthquake. What if an earthquake happened and multiply wells were ruptured. How is it possible that any agency can prevent this or even fix it after the fact when it took more than three months just to cap one well?

Please close down this facility permanently.

--

Brian Skipper

From: [Jason Muckenthaler](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:26:01 PM

To Whom it May Concern,

My name is Jason Muckenthaler, and I am a resident of Porter Ranch near the Porter Ranch Community School. My family and I have lived here for 2 years. My son is in first grade at the elementary school, and my daughter will be in kindergarten next year.

We have been in the area since before the gas leak began, and chose not to relocate during the few months surrounding the leak. While we could smell the leak for the month or two after it started, the odor dissipated and we went about our business. We have considered whether or not the facility at Aliso Canyon should be allowed to recommence gas injections, and believe it should.

The case for shutting down the facility is based on the idea that people are still “getting sick” even after the leak was plugged. It’s important to recognize that the claim of people getting sick is intended to be so general as to encompass any and all ailments that people experience. The original claim of nosebleeds and headaches was tied entirely to the reaction of people to the mercaptan odourant added to the gas. Once the that odourant dissipated, the claim of illness was broadened to encompass any and every symptom a person experienced. The other concerns surrounding benzene were made based on it’s classification as a carcinogen with no regard for the levels of the chemical compared to pre-gas leak air. The differences were negligible and well within normal air quality measurements for Los Angeles. I have witnessed first-hand the way people with routine cold and flu symptoms were persuaded that their illness was caused by or exacerbated by the gas leak, and encouraged to accept relocation assistance.

We are concerned that a larger agenda and a general bias against fossil fuels is being played out in our neighborhood by a vocal minority of people without regards for scientific proof, accuracy, or concern for the ramifications of shutting down the largest natural gas storage facility in the state. Southern California relies on the gas storage facility as a storage buffer for delivery disruptions, power surges, etc. The response to the concern about gas shortages and power shortages has been to flippantly disregard any legitimate concerns about what losing this facility might mean for power and heating costs, particularly amongst the most economically vulnerable. The objections to this facility don’t include a proposed alternative, because a proposed alternative would have to acknowledge the need the gas storage facility fills.

The group pushing for the closure has taken over the neighborhood council here and is not representative of the larger community. In fact, this group has threatened, bullied, and shouted down any and all dissent at local council meetings, on social media, and even showing up to my kids soccer games.

Please don’t give in to the zealous, irrational mob mentality surrounding this issue and look at the bigger picture. Neither I nor my family have any affiliation with, financial interest in, relationship with, connection to, the Gas Company or any other fossil fuel company. My wife and I are both engineers in the aerospace industry, however, and have learned to assess risk on a system level.

Sincerely,
Jason and Amy Muckenthaler

From: [Den O'Leary](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review."
Date: Monday, February 6, 2017 4:25:34 PM

Hello,

What is it going to take to get you to close the Aliso Canyon Gas Storage Facility? Please support the residents, especially the ones sickened, by telling So Cal Gas to change direction and work to close this old, leaking and dangerous storage field. I know it will be expensive to do so. It will have to be closed eventually and now is the best time to take action and get the process started - even if it takes years.

We have suffered enough.

Please choose our health over Sempre Energy profits.

Thank you,

Dennis and Jan O'Leary


Porter Ranch, CA 91326

From: [Den O'Leary](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Tuesday, January 31, 2017 1:23:52 PM

Hello,

I live in Porter Ranch and do not want SCG to open the Aliso Canyon Storage Facility. I want you to close it permanently. We were sickened by the gas and had to re-locate for two months until SS-25 was capped.

You should feel insulted to be told, by SCG, that everything is perfect, - yet they do not know why SS-25 exploded. Again, how can they possibly be fixing all the wells correctly when they don't know why SS-25 exploded?

If you treat this facility like it was an "airplane" - you would never let that airplane fly again. Especially, when you realize SCG was not monitoring the other wells before the SS-25 blowout - at all!

The management has attorneys, lobbyists and professional public relation teams trying to control you, the residents and the narrative. Don't let them. Choose to work for the well being of the community. SCG can supply gas without the use of Aliso Canyon just like other companies throughout the United States that don't have a massive storage facility. The allocation and distribution system works in the pacific northwest and it can work here.

The Aliso Canyon Storage facility has lived a long life and it is time to let it go. If there is another blowout, the folks in charge will be asking, "What were those people thinking back in 2017?"

If you have read this far, here are other reasons not to let SCG re-inject gas:

SCG won't tell the sick residents what is in the gas mixture that could be making the adults and children sick, so their doctors can treat them.

The facility is a "storage facility" so this is not an energy supply problem but a **public health problem**. Treat SCG like a metal processing or battery (Exide) plant. They no longer belong in urban areas.

I have lived here for thirty years and have smelled gas up at ET Park and while dirt bike riding in the hills before the housing development. The hills have always leaked and will continue to do so. Only by closing the facility can the gas leaks stop.

SCG will not disclose the geographical perimeter of the storage area. All new construction must have a "methane barrier". Can the gas leak into my home? Into the new homes being built? Does the field extend all the way to Rinaldi? Gas can be smelled at the Ralph's grocery store and at the YMCA. The volume and pressure that SCG wants to achieve will certainly make gas leak from the soil. Towsley Canyon, on the North side of the facility, leaks oil and gas all the time. It is less with the lower

pressure - but it still leaks along the trail.

With the last rain, SCG admitted that the rain causes soil fissures and gas leaks out - at the current low volume and pressure!

I could go on but I think you understand. It is not safe to have such a facility next to high density urban development. The reasons to allow re-injection of gas are for profits - and that is not good enough because the engineers can supply gas without Aliso Canyon. SCG is a utility and should choose customers' health over profits. SCG will not go out of business if Aliso Canyon closes.

This is where my wife and I planned to retire. Not if the facility re-opens. We are not going to take the risk to our health.

Thank you for reading this far.

Dennis O'Leary


Porter Ranch, Calif. 91326

From: [Sarah Yun](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Overview
Date: Monday, February 6, 2017 4:22:35 PM

To The Department of Oil, Gas, and Geothermal Resources:

I strongly oppose the re-opening of the Aliso Canyon gas storage facility. The mercaptans were a significant danger to me and my family's health. The catastrophic methane release was also a horrific contribution to the greenhouse effect and global warming, with an average of 40,000 kg of methane released per day. There is ample evidence showing the significant danger posed by a facility so close to thousands of residents and to the global health of our planet. SoCal Gas's abysmal record in safety measures for the gas storage facility is especially alarming. How did it take MONTHS for an experienced gas company to find and cap the leak? Why wasn't the safety valve replaced in the 1979 AFTER IT WAS REMOVED (<http://www.latimes.com/local/california/la-me-0104-gas-leak-20160104-story.html>)??

There are residents within a mile of the facility. This is a serious hazard for a community that has the added danger of earthquake susceptibility; the 1994 Northridge Earthquake was the most expensive natural disaster in the US up until Hurricane Katrina. Putting a gas well in a region with high risk of brush fires and earthquakes is like adding dry kindling and sparks to a dynamite factory.

SoCal Gas's parent company, Sempra Energy, also has an absolutely abysmal safety record in other communities, where the poverty of those residents has allowed them to get away with a lot more. FOR EIGHT YEARS, in Eight Mile Alabama, a mostly black community with a median income that is a third of Porter Ranch's has continued to deal with the stench of rotten eggs from a mercaptan spill -- and their children have grown up with serious respiratory ailments (<http://www.latimes.com/projects/la-fi-eight-mile-leak/>). Why is this allowed to persist?

If you allow the Aliso Canyon Gas Storage facility to re-open, you are making a bold statement that the human rights of American communities matter less than the ability of an energy company to store gas in poorly monitored and poorly secured old oil wells.

Thank you for registering my concern.

Sincerely,
Sarah

--

Sarah Yun

[REDACTED]
[REDACTED]
(818) [REDACTED]

From: [Lizasj Wan](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:21:31 PM

I vote to keep the Aliso Canyon Gas facility shut down. For reasons ,
please the link below:

[REASONS WHY ALISO CANYON CAN AND SHOULD BE KEPT SHUT DOWN](#)

Thanks

From: [Christy Call](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:21:19 PM

To Whom It May Concern:

Please be advised that I have lived in Porter Ranch/Northridge for the last 40+ years. During these years I have had A few medical incidences that have resulted in Benin tumors being removed from my breast and my duodenum.

In very recent time since October, 2015, both my husband and I have been at first very ill with extreme tiredness without knowing the cause until November, 2015. Sinus infections or very bad information of the sinuses nose bleeds for several days in the beginning . Stomach aches that almost knock one out and nausea to the maximum degree never known before in this household which still continues to light or sometimes heavier degrees without notice. We had itching of the skin, eyes running, noses running, loss of hair and body aches that are definitely unexplainable.

Our Dr have been following us but we don't run the Dr every time we feel under the weather. To add insult to injury we lost our small Maltese on December 7, 2015.

We implore you to please consider the very large hazard the Aliso Canyon Wells are to our families and ourselves. We have. One to understand more of the hazards as time has gone on, such as what if only one well actually blows up. What are this consequences.

One of the largest considerations should be that back 60 and 50 years ago our population was so little that we are quite sure that the hazard they Wells paid now are not nearly what their cause to our health is now.

Beyond the above we additionally implore you to have studies done such as, a study as to A. The cause of the original well failure in total. How long did the well leak above standards. I personally have called the gas company on three definite occasions I can clearly remember in the past before 2015 and had them come to my home because I had and could smell gas for tow days in my yard. I was afraid that I had a leak in my pool equipment. My equipment was not leaking. When asked where the distinct smell was coming from they couldn't comment. So this is not a new issue. B. The cause and affect of the chemicals in the air for the past year plus on human beings and our dear pets. This is very important! We are human beings. At this point we are being treated as a nuisance to Sempra/ SoCal Gas.

We ask you for our lives back. This is a demand from one human being to another. We have owned four homes in Porter Ranch. Right now for the sake of our health we must move at a loss when my husband is almost 83 and I am 70 years old. We had held on thinking this would go away and it hasn't. It will not until ALSIO CANYON IS SHUT DOWN permanently Sempra has proved to us that they have no control over their filed.

If this is not shut down Porter Ranch will become a community of the past and more the the SFV will also.

Regards,

Dwight & Christine Call.

[REDACTED]
Porter Ranch, Ca 91326

Christine Call
Business Manager
Call & Call
An Accountancy Corporation
[REDACTED]

Woodland Hills, Ca 91367

(818) 9[REDACTED] 5 Office

(818) [REDACTED] Cell

From: [REDACTED]
To: AlisoComments@DOC
Subject: comments about the gas leak
Date: Monday, February 6, 2017 4:16:19 PM

I want to express my concerns with the upcoming opening the gas storage facilities is going through with. I do understand they need a place to hold the gas, however I don't think I would have moved here if I would have known what was in these beautiful hills. Because our health is at risk I would be happy to give it all up at this point. The beauty has been tainted by the Gas leaks that occur weekly.

I first want to say that our lives have been totally been upside down since last October when we first started smelling the gas leak.

There is not ONE day that goes buy that I don't feel guilty about my kids growing up here in this potential health hazard. I can not afford to move, otherwise I would have been gone since November 2015. It is hard to live here watching my kids play outside knowing this stuff is seeping into our water and throughout the grounds and I don't feel it is safe. My heart hurts daily.

I am trying my best to get out. I would be happy if the gas company would compensate us to move to a comparable place in another city at this point. I feel desperate to get out and feel a sense of urgency to get ASAP still.

My kids are always sick, I am stressed out and paranoid of the potential health hazards and wondering if my kids are going to become ill in the future (praying they are not) like the other people that went through a similar gas leak in the other city where a lot of cancer is coming up.

I feel there needs to be some sort of compromise at this point. They need the gas wells and we need the right to let our kids grow up in a safe environment. Where's the compromise?

Warmly,
Holly Padilla

From: [Jimmie Baker](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:13:24 PM

Attention : City and State Officials,

I urge you to close the Aliso Canyon storage facility in Porter Ranch. We spent a year of ongoing headaches and feeling ill. My son ultimately had to have his tonsils and adenoids removed. They became so big from being sick so much that he would lose his breath when sleeping sitting or laying down. The health of our children should be worth more than company profits. Please, close the storage facility.

Jimmie Baker PT



Sent from my Verizon, Samsung Galaxy smartphone

From: shirley.sofer
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:13:20 PM

I am writing you with grave concerns of the dangers of operating Aliso Canyon. I live in the Highlands, the closest community to Aliso Canyon. My family and I have had nonstop health concerns. My 5 year old daughter is asthmatic, and has had nonstop bloody noses, asthma with multiple ER and hospital visits, pneumonia, and complaints of headaches and sore throats.

I recently delivered a baby boy and have been feeling lethargic, lots of headaches, and developed severe pneumonia without ever being sick or having a fever. My 7 year old daughter feels lethargic, complains of headaches, and sore throat. My husband has all of these symptoms and more. My 8 week old son has been congested since he was born and is not sick.

We are tired of feeling ill. This facility is not safe.

PLEASE SHUT ALISO CANYON DOWN!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

It is our lives and health we speak of!

Thank you for your help in keeping us safe!

Shirley Sofer and Family


Porter Ranch, 91326

From: [Naomi Curland](#)
To: AlisoComments@DOC
Subject: Please close Aliso Canyon permanently
Date: Monday, February 6, 2017 4:09:16 PM

I am a concerned citizen of the LA area, and I am writing in public comment to ask that the Aliso Canyon gas facility is permanently shut down.

We still do not know how or why the blowout happened last year, and the result was the worst gas leak in our country's history. The short term effects on our environment and community health was devastating; we still do not know the long term health effects and environmental impact, but the people of Porter Ranch are still getting sick, still bleeding, still having health complications and rashes. The facility is still leaking, with fresh gas smells being strong and clearly evident just last week. This is unconscionable.

It is irresponsible to have a gas facility of this magnitude so close to an active community. Without knowing how the blowout occurred, there is no way to know how to prevent another one, and no amount of safety measures are any guarantee. If we have learned anything from urban extraction, it's that every facility is fallible, with devastating consequences to the surrounding communities.

Please shut down the Aliso Canyon facilities permanently.

Thank you.
Naomi Curland
Los Angeles, CA 90034

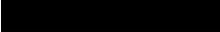
From: [Anastasia Balanos](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:07:04 PM

My name is Anastasia Balanos. I am a long time resident of Porter Ranch and along with my husband and for many months my grandchildren, have lived here in Porter Ranch during all the leaks and the major rupture that occurred here.

I want to reiterate my own and my family's concerns about allowing this operation to go on without substantial and clear and unequivocal testing and evidence that the problems will not continue without causing me and my family continued health problems and major aggravation the problems already caused.

Throughout this ordeal I have suffered numerous gastrointestinal, nasal, sinus and severe headache problems. My husband has developed anemia, gastrointestinal problems, enlarged lymph nodes and possibly cancer. My grand children suffered chronic nose bleeds while this leaks were occurring without us knowing their cause till we were finally told of the health impact of the leaks and major rupture.

I agree with my neighbors and our Neighborhood Council that DOGGR's willingness to give the Gas Company the green light to refill the Aliso Canyon facility with 100% of its capacity to be completely unacceptable, and a slap in the face to the people who lived through the well rupture disaster. I ask that DOGGR takes this decision back to the drawing board and incorporate a Risk Analysis component to it based on the history of the field, the age of the field, and the impact of potential failure on the people who are in the unenviable position of living next to this facility.

Respectfully,
Anastasia Balanos

Porter Ranch, CA

From: [Janice Schneider](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:06:52 PM

To Whom It May Concern,

My name is Janice Schneider and I live in Porter Ranch. I do not see any sufficient reason to re-open the Aliso Canyon facility. I have not seen any information to guarantee that the wells have been cleared out of any chemicals or residue left behind from the many years ago that the wells were used to store oil. It is my belief that the combination of those chemicals left behind are an important contributor to people's health issues in our community. The gas leak was devastating and it is impossible to guarantee that nothing like that will ever happen again. There are plenty of resources available elsewhere for natural gas, which I hope are farther away from a large population of people. This community has not fully recovered from the devastation and many in the community continue to experience symptoms. The facility should be shut down for the greater good of the community.

Sincerely,
Janice Schneider, Psy.D.

From: [Crystal Smith](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:51:47 PM

Division of Oil and Gas,

My husband and I moved to Porter Ranch 14 years ago and bought the home of our dreams near our children and grand children. My family is very important to me. When the blowout was discovered at Aliso Canyon on October 23, 2015, my husband and I stayed indoors and stopped driving on Sesnon to avoid exposure to the blown out well as much as possible. I had sporadic headaches, bloody noses, and fatigue throughout the leak. My family did not relocate and were given very little information from the gas company during this ordeal.

Shortly after the leak was plugged, my husband went outside and fell from a ladder in our yard, he lacked the ability to speak and therefore couldn't tell us details about his fall and weeks later, he passed away from a brain injury. I will never know why he fell, but my life has been drastically changed since his fall. We were married for 50 years and I am now forced to live my life without him. I strongly support a thorough health study for the community. Although my husband is gone, I strongly feel that I need to know what chemicals I was exposed to and what my kids and grandkids were exposed to.

I strongly feel that our community is owed the "reason" the well failed. I would like to request a root cause analysis be performed and highly support Senator Sterns SB 146 bill that purports to find out exactly what caused the blowout in the first place. I understand that you have repaired and certified over 30 wells and I'm grateful for that, but we need to make sure ALL the wells are certified before the storage field is put online again. I understand they are all interconnected below ground and pressurizing the system could cause a myriad of issues. If the storage facility was shut down, I wouldn't have concerns about my safety.

Lastly, Southern California Gas has not been a very good neighbor. They have now told us that we might not have natural gas for our homes. They said we might have as many as 14 days of blackouts during the Summer and they just recently (in January 2017) stated we need to (again) dial down our temperatures in our homes because of the possible shortage of gas. There was an LA Times article that clearly identified the problem was that Southern California Gas didn't order enough gas to meet their supply. Here is the article:
<http://www.latimes.com/business/la-fi-southern-california-gas-20170124-story.html>.

Please understand our community was impacted by the tragedy and I wish to put it behind me, but only if I feel safe in my community again. I want the Aliso Canyon Storage Facility to be shut down.

Thank you for your time,

Marjorie Johann

From: [Darrell Park](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:51:12 PM

- 1) facility is not safe is not safe and never can be - this is not a man made facility and it is in an unstable area on a fault with a history of bad things happening
- 2) the health issues are real and substantial and you are accountable
- 3) it must be closed immediately and all gas and dangerous chemicals removed
- 4) your agencies are not doing their job of protecting health and safety - you trusted the gas company and they tricked you
- 5) all you're doing is trying to preserve gas company profits and this is horrible!

From: [Erica Lee](#)
To: AlisoComments@DOC
Subject: Aliso canyon comprehensive safety review
Date: Monday, February 6, 2017 3:50:06 PM

Hello Review Team,

My family of four including a 4-yr-old and a 2.5-yr-old live about 2 miles away from the Aliso Canyon gas facility.

Our lives have been turned upside down since late October when all four of us began experiencing the symptoms of the chemicals/carcinogens spewing from the decrepit wells.

We continue to deal with the symptoms of unceasing coughs, bloody noses, lethargy, eye pressure, and other ailments as the result of the emotional distress related to this facility. Just last night, when we returned from a trip more than an hour out, east of us, my typically healthy husband nose-bled within the 15 minutes we were home. Here is a photo of the towel, which he wiped himself with.



I have many other photos of my children with bloody noses and bedsheets with blood stains that I could share with you.

My eldest daughter will be starting TK at one of the Porter Ranch elementary schools and I am concerned for her health as she had never nose-bled prior to October 2015 and now she continues to nose bleed intermittently.

I urge you to shut down this facility as no health studies with meaningful information has been done as promised. This facility is not needed based on supply and demand. It is unsafe as it is located on active fault lines, and ultimately is too close to schools and homes.

Sent from my iPhone

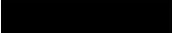
From: [Jennifer Greene](#)
To: AlisoComments@DOC
Subject: Alyso Canyon comprehensive safety review
Date: Monday, February 6, 2017 3:49:17 PM

To whom it may concern,

We are residents of Porter Ranch and have lived here since September 2012. We had no idea there was a SoCalGas facility that stores gas in the hills behind our house.

We had to relocate during the four month long gas leak. My 2 young children, ages 4 and 6 yrs old, my husband and I all got sick with respiratory problems during the time of the leak. My son attends Castlebay Lane elementary school which is right next to Aliso Canyon.

We are writing to express our deep concern about re-opening the Aliso Canyon Facility. Please do not re-open the facility. Please shut the entire facility down. There are gas leaks daily and we are very worried about long term health effects.

Thank you,
Jennifer Greene

Porter Ranch

Sent from my iPhone typing really fast.

From: [Elena "Lane" Semper](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:44:08 PM

Division of Oil, Gas and Geothermal Resources (DOGGR)
4800 Stockdale Hwy #100
Bakersfield, CA 93309

February 6, 2017

To Whom It May Concern,

This is to urge shutting down SoCal Gas, Aliso Canyon -- "permanently".

I've resided in the valley since 1970, and experienced all of our major earthquakes, and witnessed SoCal Gas' major fire from my school and home which took more than a week to extinguish. Northridge apartments looked like doll houses after the 1994 earthquake, and the top tip of a screen door poked out from a grass mound on Reseda Boulevard which was once the first floor of a complex. Mile-deep concrete well casings are by no means secure, and Northridge is next door to Porter Ranch. That in itself should be reason to not permit fossil fuel facilities to exist, but SoCal Gas' lack of safety precautions displayed throughout the decades never ended, as proven at their recent annual open house. This patronizing event was highly misinformative by omitting serious danger warnings, and inferred their service is a necessity, which is untrue.

I suffered during SoCal Gas' blowout last year with respiratory ailments, headaches, etc., and sporadically afterwards, and have provided many public and written comments in detail. This includes attending every related court hearing; town hall; both CEC, PUC, DWP, ISO Joint Agency workshops; special meetings; neighborhood council meetings; and all South Coast Air Quality Management District workshops from the valley to Diamond Bar, viewing the last one on webcast; as well as attending both SoCal Gas' criminal trials in Santa Clarita; Porter Ranch developer meetings; Senator Pavley's AB32 hearing at UCLA; and related motions at

Los Angeles and Van Nuys City Halls. Being well-informed further proves SoCal Gas' extreme lack of accountability continues to harm people, animals and the planet, and their facility is not needed.

This detriment extends far beyond the Aliso Canyon area, as living across the valley does not exclude being affected. We visit friends, parks, stores and restaurants, and continue to be poisoned with silent attacks. This is not fleeting gusts of harm, it's cumulative damage, with no means to safeguard. Mitigating is a global necessity, but does not take the place of long-term health studies on the effects of methane or what came out of well SS-25, and subsequent wells. SoCal Gas, Aliso Canyon created six significant leaks last year, and four fires that we know of, further polluting and endangering. It's equally disturbing hearing real estate, Chamber of Commerce, and a senior organization be so pathetically misinformed and appear beholden to dirty business. Any business that intentionally harms any being is not good business.

Methane's harm is cumulative, and 86 times more potent than carbon dioxide after 20 years because of its heat-trapping ability, and can linger for 100 years. **We do not need more gas or oil facilities -- we need "solar and wind".**

As an educated valley resident and trained Climate Reality Project leader, it's additionally disturbing to see the downplaying SoCal Gas advertises. Their "proprietary" polluting, tired monstrosity needs to remain shut down and be thoroughly decontaminated to remove all of their captured/altered gas and Getty oil remnants, because nothing can ever make that facility categorically "safe".

Sincerely,

Elena Semper
Los Angeles, CA

CC: Governor Edmund G. Brown, via
email: <https://govnews.gov.ca.gov/gov39mail/webmail.php>
State Capitol, Suite 1173, Sacramento, CA 95814

California Public Utilities Commission (CPUC), via
email: [REDACTED]

[REDACTED], Los Angeles, CA 90013

From: [Laurie Carter](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:42:02 PM

Good afternoon. I am a homeowner, community member, and business owner in the affected areas. I have lived here since 1993 when the Sunshine Canyon Landfill was still closed both in the city and county sections. I remember attending rallies and going to speak at city hall to make a request to never open that facility again. Unfortunately, the landfill is open and neighbors currently suffer problems from having a landfill in their community. Please, close down Aliso Canyon permanently. My family as well as my students families have been affected in various ways: rashes, nose bleeds, headaches , and a general feeling of malaise. This leak and subsequent possible health problems is of great concern to me, not only as a parent and neighbor but as an educator. The business I own in Granada Hills has witnessed a large amount of families with young children (infants and toddlers and school-aged) suffer through relocation and health problems. I ask you to consider this and close it down for good to avoid any future problems.

--

Laurie Ellen Carter ,M.Ed.
California Credentialed K-12, Adult Teacher
Co-owner "Rinaldi Mommy and Me" LLC, Parent Educator

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:40:35 PM

To Whom It May Concern:

My family and I have lived in our Porter Ranch home for nearly 18 years. We moved into our home with our two (at that time) small children, and looked forward to living in this beautiful community. Little did we know how we would come to regret that move. That we would discover that our lovely Porter Ranch community was then, has been this entire time, and is still being poisoned, defiled and disregarded continually by Sempra Energy and So.Cal.Gas.

Living in the vicinity of a Sempra Energy/So Cal Gas owned and operated anything (e.g. the Aliso Canyon poison spouting facility) is a nightmare! In 2008 Sempra's negligent (let's just say nonexistent) maintenance of their power lines and lack of brush clearance initiated an enormous fire that burned down many homes in our community, and nearly burned down our own home and our neighborhood. My children sat horrified watching the enormous flames (and inhaling the horrifying smoke) rage down the mountains towards our street; packing up our cars with our animals and as many of our cherished and necessary things that we could to prepare to evacuate; and then actually evacuating our home with the very real understanding and expectation that we would not most likely not have a home to return to. To say the least, this was horribly psychologically and physically sickening for all of us!

The "Mother" Company for Aliso Canyon/So.Cal.Gas, Sempra Energy, is (and has been historically) systematically and routinely negligent in the manner in which they operate/maintain their companies, equipment, facilities, sites, etc. Sempra operates (and their actions clearly demonstrate) as though they feel they are "above the law," and don't need to be bothered with conducting their businesses in a legal/ethical/moral manner. Sadly it is apparent to the Porter Ranch community that Sempra has enough money, power and connections, that they can get away with completely disregarding any and all requirements, mandates, and legal responsibilities under which any other legitimate and responsible company would be expected to act in accordance with.

The fall 2015 "blow out" of one of the Aliso Canyon site's 114 gas wells was simply a national & environmental wake up call for the masses. For those of us who live in Porter Ranch (including my neighbors and my family), we have smelled gas leaking from the Aliso Canyon site (near and around our homes) for YEARS! It is abundantly clear to us that Aliso hasn't had a handle on their gas leak problems for a very long time!

Sempra is mandated to conform to safety/conduct/operations/etc. protocol for many reasons. Just to name just a few possibilities: to ensure the physical, emotional, and psychological welfare and safety of the Porter Ranch community residents. To preserve and protect the Porter Ranch (and, of course, the entire) environment. To provide accountability and responsibility that their company conducts their operations, facilities, equipment, maintenance routines, etc. legally, morally,

ethically, and with proper care and attention to detail. To ensure that “no stone (or gas well/site/power line/brush clearance..., as the case may be) is left unturned. To do ANYTHING AND EVERYTHING to ensure that things like the 2008 Sesnon Fire and the fall, 2015 gas leak are prevented.

Responsibility and ethical operations are not “optional.” Simply because Sempra “hired” (aka paid for the results they wanted) someone to prepare a superficial, inadequate, insubstantial “report” (so flimsy that the company who prepared it put a disclaimer in it to protect themselves) which indicates that “it’s o.k.” to release (fill in whatever amount you’d like Sempra) gas/methane/poison into our community every day, DOESN’T MAKE IT RIGHT or O.K.!!! Safety, responsibility, and commitment to our community’s health, welfare, and safety are not an option! These are not things that can be “set aside” because the company ‘feels like it’ and they paid somebody to “say it’s o.k. to do so.” Profits before people? This is NOT right!

My entire family and all of our pets were made ill and suffered because of the 2015 gas leak. Our lives were turned upside down. Our entire community was turned upside down! We have NO reason to believe anything that Sempra/So.Cal.Gas says! They have proven to us time and again that they are not reliable, nor trustworthy. They clearly cannot, and do not wish to do the necessary and reliable testing required to thoroughly investigate the cause of the 2015 leak; to ensure that this will NEVER happen again, and to prevent the release of ANY LEVEL of gas/toxins/poisons into the air ever. Even now they can’t even control their gas leaks!

The many substantial tests that MUST be done to actually test the Aliso Canyon gas wells properly have been set forth by many experts. Sempra has not done them. In addition, many experts, as well as the residents who were forced to endure the physical/psychological/financial/etc. consequences of this faulty site have indicated that THIS SITE MUST BE RETIRED PERMANENTLY!

In light of all of the above, I IMPLORE YOU to rule that the Aliso Canyon facility, its gas wells, and everything else connected thereto be shut down immediately and retired permanently with no chance/possibility of it ever being reopened again. In the vernacular of the present moment in Porter Ranch: SHUT IT DOWN!!!

Thank you for your attention and time.

Shawn Herman

Sent from [Mail](#) for Windows 10



This email has been checked for viruses by Avast antivirus software.
www.avast.com

From: [todd daly](#)
To: [AlisoComments@DOC](#); [Harris, Ken@DOC](#); [REDACTED]
Cc: [Todd Daly](#)
Subject: Fwd: Aliso Canyon Safety Review
Date: Monday, February 6, 2017 3:39:02 PM

To:
Public Utilities Commission

Division of Oil, Gas and Geothermal Resources

Kenneth Harris, State Oil and Gas Supervisor, DOGGR

John Geroch, Chief Deputy, DOGGR

Rob Habel, Supervising Oil and Gas Engineer, DOGGR

Dennis Arriola, President, So Cal Gas

Dear Sirs,

My family and I reside in Porter Ranch approximately 1.2 Miles from the Aliso Canyon gas reserves. Two of my children attended Castle Bay elementary for the duration of their K-6 schooling and my third child currently attends. Our lives were significantly disrupted for the 4 month duration of the leak, including both the relocation of our residence to a hotel and my child's entire school relocation. And now we are left with the risk of another leak, the ongoing risk of major brush fire and the uncertainty of any long term health effects of the leak.

We understand So Cal Gas' desire to reopen the facility, however we have serious concerns about their statements that cite safety as their top priority. So Cal Gas has repeatedly demonstrated that safety is not high on their priority list.

Prior to the 2015 leak, SoCal Gas has repeatedly demonstrated failures across the board in decision making and basic common sense. As an example, I have reviewed documentation relating to the 2008 Sesnon Fire on the Aliso Canyon property and was shocked and appalled by the repeated statements made by So Cal Gas' senior operational people demonstrating their lack of understanding of their own technical systems, poor decision making and apparent complete disregard for safety. It appears that poor decisions were made including ignoring simple safety measures like brush clearance beneath high voltage power lines (as residents, we are required to maintain our brush clearance with annual inspections, yet So Cal Gas is allowed to self-inspect many systems which is shocking).

More disturbing is the fact that some of the people who have demonstrated poor decision making are still in decision making or lead operational roles. The 2008 Sesnon fire occurred on a red-flag wind day, however So Cal Gas failed to shutdown pumping operations even though they were aware of the heightened risk due to high winds and dry brush. That decision resulted in a fire that could have easily been avoided. A SoCalGas Operations lead

acknowledged in 2012 that there were approximately 5 fires on the Aliso Canyon property in the 10 years prior to the 2008 fire. However, after five fires, they never identified root cause and as of 2008 still had no formal maintenance program for brush clearance. Had they identified root cause in any one of those 5 fires, they could have modified procedures to avoid the Sesnon fire. If So Cal Gas doesn't address routine safety measures such as brush clearance, I find it difficult to trust them with the care and safety of an 86 BCF gas field.

More than a year after the leak was gas leak was capped, we still do not have answers.

- We don't know root cause of the incident.
- We don't know how many incidents occurred before the SS-25 leak.
- We still don't know which chemicals our families were exposed to during the leak and at what level of exposure (Benzene, Xyylene, Ethyl-Benzene, Hydrogen-Sulfide, etc)
- We still don't know the long term effects on our children.

Any good engineer knows that it is critical to understand the root cause of a failure before placing that failed system back into service. It is inexcusable that So Cal Gas and Sempra Energy which are made up of hundreds of engineers would push to reopen a facility prior to knowing the root cause of the failure. They demonstrated in the case of the repeated fires that failure to find root cause resulted in multiple reoccurrences. Let's not wait for repeated gas leaks before we identify the source of the issues and ensure they will never be repeated.

We strongly encourage you to deny the request to reopen until the above questions are answered.

We appreciate your consideration.

Sincerely,

Todd Daly

From: [Carole Elliott](#)
To: AlisoComments@DOC
Date: Monday, February 6, 2017 3:25:29 PM

Having and have headaches, bloody noses for over 1 year, it is time for the companies to STOP THESE WELLS, NOW. Carole Ghertner---Porter Ranch

From: [Janice Nardella](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:23:24 PM

Hi,

I was unable to attend the hearing meetings last week, but I wanted to let you know that my family has suffered very bad health issues from the Aliso Canyon facility, both during the blowout and still now, since the blowout was capped. My family continues to have nose bleeds due to the daily leaks that occur.

During the blowout we had to move out of the area or put my 11 year old son on medication due to the severity of his illness due to the affect of the methane and other chemicals in the air.

Please do not let this facility re-open for my family's health and the health of others. There is no need for this facility, as there is plenty of other energy available that is much safer for all. A storage facility of this size should not be located anywhere near homes, much less elementary schools.

Thank you,
Janice Nardella

From: [Angela M. Suarez](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:20:16 PM

My name is Angela Suarez,
My family and i have suffered greatly over the last year and are asking for your help. I wont get into the specific's as i am sure others have already told you about our health problems.

I urge DOGGR to consider the following:

1. The tests conducted on the wells, while they represent an improvement over past requirements, they fall far short of securing and ensuring the safety and integrity of the wells against another blowout.
2. DOGGR should commission a thorough structural and seismic analysis to quantify the risk of seismic failure and its consequences. It is imperative that a seismic analysis of the wells and the formation be completed before the field is allowed to resume operation.
3. DOGGR should not limit the pressure determination to an engineering calculation, but should also include a thorough Risk Analysis. Without the Risk Analysis component, the pressure limit determination is incomplete.
4. The PRNC categorically rejects the notion that as much as 6 tons of methane can be released into the community every day from the Aliso Canyon facility. We do not understand how this can be acceptable to the CPUC and DOGGR. If this facility cannot contain its gas release, this should be a clear indication to the CPUC and DOGGR that this facility cannot be allowed to operate, and must be retired.

In the final analysis, the Porter Ranch Neighborhood Council finds DOGGR's willingness to give the Gas Company the green light to refill the Aliso Canyon facility with 100% of its capacity to be completely unacceptable, and a slap in the face to the people who lived through the well rupture disaster. We ask that DOGGR takes this decision back to the drawing board and incorporate a Risk Analysis component to it based on the history of the field, the age of the field, and the impact of potential failure on the people who are in the unenviable position of living next to this facility.

Thank you,

Angela M. Suarez
Resident of North Granada Hills.
(2.0 miles as the crow flies from the "well")

From: [Harvey Glueck](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:19:48 PM

To Whom This May Concern,

I believe the Aliso Canyon Facility should be discontinued and shut down. The facility should not be in an inhabited urban area. In addition to the major leak that it recently had it frequently has smaller leaks that continually and adversely effect the surrounding urban area. The wells are mostly over 60 years old and will be failing more and more with time. They have out lived their useful life span.

The adverse health effects of frequent small leaks and uncontrollable longer duration leaks are a real hazard to the community.

Additionally, wild fires and earthquakes will run the real danger of a major and catastrophic accident. For example: the explosion and fire at the Duke Energy Gas Transmission's Moss Bluff storage facility in Liberty County, Texas was caused by a single emergency shut-off valve failure.

Rather than investing more money and resources into this aging and poorly located facility it should be relocated to a remote and uninhabited area.

Thank you,

Harvey S. Glueck
Porter Ranch, CA

From: [Manoj Desai](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:18:53 PM

Hi

As a Porter Ranch resident, I am greatly concerned about reopening of Aliso Canyon wells. We had to go through tremendous stress and issues during the gas leak in 2015-2016. I have small kids and I find it extremely risky and health hazard to have such wells operating in close proximity of residential area. What are the guarantees that issue will not reoccur with these old wells? Also, such leaks affect our house value. We do not want to again go through all that. health issues/School/home relocation/house value deterioration and all.

Please relook at other options to ensure gas supply and these wells need to be relocated elsewhere. With ever increasing huge multiple housing projects coming up in this area, this is even going to be a major issue than what happened in 2015-2016. Please reconsider and help keep this beautiful community safe.

Thanks
Manoj Desai

From: [Rania Shanny](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:13:16 PM

Dear Committee,

My family and I have suffered from the Aliso Canyon blow out from some time now. Due to a job transfer, my family and I moved from NY to California in October 2012. We poured our life savings into a house in Porter Ranch after doing much research, and after losing bids on 24 other homes. We moved into Porter Ranch in June 2013, and lived there peacefully until the Blow out in October 2015. Even prior to the blowout, we have had symptoms which only got far worse during the leak- rashes, headaches, congestion, irritated eyes, respiratory issues, and I've had medical issues ranging from blood in urine, kidney stones,, rashes, and abnormal blood levels (high RBC count). I was even rushed by ambulance to the hospital- and offered a blood transfusion (I declined). I am now continually being followed by a hematologist/oncologist because of my abnormal blood levels (RBC). When we finally returned home this summer following a temporary relocation, we were happy to be home, but our worries were far from over. Our beloved therapy dog, Gingy, passed away at 8 years old from kidney and liver failure. The damage was already too far gone. Our family has been devastated by her loss. She was in perfect health prior to our move to Porter Ranch. Our son and daughter were in the emergency room due to loss of consciousness and digestive issues.

We are so upset by the blow out, how the Aliso Canyon storage facility was never disclosed to us, and how this all could have happened. Are there established protocols to prevent this exact thing from occurring? And even when our neighbors called about the leak- the gas company DENIED any leak- for days...before evidence proved otherwise. And now they want to reopen? Without the source of the blow out having been established? And if they guarantee it's safe now- how come they couldn't guarantee it's safety before? Do they know the source of the leak and they are not sharing it because of the lawsuits- or do they not know, and once again, they are putting profits before the safety of our community? We urge you to keep Aliso Canyon shut until the source blow out can be determined, and it can be guaranteed safe. Or better yet- keep it closed. It's no longer needed- as alternative energy sources exist, as do other storage facilities that are newer exist- and it has been proven that it is not needed in LA. I think this is the most reasonable thing to do. You don't fly a plane that's been grounded without first understanding and fixing it's malfunction. To operate in any other capacity is lunacy.

Thank you,
Rania Shanny

From: [Angiee Suarez](#)
To: AlisoComments@DOC
Subject: "Aliso Canyon Comprehensive Safety Review"
Date: Monday, February 6, 2017 3:12:58 PM

My name is Angela Suarez,
My family and i have suffered greatly over the last year and are asking for your help. I wont get into the specific's as i am sure others have already told you about our health problems.

I urge DOGGR to consider the following:

1. The tests conducted on the wells, while they represent an improvement over past requirements, they fall far short of securing and ensuring the safety and integrity of the wells against another blowout.
2. DOGGR should commission a thorough structural and seismic analysis to quantify the risk of seismic failure and its consequences. It is imperative that a seismic analysis of the wells and the formation be completed before the field is allowed to resume operation.
3. DOGGR should not limit the pressure determination to an engineering calculation, but should also include a thorough Risk Analysis. Without the Risk Analysis component, the pressure limit determination is incomplete.
4. The PRNC categorically rejects the notion that as much as 6 tons of methane can be released into the community every day from the Aliso Canyon facility. We do not understand how this can be acceptable to the CPUC and DOGGR. If this facility cannot contain its gas release, this should be a clear indication to the CPUC and DOGGR that this facility cannot be allowed to operate, and must be retired.

In the final analysis, the Porter Ranch Neighborhood Council finds DOGGR's willingness to give the Gas Company the green light to refill the Aliso Canyon facility with 100% of its capacity to be completely unacceptable, and a slap in the face to the people who lived through the well rupture disaster. We ask that DOGGR takes this decision back to the drawing board and incorporate a Risk Analysis component to it based on the history of the field, the age of the field, and the impact of potential failure on the people who are in the unenviable position of living next to this facility.

Thank you,

Angela M. Suarez
Resident of North Granada Hills.
(2.0 miles as the crow flies from the "well")

From: [Dean Markado](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 3:04:48 PM

To Whom it May Concern:

As a homeowner and resident of Porter Ranch, I am writing this letter to express my concern for my family's safety being located near the Aliso Canyon gas facility. My family and I were displaced from our home by the gas leak for five months due the consistent headache and nose bleed issues my family incurred. I am concerned the Aliso Canyon facility is not properly fulfilled the requirements of the State of California to reopen and continue the operation of the facility.

Just recently, on January 22, 2017, I requested to have the Southern California Gas Company technician come out and check my resident due to an overwhelming smell of nature gas in the area. When I contacted the Gas Company, their representative informed me that numerous other residents detected the same gas smell in the air and voiced their concern. I am very skeptical of the complete "100% safety answers" we have been received from the Gas Company as the smell of gas, headaches and nose bleeds still persist.

I am concerned about the long range health issues my family and I have been subjected to over the 12 years we have lived in Porter Ranch due to the proximity to the Aliso Canyon Facility. I am strongly urging the closure of the Aliso Canyon Gas Facility to ensure the health and well-being of myself and my neighbors.

Respectfully,

Dean Markado

[REDACTED]
Porter Ranch, CA 91326

"This message is intended only for the use of the addressee(s) and may contain information that is PRIVILEGED and CONFIDENTIAL. If you are not the intended recipient(s), you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please erase all copies of the message and its attachments and notify the sender immediately."

From: [Evan](#)
 To: AlisoComments@DOC
 Subject: Shut Down the well!
 Date: Monday, February 6, 2017 2:58:41 PM

The reason for me is that a gas storage facility should not be so close to a residential area. And such a large residential area at that. We never knew it was even up there until this whole thing (and my family has lived in that neighborhood for 30 years)

Among these other crucial reasons.

1. The facility is not necessary to maintain energy reliability in Southern California. It has been closed with no gas used for energy since January 2016

a. There is already infrastructure in place to keep gas flowing. Pipeline capacity alone is enough to meet gas demands without the facility (per independent analysis)

2. The energy agencies have adopted **31 mitigation measures** to avoid the need for Aliso Canyon and they are working

3. During normal operations, **the facility is the third most polluting gas storage field in the country** (per the U.S. EPA)

4. Although shutdown since January 2016, **there have been 4 reported (by SCG) leaks plus elevated gas emission** that our own Fenceline gas monitoring system has detected

“There are 2 leaks per day, on average” (per SoCalGas sworn testimony

Aug 2016)

5. **Countless ongoing complaints of health problems** reported, identical to those during the peak of the blowout

According to the LA County Department of Public Health, **63% of residents**

reported health symptoms after the blowout was capped

6. **Wedon'tknowwhytheBLOWOThappenedinthefirstplace**

7 **Over half of the SCG wells are over 58 years old. Average age: 52 years!** (per

SoCalGas)

8 **“A negative well integrity trend** seems to have developed since 2008”
(per SCG

public docs). **The facility is old and deteriorating.**

10 **4 fires at the closed facility**, including in October 2016 that burned 28 acres

From: [Sea Jen](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:57:40 PM

Hello,

I don't know if you're going to read this. I don't even know if you're gonna care, but my name is Jennifer Glueck. I'm 19-going-on-20 years old, and I live in Porter Ranch. Over the course of a couple years, I've seen my parents go from fairly good health to coughing all the time, having back problems, dealing with uncommonly high blood sugar (despite a practically sugar-less diet), and other similar ailments. I've come home to my mother practically coughing up a lung. I've had friends, some older but some almost as young as me, have gushing nose bleeds, come down with high blood pressure, and suddenly get sick far more often than ever before.

And I can't ignore that doctors have been warning that it may be due to the gas leak. And I *can't* ignore that there have been studies done on local homes confirming that there are still remnants of the leak sticking around. Some people have had to leave their homes, their schools, their home state, all because Aliso Canyon has made the place we live unsafe and unfit for anyone to stay.

Frankly, I'm *scared*.

I'm scared that whatever damage Aliso Canyon has done is here to stay. I'm scared that even shutting down Aliso Canyon will not fix what happened to the people I care about. But it's a start because, by this point, all we can hope to do for our environment, for our community, for the world is to mitigate the damage. In order to mitigate the damage, we can't be allowing Aliso Canyon to continue their activities.

Why? Because this sets a precedent. I'm sure whoever is reading this has family, friends, pets. If you don't shut down Aliso Canyon, that signals to other similar companies that what they've done is okay. It signals to them it's fine to come to *your* neighborhoods, *your* towns, *your* homes and harm *your* health for profit.

If you don't want to know firsthand how this feels, then please, please, for all that is good, shut down Aliso Canyon.

Thank you for reading,
Jennifer Glueck

From: [Nancy Lindholm](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:48:59 PM

The natural gas leak at Aliso Canyon Storage Facility in Los Angeles County was quite serious and drastic measures needed to be employed to correct the situation. For nearly a year the facility has undergone the most thorough scrutiny, and comprehensive testing has been conducted.

It appears the results of that testing has cleared a minimum of 34 wells as they have passed the Battery One and Battery Two tests. This indicates those wells are able to receive injection of natural gas.

Our interest in the Aliso Canyon Storage Facility is our concern for adequate supplies to meet both our residential and commercial demands for natural gas.

Sincerely,

Nancy Lindholm
President/CEO
Oxnard Chamber of Commerce

[REDACTED]
Oxnard, CA 93036
[REDACTED]

From: [Jennifer Toth](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:47:06 PM

To whom it may concern:

Shut it all down. Please. I was unable to attend the hearings this past week as I had been home sick from work and had to take my son to a doctor appointment which wiped all energy for the evenings. I do want to share my story and beg you to do the right thing - shut it down.

We live in Chatsworth. Within the "as a bird flies" 5 mile radius. The thing about this area is the community blends - we do things throughout the area - Porter Ranch, Northridge, Granada Hills, Chatsworth - shop, work, school, activities, etc.

We relocated from 1/15/16-2/25/16. And, every day we live in a state of concern. Concern if we are sick because of the gas. Concern if our son is sick because of the gas. Concern if our dogs are sick because of the gas. Concern because we all are indeed sick. Unexplainably sick. See, all the doctors and the tests ranging from heart monitors, EKGs, nerve conduction studies, brain MRIs, X-rays, blood and more all show normal. Yet, heart palpitations, blurry vision, dizzy, lethargy, rashes, numbness, tingles, pains and more are not normal.

I'd like you to now think about your own childhood.

October 31, 2015. Our neighborhood was lively and full of energy as groups of kids and families gathered to walk together and trick or treat. We walked around for over an hour as my five year old and about ten other kindergartners enjoyed what was really probably their first year of really getting into this trick or treating thing. This was merely days after the "leak" began making the public news and we were just beginning to question what was going on. Neighbors starting to talk, but it hadn't quite disrupted life yet as it was very much "what does this mean", "why am I dizzy", "I must just be tired from all of life's things" "what's that smell"?

Fast forward. October 31, 2016. You know what I was thinking. Instead of enjoying my six year old first grade son dressed as Mickey Mouse. I was worried "is there poison in the air still". "Am I exposing him, and our family, to lifelong issues", "should we move"? Reliving the past year almost as post traumatic stress disorder was in the back of all I did.

What did your family think about this past Halloween?

Because, even when we get a "Dear Neighbor" notice from SCG, we still have yet to get what we've been exposed to, and what tests our doctors should run. My doctor said she didn't even know what to run, where to begin. When I tell doctors I live by the gas leak, they make several different faces and don't know what to do with that info.

My son has now had a cough again for over two months, three doctor visits all saying no infection, just post nasal drip. He does not normally have a cough or post nasal drip. And, it's a bad cough. Keeps us up at night. He's got rashes again. When the leak was first exposed, our son had a rash for over two months that the doctors gave us creams to use but it never went away. After we relocated, it literally disappeared within two days. Oh, and my face is tingly. Eyes blurry. And, more.

Every day, I question life, our health, our safety. Surrounded by amazingly beautiful nature, rolling hills, rocky peaks, tree-lined streets. Yes, when I think about going out to enjoy one of our parks, I actually decide not to spend that time outside. That's ridiculous. My son hasn't learned to ride a bike yet because we limit time outside. He turns 7 this week. What were you doing at age 7?

We moved to the North Valley because it provided us a simple 3 bedroom home with a backyard for our dogs and son that we could afford. We have created a community life here - church, boy scouts, swim lessons, soccer, tball, art class, piano class and more. It's amazing. We recognize our neighbors when out and about, it's a lovely community. And, then the flip side is literally "are we killing ourselves from poison"?

This facility must be retired. Alternatives are available. Lives are not.

I probably am rambling because I'm so tired, dizzy and blurry eyes right now. Oh, and my dog was diagnosed with cancer out of nowhere two weeks ago. Is this related? Not sure... but my other dog has her runny, red, watery eyes that she's only had one other time in her 9 years of life - last Fall/Winter 2015 - with the blowout. Oh, and the filters in our SCG provided air purifications systems are blinking red requiring new filters that we now need to pay ourselves. Its gone red many times lately.

I appreciate your time and while urge is not strong enough, I ask and seek that you make the right action, not the easy one here.

Thank you,
Jennifer Toth

From: [Cathy Plotin](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:44:52 PM

Please do NOT allow So Cal Gas to reopen Aliso Canyon. Our community has suffered enough. So Cal Gas is stealing our health and the quality of our lives. We love our community. I've lived here 40 year and now in the last 2 years I've felt nothing but ill health and severe anxiety

Thank you for reading this letter.

CATHERINE PLOTIN. Age 70



Porter Ranch CA 91326

Sent from my iPhone

From: [Cathy Plotin](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, January 30, 2017 8:44:14 PM

My name is Catherine Plotin. I've lived on Braemore Road in Porter Ranch for 40 years. I am begging you to please shut down the Aliso Canyon gas storage facility. Our beautiful community has suffered long enough
Thank you for reading this e-mail

Sent from my iPhone

From: [steven maiken](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review.
Date: Monday, February 6, 2017 2:43:17 PM

To Department of Conservation,

I believe that reopening SoCalGas' Aliso Canyon facility will continue to endanger the community, especially nearby, where health problems such as children with bleeding noses and other issues are ongoing. Because the cause of the facility's accident has not been determined, it should not be reopened. SoCalGas' mitigation plan is working and renewable energy and efficiency measure should be employed immediately and expeditiously to prevent any future problems. Leaks continue and the facility is full of earthquake faults so it should be shut down.

Thank You,

Steven Maiken

From: [Debbie Caplan](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:36:08 PM

I am a resident of Porter Ranch and I strongly disagree with any decision to reopen the Aliso Canyon facility. We have suffered headaches and noxious fumes due to this facility. Until health and property values can be maintained in this area without further detriment, the facility must remain closed.

Sincerely,

Debbie Caplan



Porter Ranch, 91326

Sent from my iPad

From: [Tanya Harper](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:26:32 PM

To whom it may concern,

Our family lived exactly 2 miles from the blowout of 2015. We were extremely sick with rashes, nosebleeds, breathing issues, headaches, burning eyes, face pain, stomach issues, nausea, sleeplessness, and general malaise. We were literally suffocating from the winds that were blowing the gas and chemicals into our neighborhood. We moved into a hotel room with our 3 dogs and adult son with Autism for 4 months. Our belongings were put into storage until we were able to find another place to live away from the area. We never returned to live in Porter Ranch after our departure on November 29, 2015. To this day, the things we have in storage still make us sick when we come into contact with them. There is a coating of an oily substance on many of the items. Whatever is in the old oil wells where the gas is being stored in is toxic. I hope you will consider the severe consequences of choosing big corporation interests over the well-being of families. Although we do not reside any longer in the Porter Ranch community, we can attest to the fact that there was extensive disruption of life and adverse effects on health due to the blowout - there are no substantial answers as to why this occurred, why it could not be stopped (no safety valve?) and no conclusion whatsoever that this facility is safe.

Thank you,

Tanya Harper

Former resident of Porter Ranch at:

Porter Ranch

Current mailing address:

Toluca Lake, CA 91602

Sent from my iPhone

From: [Vikki Salmela](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:20:28 PM

Please send a confirmation of Receipt to [REDACTED]

Comments on the Decommission of Aliso Canyon Gas Facility

My name is Vikki Salmela, a resident of Porter Ranch for over 13 years. I moved here because I love the outdoors, being active, and did all from walking out my front door to the trails. At 1430' altitude, I thought getting above the smog would help me become more active. It has done the opposite; I have become so sick from the poisoning, which still continues daily without explanation, that most days I am too tired to function.

My doctors of environmental science know about the chemicals used in fossil fuel storage and drilling, not to mention 109,000 tons of chemicals blowing into my home for over four months, tell me, no more windows or doors open. No more aerobics in Porter Ranch. No hiking, no biking, no walking. And if no one can tell you everything you were exposed to, where the current leaks are coming from, you will not get better, leave.

Can you imagine, over a year of being so sick you can't function at near normal levels in your own home, comforting your dog as she vomits for hours through the night, get ill to the point of vomiting yourself, due to just stepping out into the yard of your dream home? That is my life, in Porter Ranch.

When in Porter Ranch, I cannot focus, concentrate, have loss of balance, an abnormally high resting pulse rate, irregular heartbeats, wheezing, coughing to the point of vomiting in the kitchen sink and nauseous after. Burning eyes, blurry vision, swollen lymph nodes, tinnitus, muscle and joint pain, lung irritation, nightmares about losing my home or my dog dying. I watched my dog lose half her teeth after the blowout, and she still has swollen bleeding gums and a dead tooth. I hear her hacking up bile, vomiting after being outside only five minutes; including the day prior and the days SoCal Gas released gas from Aliso, creating a false excuse to withdraw. We were both sick, January 23-25th. SoCal Gas did not follow the winter mitigation plan, buying less gas as a cold front was expected, instead of buying more, causing an artificial imbalance in supply and demand, creating an excuse to withdraw gas in order to insure compliance with code, to not lose funding to the facility. Conveniently done close to the DOGGR hearing dates, putting intentional unnecessary fear into the public that there was a shortage; the truth was, they did not follow the rules. Our government officials watching over the balance of energy failed us, let this happen. Are the outgoing pipes all safe? So many residents called both the AQMD and CHD to report the smells and their illnesses. How can this facility be safe?

I am concerned that all the decisions being made regarding the use of Aliso Canyon are based on mere mathematical calculations of supply, demand, and cost. However, considering the

event that led to this point, it is imperative that any decision regarding Aliso Canyon must include and incorporate a thorough Risk Analysis that provides a reasonable weight to the potential health risk to the community and damage to the environment that is incurred with the re-opening of this facility. Clearly, the impact of any CPUC decision on the community and the environment must be taken into consideration.

The new pipes are in, the DOGGR safety plan and tours have not convinced me that my health is safe, the earth is leaking, equipment leaks, SoCal Gas admitted so under oath. Rather than be proactive in helping get to the cause of so many seriously ill, they are forcing the delay of paying for a comprehensive health study into the courts. Are they hoping we will be so sick and leave, or not alive to participate? We need and deserve a study equivalent to the gulf oil spill health study done by the Federal government. And immediate help with our health issues while this happens. Sick people do not make a facility safe.

Over 21,000 people evacuated, many could not and were also sick. SoCal Gas lied since 1979 about having subsurface safety valves, still refuse to proactively put them in; at the current state the new additions will not stop a blowout. The root cause analysis of what happened to SS25, how long SS25 had already been leaking has not been completed, there is no way anyone can say the facility is prepared and safe to reopen. Earthquake faults run directly through every well, most of concern, The Santa Susanna Fault. We are now finding out that the Northridge quake in 1994 did cause at least one well to leak, yet SoCal Gas at their open house told me no damage occurred. The Sesnon fire of 2008 started on their facility, and spread so fast to homes due to the lack of fire abatement by SoCal Gas. Our government officials at the state and local level, there for the protection of the public, have failed us.

New reports with scientific evidence, from Consumer Watchdog, and the LA Times show that CA is overproducing and storing fossil fuels, "natural" gas being one of them. Far from the environmentalist that Governor Brown claims to be, Governor Brown has expanded the burning of heat-trapping natural gas and nurtured oil drilling and hydraulic fracturing while stifling efforts to protect the public from harm. The Public Utilities Commission has approved a slew of unnecessary new fossil-fuel power plants when the state's three major investor owned utilities have overbuilt their generating capacity by nearly triple the minimum extra capacity that the state requires. It is very clear; Aliso Canyon is not needed, and will be replaced by cleaner energy alternatives. To jeopardize the health of everyone, and throw money away on a decaying facility that is quickly becoming a dinosaur is wrong; a direct abuse of tax payers, our land and our animals.

In the past year; roughly nine months I have been away from Porter Ranch due to reoccurring symptoms. These symptoms go away, in whole or part when I leave. My dog never vomits anywhere but in Porter Ranch. On the one year anniversary of the official findings of the blowout, my dog and I came back to participate, and she violently vomited in the park in less than 24 hours after returning. Something is contaminated outdoors.

My home was not remediated correctly; lied to by the contractors hired by SoCal Gas to clean my HVAC system, was also not cleaned properly and photos were shown of someone else's system stating it was mine, in order for me to pay for them to come back to do cleaning they said was not under county protocol. Hiring my own specialized duct cleaning company told me the real story of the dust and debris left behind. My home was covered in dust. The duct work not cleaned, with photos to prove the ducts were still full of dust, yet unused since SoCal Gas contractors were in my home. Dust has been confirmed by the LA County Board of Health to be contaminated with heavy metals in Porter Ranch, some known carcinogens, compared with a control group and in line with the partial list of heavy metals found up at the well site by SCG.

This past year has been hell. Very sick, still no answers to the causes, huge fear of the accumulation of toxins in my tissues including Endocrine Disruptors. I have become a prisoner in my own home, and my entire reason for moving to Porter Ranch is gone. I'm on disability, my small business, the one that successfully allowed me the "luxury" of moving up where I thought the air was cleaner, is only a comfort to me at this point, as I love designing. As a small business owner, this facility has done far more to dismantle all that I have accomplished than our past recession.

I live alone, my neighbors that moved, friends and family will not come up to visit me, for fear of getting sick. A friend came over and immediately started coughing in my home. This blowout has caused a very lonely isolating life with no change in health while in Porter Ranch. While evacuated, our community was scattered all over the LA area, many including myself, still hearing the excuses of non-reimbursement of expenses told to be paid by SoCal Gas to those evacuated by LA County. Alone, sick, lack of income due to the ongoing symptoms and added expenses, and no way out, due to rising home and rent costs, is extremely depressing.

One of the worst negligent acts by SoCal Gas was not following the CA Real-estate laws for my month to month lease during evacuation. We were given a day to day notice, and could not leave the area, waiting to hear when or if we had to move home. During this entire period, I could not leave to visit my Mom, who was ill and was quickly getting sicker. I lost precious time with my parents I will never get back. Once forced home and sick returning to Porter Ranch, I spent my Mom's final days with her, and had to then return back to my contaminated home last September, seven months after capping the blowout, to prepare her memorial and service through my studio. I pushed through every symptom, long hours of coordinating every detail. My cousin flew down to help me, and witnessed the worst. Our final night, during the early morning hours I sat in bed writing my tribute to Mom. My nose started bleeding, and with the wipe of a hand, my sheets were bloody. I stopped the bleeding; finally fell asleep, only to be wakened two hours later by my dog. I looked, the floor was covered in vomit. She wanted to go outside to finish. My nose started bleeding again. The new Hepa carbon air filter running 24/7. With little sleep, exhausted, sick with my dog, I had a witness this time. She helped document, pack my car and drive me over 6 hours to my Dad's

home where family was waiting.

The continual lies from day one, the uncaring disrespect for resident's health, no root cause analysis completed to know exactly what happened, no safety plan in affect for the community, delayed and only partial notification of spills and leaks, no earthquake concerns advised by scientists to study, the continued total disruption to thousands of lives with no concern or empathy for long term effects to children especially, is why Aliso must be permanently decommissioned. The risk assessment is too high on so many levels, as SCG has always conducted business reactively, not pro-actively. I urge DOGGR, the CPUC and Governor Brown to decommission Aliso immediately. Health over profits.

Vikki Salmela

Home:



Porter Ranch, CA 91326

From: [Gayle Grech](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:19:59 PM

Dear DOGGR (The Division of Oil, Gas, & Geothermal Resources),

My name is Gayle Grech and I am a mom, wife, and 12 year resident of Porter Ranch. We moved to Porter Ranch because of the good schools, parks, hiking trails and clean neighborhoods. Little did we know, there was a huge natural gas storage facility called Aliso Canyon almost in our backyard. This facility has caused extreme stress, nosebleeds, headaches, rashes and the death of my daughter's beloved golden retriever, Delilah.

In October 2015, as I'm sure you're aware, the Aliso Canyon gas storage facility had a major blow out. The Sempra Gas Company didn't even let the community know. Children were still going to school, running on the P.E. fields, hiking on trails, riding bikes, etc. In my family, we had headaches and nosebleeds which we kind of dismissed because the gas company said it was safe to be there. On Halloween 2015, we even went trick-or-treating with family and friends (our yearly tradition) and I had such a bad headache that I started vomiting at midnight for several hours. This was not the first, nor the last time.

We finally gave up and moved out during the holidays. It was sad to leave the Christmas tree and our home while all of this was going on. Our beloved golden retriever also started to have heart and respiratory problems. She finally passed away this January at seven years old, never to fully recover.

While I understand the need for energy, endangering this community is simply not acceptable. There are too many that are still suffering from the ill effects from this site, even though no natural gas has been injected since the end of 2015! The off-gassing due to rain or the withdrawal done recently is still making our community friends and families ill. We still don't have any answers as to the contents of the materials that blew out over our neighborhoods or the promised health study which hopefully could answer questions and give the doctors treating us some much valued information. We still don't know why the blow out happened or how to avoid something like this in the future. Please shut down Aliso Canyon.

It is not safe.

It is making our friends and families ill.

It is not needed since we already have done without it for over a year.

Thank you,
Gayle Grech

From: [Martik Begi](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:13:23 PM

Hello,

My name is Martik Begi, my family and I have lived in Porter ranch in the same house for 20 years. Up until 2015, we did occasionally smell unusual odors around our community, but never thought it was anything of importance - turns out, we did not know what was going on, because the gas company was not announcing the "small mishaps" and gas releases.

Then the 2015 gas leak happened, which was a devastating disaster we never expected and we still have not recovered from. Our house is right on Sesnon blvd, right under the Aliso canyon facility and for weeks we did breathe intolerable levels of gas until the gas company announced they had a problem... My wife and specially children had SEVERE headaches; they missed school days and their grades suffered because of this. We finally moved into my parents' house - where all 4 of us lived in one room.

There is no way anybody at the gas company can understand the strain and suffering they put onto my relationship with my wife, kids and our general health, NO WAY. Since then, there has been several other spills of different kinds - including another major one which we did smell and I am ONLY talking about the ones that were announced... This has been happening since the inception of this facility, and will keep happening, there is no way an operation of this magnitude and this level of ineptitude can be sustained with no other accidents. Maybe 50 years ago when this area was uninhabited, one could understand the reason for the existence of this facility, but today in 2017 with tens of thousands living within a mile or 2 of the facility, there has to be a better more humane solution.

We have been fed lie after lie about how Aliso Canyon is so vital to the southern california energy landscape. If that is true, how did we all go for a period of 15 months or more with ZERO gas contributions from the Aliso Canyon facility? HOW? where did that gas come from? Not from Aliso Canyon!

PLEASE consider the lives of tens of thousands of people who have already lost a ton in the gas leak disaster - both monetarily and in health - PLEASE give us a break and shut this facility down, it is only a matter of time before something else pops, WE CANNOT AFFORD ANOTHER LEAK, YOU CANNOT AFFORD ANOTHER LEAK.

Thank you,
Martik Begi

[REDACTED]
Porter Ranch, Ca 91326
8188 [REDACTED]

From: [Lisa Zimmitti](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 2:01:35 PM

Hello my name is Lisa I live on 19200 Index St. in a gated community.. My daughter is attending the school Castlebay and had to move for a few months so did her whole family.. we were all sick until we moved away, if all 114 wells were safe and secure and feel completely confident for you to re-opened these wells knowing that our health is not at risk but that is not the case these wells are not up to the regulations they need to be at..

It's really weighing and stressful on us all to know that they might open the wells and disregarding our human rights to breathe clean air and be in a safe environment.

Thank you,
Lisa Zimmitti
Makeup Artist 706 Union
www.lisazimmittimakeup.com

From: [Laurie](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:59:23 PM

To whom it may concern:

I am a resident of Chatsworth and have not only suffered the physical ill effects of the methane poisoning from the defective Alison Canyon gas wells but have witnessed first-hand as a Real Estate, Property Management professional and business owner the trauma, loss and yes, anger the our community has felt.

The Gas Company's pure hubris in the cover-up, subsequent lies and misleading messaging has created an anger and a mistrust that can only be remedied with REAL action and a REAL stand by those that have the authority to do so. PLEASE, we need for you to stand with us. You have the ability to do the right thing and be on the right side of history.

We had to leave our homes for a year at great inconvenience and physically suffered. We are still getting sick, many of us walked away from our homes or sold at a reduced price. Our businesses lost revenue. Our schools closed down and remain closed.

It is simply impossible for us to comprehend how our public servants who serve to protect the public, can on any level, consider the re-opening of Aliso Canyon when a) the cause of the methane leak has not been determined and b) the other Aliso wells are the same age and the condition as the one that blew.

How can this make sense to anyone? This is an outrage!

We are devastated and so afraid it could happen again. Please protect us! ALISO WILL NEVER BE SAFE!

I would ask that you please vote to keep Aliso Canyon closed.

Thank you,

Laurie Gral, CPM, CCIM, PCAM

President / CEO

Encore Enterprises, Inc.

Broker - DRE License #00622716

Burbank, CA 91505

T: 818-

F: 818-

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From: [Anonymous Remailer \(austria\)](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Safety Review (Hearing)
Date: Monday, February 6, 2017 1:57:51 PM

February 6, 2017

To Whom It May Concern,

Regarding the public hearings of Feb 1st and 2nd in Woodland Hills, comments heard from public speakers should not be accepted as being representative of all affected communities.

This is because an active campaign of intimidation on behalf of a narrow-interest group targeted the hearing, with a particular emphasis on trying to silence voluntary speakers.

Local politicians felt obligated to tailor their comments to pacify protestors, while officials from other areas were subject to frequent interruptions, and on occasion, taunting with obscenities.

Many who signed up to speak, instead chose not to make their comments. Some were genuine victims, who had to wait hours to make a statement limited to 2 minutes. Others made statements that were factually questionable, amid repeated exhortations requesting monetary damages including millions of dollars.

Reliance on statements made at these hearings would distort the record and reward behaviors that are intended to only provide a great benefit to a narrow group of landowners, at the expense of the much larger region.

Please make your decisions based on what is best for the area as a whole.

(Submitted without a signature, to avoid potential retribution).

"A Concerned Citizen"

From: [Sue Holl](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review."
Date: Monday, February 6, 2017 1:57:30 PM

Monday, February 6, 2017

Division of Oil, Gas and Geothermal Resources,

For the health and safety of my family and all the other families in Porter Ranch and the surrounding areas, please consider keeping Aliso Canyon gas fields shut down until:

1. A complete root cause analysis is completed and a complete review of the root cause is analyzed
2. Completion of a seismic analysis and emergency action plan
3. Completion of a Health Study of the blowout's effects to understand why people like my family still continue to get sick

It is hard to believe that an organization like DOGGR would even consider reopening the facility without these items completed. People have been saying that it is urgent that the gas facility is reopened, but it is not urgent. It is more urgent that the above studies be completed first. As you are aware, the facility is not needed to ensure energy reliability in Southern California. Aliso Canyon has been closed with no gas used for energy since January 2016 and there is already infrastructure in place to keep gas flowing. People's health and safety should not be risked unnecessarily. It has been more than year since the blow out and yet the items above have not yet been started. Shame on So Cal Gas and DOGGR!

I am not asking for a complete shutdown of Aliso Canyon at this time, just that the above studies be completed first. Let's find out the root cause of the blowout so that appropriate measures can be taken to avoid another disaster like the one we already experienced. Let's find out what is making myself and my neighbors sick. Then, and only then shall we have the discussion about whether or not it is safe to reopen Aliso Canyon.

Thank you for your consideration, and please, listen to the people of Porter Ranch who are opposing the reopening. We would not be doing so if it was not personally impacting our families and friends.

Sincerely,

Sue Holl

Sue Holl



Porter Ranch, CA 91326

From: [Monika & Pratik Patel](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:57:06 PM

We are very much opposed to opening up Aliso Canyon Facility.

We purchased our house moved to Porter ranch community in 2015. Since we moved, we have spent more time related to worries and life disruption than anything else. My son and myself got eye redness for many months, which disrupted our active life, impacted work and studies. We found that my wife is pregnant in Dec 2015, just about the time the aliso canyon leak was discovered. Smell and air quality made her nausea and vomiting exponentially worse. She was barely able to get out and stay healthy. Moving between hotels, home and school had brought our life to complete halt. with all these stress, i was also discover with blood pressure. I still got eye redness few times in past few months, which further puts doubt of leakage and air quality.

Please spare the life of thousand of people living aliso canyon facility by completely closing this unsafe facility in our backyard.

Regards,

Pratik Patel
Ph [REDACTED]
Porter Ranch resident

From: [REDACTED]
To: [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review"
Date: Monday, February 6, 2017 1:53:27 PM

To Whom it may concern,

Please take note that I am a very concerned Northridge citizen about the reopening of the Aliso Canyon Gas Facility. To have a facility that is so toxic and unable to predict when leaks may occur does not seem acceptable. This facility should not be re opened until they have all the information certain to assure the residents that there will not be any more leaks in our future.

Sincerely,

Nerissa Forbes

From: [NOBU YOSHIDA](#)
To: [AlisoComments@DOC](#)
Cc: [nobuGmail](#)
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:43:36 PM

Have blowout preventers at the bottom of each well been installed and tested, I've heard nothing about these devices being installed?

Nobu Yoshida
Porter Ranch Resident.

From: [Sherry Lucks](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:43:24 PM

I have been a resident of Porter Ranch for over twenty years-- and am deeply concerned about the reopening of the Aliso Canyon gas field for several reasons. First, the reason for the initial gas leak that caused so much sickness has NEVER been determined-- or explained fully to the residents. Second, the field should be closed until there are underground safety valves installed to stop potential blowouts from taking place. Third, we live in a VERY vulnerable earthquake area--- if you recall the Northridge Earthquake that took place in 1994. It has been proven that there is a tie to extracting the energy and earth and fault line movement. Why take that chance? I am opposed to the re-opening of the field and do not believe that Aliso Canyon is safe which the State continues to claim.

Thank you.....Sherry Lucks

From: [Sanjay Kulkarni](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:39:16 PM

To WHOMITMAYCONCERN,

This is with regards to the potential re-opening of the Aliso Canyon facility.

I STRONGLY recommend you **NOT to REOPEN** the facility for the following reasons-

- My 10 year old son is still having nose bleeds. I would like to know why my son - who never ever had nose bleeds until the gas leak started - is still having nose bleeds.
- I would like an answer as to why this leak happened? As a member of the Porter Ranch community I am owed this answer. To reopen the facility without fully understanding the root causes of this leak are tantamount to gross negligence from the part of DOGGR and CPUC.
- It has been more than a year since the facility has closed and we have had extreme weather patterns - severe heat and cold - during the past seasons. LA has managed to cope without the need for this facility. Moreover, with the new Lithium battery facility that Tesla is building with SoCal Edison. This facility is generating 80MWh and will easily fulfill any extra need for power. Another reason why we do not need the Aliso Canyon facility.

I hope DOGGR and CPUC take my feedback into consideration.

Sanjay

From: [Tom Williams](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review - Comments
Date: Monday, February 6, 2017 1:37:43 PM

DATE: February 6, 2017

TO:

Department of Conservation 801 K Street MS 24-02 Sacramento, CA. 95814

FROM:

Dr. Tom Williams,
 PhD/BS in Geology; MS in Zoology 30 year with Parsons Pasadena and URS Corp.
 10+ years with Dubai Govt. UAE Port and Free Zone
 CPUC consultancy for Divesture of SCGCo-UGSF - Montebello and Playa Del Rey

SUBJECT:

Aliso Canyon Comprehensive Safety Review

RE:

Comments

COMMENTS:

General: Do Not Reopen/Resume Operations at SCGCo Aliso Canyon Gas Storage Facility until 60 days after completion and technical and community acceptance of the following:

Specifics:

1. **ROOT Cause Analyses**—SS-25 Blow Out Develop Remedy and Apply to All GS Wells
 Cause>Remedy>Application to All GS Wells
 Expected Cause: Casing Flows Hammering of Loose, Uncemented/Poorly Cemented Casing/Rock Annulae,
 Casing Flow Deterioration of Mishandled Bottom Hole Equipment
 Require: Provide No Casing Flow Injections/Storage/Withdrawals - Tubing design to prohibit any such casing flows
 Provide 100% cementing of production casing bottom to surface
 Provide Reinforced casing, packers, and bottom-hole equipment
 Provide All of above with independent certified engineer verification of design and installation
2. **Well Integrity** - Design/As-Built without Confirmation/Verification Design, Installations & Permits differ.
 SS-25, -25A, 25B, SS-8, SS-44, P-39A, P-69A-H,
 SS8 had a SSSV til 2011 - gone,
 SS-25 had SSSV thru 2014 Reported gone in 1979
 Shut Off Valves Sliding Sleeve Doors
 Require: Provide Independent certified engineer verification of design/installation and compliance with permits and
 verification for all wellhead and bottomhole equipment to prohibit Casing Flows
3. **Storage Facility Description** – Graphical/Computerized Model Maximum Working Pressures
 Assumed Single Connected Storage Pool with Pressure developed from Single Well analysis-P-39A
 Geological data suggest Multiple Zones/Bulbs with Differing Containment, Fluid, and Gas Levels
 Caprock/Mohnian Shale-Modelo or Del Aliso Fm. over Senon and Older Frew/Llayas
 10+ Named faults in cross-sections
 Aliso/Att 1 Est'ted GeoMech. Properties for Al.Cyn. Gas Stor.Field, GeoMech.Techn. 07/18/16
 Require: Provide single working computerized 3D dynamic model for "static", injection, withdrawal, and storage conditions and integrated with online realtime working conditions
 Provide multiple well models for injections/withdrawals/storage and all associated

water levels and injection/withdrawal/static flows
Provide detailed inspection/well integrity of all casings/cemented annular spaces at and with 50ft of fault crossings (>10ft fault displacement)
Provide maps and sections of all surface and subsurface ownerships, lease arrangements, and operator liabilities/responsibilities associated with Aliso Canyon Field and Oat Mountain Field
Provide independent certified engineer verification of field/pools design, modeling, operations, and upgrades
Provide independent certified engineer verification of surface and subsurface facility equipment and operations

4. Storage Facility Maximum Pressure - Well Monitoring - More than P-69G Only

One Well/Zone at highest point in Field and Zone
Well monitoring below Containment Layer and at Bottom of Storage Zone
Additional Monitoring above Containment Layer via Mudded Annulus of Prod.Casing
Require: Provide single working computerized 3D dynamic model for "static", injection, withdrawal, and storage conditions and integrated with online realtime working conditions
Provide multiple well sub-models for injections/withdrawals/storage and all associated water levels and injection/withdrawal/static flows
Provide at least one monitoring well per zone/pool including fluids, gas, and annulus 100ft above "caprock"
Provide independent certified engineer verification of field/pools design, modeling, operations, and upgrades
Provide independent certified engineer verification of surface and subsurface facilities, equipment, and operations

5. Structural-Geologic and Seismic Context - Faults, Movement, Earthquakes

Available recorded seisms (>500; <http://scedc.caltech.edu/>) demonstrate strong connections of Field to entire Valley structural geologic framework
Field depends on faulted boundaries (especially, western limits) and associated "caprock"
Require: Provide Microseismic Monitoring System for entire Field: -3 - +1 Seismic Events to -12,000ft
Provide seismic model for associating seisms with known fault zones
Provide single working computerized 3D dynamic model for "static", injection, withdrawal, and storage conditions and integrated with online realtime working conditions
Provide Listing of Wells/Depths which cross known faults (10, 100, and 1000ft displacement) Wigdal/Oat Mt. Faults, Torrey Fault, Sta.Susana, Frew, and Ward
Provide reinforced Well/Casing-cementing of all crossings, prohibit mudded annular spaces

6. Emergency Response Plan

DOGGR required Site/Facility Specific Emergency Response Plan, none circulated for review
DOGGR required Spill/Release Contingency Plan, none circulated for review
DOGGR/CPUC required well and design specific Root-Cause Analysis and inclusion of such into the ERP, none circulated for review
Require: Provide Site/Facility Specific Emergency Response Plan for each separable Field/Pool
Provide Spill/Release Contingency Plan for Each Operator in Aliso Canyon Field and Oat Mountain Field
Provide for at least five (5) separate Plan Elements for specific Emergency Events.
Provide integrated and Site/Pool specific ERP, Spill/Release Contingency Plan, AND well/design specific Root-Cause Analysis

7 Overall Monitoring Systems – On-Line/Real-Time Integration and Accessibility

Information and monitoring has been conducted without access to protocols, chain-of-custodies, etc and without public accessibilities and understanding due to the several different State, regional, County, and City agency/sources involved.

As a publicly funded/controlled field, the public has a right-to-know about facilities and operations in an easily accessible, understandable format

All Info Available by Subscription to Public.

Require: Provide single data base with links in an understandable and subscriber format

All additional information (1-6 above) must be provided through this single point of contact.

From: [Maria Herweg](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:30:39 PM

Dear Department of Conservation's Division of Oil, Gas and Geothermal Resources (DOGGR):

I am writing today with a call to permanently shut down the Aliso Canyon facility for the health and safety of the residents of the Northern San Fernando Valley.

There are several major concerns I have regarding the Aliso Canyon Facility:

1. The facility cannot be deemed as safe without having a root cause analysis of how and why SS-25 failed.
2. There are wells in the facility like SS-25 that still lack safety valves.
3. Most importantly, the Porter Ranch, Northridge, Granada Hills and Chatsworth residents are still suffering from headaches, nosebleeds, dizziness and nausea and the safety review does not include any health studies from residents in these communities.

The Aliso Canyon facility has been closed since January 2016, so Los Angeles does not need this unreliable, antiquated and dangerous gas storage facility. For the sake of the Northern San Fernando Valley residents and especially our children, please do the right thing and shut it down forever.

Sincerely,
John Herweg

From: [JMI.H2009](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:29:28 PM

Dear Department of Conservation's Division of Oil, Gas and Geothermal Resources (DOGGR):

I am writing today with a call to permanently shut down the Aliso Canyon facility for the health and safety of the residents of the Northern San Fernando Valley.

There are several major concerns I have regarding the Aliso Canyon Facility:

1. The facility cannot be deemed as safe without having a root cause analysis of how and why SS-25 failed.
2. There are wells in the facility like SS-25 that still lack safety valves.
3. Most importantly, the Porter Ranch, Northridge, Granada Hills and Chatsworth residents are still suffering from headaches, nosebleeds, dizziness and nausea and the safety review does not include any health studies from residents in these communities.

The Aliso Canyon facility has been closed since January 2016, so Los Angeles does not need this unreliable, antiquated and dangerous gas storage facility. For the sake of the Northern San Fernando Valley residents and especially our children, please do the right thing and shut it down forever.

Sincerely,
Maria Herweg

From: [Akira E. Brathwaite](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:25:50 PM

Attn: Aliso Canyon Comprehensive Safety Review
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street, MS 24-02
Sacramento, California 95814

To Department of Conservation:

I write to you today in support of the Porter Ranch Neighborhood Council (PRNC). While I do not personally reside in Porter Ranch, I ally myself with the Council and all those affected by the Aliso Canyon SoCalGas blowout as a concerned citizen of Southern California.

In their own letter dated January 31, 2017, the PRNC outlined four main areas of concern regarding the findings of the Safety Review documents released by DOGGR on Tuesday, January 17, 2017:

1. The adequacy of the testing conducted
 - None of the tests "has any ability to detect a hairline fracture or a corrosion pit in the casing, especially if the fracture or pit does not propagate the full thickness of the casing wall."
2. The risk of a seismically-induced failure
 - Current heavy liquid emergency systems would do nothing to prevent a gas release in a seismic event.
3. The determination of the maximum field pressure
 - The notion that the wells can be safely operated at the same maximum pressure under which they were operated before the well blowout is illogical.
4. Acceptable Methane Release
 - There is no level of methane release that can be responsibly deemed acceptable. The immediate health effects on the surrounding community would be extremely negative. Furthermore, the long term environmental effects from the "acceptable" 6 tons of methane leakage a day would be in direct opposition to the desires of the majority of Californian people.

I urge you to seriously consider the complete analysis put forth in the PRNC's letter.

Furthermore, I urge you to NOT green light SoCalGas to refill the Aliso Canyon facility with 100% of its capacity. Instead, the DOGGR should commission a thorough structural and seismic analysis to quantify the risk of seismic failure and the consequences thereof, incorporate a complete Risk Analysis component into your pressure determination, and conduct a study into the inherent risk of any methane release on the community residents, environment, and climate. As the PRNC so aptly states, "if this facility cannot contain its gas release, this should be a clear indication to the CPUC and DOGGR that this facility cannot be allowed to operate, and must be retired."

Thank you for this opportunity to comment. I hope that you duely consider the arguments put forth.

Respectfully,
Akira Brathwaite

From: [Dave Deno](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 1:19:47 PM

As a resident of Porter Ranch, California I have first hand knowledge of the effects of the SoCal Gas Aliso Canyon gas leak and its ongoing affect upon my and my family's health.

During the gas leak we could not tolerate being outside in our community. The gas fumes burned our eyes and made it more difficult to breathe. When forced to be outside and breathe the fumes our throats became sore. We were eventually forced to relocate outside the area till, the leak was capped.

The fumes also deposited a lot of residue on our vehicles and home. The home cleanup service hired by SoCal Gas [exterior only] said that our home [1 mile directly below the leak] was the most coated they had encountered and it required 9 people to clean it. [We were denied indoor cleaning because we moved back into our home when the leak was capped.]

However . . we have ongoing concerns about the safety of the gas storage facility and the integrity of SoCal Gas. On January 24th, SoCal Gas siphoned off gas from the facility to meet what they called increased demand. During the siphoning off period that morning my daughter and I noticed the same strong smell of gas in our neighborhood. And no advisory was issued by SoCal Gas. This leads us to wonder if the company is being candid and truthful about the safeguards they claim to have in place.

Also . . SoCal Gas is now contesting the need for the health study of residents that they initially promised. They claim that they want to be good neighbors, but their actions do not seem to match their rhetoric.

This facility was in existence when we purchased our Porter Ranch home in 2009. And there is no mention of in in the disclosures that came with the property. That, at least, ought to be required for this area of the San Fernando Valley.

I ask that SoCal Gas NOT be allowed to refill the storage facility or to draw off gas until a thorough study is completed on the:

- Integrity and safety upgrade of all wells
- Levels of gas emissions on a *normal* day into the community and their affect upon public health from long term and constant exposure
- Long term health effects of the massive gas leak upon residents exposed.

If it can be shown that southern California can have all the natural gas needed without the facility, I would ask that it be capped and shut down permanently.

From: [Labutis, Saulius A](#)
To: AlisoComments@DOC
Subject: Keep Aliso Canyon Closed.
Date: Monday, February 6, 2017 1:19:04 PM

To whom it may Concern,

I urge you to protect the health and safety of my family in Porter Ranch at 12112 Stewarton Dr by keeping Aliso Canyon closed permanently.

No root cause has been found. To open it up because So Cal gas has profits to gain in lieu of our health is insane.

On October 23, 2015, SoCalGas Aliso Canyon Storage facility experienced a massive blowout, which released hundreds of thousands of pounds of methane gas, heavy metals and other harmful compounds into the San Fernando Valley community.

The blowout went unplugged for four months, forcing over 25,000 residents including my family out of our home where exposure to these compounds caused numerous health problems for me, my wife and my children.

The well was plugged in February 2016, but my homes are still contaminated by toxic chemicals from Aliso Canyon, and the facility still experiences regular leaks. We are still experiencing health problems. Nosebleeds, headaches, dizziness, nausea are a common occurrence there are now reports of leukemia, anemia and other more serious conditions are being reported. This scares the hell out of us.

SoCalGas and DOGGR are moving to reopen Aliso Canyon, but there has been no thorough analysis of the ongoing health impacts and chemical exposure in the five-mile impact zone. Further, the state has not completed a root-cause analysis; meaning, regulators and SoCalGas have no idea why the blowout happened in the first place.

This is unacceptable to me and my family. Please keep it closed.

My personal information

INGRID LABUTIS

[REDACTED]

PORTER RANCH, CA 91326

(H) 818 [REDACTED]

(C) 310 [REDACTED]

Ingrid *Labutis*

From: [Reuben Franco](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Storage Facility
Date: Monday, February 6, 2017 1:10:13 PM

TO: Aliso Comments

The Orange County Hispanic Chamber of Commerce would like to submit our support on the reopening of the Aliso Canyon Storage Facility injection operations.

We believe that SoCalGas(Sempra Energy) has performed the required "Fitness for Service" Analysis required by the CPUC and DOGGR.

SoCalGas has finished a comprehensive battery of tests with the consultation of third party experts.

We believe that SoCalGas has demonstrated that the field is safe to resume injection operations and we support its reopening.

Sincerely,

Reuben Franco

Reuben Franco
President & CEO
Orange County Hispanic Chamber of Commerce

Inline image 1



[Santa Ana, CA 92705](#)

Office: [714-](#)

Fax: [714-](#) [3](#)

From: [REDACTED]
To: AlisoComments@DOC
Subject: Please close the Aliso Canyon facility down.
Date: Monday, February 6, 2017 1:01:09 PM

For five months from late October through March my husband and I were unable to walk on our block, in either neighborhood parks, nor on the hill.

Our grandchildren were not invited up to our home for the five months because of the air quality dangers.

This deprived two over 75 year olds the joy of having young children nearby.

Once the air was restored we were able to resume our activities until recently when a new leak was found.

I do not exaggerate any of this. The few times it has rained I've placed a bucket outside to catch the rainwater and have found residue at the bottom of small black oil pellets.

All of this is unacceptable.

Personal health issues because of the air quality were shortness of breath, chest pain and abiding concern for our overall health.

Please close the facility. It lies too close to residential housing.

Thank you.

Aileen Nowatzki

From: [Wagners](#)
To: AlisoComments@DOC
Subject: Aliso Canyon comprehensive safety review
Date: Monday, February 6, 2017 12:57:29 PM

To whom it may concern,

I am writing this letter as a resident of Porter Ranch California. My family of four was forced to relocate to Studio City during the largest methane gas blowout in the United States. My older son who is eight, was forced to relocate schools (he attends Castlebay) as well. Both he and I suffered symptoms that included severe headaches and stomach issues.

I work in the city, I continue to get headaches when I am home. I am hoping there will be a comprehensive health study and cleaning protocol, but so far my home has never been cleaned despite its proximity to the facility. I was declined cleaning. So many of our neighbors continue to have symptoms and we still smell gas, and have been reporting it. I am hoping this facility will be shut down given the failures to provide safety measures that will protect the community. Please feel free to reach out with any questions, and thank you in advance for hearing me out.

Best,

Allen Wagner

[REDACTED]
Porter Ranch, CA 91326

310-4 [REDACTED]

From: [Sandi Naiman](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:47:30 PM

To Whom It May Concern:

In October, 2015, before I knew about the gas blowout, I began feeling sick. I woke up every morning (sometimes during the night) with severe headaches that didn't respond easily to Pain medication. I was often nauseous and was drinking ginger ale daily. My asthma increased, and I was using my rescue inhaler much more than usual, even more than is safe to use. Over the next few weeks, my sinuses closed off, and I couldn't breathe easily through my nose. I was so miserable, that I finally decided to have sinus surgery in March, 2016.

At the end of November, we vacated our home, and our life changed as we knew it. We moved into a one room hotel room, where we lived for more than 6 months. Our dogs were 14 and 15 years old, so we felt that they were too old to live in a kennel, so we had to drive home daily to feed and care for them. Sadly, we lost out on the last 6 months of one of our dog's lives, because she died soon after we returned home.

We returned home on May 29. Since we returned home, there have been several leaks, and the methane levels are often above normal. Each time this happens, my headaches return, the nausea returns, and I need to use my rescue inhaler more than I should.

I believe that the Aliso Canyon gas facility has had leaks long before the gas blowout and that my health and the health of many have been impacted for a long time. Add the threats of fire and earthquakes, and the conclusion is that this facility must be shut down forever!

From: [Sandi Naiman](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 8:34:27 AM

In October, 2015, before I knew about the gas blowout, I began feeling sick. I woke up every morning (sometimes during the night) with severe headaches that didn't respond easily to Pain medication. I was often nauseous and was drinking ginger ale daily. My asthma increased, and I was using my rescue inhaler much more than usual, even more than is safe to use. Over the next few weeks, my sinuses closed off, and I couldn't breathe easily through my nose. I was so miserable, that I finally decided to have sinus surgery in March, 2016.

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We returned home on May 29. Since we returned home, there have been several leaks, and the methane levels are often above normal. Each time this happens, my headaches return, the nausea returns, and I need to use my rescue inhaler more than I should.

I believe that the Aliso Canyon gas facility has had leaks long before the gas blowout and that my health and the health of many have been impacted for a long time. Add the threats of fire and earthquakes, and the conclusion is that this facility must be shut down forever!

Sent from my iPad

From: [irene.smith](#)
To: AlisoComments@DOC
Subject: "Aliso Canyon Comprehensive Safety Review."
Date: Monday, February 6, 2017 12:37:57 PM

February 5, 2017

I have been living in Porter Ranch since 1982. My husband Wayne Smith has been a Porter Ranch resident since his teens in the 1970's. We chose to live here because we are away from the city, close to nature, and enjoy good air quality so we can have outdoor activities.

I normally walk in the community or outside along Tampa Avenue more than five days a week. My husband and I also belong to the Porter Valley Country Club where we frequently hit balls at the driving range and play golf. The gas leak completely changed our way of life.

We could no longer keep our doors or windows open or engage in any outdoor activities. Even if we keep all the windows or door shut, the gas smell would seep into the house, particularly from the garage.

Before we knew about the gas leak, I used to sleep with my bedroom window open. While the gas leak was finally publicized during December 2015, I have been exposed to the various chemicals for two months when the emissions and contamination were the strongest. The continuous exposure to the chemicals wore down my resistance and caused me to suffer a prolonged cold with strange symptoms in December of 2015.

During the month of November 2015, my eyes were irritated when I was outside for a short while and I started to get more unexplained headaches. The most distinct experience occurred on December 4th when I went for a walk for about ½ hour along Tampa Avenue in the late afternoon. Even though I could not smell anything during my walk, I had a headache after the walk for the entire evening and it lasted three days.

About a week later, I caught a cold. During the entire sickness, I had a nose bleed and a sinus headache which hurt my face and teeth. This was a strange experience because I never had a nose bleed during any of my previous colds or having a severe sinus headache the entire time. After my cold symptoms lingered on, I finally had to check into the Marriott hotel and stayed there for five nights. I checked in the hotel on December 19th and my nose bleed, sinus headaches and terrible cough were all gone on December 22nd. My husband did not move into the hotel and stayed home because he had teaching commitments so it would not be convenient for him to move. His cough has lasted almost four weeks.

On Christmas day, I was home and my eyes were irritated and it was difficult to breathe because the air quality was so bad. As this horrible experience continues, we had to relocate to temporary housing for a few months which caused terrible disruption of our lives.

We are very concerned that this horrible nightmare would be repeated if the Allison Canyon is allowed to reopen and operate as a storage facility again. We are aware that these storage facilities were terra cotta pots built in the 1950's. As of today, the cause of the first blowout is still undetermined, how can we trust the integrity of the remaining aging facilities or the government entities certifying they are safe to operate again.

As these storage facilities are very close to dense populated neighborhood, we strongly urge the government entities entrusted with public safety to consider shutting down these facilities permanently so what we had experienced from 2015 – 2016 would not be repeated.

Sincerely,

Irene Smith & Wayne Smith

From: irene.smith
To: AlisoComments@DOC
Subject: Please shut down Alison Canyon
Date: Monday, February 6, 2017 12:36:01 PM

February 5, 2017

I have been living in Porter Ranch since 1982. My husband Wayne Smith has been a Porter Ranch resident since his teens in the 1970's. We chose to live here because we are away from the city, close to nature, and enjoy good air quality so we can have outdoor activities.

I normally walk in the community or outside along Tampa Avenue more than five days a week. My husband and I also belong to the Porter Valley Country Club where we frequently hit balls at the driving range and play golf. The gas leak completely changed our way of life.

We could no longer keep our doors or windows open or engage in any outdoor activities. Even if we keep all the windows or door shut, the gas smell would seep into the house, particularly from the garage.

Before we knew about the gas leak, I used to sleep with my bedroom window open. While the gas leak was finally publicized during December 2015, I have been exposed to the various chemicals for two months when the emissions and contamination were the strongest. The continuous exposure to the chemicals wore down my resistance and caused me to suffer a prolonged cold with strange symptoms in December of 2015.

During the month of November 2015, my eyes were irritated when I was outside for a short while and I started to get more unexplained headaches. The most distinct experience occurred on December 4th when I went for a walk for about ½ hour along Tampa Avenue in the late afternoon. Even though I could not smell anything during my walk, I had a headache after the walk for the entire evening and it lasted three days.

About a week later, I caught a cold. During the entire sickness, I had a nose bleed and a sinus headache which hurt my face and teeth. This was a strange experience because I never had a nose bleed during any of my previous colds or having a severe sinus headache the entire time. After my cold symptoms lingered on, I finally had to check into the Marriott hotel and stayed there for five nights. I checked in the hotel on December 19th and my nose bleed, sinus headaches and terrible cough were all gone on December 22nd. My husband did not move into the hotel and stayed home because he had teaching commitments so it would not be convenient for him to move. His cough has lasted almost four weeks.

On Christmas day, I was home and my eyes were irritated and it was difficult to breathe because the air quality was so bad. As this horrible experience continues, we had to relocate to temporary housing for a few months which caused terrible disruption of our lives.

We are very concerned that this horrible nightmare would be repeated if the Allison Canyon is allowed to reopen and operate as a storage facility again. We are aware that these storage facilities were terra cotta pots built in the 1950's. As of today, the cause of the first blowout is still undetermined, how can we trust the integrity of the remaining aging facilities or the government entities certifying they are safe to operate again.

As these storage facilities are very close to dense populated neighborhood, we strongly urge the government entities entrusted with public safety to consider shutting down these facilities permanently so what we had experienced from 2015 – 2016 would not be repeated.

Sincerely,

Irene Smith & Wayne Smith

From: Schenbein, Tom
 To: [REDACTED]
 Cc: [REDACTED]
 Subject: [REDACTED]
 Date: Monday, February 6, 2017 12:37:15 PM
 Attachments: [REDACTED]

To Whom It May Concern

It is absolutely and completely illogical to be talking about reopening Aliso Canyon when the exact cause of the "blowout" is not yet known. How stupid and biased does one have to be to think or suggest otherwise? How does one declare something "safe" when the cause of it being unsafe (failure) has not yet been determined?

It appears obvious that City and State Agencies, Jerry Brown and especially SoCalGas cannot be trusted to do what is in the best interests of those who live near A iso Canyon. The hidden agendas are all too obvious.

Please read below.

Thomas J. Schlenbein, RPA
 General Property Manager
Hines
 5700 Canoga Avenue | Suite 140 | Woodland Hills, CA 91367
 P 818.887.3300 | F 818.887.3301
Intelligent Real Estate Investment, Development and Management

From: Schenbein, Tom

Sent: Tuesday, March 15, 2016 8:43 AM

To: Schlenbein, Tom; Trigueros, Susan;

Mitchell Englander; Councilmember Mitchel I Englander

Carrasco, Andy; Matt AOL

Subject: RE: SoCalGas Aliso Canyon Storage Facility Update

SoCalGas,

It is interesting to read that the courts have ruled and upheld that those who have relocated from your blowout disaster can continue to get reimbursed by SoCalGas for an additional 22 days even though, per your claim, the air sampling readings have returned to their pre-blowout levels. Now you are finding out what it is like to not be in control of the situation. As I've written before, at least your loss is only monetary, while ours was to our physical and mental health. One could argue that these rulings somewhat seem to validate how you've lost all credibility with the positions you take. To say a majority of people don't believe you may be a reasonable assumption.

I'm sure you must recognize the irony in that these are expenses you really should have incurred at the beginning of the blowout but through your non-prospective communication, obfuscation and subterfuge, you were able to avoid any expense reimbursement for the first month of the blowout, until you were finally ordered to reimburse for relocation. The real tragedy for the residents is that the first month is most likely when the blowout gas volume was at its highest level thereby contaminating the air quality with the worst possible toxin concentrations. As we've learned from the results of the 24/7 air quality monitoring that was finally commenced by others, albeit way too late in this disaster, your once to twice per day air sampling was worthless since, as I've written prior, the wind direction and intensity can change almost instantaneously. What good was two 10-minute air samples, from a given location, when 23 hours and 40 minutes per day went unmonitored and unrecorded?

Hopefully, if there is any justice still left in our society, this will be just the beginning of SoCalGas getting everything you deserve. From the very beginning, you chose to minimize the well blowout by calling it a "gas leak," and from there the lies by omission, deception and lack of prospective communication just continued, not to mention the fact that you didn't even have an emergency plan in place for such a disaster. It's interesting that your "gas leak" is now the greatest recorded "gas leak" in the history of our country. Your initial repeated well-kill attempts, which weren't even communicated to the public in advance, ultimately resulted in emergency calls to residents and schools to stay indoors as they may be subjected to a toxic mist fallout from your failed pumping of who-knows-what into the well in an attempt to stop the blowout. This is just one example of your lies by omission, deception and lack of prospective communication. These latest rulings by the courts is what would most likely be called partial retribution for the those affected as you were able to escape any financial responsibility to the community for the entire first month of your disaster, again, through your lies by omission, deception and lack of prospective communication. You clearly were not going to do anything for the community that you weren't ordered to do.

Unfortunately, what is also indisputably evident is that all the governmental agencies that supposedly exist to protect the public are a complete waste of taxpayer money and truly serve no purpose. The fact that this powder-keg, aging, beyond-its-useful-life storage facility, which is awaiting a pending catastrophic disaster, existed for all these years without disclosure to residents is eerily reminiscent of the government's silence regarding the nuclear reactor existence and partial meltdown in the West San Fernando Valley, which was more severe than 3-mile Island. Furthermore, what did these governmental agencies actually accomplish during the disaster? The answer is "absolutely nothing." They certainly couldn't make a drill bit drill any faster than it was capable of drilling. There was no emergency plan in place for a well blowout, no emergency plan for communication to residents, no required safety valve on the well, etc. Regarding all these agencies, the truth is, following decades of being just an extension of the oil and gas industry, and doing nothing proactively for the safety of the community, there was absolutely nothing they could do reactively. Basically, with all the supposed oversight, regulations, laws, codes, reviews, inspections, etc., purportedly provided by these agencies, nothing was in place to protect the public before and during the blowout. This truly exemplifies the uselessness of all these agencies. Other than a few local politicians (i.e. Mitch Englander, Mike Antonovich and Brad Sherman), who probably initially believed your deceptions, and were slow to react, but finally did react, the community was left to fend for itself.

You avoided the predominantly ignorant media like the plague except when it served your purpose in conveying some carefully crafted public relations press release that typically was absent any substantive information that would be useful to those actually suffering from your disaster. The level of arrogance, contemptuousness and irresponsibility you display to the community is further evidence of just how little regulation and oversight you have operated under at Aliso Canyon as you single-handedly destroy the pristine image of, and lifestyle enjoyed in, Porter Ranch. The Oat Mountain fire in 2008, caused by your reported lack of power line maintenance, decimated hundreds of 20, 30 and 40+ year old trees and vegetation in Linnekin Canyon and the adjacent housing tracts. Those beautiful mature trees were replaced with twigs, many of which haven't survived. Now it is followed by your well blowout on a well in which you had removed the safety valve over 35 years ago. By the way, the "safety valve" was probably in place and called a "safety valve" for a reason. Your motto seems to be that if there is no regulation in place, there is no need for concern. Clearly, your disregard for anyone or anything, other than profit and greed is obvious, as you continue to put your profit motive above all else. Unfortunately, Porter Ranch will remain tarnished for as long as that facility is allowed to exist and you are allowed to operate it.

Even as the "well-kill" effort neared its end, you figured out a way to twist the knife in the back of those most affected by extending the claim reimbursement process from 1-2 weeks to the neighborhood of seven weeks, and still counting, even for the exact type of simple claims already reimbursed previously in 1-2 weeks (e.g. self-relocation hotel and meal allowance). Waiting seven-plus weeks for reimbursement, while you use our money, expended on your behalf, for your benefit and float, is unconscionable. In addition to that, you even changed your requirements midstream for certain reimbursements and stopped paying certain types of claims that you had once been paying. Your selfishness, arrogance and lack of concern has no end as you continue doing everything possible to prolong the nightmare for those affected by your disaster by adding on a financial stress to the other stressors already caused by you. Additionally, you have been unfair to those that did not relocate by denying legitimate reimbursement claims (e.g. electrical consumption costs for multiple air purifiers that were operating 24/7. The last time I checked, the air purifiers were still inoperable without electricity). The bottom line is everyone affected by this disaster, caused by you, should be made 100% whole with regards to legitimate expenses, not be told "we don't reimburse for that." "Eligible" expenses, as you call them, should not be defined by you, the ones who have a vested interest in not paying for legitimate expenses. Your pseudo-update on March 10 reads "SoCalGas personnel are working expeditiously to fulfill all eligible payments.....As of March 3, we've approved and processed over 17,000 reimbursements, totaling \$36 million. We are committed to making improvements to streamline the process..." What is the relevance of that claim? It means absolutely nothing to anyone waiting to be reimbursed. What is the percentage of claims still left to be approved and processed? "Expeditiously?", seven-plus weeks and counting? "Committed?", it is now taking seven-plus weeks? In the 20+ weeks since the blowout, you've been unsuccessful in improving and streamlining the reimbursement process and it has, in actuality, lengthened by weeks since late January. Clearly your definitions of "expediously" and "committed" contradict reality.

Regarding help for the community, virtually everything you have done throughout this entire disaster, you have been forced to do, and even then, you have done so with malice, disdain and condescension directed at those affected by your deliberate disaster. I use the word "deliberate" because any commonsense person would see that with the way you operate that aging facility, which wasn't even designed for the use it is now providing, is completely without regard to the health, safety and well-being of the adjacent community. As I wrote earlier, if there is no regulation in place, your attitude is we don't need to be concerned. Throughout this disaster, and leading up to this disaster, you have put profit before all else.

While I'm sure some of those working for SoCalGas are good and hard-working individuals, the corporate culture emanating from the top of your organization truly gives one room for urgent concern. Your actions, ill will and conduct throughout this entire ordeal have been reprehensible, deplorable and despicable and more specifically, your communication throughout this entire disaster and beyond has been misleading, self-serving and disingenuous, to put it mildly. You have made so many lives miserable and stressful for so long, nevertheless, sometimes life is fair and you get what you deserve. You definitely deserve all that that is coming your way, although, I'm sure it won't change your paychecks one bit. This is just a bump in the road to future record profits, and undoubtedly the costs of this disaster, and future disasters, will ultimately be passed through in increased utility rates for all of your customers. Only an independent investigation will reveal whether your actions and management were either shrewdly calculating and profit-at-any-cost motivated or recklessly inept and demonstrated complete incompetence.

Although volumes more could be written regarding your gross negligence leading to this disaster and your complete ignorance in the handling of this disaster, much would be a restatement of issues raised and ignored in previous emails attached to this chain. Then again, maybe I wasn't ignored, it was just hard for you to dispute facts. One may wonder why I take the time to write these emails that garner no response. The reason is simple, there needs to be accurate narratives out there from those who have lived your disaster(s), not the "smoke and mirrors" false narrative put forth by you, the very ones who are 100% responsible for every facet of this disaster.

Thomas J. Schlenbein, RPA
 General Property Manager
Hines
 | Suite 140 | Woodland Hills, CA 91367
 Office | Fax: 818.887.3301
 Email | [REDACTED]



From: Schenbein, Tom

Sent: Monday, February 22, 2016 8:56 AM

To: Schlenbein, Tom; Trigueros, Susan;

Mitchell Englander; Councilmember Mitchel I Englander; Carrasco, Andy

Carrasco, Andy; Matt AOL

Subject: RE: SoCalGas Aliso Canyon Storage Facility Update

SoCalGas

Regarding our last gas bill for the period of 12/16/15 – 1/20/16, we went over our Baseline Therms by 10 Therms, which we have never done, yet we were not even home for seven of those days and we both work during the daytime so no gas was used during weekday, daytime hours for most of the remaining days in that billing period. That billing period was 35 days.

Our bill reads "Baseline Allowance 59 Therms". What period of time does 59 Therms cover? Why isn't the "Baseline Allowance" stated as a Therms/day allowance?

Is that 59 Therms per month (28 – 31 days)? If so, by SoCalGas extending the read date to 35 days, you made us go over the "Baseline Allowance" which cost us more money.

Is this how you plan to pay for the SoCalGas well blowout disaster? How do we know that you can't manipulate the remotely read meters you recently installed?

You claim it was the coldest December/January since 2011 so why aren't the "Baseline" Therms adjusted to reflect that?

This is just your way of making up for the money the SoCalGas well blowout is costing you.

Additionally, your claims reimbursement process is getting longer, not shorter, as Dennis Ariola claimed in the well-kll press conference. Does it come as a surprise that the longer the disaster took to fix, the more claims you would have, yet you still didn't staff up for that eventuality? Why are we forced to put out our money, for an extended period of time, possibly at credit card interest rates, and you take your sweet time to reimburse us for your disaster?

Your actions and communication continue to be self-serving and disingenuous, and your conduct throughout this entire disaster that you caused has been reprehensible, deplorable and despicable.

Thomas J. Schienbein, RPA
General Property Manager
Hines
Office: [REDACTED] | Woodland Hills, CA 91367
Email: [REDACTED]



From: Schienbein, Tom
Sent: Wednesday, February 17, 2016 8:17 AM
To: Schienbein, Tom; Trigueros, Susan; [REDACTED]; Mitchell Englander; Councilmember Mitchell Englander; Carrasco, Andy; [REDACTED]; Carrasco, Andy; Matt AOL; [REDACTED]
Subject: RE: Socioasis Also Canyon Storage Facility Update

Why an over 50% spike above normal last night at various times between 10 00pm and 4 00am?

PORTER RANCH REAL-TIME COMMUNITY AIR MONITORING DATA

Message Board

This website presents real-time air monitoring data at the fence line between the Also Canyon gas storage facility and the community of Porter Ranch. The systems are currently setup to monitor for methane, benzene, toluene, and xylene gases on a real-time basis. Information from the monitoring equipment is updated on the website every five minutes. The equipment is being supplied by [Aeros Scientific](#), [Fenceline Laser](#), and [Weather Underground](#). Special thanks is given to [Councilman Mitch Englander](#) for facilitating the installation of this equipment and the development of this real-time website for the community of Porter Ranch.

Real Time Air Monitoring Data	
Methane	2.5 PPM
Benzene	Non-Detect
Toluene	Non-Detect
Xylene	Non-Detect

Weather Conditions

Wind blowing from the ESE (113°) direction at the speed of 1 MPH

Subscribe to Alert Notification List

First Name:
Last Name:
Email:

tom.schienbein@hines.com is now subscribed

24-Hour Plot for Methane

Ambient air quality data provided on this website is raw data at the time of collection and has not undergone Quality Assurance Checks. If you have a health emergency please contact local emergency agency.

Abbreviations

PPM - Parts per million
MPH - Miles per hour

This site is maintained and operated by [Aeros Scientific](#), and is part of the [fenceline.org](#) network.
Contact [Aeros Scientific](#)

Thomas J. Schienbein, RPA
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From: Schienbein, Tom
Sent: Tuesday, February 16, 2016 1:11 PM
To: Schienbein, Tom; Trigueros, Susan; [REDACTED]; Mitchell Englander; Councilmember Mitchell Englander; Carrasco, Andy; [REDACTED]; Carrasco, Andy; Matt AOL; [REDACTED]
Subject: RE: Socioasis Also Canyon Storage Facility Update

How come the methane readings continue to fluctuate if all gas leaks/blowouts have been terminated? If we assume, as is so often claimed, the methane dissipates because the wells are so far from the community, then why, with the wind blowing etc., are we continuing to have fluctuating readings based on the "fenceline.org" monitoring?

This is unacceptable.

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From: Schenbein, Tom
Sent: Wednesday, January 27, 2016 10:32 AM
To: 'Trigueros, Susan'; [REDACTED]; 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED]; [REDACTED]; 'Carrasco, Andy'; 'Matt AOL'; [REDACTED]; [REDACTED]
Subject: RE: SoCalGas Also Canyon Storage Facility Update

SoCalGas,

Isn't it ironic, now that you see an end to the outflow of relocation expenses you are incurring, you finally begin to communicate prospectively. That clearly wasn't the case for the first 4-5 weeks of this disaster when all you would communicate was what happened the day before, retrospectively, just so you wouldn't have to incur relocation expenses (see the beginning of this email chain). Even after that, when your initial plug attempts failed, your mantra was 3-4 months to stop the flow of gas, regardless of how much time had passed since you initially claimed 3-4 months.

Now, you can't wait to exclaim daily that the well should be killed by late February, or sooner. You then proposed to warn those that relocated that they need to return home within 48 hours after certification of the leak stoppage, so that your relocation expenses will cease. You couldn't care less about the people you've displaced, or all the disruption you have caused, all you care about is stopping your outflow of relocation cash.

Maybe those that relocated can take 4-5 weeks to return home, at your expense, coincidentally, the same amount of time it took for you to be ordered to relocate residents, just so you can see what it is like to have no control over the situation. At least your loss would be only monetary, while ours was to our physical health.

As always, your actions and communication continue to be self-serving and disingenuous, and your conduct throughout this entire ordeal has been reprehensible, deplorable and despicable.

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Email: [REDACTED]



From: Schenbein, Tom
Sent: Friday, January 15, 2016 8:46 AM
To: Schienbein, Tom; 'Trigueros, Susan'; [REDACTED]; [REDACTED]; 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED]; [REDACTED]; 'Carrasco, Andy'; 'Matt AOL'; [REDACTED]; [REDACTED]
Subject: RE: SoCalGas Also Canyon Storage Facility Update

SoCalGas,

On your update yesterday, January 14, 2016 you continue to deceive yet you keep your PR propaganda machine moving at full-steam, coincidentally, just like the gas leak.

You reported "The odor complaints received by the SCAQMD have also dropped significantly since the incident with the peak in odor complaints occurring between mid-November and December. Of the 1946 total complaints received by SCAQMD since October 24, 2015, only approximately 7% of the total complaints were made this year."

The simple reason the complaints have decreased is not because the odor or intensity has decreased, it is because many of the people who previously lodged complaints have now relocated and because some governmental agencies have finally forced SoCalGas to be accountable for the catastrophe you knowingly created, thereby rendering phone calls to AQMD a moot point. We now have AQMD monitoring 24/7 so we don't have to call them daily or rely on your bogus two sample each day routine which leaves about 23 hours and 50 minutes each day unaccounted for. For you to claim the reduced complaints to AQMD is proof of anything SoCalGas has accomplished, or that the situation has improved, is absolutely disgusting.

Next you claim, "the California Air Resources Board (CARB) posted its rough preliminary estimates of emissions which indicate that the volume of gas leaking from the well at Aliso Canyon has decreased 60 percent from its preliminary estimates on November 28". News flash, unmitigated escaping gas, coupled with time, will tend to decrease the volume of gas in the well, hence, decrease the volume of gas escaping. Again, for you to imply the reduced emissions is result of anything SoCalGas has accomplished is absolutely disgusting.

For your information, for those who have not relocated, the odor and intensity is every bit as foul and frequent as it was since your disaster started. The only relief is weather driven (wind speed and direction) and that does not occur often.

One only has to read today's LA Times to realize just how worthless your updates are compared to what is really happening at the well site. <http://www.latimes.com/local/california/la-me-aliso-well-hole-20160115-story.html>
Where is this information in your "Operations Update"?

Since you seem to like to update us with your claimed facts that fit your propaganda, how about these facts

Fact SoCalGas recently claimed that even if this leaking well had a safety valve, which it did not, a safety valve may have not eliminated this gas leak. So, in translation, as we have already learned, there is effectively no way to ensure the ability to stop the flow of gas, following the breach in approximately 175 miles of subsurface well piping (115 wells with ~8,000 feet of piping), which is 50 to 80+ years old, even if the well has a safety valve.

Fact The meteorology of this location results in 20 - 80 mph winds from the north consistently from approximately October - April each year. These are the exact months that this storage facility has its greatest volume of gas stored.

Fact The geography of this facility is directly north of the Porter Ranch community and the north San Fernando Valley.

Fact The geology of this location identifies numerous known earthquake faults including the Santa Susana Fault North and South Strand, the Frew Fault, to name a few, all cutting in and around the 175 miles of well pipes described earlier.

Consequently, when you have approximately 175 miles of old, and beyond their useful life, underground well pipes, coupled with the inability to stop the flow of gas when a leak occurs, coupled with an entire community downwind of the storage facility, coupled with the numerous earthquake faults in and near the facility, it should be plainly evident to you that there is no possible way to ever operate this facility while simultaneously protecting the health, safety and welfare of the surrounding community.

As usual, your updates continue to be self-serving, dishonest, deceiving and inaccurate and your actions, inactions, and communication continue to be unacceptable, reprehensible, deplorable and despicable.

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General Property Manager
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Office: [REDACTED]
Email: [REDACTED]



From: Schenbein, Tom
Sent: Tuesday, January 05, 2016 10:18 AM
To: 'Trigueros, Susan'; [REDACTED]; [REDACTED]; 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED]; [REDACTED]; 'Carrasco, Andy'; [REDACTED]; 'Matt AOL'; [REDACTED]; [REDACTED]
Subject: RE: SoCalGas Also Canyon Storage Facility Update

SoCalGas,

You claim the leaking well will be stopped by late February to late March (Dennis Ariola's letter) due to the efforts of your 8,000 foot relief well. Unless I'm not understanding what is being reported, won't the volume of gas in the well be depleted by that time anyway based on how much is leaking and being extracted? So, in reality, you are not fixing anything, merely enough time will have elapsed to allow for the gas in the well to be let into the atmosphere above the Porter Ranch community. Once that well is empty, you'll then have all the time in the world to facilitate your bogus claim of well-killing. In essence, you will at that point be plugging an empty well, would that be correct?

It must give you some degree of immortality to know that your short-sighted decisions to save a few dollars commencing in the 1970's to date, by not repairing or replacing the safety valve on this well, and who knows how many other wells, because it was not "required" by law, will cost you dearly and, with any luck, become a case study at most business schools. Just because it wasn't "required" by law doesn't mean you weren't negligent or that it wasn't the right thing to do. You have operated up there for over 40 years and it doesn't take a rocket scientist to know the severity of the winds that come from the north for about six months every year. Where did you think escaping gas would end up? If a safety valve wasn't needed, why was one installed in the first place? The Porter Ranch population has exploded in the 40+ year period of your ownership, but that didn't cause any degree of concern on your part because all you cared about was being able to say that you were in "compliance" with the law.

When that case study is fully exhausted, the next business school case study to bring you immortality will be your complete and utter failure in emergency preparation and response in properly dealing with the disaster you knowingly created. Denial, false and misleading information, no emergency plan, contingency plan or communication plan will be just a few of the topics. Why isn't SoCalGas paying for weekend relocation mileage reimbursement? Just because homeowners haven't completely relocated, most likely for logistical reasons, SoCalGas won't reimburse for escaping from Porter Ranch on the weekend? Clearly SoCalGas is spending a lot less money on those who don't fully relocate so why isn't this mileage being reimbursed? One can't relocate, even temporarily, without some method of transportation. To be told "This is not a relocation, as you are still at home. You are getting out of town for a few days." is not an acceptable response or position. With all of the issues and disruptions homeowners are facing as a result of this SoCalGas disaster, we now have to be nickel and dimed with regards to getting reimbursed for legitimate costs incurred?

The ill will you continue to foster just proves the level of arrogance you operate under and the lack of commitment, concern and responsibility you have for the residents of the community and for the disaster you knowingly created.

By the way, I still know of no one who has been contacted, including me, about the home weatherization service that you have been claiming for weeks that you are providing.

SoCalGas continues to be untrustworthy and your actions, inactions, and communication continue to be unacceptable, reprehensible, deplorable and despicable.

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From: Sch enbein, Tom
Sent: Wednesday, December 23, 2015 10:26 AM
To: 'Trigueros, Susan'; [REDACTED] 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED] 'Carrasco, Andy'; [REDACTED] 'Matt AOL'
Cc: 'William Reimbold'
Subject: RE: SoCalGas Aliso Canyon Storage Facility Update

SoCalGas,

Your website update continues to be worthless and is just a Public Relations Propaganda stunt. Nobody who is affected by this leak cares about how many people visited the Community Resource Center (CRC) that you were mandated to provide. We don't care about your PR statistics

Community Update:

- Relocation Information
 - Total relocation inquiries (which may include duplicates): 5 809
 - Total placed in temporary housing: 2 092
 - In placement process: 2 684
- @AlisoCanyon Emails Received-245 emails
- CRC – 226 visitors
 - Air filtration 103
 - Relocation 74
 - Claims 49

By the way, why no Community Update for the weather stripping you claim you are providing? I've been waiting 3 weeks to hear from someone, and this is after multiple inquiries on my part. I know of no neighbors, after they made requests, that have been contacted regarding this weather stripping. Why is that? Is it because you have no clue what you're doing but you continue to claim you are offering this service?

What we want are substantive answers and information. Have you tried looking at the State website <http://www.caloes.ca.gov/ICESite/Pages/Aliso-Canyon.aspx> ? It has information that SoCalGas has never shared.

Also, it is nice to see you are closing the CRC on Christmas and New Years Day. Are you turning off the gas leak on those days also? Obviously not, but you find it okay to enjoy the Holidays while so many people suffer from your disaster. Maybe you should have Dennis Arriola, Jimmie Cho and Kathleen Brown support our community by spending their holidays in the CRC?

Now we read that you are commencing a second relief well in January. Why? Is it a backup if the first relief well fails? Is it to access the gas once you plug well SS-25? Once again, you provide no substantive information, just enough subterfuge and obfuscation to give the appearance that you are actually communicating.

Again, as of today, your website still claimed "3 to 4 months" to complete the relief well. Shouldn't this number be decreasing as time marches on? How is it possible if 4 weeks have already passed since you first communicated that the relief well would take "3 to 4 months", that your website still reads "3 to 4 months" to complete? Shouldn't it now be 2.0 to 3.0 months? This clearly shows your continuing deception, subterfuge and obfuscation as to what the real timeline is and the worthless information your website provides. When did, or does, the 3 to 4 month timeline start? Apparently it just keeps moving? Now that you have drilled nearly half way, you should have a much better estimate as to when you will attempt to plug this well. You should be providing an estimated DATE, not still claiming 3 to 4 months! That's a 33% difference in time and when you are living your disaster 24/7, a 33% margin is completely unacceptable. Our fear is that 3 to 4 months will pass only to have you extend it further. You have been untrustworthy to date and you have instilled absolutely no confidence in your ability to communicate or fix the problem.

Lastly, what caused this failure? After nine weeks, you still know nothing, or are you just communicating nothing? Was it oil well drilling and fracking by Termo that caused a swarm of 9 earthquakes on April 4, 2015, which caused the well damage, but the damage wasn't apparent until Fall when SoCalGas put the well under 3,000 PSI of pressure when you injected gas for storage to supply gas over the winter months? Clearly, you must have ideas as to what caused this disaster. If you don't, it is more evidence, and adds more urgency, that this storage facility needs to be shut down immediately and permanently as you have no clue on how to operate it safely. In reality, with a residential community is in such close proximity, this storage facility cannot be operated safely, ever, especially given the geology, well depths, earthquake faults, prevailing wind direction etc. With 114 other wells, some over 80 years old and with an average age of 52 years, more SoCalGas disasters like this one are imminent and guaranteed. Bottom line, we want to live here without the fear of your pending disasters.

SoCalGas continues to be untrustworthy and your actions, inactions, and communication continue to be unacceptable, reprehensible, deplorable and despicable.

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General Property Manager
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Email: [REDACTED]



From: Sch enbein, Tom
Sent: Monday, December 14, 2015 9:58 AM
To: 'Trigueros, Susan'; [REDACTED] 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED] 'Carrasco, Andy'; [REDACTED] 'Matt AOL'
Cc: 'William Reimbold'
Subject: RE: SoCalGas Aliso Canyon Storage Facility Update

SoCalGas,

Over 2 weeks ago you reported that the relief well would take 3 to 4 months and on 12/1, your president Dennis Arriola claimed that the "best estimate for the process" of the relief well to seal the leak was "3 to 4 months".

Firstly, on 12/12, your email update still claimed 3 to 4 months. How is that possible if 2 weeks have already passed since you first communicated that the relief well would take "3 to 4 months"? Shouldn't it now be 2.5 to 3.5 months? This clearly shows your continuing deception as to what the real timeline is. When did, or does, the 3 to 4 month timeline start? Apparently it just keeps moving? Our fear is that 3 to 4 months will pass only to have you extend it further. You have instilled absolutely no confidence in your ability to communicate or fix the problem. Your failures are evident on both accounts.

Secondly, with all your "world's best experts" your estimate of "3 to 4 months" represents a difference of 33% in time. This clearly proves you have no idea what you're doing and are just guessing as to what to do next, how to do it, and how long it will take. You claim that this relief well drilling is occurring 24/7 but how do we know if that is true because clearly you can't be trusted. Do you drill in all weather conditions? Who is ensuring you are doing what you claim you are doing?

Thirdly, at 11 10pm last night the methane/oil smell was a 10+ on a scale of 1-10. You could cut the air with a knife. We are here 24/7 and the conditions can change almost instantaneously, yet you continue to take your air sampling readings only twice per day? Why aren't you monitoring 24/7? Additionally, you are using a consultant hired by you to take and analyze the results? Where is the transparency in that methodology?

Fourthly, as a show of Dennis Arriola putting his apology where his mouth is, I suggest, rather than parking the Information Trailer at the end of Tampa, you should put a trailer for him and his family to live in until your disaster is fixed. This will really allow him to experience the smell and health effects we are experiencing as well as allow him and his family to experience the inconvenience of being displaced and living in a tiny dwelling compared to what he is used to. This should be especially fun for him and his family during the holidays. Maybe if he lived here, the leak would get repaired faster and the communication would be more accurate?

Lastly, your PR propaganda machine continues unabated. It seems to be the only thing that actually can be predicted. Jimmie Cho on NBC gave no substantive answers to the (rehearsed?) questions he was asked nor was he challenged by the reporter on any of his answers. He said you are "still looking at what caused it (the leak)" but when asked if it could happen to the other 114 wells at Aliso Canyon he said this is a "rare and unusual circumstance". How do you know if it is "rare and unusual" if you are "still looking at what caused it"? Maybe all the other 114 wells will fail the same way in the near future? 60+ year old pipes will fail, it's just a question of when. He also claimed you are reducing the pressure in the well which will reduce the flow of gas escaping but offered no facts of this. Really, it sounds good but what difference does a 1% reduction in escaping gas make? Answer, it makes absolutely no difference but it makes for a good PR sound bite.

Once again, your actions and communication continue to be unacceptable, reprehensible, deplorable and despicable.

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From: Schienbein, Tom
Sent: Monday, December 07, 2015 8:40 AM
To: Schienbein, Tom; 'Trigueros, Susan'; [REDACTED]; 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED]; [REDACTED]; 'Anacia Liberato'; [REDACTED]; Carrasco, Andy
Cc: William Reimbold
Subject: RE: SoCalGas Aliso Canyon Storage Facility Update

Susan,

Why is there no follow-up communication from your claims department? After calling Mike Cummings, claims supervisor, on Wednesday, 12/2, at 3:35pm, only to find his cell mailbox full, I left a message on his office number. Still no call back. Again on Sunday, 12/6, at 1:00pm, same thing. We are living this 24/7, so why aren't you? I guess you are strictly 9-5 and off on weekends? Getting back to us should be, and should have been, your primary responsibility. We are now into your disaster for over six weeks and you are still ignoring those closest to your disaster.

Since The Highlands at Porter Ranch community is on the north side of Season Blvd., and the closest homes to your disaster, as evidenced by the fact that you actually monitor the air in our community, why don't you have a claims person dedicated to those in our community that have filed claims? For those who can't yet relocate, or can't relocate for other reasons, you should be giving some money (e.g. \$1,000 - \$2,000), in advance, for items such as air purifiers, dog boarding, weekend getaways to fresh air location etc. as our ultimate claim for damages will surely exceed this advanced sum of money. The advances can be reconciled at a later date. This is your fault and SoCa Gas's liability has already been established! Why should we be putting out our money, for your disaster, only to wait for you, at some point, to reimburse us, especially when you don't even return phone calls?

The words of apology your president spoke to the City Supervisors last week are hollow and cheap. Words mean nothing to us. Your actions, and most importantly, your inactions, continue to speak volumes. Once again, your actions continue to be unacceptable, reprehensible, deplorable and despicable.

When will I be contacted? You have three available phone numbers for me at your disposal.

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From: Schienbein, Tom
Sent: Tuesday, December 01, 2015 8:34 AM
To: 'Trigueros, Susan'; [REDACTED]; 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED]; [REDACTED]; 'Anacia Liberato'; [REDACTED]
Cc: 'Matt AOL'; 'William Reimbold'
Subject: RE: SoCalGas Aliso Canyon Storage Facility Update

So, as usual, I get an email update today from SoCalGas that reads

Here is this evening's Aliso Canyon Storage facility update:

The relief well mast was positioned yesterday; staging continued on the relief well. Wireline diagnostics were conducted in order to perform a temperature survey at the well site. Multiple approaches are being considered and evaluated to reduce gas and recover the gas and odorant that are escaping.

Regards

Susan Trigueros

Meanwhile, this is what I read in the L.A. Daily News today

<http://www.dailynews.com/environment-and-nature/20151130/repairing-porter-ranch-leaking-gas-well-may-take-4-months>

As I've stated numerous times, your updates are worthless! Everything in your communication continues to be retrospective and nothing is prospective. No timelines, no schedules, nothing of value. What does this mean and what is its relevance; "Wireline diagnostics were conducted in order to perform a temperature survey at the well site.?"

We learn more from the local newspaper! Why doesn't your update include the information that is in the Daily News? Why are you even continuing your false narrative under the pretense of an update?

Again, your communication and actions, after all this time, continue to be unacceptable, despicable and deplorable.

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From: Schienbein, Tom
Sent: Monday, November 23, 2015 9:25 AM
To: 'Trigueros, Susan'; [REDACTED]; 'Mitchell Englander'; 'Councilmember Mitchell Englander'; 'Carrasco, Andy'; [REDACTED]; [REDACTED]
Cc: 'Matt AOL'; 'William Reimbold'
Subject: RE: SoCalGas Aliso Canyon Storage Facility Update

So now that you've finally been ordered (not volunteered) to pay for resident relocation, after four weeks of no prospective communication, you now choose to neutralize the smell. Is this so fewer residents know when they are breathing toxic air, and consequently will not opt to relocate and save you money? WHO IS APPROVING THAT THIS NEUTRALIZATION BE DONE? Have all governmental agencies and officials approved this course of action? Who in the government is looking out for the best interests of the residents?

At least with the smell you know when to avoid the area, stay indoors, shut windows etc. NOW YOU WANT TO ELIMINATE THAT WARNING?

LAST NIGHT THE SMELL WAS A 10 ON A SCALE OF 1-10 AND IT HAD AN OIL SMELL ADDED IN THE MIX WHICH HAD NOT BEEN PRESENT IN THE PAST!

YOUR ACTIONS CONTINUE TO BE UNACCEPTABLE, DESPICABLE AND DEPLORABLE.

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From: Schenbein, Tom
Sent: Thursday, November 19, 2015 9:58 AM
To: 'Trigueros, Susan'; 'Mitchell Englander'; 'Councilmember Mitchell Englander'; Carrasco, Andy
Cc: Matt AOL; William Keimbold
Subject: RE: SoCalGas Also Canyon Storage Facility Update

Andy,

We are now at day 28. The smell is still horrific, especially between 11 00 PM and 6 00 AM, coincidentally when you are not monitoring the air. In fact, you consistently monitor the air only one time per day, at the same time each day, at the various testing locations. In the last six days, you monitored the air at The Highlands one time each day and that was around 3 00 PM. I guess that is just the time when the air quality is best or when it fits into your schedule? Which is it? What about the other 23 hours in the day? Furthermore, per your website, you have sampled the air twice, in the same day, on only four occasions since October 30, yet that allows you to consistently tell us that the air is safe? I THINK NOT.

WHAT WE WANT TO KNOW IS WHEN DO YOU ANTICIPATE THIS LEAK TO BE STOPPED (IN NUMBER OF DAYS)? Had residents have known four weeks ago that we would be subjected to this for one week, two weeks, three weeks, four weeks, and now longer, maybe much longer, many may have chosen to leave the area. CONSISTANTLY UPDATING US ON WHAT HAS ALREADY OCCURRED, OR NOT OCCURRED, IS WORTHLESS, ESPECIALLY WHEN NO OPERATIONS ARE BEING PERFORMED. INFORMATION ONE DAY AT A TIME, AND ALWAYS AFTER THE FACT, DOES NOT ALLOW RESIDENTS TO PLAN. THIS IS WHY WE ARE 28 DAYS INTO THIS AND YET WE, THE RESIDENTS, KNOW NO MORE ABOUT WHEN THIS LEAK WILL BE STOPPED THAN WE DID 28 DAYS AGO.

THIS IS A HEALTH ISSUE. As it stands now, WE STILL DONT KNOW WHAT YOU KNOW AND WE HAVE A RIGHT TO THAT INFORMATION. IT IS OUR HEALTH THAT IS BEING AFFECTED.

WHAT IS THE EXPECTED DURATION UNTIL THE LEAK IS STOPPED? FOR ALL WE KNOW, IT COULD BE ANOTHER FOUR WEEKS, TEN WEEKS, A YEAR; HOW DO WE KNOW SINCE YOU WON'T COMMUNICATE THAT INFORMATION?

I just now received the following email from you

Yesterday the weather conditions were favorable and we were able to resume pumping fluids into the well; we're evaluating the results. As we continue to move forward with our efforts to stop the leak we will advance a plan to construct a relief well which may be required for our efforts to pump fluids directly down the well do not provide the results we want. This procedure has been planned in parallel with current efforts.

This will be a new well that will connect to the leaking well. When it reaches the leaking well the relief well will create an entry point through which the company will pump fluid to seal the bottom of the leaking well.

The relief well process is complex. It involves steering a tool to find a seven-inch pipe more than a thousand feet away thousands of feet below ground. Efforts like this have been known to take several months to complete. SoCalGas won't be able to provide a more specific estimate of how long this effort will take until we have a good sense of the initial progress.

SoCalGas has applied to the Department of Oil Gas & Geothermal Resources (DOGGR) for the drilling permit. We will grade the area needed move in and set up the drilling rig and finalize the well path to prepare for this operation.

Relief wells are an established approach to shutting down oil and gas wells. Once fluid is pumped in the gas reservoir is cut off from the leaking well and gas can no longer escape.

We will continue to provide you with regular updates. For more information please visit www.socalgas.com/also-canyon-updates.

Sincerely

Andy Carrasco
Director of Regional Public Affairs
Southern California Gas Company

More cleverly worded communication that doesn't give us the answers we have a right to know. Clearly, the strategy of a relief well has been in the works, probably from day one, yet this is the first communication of it from you.

Questions

"We're evaluating the results" of pumping fluids into the well; what does that mean? We already know the leak isn't stopped. We can smell it. What other "results" could there be?

Relief well, "several months to complete"; is that 2, 4, 6, 8, 10, 12 months? "SoCalGas won't be able to provide a more specific estimate of how long this effort will take until we have a good sense of the initial progress." A good sense of the "initial progress" on doing what, drilling the relief well? Haven't you drilled wells before? How long do they typically take to drill?

What is the PROBABILITY that the current "procedure" of "pumping fluids directly down the well do not provide the results we want" (again, your doublespeak, "results we want?"; translation, do not stop the leak)?

WE WANT A PROJECT TIMELINE, PROBABLY THE ONE SITTING ON YOUR DESK. WE, AS THE ONES DIRECTLY AFFECTED BY YOUR DISASTER, HAVE A RIGHT TO THAT INFORMATION.

YOUR ACTIONS, CONCERN FOR THE LOCAL RESIDENTS HEALTH, AND LACK OF PROSPECTIVE COMMUNICATION CONTINUE TO BE DEPLORABLE.

Thomas J. Schlenbein, RPA
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From: Schenbein, Tom
Sent: Wednesday, November 18, 2015 8:17 AM
To: 'Trigueros, Susan'; 'Mitchell Englander'; 'Councilmember Mitchell Englander'
Cc: Matt AOL; William Keimbold
Subject: RE: SoCalGas Also Canyon Storage Facility Update

Susan,

We are now nearly four weeks into this disaster. You have yet to answer my simple question. That being On ????????????, we expect to "commence" the "procedure" to stop the flow of gas. The "procedure" is expected to take ??????????? days to complete. Consequently, if all goes as planned, we expect to have the gas leak stopped by ???????????.

You have cancelled work the last two days due to the winds. Surprise, these winds are prevalent this time of the year.

All your information (website, emails etc.) is retrospective. You give no information on the possible timing of stopping this leak. Had residents have known four weeks ago that we would be subjected to this for one week, two weeks, three weeks, four weeks, or longer, many may have chosen to leave the area. THIS IS A HEALTH ISSUE. As it stands now, WE STILL DONT KNOW WHAT YOU KNOW. WHAT IS THE EXPECTED DURATION UNTIL THE LEAK IS STOPPED? FOR ALL WE KNOW, IT COULD BE ANOTHER FOUR WEEKS, TEN WEEKS, A YEAR; HOW DO WE KNOW SINCE YOU WON'T COMMUNICATE THAT INFORMATION?

We need to plan for our health. Your actions and lack of prospective communication are deplorable. A good corporate citizen you are not.

We want answers, not more subterfuge and non-substantive information.

Thomas J. Schlenbein, RPA
General Property Manager
Hines
Woodland Hills, CA 91367
Office
Email



From: Schenbein, Tom
Sent: Friday, November 13, 2015 10:45 AM
To: 'Trigueros, Susan'; 'Mitchell Englander'; 'Councilmember Mitchell Englander'
Cc: Matt AOL; William Keimbold
Subject: RE: SoCalGas Also Canyon Storage Facility Update

Susan,

Have you given anymore thought to actually conveying useful information versus your vague non-informative emails and web site updates?

Again, the useful information that would actually benefit residents is On ????????????, we expect to "commence" the "procedure" to stop the flow of gas. The "procedure" is expected to take ??????????? days to complete. Consequently, if all goes as planned, we expect to have the gas leak stopped by ???????????.

It's not that difficult to truly communicate relevant information. So Cal Gas should try it.

Thomas J. Schienbein, RPA
General Property Manager
Hines
Office [REDACTED] | Woodland Hills, CA 91367
Email [REDACTED]



From: Schenbein, Tom
Sent: Thursday, November 12, 2015 12:53 PM
To: 'Trigueros, Susan'
Cc: 'Matt AOL'; William Reimbolt'
Subject: RE: SoCalGas Also Canyon Storage Facility Update

Susan,

I'm actually surprised to hear back from you, albeit, predictably, without any response to my very simple question. On ????????????, we expect to "commence" the "procedure" to stop the flow of gas. The "procedure" is expected to take ??????????? days to complete. Consequently, if all goes as planned, we expect to have the gas leak stopped by ???????????.

I also understand that you put on another dog and pony show today for some of the local residents. Is that true? Was anyone from The Highlands invited? If not, why not? I'm on the Board of Directors of The Highlands and I wasn't invited, nor, to my knowledge, were any other Board members. The Highlands community has the homeowners closest to your fiasco, yet we weren't represented? Why is that?

In answer to your question of bringing your dis-information booth to our community, no we do not have a community room. In my opinion, your gesture is valueless as your dis-information both personnel continue with the same politically correct mantra of "we are making progress", "we don't have an answer for that yet" and "we are posting updates daily on our website". This dis-information booth has continued for two weeks now, yet you refuse to answer the simple question above.

Until you choose to answer the very simple question I've put forth above, your dis-information booth, and your website updates for that matter, serves no value to the community. With your "world's best experts" advising you, you can't tell us that these "experts" haven't conveyed the best and worst case scenarios to you for stopping this leak (in number of days), but you choose to not disseminate that relevant information to those most affected, the local residents.

Your actions continue to speak volumes compared to your words and your actions are nothing but subterfuge and non-substantive information.

Tom

Thomas J. Schienbein, RPA
General Property Manager
Hines
Office [REDACTED] | Woodland Hills, CA 91367
Email [REDACTED]



From: Trigueros, Susan [mailto:[REDACTED]]
Sent: Thursday, November 12, 2015 11:39 AM
To: Schienbein, Tom
Subject: RE: SoCalGas Also Canyon Storage Facility Update

Tom

I truly appreciate your feedback and we will consider your suggested language for our next communications.

I'd like your guidance on another suggestion brought to my attention. We are exploring bringing a public information booth to the surrounding HOAs over the weekend. What are thoughts about this? Does the Highlands HOA have a community room where SoCalGas could set-up?

Regards

Susan Sifuentes Trigueros
Regional Public Affairs Manager
Southern California Gas Company
[REDACTED]
Los Angeles CA 90013
[REDACTED]
[REDACTED]

From: Schenbein, Tom [mailto:[REDACTED]]
Sent: Thursday, November 12, 2015 9:26 AM
To: Trigueros, Susan
Cc: Matt AOL; William Reimbolt
Subject: RE: SoCalGas Also Canyon Storage Facility Update

Susan,

Let me make it easier for you. Please fill in the blanks

On ????????????, we expect to "commence" the repair to stop the flow of gas. The "procedure" is expected to take ??????????? days to complete. Consequently, if all goes as planned, we expect to have the gas leak stopped by ???????????.

Filling in the blanks shouldn't be difficult as I'm sure your entire team has access to this information.

Tom

Thomas J. Schienbein, RPA
General Property Manager
Hines
Office [REDACTED] | Woodland Hills, CA 91367
Email [REDACTED]



From: Schenbein, Tom
Sent: Thursday, November 12, 2015 9:00 AM
To: 'Trigueros, Susan'
Cc: 'Matt AOL'; William Reimbolt'
Subject: RE: SoCalGas Also Canyon Storage Facility Update

Susan,

Could you be more vague?

How many days is meant by "commence the procedure to stop the flow of gas within the next few days"? Once "commenced" in the few days, how many days should the "procedure" take?

Your continued lack of transparency and useful information is evident!

Tom

Thomas J. Schlenbel, RPA
General Property Manager
Hines
[Redacted] | Woodland Hills, CA 91367
Office: [Redacted]
Email: [Redacted]

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From: Trigueros, Susan [mailto:[Redacted]]
Sent: Thursday, November 12, 2015
To: Trigueros, Susan
Subject: SoCalGas Aliso Canyon Storage Facility Update

We wanted to give you an update of our progress at the SoCalGas Aliso Canyon Storage facility.

As of Wednesday November 11, SoCalGas' team of well management experts have cleared the ice blockage in the well and completed a multi-day operation of successive probes and tests. We have collected and analyzed all available data obtained during the diagnostics, and we are now preparing and planning our approach to stop the flow of gas. Our objective is to commence the procedure to stop the flow of gas within the next few days. We have some of the world's best experts advising us, and one of the reasons they are so successful is they are very cautious in their approach. The way we are addressing this incident is the best practice for situations such as this. During this next phase, depending on weather patterns, our neighbors may smell additional intermittent odors or hear work-related noises. These events are expected, and normal for this type of operation. We expect the levels of natural gas and odorant to remain below levels of concern. We will continue to conduct air monitoring and posting results, along with updates at www.socalgas.com (see "Aliso Canyon Updates" in upper left hand corner of home page).

We will continue to keep you updated on a regular basis. Please contact Regina Lugani at 319.721.2135 if you have questions.

Regards,

Susan Sifuentes Trigueros
Regional Public Affairs Manager
Southern California Gas Company



This email originated outside of Sempra Energy. Be cautious of attachments, web links, or requests for information.

From: [Tiffany Traver](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:36:13 PM

To whom it may concern,

Please do NOT reopen Aliso Canyon, in fact, I request it stay closed forever. I live less than 2 mi from the well. My home was first tested by UCLA and tested positive for benzene and Hexane. We moved away for 6 months and was very sick before they even told us about the blow out. While living in a hotel I lost my baby all Aliso's fault. If that wasn't horrible enough I had to go through 2 surgeries to make my uterus hopefully able to have a healthy full term baby. My 6 year old daughter and husband have sacrificed enough over the last year that we can never get back. I've still gotten sick from the leaks Aliso has continued to have while "closed."

My family need not live through the hell we did ever again. Our hell continued through the nightmares we had to go through relocation to no feeling safe in our home even after it was "cleaned" not as long as Aliso continued to leak. Please prevent another blowout and do NOT REOPEN. They need to figure out what caused it to happen in the first place and why it continues to happen in a closed facility!! Don't let the lives of so many be ruined again by another blowout you nor they can't promise it won't happen again. Don't let my baby's loss be for nothing!!! I could go on and on over all the hell we endured and still fear we have. We don't sleep with our windows open all of us get sick!! We know they do their "releases" at night. Please be a hero and put an end to Aliso Canyon!

I'm begging you to do right by my family and community!!!

Tiffany Traver


Porter Ranch, CA 91326

From: [Linda Levy](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:33:45 PM

The facility needs to be shut down permanently for the following reasons: too old- there could be another leak at any time. The original cause of the huge gas leak was not determined. There is an earthquake fault that if it erupts would be devastating and studies were not done. What toxic chemicals that came out in the air and the earth that were not disclosed. Most importantly health problems have currently been reported and we don't know what the long term effects of breathing toxic air for all those months and during leaks that are currently happening. The gas company has no credibility!!! Please in all good conscience SHUT IT Down!!! Thank you. Linda Levy. Porter Ranch

Sent from my iPhone

From: [Susie Choi](#)
To: AlisoComments@DOC; [REDACTED]
Subject: : "Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability for Reliability - Updated Report - Section 715 of the Public Utilities Code"
Date: Monday, February 6, 2017 12:33:07 PM

To whom it may concern,

The Aliso Canyon Gas Facility's catastrophic blowout in 2016 our lives have never been the same. I lost my previously healthy 10year old dog last year after she suddenly started experiencing strange symptoms of lethargy and swelling. We eventually had to put her down to to internal bleeding problems. This is not normal in a healthy Labrador retriever. Despite thorough workup on multiple occasions, cause of all of these symptoms could not be determined. I am positive it is related to the exposure to methane and other toxic substances during the gas leak.

Every day I live in fear of another blowout or even leak. When gas was recently removed from the facility late January 2017, the smell of the odorant mixed with the gas was so strong, I thought another of the old (unchecked) wells was leaking. No community should have to live like this - in constant fear. I don't want to leave his community that I have grown to love but I feel that SoCal Gas is forcing me in that direction.

The integrity and reputation of this community will be sacrificed if Aliso Canyon is allowed to reopen. Ask yourself if you would want your family to live under these conditions.

Sincerely,
Susie - Concerned resident of Porter Ranch

From: [Behnaz Partovi](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:31:19 PM

Hi,

I'm totally against reopening the site. I live in the area and have been affected by it physically and economically. I don't believe the site is safe and they should not jeopardize people's life in this manner.

Behnaz Partovi

From: [robert brown](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:30:03 PM

Dear DOGGR,

It is with grave concern that I reach out to you regarding the condition of the Aliso Canyon Natural Gas Storage Facility. The fact that you are considering the possibility of letting the SoCal Gas Company resume injecting gas into the Aliso Canyon facility is alarming. You have not even discovered the cause of the blow-out from October 2015, and are recklessly traveling down a path that is reckless and very concerning. My family suffered, nausea, rashes, sore throats, and our family dog died of a nose bleed. We had to wait until January 2016 to get re-located. To date, you do not even know the longterm effects of prolonged exposure to natural gas, mercaptain and benzene. I sincerely hope that you postpone the opening of Aliso Canyon until you have considered the long term effects on local residents.

Robert Brown

[REDACTED]
Porter Ranch, CA 91326
818-[REDACTED]

From: [Dr. Nairi Kureghian, DDS](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:18:54 PM

To whom it may concern

I am a porter ranch resident who was effected by the leak in 2015. It not only took a toll on our health but on whole family dynamics and relationship. Both my kids and I had headache and nausea up to the time that we lived at home. We were forced out to my husband's parents' home until they fixed the leak.

That really put a strain on our marriage and overall stress level. For the future health of my family my husband and I oppose the reopening of the facility. There are many cleaner ways of providing energy to the valley and neighboring cities. Just look at Tesla's battery production that can provide energy/power through Edison to 15,000 households. It is time for the gas company not to profit and be so greedy and think of the human beings who live under that facility and who are seriously worried about the effects of the previous/future leaks on their children's health. Stop this none sense and close this facility NOW.

Nairi Kureghian, DDS. Inc

O: 818-701-6197

www.TheMasterPieceSmiles.com

PS: As a general dentist the gas leak effected my practice as well!!!!!!

From: [Emanouel Ourshano](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:16:18 PM

Hello, my name is Emanouel Ourshano. My family and I, have lived in Porter Ranch for over 27 years. Is time to officially shut down Aliso Canyon.

In Feb. 2007, in the prime of my life at age 34, I was diagnosed with AML and was given 3 months to Live. Thanks to God & the entire staff from The City Of Hope in Duarte, CA, I am still here. Life has never been the same.

During my early days in the hospital, my doctors repeatedly would ask me, if I had exposure to any **Benzene?** At the time I would answer No, but since the Gas Leak in 2015 & the failed Cover Up, I wonder, if Aliso Canyon is the reason why I got sick.

If so, I could never ever Forgive them. So, do the right thing, and shut it down Now!

Thank You,
Emanouel Ourshano

3 [REDACTED]

From: [Ramsey Eldib](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:15:34 PM

My name's Ramsey Eldib, a 30 yr resident of the West Valley and 21 yrs in Granada Hills north of Rinaldi. I'm a mechanical engineer working on high pressure ducts for rocket engines in Chatsworth.

I live a mile from the leak and a block from Aliso Canyon. As Mercaptan's heavier than air it drifts down Aliso Canyon to our neighborhood. During the leak my family had rashes and my son had nose bleed when returning from college. My dog died of Lymphoma at age five.

I work in Chatsworth. An engineer co worker, who had rashes, headaches, and nosebleeds during the leak, told me today she is having headaches again and smelled methane gas. She lives just south of Devonshire but next to a wash which comes down from the hill.

I've changed my stove from gas to electric, my hot water to solar thermal, and we are using space heaters to minimize our use of natural gas. My natural gas bill has dropped 90% since doing this. We have three electric cars and solar panels. I hope others are doing the same so we don't need the gas.

I was very surprised to hear that SoCalGas is spending \$200M to install a new gas injection system and that they want us to pay for it.

SoCalEdison has put in a 80MWHr battery energy storage facility in 3 months to help eliminate the need for Aliso Canyon.

Our house is where my 35 years of work is invested and my house has continued to go down in value. Please shut this facility

down.
Ramsey Eldib

Ramsey

From: [I. Loriente](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:13:45 PM

Gentlemen:

I am a resident of Porter Ranch. Some time after purchasing a home, I was made aware of the existence of gas storage to the north of me. However I was not concerned as I fully believed there was a government agency that regulated and certified such facilities. It never occurred to me, that fuel was being stored at ever increasing volume and pressure, in a network of varied, antiquated, re-purposed and poorly monitored wells, with such little regard to the inevitable probability of failure. Moreover when an accident did occur, I never believed it would be so prolonged or polluting for adjacent homeowners and the larger Southern California area.

While I understand interim testing has been done in contemplation of reopening the facility, the ability to predict another disaster remains woefully inadequate. Not to mention the added risk presented by earth movement both from seismic events and nearby fracking. And absolutely nothing has changed that would prevent such an accident from impacting the region for months on end. There are no redundant shut off systems or valves, no means of capping escaping plumes of methane. Given methane's potent role in contributing to air pollution (See EPA.gov), to knowingly not require the most technologically advanced wells and methods of containment, at one of the largest gas storage facilities is criminal.

I urge you to evaluate this event as a call to action, developing a sustainable plan for gas storage rather than crossing your fingers and gambling that the next inevitable breach happens later than sooner.

Sincerely,

Isabel Loriente

From: [Jorge Marquez](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Storage - Covina
Date: Monday, February 6, 2017 12:13:32 PM

Greetings,

Please accept this letter as my strongest personal support for the Aliso Canyon Gas Storage Facility because of its importance to our residents in Covina and the San Gabriel Valley. Over the last several years SoCalGas have been a wonderful community partner by providing natural gas to our residents at a great rate and in a safe and responsible manner. Majority of all residents in Covina use natural gas for their day-to-day lives, and without a steady supply the quality of life could be interrupted.

Over the years, SoCalGas has made extensive physical upgrades and deployed advanced technologies to enhance safety at Aliso Canyon. I am confident SoCalGas will continue to monitor and make sure natural gas is handled with care when providing to residents. Should you have any questions feel free to reach out at my via cell phone at 626-214-8586.

Best Regards,

Jorge Marquez

Mayor Pro Tem

City of Covina

From: [Cheryl Todd](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:11:00 PM

I beg you to keep Aliso Canyon closed! Since we have been aware of the gas leaks, we now realize why we are experiencing headaches, tiredness, blood in our noses, dizziness, etc. We dare not open windows to let in what used to be fresh air and fear our granddaughter visiting as we dare not let her play outside. This does not exclude the fact that it affects our property values.

This should not be a monetary issue! Bonuses in the past could have been used to fix an aging system, but were not. Do the right/humanitarian thing!

Cheryl & Derryck Todd

Sent from my LG Optimus G™, an AT&T 4G LTE smartphone

From: [Emerald Germaine Snow](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:08:11 PM

To Department of Conservation:

I, Emerald Snow, a public health professional practicing in Los Angeles County, California; appreciate the opportunity to submit these comments to the Department of Conservation on the Safety Review completed by the Division of Oil, Gas, and Geothermal Resources (DOGGR) for the Aliso Canyon gas storage facility operated by the Southern California Gas Company (SoCalGas).

As you are well aware, Porter Ranch is the community of 30,000 citizens of the State of California who endured through four months of the worst gas blowout accident in the United States, and who continue to endure through episodes of uncontrolled gas releases from the Aliso Canyon gas facility.

I reviewed the documents released by DOGGR on Tuesday, January 17, 2017, regarding the Safety Review and wishes to address four main areas of concern regarding the findings:

1. The adequacy of the testing conducted
2. The risk of a seismically-induced failure
3. The determination of the maximum field pressure 4. Acceptable Methane Release

I ask that you seriously consider our concerns and do the right thing by the people of our community.

Table 1 – Names and Functions of Tests Conducted under the Requirements of SB380

Adequacy of Well Integrity Testing

The document titled *Requirements of Comprehensive Safety Review of the Aliso Canyon Natural Gas Storage Facility* describes the well integrity testing that was required by DOGGR in accordance with the requirements of SB380. Table 1 lists the tests conducted, and the defect that each test is designed to detect.

Test	Name	What it Detects
		between cement and the steel casing, as well as between the cement anchor and the cap rock over the
		the casing annulus space with water and monitor loss of

1 Temperature Log This test is designed to detect gas leaking out of the well casing during the course of the test

2 Noise Log This test is designed to detect gas leaking out of the well casing during the course of the test

3 Casing Wall As its name indicates, this test looks for thinning of the Thickness Test casing along its depth.

4 Cement Bond Log This is sonic test designed to detect loss of bonding reservoir.

5 Multi-arm caliper inspection and shape on the inside casing wall.

This test looks for deformations in the wall geometry 6 Pressure Test This test includes pressurizing the interior tubing and pressure over time.

At first glance, these tests appear impressive. However, we draw your attention to the fact that *none of these tests has any ability to detect a hairline fracture or a corrosion pit in the casing, especially if the fracture or pit does not propagate the full thickness of the casing wall.* Even if the hairline fracture propagates the full thickness of the casing, the pressure test was conducted with water, which does not have the sensitivity required to quantify gas leak across the casing. In other words, gas can pass through cracks that water takes much longer to pass through, which would not register as a loss of pressure during the pressure- test.

Therefore, while these tests are better than what was required before, they fall very short of the goal of ensuring the safety of these wells. These casings have gone through decades of stresses from earth movement over multiple earthquakes that we know about, and numerous seismic activities that we don't even know about. We should also not forget the reckless practice of withdrawing gas through the annular space between the casing and the tubing over decades of operation. It is our understanding that this practice is actually not allowed in gas production wells, but somehow that requirement did not extend to gas storage wells until the SS25 well failure.

We are hoping that the root-cause analysis would be able to determine if such stresses are in the casing. For this reason, it is imperative that the root-cause analysis be completed before the wells are used for any gas injection or withdrawal from the field.

Seismic Integrity

Seismic standards are typically limited to facilities and structures whose failure could result in direct harm to the public, and/or the loss of critical facilities. Ironically, they do not apply to gas wells. For the Aliso Canyon facility, while the seismic hazard remains unchanged, the seismic risk has increased dramatically since the opening of the facility in 1972. Not only due to the severe aging of the wells, but also because of the significant urban development around the facility and the impact of seismic field failure on the community.

Considering the consequence of a well failure in the absence of a down-hole blow-off preventer valve, some reasonable seismic code must be applied. At a minimum, there should be an evaluation of how much lateral load a casing and tubing can withstand, and how much of an up-thrust can they tolerate before they fail. A "straw" that is 6,000 ft long, whether 8-inches or 3-inches in diameter, could not possibly withstand the lateral force in any seismic zone, let

alone in California. Indeed, the National Labs team stated in their report to DOGGR in relation to casing strain as a result of formation deformation from seismic activities that *“The South Belridge Field near Bakersfield, California has undergone significant compaction and has a high percentage of wells that have failed from casing deformation.”* The National Labs team then states that *“...a more granular review of the site- specific ground shaking hazard associated with the Santa Susana fault system will provide better insight into the seismic hazard at Aliso Canyon”*. Finally, the National Labs team states that *“We...believe that detailed structural analysis of the Aliso Canyon wellbore designs incorporating the results from a PSHA and PFDA of the Santa Susana Fault System will better inform the risk management process for operation of Aliso Canyon”*. With the above statements, we do not see how the facility can be allowed to reopen and resume operation before a seismic risk analysis is completed. Anything short of such analysis is playing “Russian Roulette” with the health of the people in our community.

I urge you not to ignore this fact, and to commission a seismic analysis of the wells before they are used for gas injection or withdrawal. Just because this is not “typically” done, does not mean it is not the right thing to do.

It is my understanding that there will be fluid in the annular space between the tubing and the casing, and that it will hold down the gas if there is a failure at the bottom. At 2,926 psi, it takes a water column of 6,700 ft to exert an equal amount of downward pressure. We realize there are chemical additives to the liquid to make it heavier, so we do not know how far lower the required depth will be. However, we want to draw your attention to the fact that this liquid pressure only prevents the gas from lifting the plug at the bottom if gas is released below the plug. However, it does not prevent the gas from escaping into the annular space if there is a break in the tubing anywhere above the plug. Once this occurs, the casing will be under the full pressure of the field, and there will be nothing that can be done to release that pressure without repairing the tubing. A more catastrophic failure that results in the failure of both the tubing and the casing, such as a seismic event, would also result in other uncontrolled gas blowouts identical to that of SS25. Therefore, the heavy liquid will do nothing to prevent gas release in a seismic event. This is another reason why a down-hole blow-off preventer valve is absolutely necessary.

Determination of Maximum Field Pressure

In determining the maximum field pressure, DOGGR relied on the report by GeoMechanics Technologies, which was commissioned by SoCalGas. It is noted that GeoMechanics Technologies did not do a single test of any sample of the cap rock, or any numerical modeling of the stresses under various field gas storage volumes and repeated injection and withdrawal that has happened over the decades. They simply relied on information from injection tests data conducted in past years, and stated that, since the pressure applied during these tests was higher than the 3,000 psi pressure under which the field had operated in the past, then a 3,000 psi operating pressure is acceptable. In essence, *since the field operated at 3,000 psi in the past, there is no reason not to continue operating it at the same pressure.* We note that the report by GeoMechanics Technologies, Inc. has the following statement at the beginning of it:

“Neither GeoMechanics Technologies, members of GeoMechanics Technologies, nor any person acting on behalf of GeoMechanics Technologies makes any warranty or representation, express

or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report.”

Basically, the single entity that did the study was paid by the Gas Company to do it, did not have a single sample of anything to work with, and then put a disclaimer to disavow themselves from anything that comes out of their analysis and refuse to stand behind the *accuracy, completeness, and usefulness* of anything they have in their report. I do not understand how DOGGR accepts this standard for its decision.

I also find it disappointing that the National Labs team simply followed the same rationale and concurred with the same number without any further analysis. The National Labs are experts at conducting Risk Analysis on natural and man-made systems. We do not understand how the National Labs would completely ignore the Risk Analysis component to this decision.

To that end, we strongly disagree with the one-dimensional approach to this decision, and urge DOGGR to step out of its typical engineering approach, and implement a risk analysis approach to this question that goes beyond the *fracture gradient* calculation, and asks the question about the “*cost of being wrong*”. In other words, this determination is not supposed to be limited to an engineering calculation, but should also include a Risk Analysis component that assesses the impact of failure on the surrounding community. This must be an integral part of this decision. The outcome of this analysis is then to be incorporated into the safety factor required under SB380.

Per Figure 2 in the GeoMechanics Technologies Report, a pressure of 2,926 psi corresponds to a storage of about 86 Bcf in Aliso Canyon! This means that DOGGR is giving the green light to SoCalGas to store as much as 86 Bcf of gas in the reservoir if they so choose, which is the full capacity of the reservoir! This finding seems to have been made with complete and utter disregard to the fact that there was a catastrophic well failure just over a year ago. It is as if nothing has happened. We remind DOGGR that this analysis was not supposed to be just about the caprock, but also about the wells and the pressure that the wells can withstand. I do not understand how DOGGR accepts the notion that the wells can be operated at the same maximum pressure under which they were operated before the well blowout.

Another factor not considered is the potential impact of past (and possibly ongoing) fracking practices in the field on the caprock and overlaying ground cover.

Acceptable Methane Release

In the letter from Mr. Ken Harris of DOGGR to Mr. Rodger Schwecke of SoCalGas dated January 17, 2017, attachment 1 includes 23 requirements for the SoCalGas to implement. Requirement #23, in essence, states that the CPUC and DOGGR accept the release of gas from the facility into the atmosphere at a rate as high as 250 Kg of methane per hour, which translates into 6 tons of methane gas a day. I strongly object to this allowance. The Community cannot tolerate ANY release from the facility, and I do not understand why I even have to make this statement. If SoCalGas cannot prevent any release from the facility, then I expect the CPUC and DOGGR to conclude that this facility should not be allowed to operate.

Summary

I urge DOGGR to consider the following:

1. The tests conducted on the wells, while they represent an improvement over past requirements, they fall far short of securing and ensuring the safety and integrity of the wells against another blowout.
2. DOGGR should commission a thorough structural and seismic analysis to quantify the risk of seismic failure and its consequences. It is imperative that a seismic analysis of the wells and the formation be completed before the field is allowed to resume operation.
3. DOGGR should not limit the pressure determination to an engineering calculation, but should also include a thorough Risk Analysis. Without the Risk Analysis component, the pressure limit determination is incomplete.
4. I reject the notion that as much as 6 tons of methane can be released into the community every day from the Aliso Canyon facility. We do not understand how this can be acceptable to the CPUC and DOGGR. If this facility cannot contain its gas release, this should be a clear indication to the CPUC and DOGGR that this facility cannot be allowed to operate, and must be retired.

In the final analysis, I find DOGGR's willingness to give the Gas Company the green light to refill the Aliso Canyon facility with 100% of its capacity to be completely unacceptable, and a slap in the face to the people who lived through the well rupture disaster, San Fernando Valley residents, and the Californian people as a whole. I ask that DOGGR takes this decision back to the drawing board and incorporate a Risk Analysis component to it based on the history of the field, the age of the field, and the impact of potential failure on the people who are in the unenviable position of living next to this facility.

Respectfully Yours,
Emerald Snow

cc: The Honorable Edmund G. Brown, Jr., Governor, State of California
Mr. Timothy Sullivan, Executive Director, California Public Utilities Commission
Senator Henry Stern, California 27th District
Mr. Dante Acosta, California Assembly Member, 38th District
Ms. Kathryn Barger, Supervisor, Los Angeles County Board of Supervisors
Mr. Mitchell Englander, Councilman, Los Angeles City Council
Mr. Eric Garcetti, Mayor, City of Los Angeles
Mr. Steve Knight, United States Representative, CA-25
Mr. Brad Sherman, United States Representative, CA-30

Emerald G ermaine Snow Chôque Torres, MSPH, MA
Ph: [831.210.0961](tel:831.210.0961)
Pronouns: She/Her/Hers

Skype: emerald.snow

From: [Danielle Michaels](#)
To: AlisoComments@DOC; [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:06:43 PM

February 6, 2017

Dear Members of CPUC and DOGGER:

Our family moved to Porter Ranch in 2006. At that time, we had an 18-month old son and hopes and dreams for one more child. We chose Porter Ranch over many other neighborhoods because we loved the topography of the area, the mature landscape, the clean air and top-notch schools... all of this offered within close proximity to Los Angeles. We saved for many years and sacrificed to be able to afford our "forever home" in our dream neighborhood. We invested a lot in our home and we were never once told about the Aliso Canyon Storage Facility lurking in our backyard and looming over the schools our children would attend.

Our family urges the state to take immediate action to stop Southern California Gas Company from harming us any further. Since reporting our first sign of the gas leak on October 24, our entire lives have been turned upside down between relocating our home, as well as our school and the painful and frightening health impacts we've endured. My two sons have suffered physically from health effects, emotionally and academically as they've had to leave their beloved school behind. My husband and were sickened, as well as one of our dogs. Not to mention the financial losses which add up by the minute. The state regulators should never allow this to happen.

Residents of Porter Ranch have been smelling and inhaling unknown chemicals and gases for years. I can't tell you how many times we've been at one of the parks, playing with the kids and suddenly strangers begin to gather and start asking, "What's that awful smell?" It was only after Porter Ranch residents began to educate each other that we finally became aware of the chemicals and gases hiding in our hills.

According to reports in the last few days, California has more than enough energy and this facility is no longer needed and only serves to make rich people richer. Why? Why has this been allowed to continue? We have survived an entire year without it. We can keep going. Why should children be forced to continue to grow up in a neighborhood contaminated with gas and greed poisoning our air? Why should we have to worry about this happening over and over again? Why is nobody proactively protecting us?

The residents of Porter Ranch are exhausted. We have had to fight for ourselves. We have had

to beg and plead and yell and scream and march for every statement from an official, for every proclamation and every measure to protect us. We are asking the regulators to do the right thing, for once, please. Please protect us, and protect our children, our health and our properties. Shut down the facility. Decommission it and find clean energy. Let California be a real leader. Please give us back our homes, schools and neighborhood. Force Southern California Gas Company to stop polluting Porter Ranch, Chatsworth, Granada Hills, Los Angeles, California and the one and only planet we will ever have.

Sincerely,

Danielle Michaels

Porter Ranch Resident

From: [Jessica Spotts](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 12:00:05 PM

Dear Safety Review Peeps,

Please don't re-open the Aliso Canyon/Porter Ranch gas facility. It only poses a danger to residents all over LA (including myself) as well as in the immediate vicinity.

The facility is not necessary to maintain energy reliability and energy agencies have adopted 31 mitigation measures to avoid the need for Aliso Canyon. There are 2 leaks per day at the facility. This is not safe.

There are ongoing reports of health problems. There still is no answer for why the blowout happened in the first place. The facility is also on the Santa Susana Fault Line.

It seems like a no-brainer to keep it closed, and a real and present danger with adverse effects already in motion.

Please do NOT re-open the facility.

Sincerely,
Jessica

Jessica Spotts

From: [Janice Striegel](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:59:53 AM

Hi,

My name is Janice Striegel and I used to live at 19424 Crystal ridge lane,

I was so sick from the gas leak: I experienced 5 major issues;

#1. If I stayed home all weekend, I felt like I was suffocating.

You could not open a window to get air, I had to drive down to Rinaldi Street to at least get fresher air.

By Monday, when driving to work I felt my judgment was impaired as if I were drunk. It would take me until 10:00 or 11:00 to feel normal. I am thankful that I did not have a car accident during the time.

I was exposed to so much gas.

#2 I had an extreme sore throat that lasted for 4 months, I went to the Doctor 3 or 4 times and they could not find a cause.

I was on a throat numbing medicine for months.

#3 I barking type cough

#4 Nose Bleeds

#5 Anxiety, so severe I had to go to counselling for about a year and a half...I did not want to start anti -Anxiety medicine.

Thanks again,

Janice

My New address is [REDACTED] Hills CA 91367

Cell phone 818 [REDACTED]

Janice Striegel



V.P. Designer- DML Marketing Group

[REDACTED]

Van Nuys, CA 91406

[REDACTED]

e-mail: [REDACTED]

From: Jim.park
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:59:51 AM

I have been living in the above-stated property as an owner since 2004 about 1 mile far from So Cal Gas facility and started to walk 1-2 hours everyday on Sesnon Blvd and used to hike on Aliso Canyon on the weekends all the time.

I quit smoking and drinking about 30 years ago and I usually get up 4:45 am for morning exercise and after dinner I walk in the area and I have been always on diet like almost vegetarian.

I was hardly sick and I visited doctor's office only for health examinations every 2-3 years and I was always told that I had maintained a good condition of health. I have had Anthum Blue Cross over 30 years and never claimed anything.

From the end of October, 2015, I started to feel headache, fatigue, eye and ear itching, and from the beginning of December, 2015, memory difficulty, nose bleeding anxiety, depression, , shortness of breathing, urine difficulty, coughing, sneezing, hair loss, digestion difficulty and constipation, sleep difficulty, weight loss, etc

I went t a Acupuncturist on Memory loss and sleep difficulty From January 2, 2016 and February 12, 2016, I took a blood test and urine test, Brain CT scanning and Chest X-ray at the Jung's Hospital and the doctor said I looked ok on the blood test but on the Brain scanning and on Chest X-ray, I have a brain atrophy and hyperinflation of both lungs.

Jim Park

, Porter Ranch, CA91326

From: [Joe & Gloria Choi](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:59:39 AM

Dear Department of Conservation's Division of Oil, Gas and Geothermal Resources (DOGGR):

I am writing today with a call to permanently shut down the Aliso Canyon facility for the health and safety of the residents of the Northern San Fernando Valley.

There are several major concerns I have regarding the Aliso Canyon Facility:

1. The facility cannot be deemed as safe without having a root cause analysis of how and why SS-25 failed.
2. There are wells in the facility like SS-25 that still lack safety valves.
3. Most importantly, the Porter Ranch, Northridge, Granada Hills and Chatsworth residents are still suffering from headaches, nosebleeds, dizziness and nausea and the safety review does not include any health studies from residents in these communities.

The Aliso Canyon facility has been closed since January 2016, so Los Angeles does not need this unreliable, antiquated and dangerous gas storage facility. For the sake of the Northern San Fernando Valley residents and especially our children, please do the right thing and shut it down forever.

Sincerely,
Gloria Choi

From: [Ryan Ransdell](#)
To: AlisoComments@DOC
Cc: [REDACTED] [Paige Duca](#); [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review - Concerned Resident Comment (The Ransdell Family)
Date: Monday, February 6, 2017 11:59:31 AM

To The Department of Conservation:

As a concerned parent and resident of Porter Ranch, I would like to offer the following comments regarding the current consideration being given to reopening Aliso Canyon. I have been a resident of Porter Ranch for 44+ years. We grew up in Northridge, right off of Reseda and Rinaldi, where my dad still lives today and now my wife (Paige), soon-to-be 5 year old son (Ryder) and I live in The Renaissance community in Porter Ranch just below Aliso Canyon. I was one of the residents who initially called in to report the smell of gas when the leak began only to be told by a SoCalGas representative that they were “intentionally releasing gas” implying that it was planned and there was nothing to worry about. After a several more days when the smell continued, my wife then called only to be told the same thing. Shortly thereafter, it was announced that there was an uncontrollable gas leak. I bring this up because I think it speaks volumes as to the lack of honesty, transparency and overall care and concern by SoCalGas.

My wife and I have tried to be pragmatic throughout this whole ordeal. We wanted and would like to believe that everything was and is OK. However our son, Ryder, who was 3 years old at the time this started received his first bloody nose shortly after the leak began and that was when we became extremely concerned. After speaking with his doctor and mine, we did not allow him to play outside anymore out of concern for his health. My wife and I experienced a number of issues as well in addition to the ongoing stress and anxiety this leak caused wondering if we were doing the right thing or not by staying in our home. We ended up eventually relocating for peace of mind as we had had enough figuring it was better to be safe than sorry and returned promptly once the leak was supposedly stopped.

And now SoCalGas would like us to believe everything is OK and safe. The latest notification reads “Dear Neighbor – as a result of comprehensive testing, physical changes, and the establishment of tubing flow only, SoCalGas has demonstrated that the Aliso Canyon storage facility is safe to resume operations”...really? In another communication SoCalGas says they have “made comprehensive infrastructure, technology, and safety enhancements at Aliso Canyon storage facility that strengthen the facility’s infrastructure, introduce real-time pressure monitoring, and enable improved communication with stakeholders.” I have also read the various literature you all (The CA Dept. of Conservation, DOGGR) put out regarding the safety review, required tests for each well in the facility and the presentation title “Aliso Canyon SS25 Well Leak Investigation Overview,” etc. which I assume means you support their position. I say “assume” because I’m not sure whether or not your division does support the reopening of Aliso Canyon. I attended the first night of the public hearing in Woodland Hills with the hope of hearing your official position and intended to speak, but unfortunately neither of us got the opportunity to do so. I had planned on quickly telling our story and appealing to logic which I hope prevails.

I recognize that neither I, nor the residents of Porter Ranch, are experts in the safety of gas storage,

storage wells, etc.. We also had no idea as to the magnitude and make-up of this facility. Even if we did, we would have trusted that the city, state and agencies involved in the oversight of Aliso Canyon would certainly work to ensure it's safe operation for the public and surrounding residents. Having said that, the main question I would have putting the all of the safety reviews and things that SoCalGas has said they have done and will continue to do aside is...why now? Where was all of this before, including the oversight by your division and all of the other agencies involved? The fact is there has been complete negligence by many, whether intentional or not and primarily by SoCalGas, as that is the only answer. To suggest that it is now safe to reopen because of all of these things that have now been done without knowing still what caused the leak or how to stop it should another leak occur makes absolutely no sense. Most importantly, neither SoCalGas nor your division in its capacity can ensure that this will never happen again and it is for that reason alone that Aliso Canyon should be shut down at this time. It has not been clearly demonstrated that Aliso Canyon is needed and even if it is, too bad as SoCalGas and all of the associated agencies and entities have had years to put together alternative plans and means. It's not enough to put these things in place and "hope" that this never happens again as hope is not a strategy. My son Ryder's health, our health, the community's health, wealth and well-being can no longer be put in harm's way for something you have the power to shut down and just as we would have implicitly trusted in your oversight before we trust that you will now do the right thing all things considered.

Please shut Aliso Canyon down. Thanks for your consideration.

Regards,

Ryan Ransdell – The Ransdell Family

[REDACTED]

Porter Ranch, CA 91326

From: [Diane Gold](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:56:20 AM

To Whom It May Concern:

As a resident of Porter Ranch for the past ten years, I am deeply concerned about the impending reopening of the Aliso Canyon Gas facility.

Prior to the "blowout" my family and I would experience headaches, sinus conditions, burning eyes and sore throats but not until the blowout were we able to connect the dots!! These leaks have been going on for sometime, clearly.

Now, even with the facility technically closed, there have been leaks, methane spikes, odors and who knows what other chemicals being spewed.

When we relocated from 2/16-5/16 we were not only free of headaches, sinus issues, burning eyes, sore throats and rashes, but we had piece of mind knowing we were not being poisoned when we left our windows open or took a walk. We felt confident that our family and pets were safe.

We have been robbed of this kind of safety and assurance in the community we live.

This community will never feel safe as long as this facility is operating. This is not a cohabitation that can exist.

The residents of this community deserve the right to live in a healthy and safe community. We have been lied to repeatedly and we are living a nightmare with this abusive neighbor.

I am pleading with you to not support the reopening of Aliso Canyon and protect this large community of women, men, children, seniors and animals , who have suffered greatly at the hands of a dangerous, toxic company whose focus has not been in our best interests.

Thank you for your support.

Sincerely,

Diane Gold

From: [Dennis Rowlands](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:50:43 AM

To whom it may concern,

I spent my entire career in high tech and during that time saw many problems encountered and solved both in the realm of safety and product. In every case the safety problem was closed or the production line shut down until the root cause was determined and an analysis completed showing the right way forward. These instances pale in comparison to Aliso Canyon being considered for reopening without knowing the cause of the leak and therefore not knowing the proper remedy. Thousands of peoples' health and life are at stake and I believe it is unconscionable to open it without a completed Root Cause Analysis and Risk Assessment and remedies in place. There simply is no justification for reopening until ALL the work is completed using best practices. If I were a stockholder I'd be appalled that there even was a thought of reopening, the stakes are too high for all involved,

Dennis (Denny) Rowlands
RayDyne Energy, Inc
Executive VP and Co-Founder

Mailing Address

[REDACTED]
Austin, Tx. 78734

Or

[REDACTED]
PorterRanch Ca 91326

Bus: 818 [REDACTED]

Cell: 724 [REDACTED]

Email: [REDACTED]

Web Site: www.raydyneenergy.com

From: [Marc Herman](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review". Just copy the bold words inside the quotation marks and paste them in the subject line of your email to DOGGR
Date: Monday, February 6, 2017 11:50:31 AM

Division of Oil, Gas and Geothermal Resources:

This facility poses a major threat to the lives of the residents around the facility, whose safety and well being have been ignored for years. The proposed reopening of this facility demonstrates the continuation of that. The Gas Company has taken advantage of the community for too long, and has a long history of putting profits ahead of safety. Before the 2015 leak, one only needs to go back to the 2008 Sesnon fires where Cal Fire determined the cause to be the negligent actions of The Gas Company due to the Company's failure to perform brush clearance coupled and failure to safely maintain the high voltage power lines in a high wind area. In fact, depositions proved that safety took a back seat to profits because the Gas Company's Plant Manager admitted that brush clearance wasn't performed; despite the fact of the facility being in a "high consequence area" (their words, not mine) and I have the depositions to back this up. Maintenance records showed they had also neglected the +/- 15 miles of high voltage power lines and had reports going back to the 1990s showing that these lines needed to be upgrade and repaired. Even more disturbing is the fact that The Gas Company hid that study until a 3rd party produced it. It was then, and only then, that they even admitted to the reports existence.

Now the CPUC, DOGGR and the Gas Company ask that we put our health, safety and lives at risk once again with the reopening of the facility despite the fact that the root cause has not been determined; the health impact study has not been completed nor has a structural and seismic analysis been performed to quantify the risk of seismic failure and its consequences. The completion of any one of these reports would prove that this facility cannot be allowed to operate and must be retired. Additionally, the Gas Company is putting forward the notion that as much as 6 tons of methane can "safely" be released into the community every day from the Aliso Canyon facility. NO release of any kind is acceptable, especially given its proximity to housing and schools. I do not understand how this can be acceptable to the CPUC and DOGGR. If the Aliso facility cannot contain its gas release, that should be more than a clear indication to the CPUC and DOGGR that this facility must be retired. I find the CPUC's and DOGGR's willingness to give the Gas Company the green light to refill the Aliso Canyon facility to be completely unacceptable. This proposal is slap in the face to the 1000's of people who were made sick and relocated because of the well rupture disaster. Again, this completely ignores the lives and health of thousands of families and tens of thousands of people. The CPUC and DOGGR need to figure out how to deal with the gas supply WITHOUT re-opening this facility.

I pray and my family prays that you will come to the only logical conclusion and not reopen this facility. My family's life and health and well being of tens of 1000's of people depend on you doing the right thing.

Thanks you for your time and consideration

Marc Herman
All American Real Estate Services
Phone: 818-
FAX: 818-3
www.AARES.net

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www.avast.com

From: [Marc Herman](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:47:18 AM

Public Utility Commission:

This facility poses a major threat to the lives of the residents around the facility, whose safety and well being have been ignored for years and the proposed reopening of this facility demonstrates the continuation of that. The Gas Company has taken advantage of the community for too long and has a long history of putting profits ahead of safety. Before the leak, one only needs to go back to 2008 where Cal Fire determined the Sesnon Fire was caused by negligent actions of The Gas Company because of lack of brush clearance and failure to safely maintain the high voltage electrical wiring in a high wind area. In fact, depositions proved that safety took a back seat to profits because the Plant manager admitted that brush clearance wasn't performed despite the fact of the facility being in a "high consequence area" (their words, not mine – I have the depositions to back this up). Maintenance records showed they had also neglected the 15 miles of high voltage power lines and had reports going back to the 1990s showing they needed to be upgrade and repaired. Even more disturbing is the fact that The Gas Company hid that study until a 3rd party produced it. It was then an only then that they even admitted to its existence.

Now the CPUC, DOGGR and the Gas Company ask that we put our health, safety and lives at risk again with the reopening of the facility when the root cause has not been determined, the health impact study has not been completed and no structural and seismic analysis has been performed to quantify the risk of seismic failure and its consequences. The completion of any one of these reports would prove that this facility cannot be allowed to operate and must be retired. Additionally, the Gas Company is putting forward the notion that as much as 6 tons of methane can be released into the community every day from the Aliso Canyon facility. No release of any kind is acceptable, especially given its proximity to housing and schools. I do not understand how this can be acceptable to the CPUC and DOGGR. If this facility cannot contain its gas release, this should be a clear indication to the CPUC and DOGGR that this facility must be retired. I find it incomprehensible that the CPUC's and DOGGR's willingness to give the Gas Company the green light to refill the Aliso Canyon facility to be completely unacceptable, and a slap in the face to the people who lived through the well rupture disaster. Again, this completely ignores the lives and health of thousands of families and tens of thousands of people. The CPUC and DOGGR need to figure out how to deal with the gas supply WITHOUT re-opening this facility.

I pray and my family prays that you will come to the only logical conclusion and not reopen this facility. My life and the health and well being of tens of thousands of people depends on you doing the right thing.

Thanks you for your time and consideration

Marc Herman
All American Real Estate Services
Phone: [REDACTED]

FAX: [REDACTED]
www.AARES.net

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From: [Morgan Kaczor](#)
To: [AlisoComments@DOC](#); [Mom](#); [Dad](#)
Subject: Aliso Canyon comprehensive study
Date: Monday, February 6, 2017 11:47:46 AM

To whom it may concern,

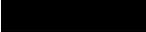
I am writing in regards to the Aliso Canyon Canyon blowout. My family lives less than 1 mile away from the storage facility and have been deeply affected by the situation. Back in 2015, we were forced to cancel our Thanksgiving and Chanukah parties due to the Health issues that we were experiencing because of the gas leak. We did not want to put the rest of our family and friends at risk. As a family, we decided that her health is more important than anything and we chose to relocated. The Elyse Oak Canyon blowout literally uprooted my family out of our home of 30 years.

We were moved several times throughout the relocation - 4 different hotels and a tiny apartment. Our quality-of-life was deeply affected.

Throughout the relocation, whenever we returned home for a short period of time to get the mail or water the plants, we felt ill. We experienced the same symptoms we felt while living at home. It was clear that our home was unsafe.

We had our house "decontaminated" but yet after returning home and living in our house for the past six months, we have still been getting sick. Headaches, fatigue, bloody noses, nausea, itchy eyes and skin - just to name a few.

This is absolutely not OK. A comprehensive study must be conducted to determine the cause of this terrible blowout that has affected the physical and mental health and well-being of thousands of families. It is clear that the Aliso Canyon storage facility is unsafe. SHUT IT ALL DOWN.

Best,
Morgan Kaczor


From: [Morgan Kaczor](#)
To: AlisoComments@DOC; [Mom](#); [Dad](#)
Subject: Affected by the Aliso Canyon blowout
Date: Sunday, February 5, 2017 11:25:29 AM

To whom it may concern,

I am writing in regards to the Elyse Oak Canyon blowout. My family lives less than 1 mile away from the storage for Sellitti and have been deeply affected by the situation. Back in 2015, we were forced to cancel our Thanksgiving and Chanukah parties due to the Health issues that we were experiencing because of the gas leak. We did not want to put the rest of our family and friends at risk. As a family, we decided that her health is more important than anything and we chose to relocate. The Elyse Oak Canyon blowout literally uprooted my family out of our home of 30 years.

We were moved several times throughout the relocation - 4 different hotels and a tiny apartment. Our quality-of-life was deeply affected.

Throughout the relocation, whenever we returned home for a short period of time to get the mail or water the plants, we felt ill. We experienced the same symptoms we felt while living at home. It was clear that our home was unsafe.

We had our house "decontaminated" but yet after returning home and living in our house for the past six months, we have still been getting sick. Headaches, fatigue, bloody noses, nausea, itchy eyes and skin - just to name a few.

This is absolutely not OK. A comprehensive study must be conducted to determine the cause of this terrible blowout that has affected the physical and mental health and well-being of thousands of families. It is clear that the Aliso Canyon storage facility is unsafe. SHUT IT ALL DOWN.

Best,
Morgan Kaczor
818-

From: [Tom Nachtrab](#)
To: AlisoComments@DOC
Subject: Safety Review ALISO CANYON
Date: Monday, February 6, 2017 11:45:47 AM

Please require a complete investigation of the root causes of the Aliso Canyon discharge before allowing the resumption of injections of gas into Sempra SoCal's Aliso Canyon reservoir.

Tom Nachtrab

[REDACTED] 7

Chatsworth, CA 91311

From: [REDACTED]
To: aliso.comments@cdpr.ca.gov
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:37:13 AM

Dear Officials of the Department Of Conservation:

Re: Comments and Concerns about the reopening of the Aliso Canyon Gas Facility from the Family of Mr John C and Mrs Jeanne F Wiczek and sons Jeremy & Ryan Residents of Porter Ranch for 26 years

Subject: We are sending this email letter to express our concerns and that we are totally against the So Cal Gas Co and their plans to reopen the Gas Facility in Aliso Canyon We believe this facility to be unsafe and our family has been in meetings with our representatives Brad Sherman and Alex Padilla who both live in Porter Ranch and they also believe the facility to be unsafe I am in my late 60 s and my spouse Jeanne and our 2 twin sons, age 26, have all experienced symptoms during the blowout and periodically since the blowout was repaired At the time of the blowout, I experienced fatigue, severe coughing with throat thickness and some swelling in neck area along with nausea and burning eyes Jeanne works out of our house and during the blowout used a mask and still experienced respiratory difficulties which now appears a chronic condition along with lightheadedness and fatigue Our sons suffered with fatigue, nausea and headaches and these conditions reappear from time to time Our dog had a skin disorder come up and a urinary tract infection and acted listless We are really worried about the health of our Family going forward and what the future may hold This traumatic event has been torturous at best and are frightened at the possibility of this facility reopening We are earnestly asking that DOGGR officials rethink their position on the reopening of the facility and to come up with an alternative plan for So Cal Gas Co to redirect the Gas to another facility We have seen Porter Ranch over the past 25 years grow into an enormous and bustling community and if Aliso Canyon does reopen, the stresses and stigmata the reopening would cause would be depressing with the ongoing threatening and unsafe climate this would entail The huge gas blowout has seriously affected our health If the gas is allowed to be reinject gas and there is another leak that affects us again, we don t know how you could live with yourselves We ask you to honor the Families of Porter Ranch and to recommend the Facility be decommissioned and taken out of service and would appreciate your reconsideration to that end

Thank you for your time

Mr John C. Wiczek

[REDACTED]
Porter Ranch, CA 91326

818 [REDACTED]

From: [Leonard Nicholson](#)
To: AlisoComments@DOC
Cc: [Frantz Law Group, APLC](#)
Subject: "Aliso Canyon Comprehensive Safety Review."
Date: Monday, February 6, 2017 11:33:14 AM

To Whom it may concern,

The gas leak definitely affected my health, my wife's health and our dog's health! I am retired so am in the area most of the time, I am in good shape and health. I enjoy the outdoors and hiking. I hike to the top of Mission peak, Oat mountain, and hike Limekiln and Aliso canyons on a regular basis. Because of the gas leak I was deprived of the enjoyment and health benefits that I receive from this activity, I cannot put a price on that. I also cannot put a price on my family's and my health. Due to the leak I felt tired, sick, and lethargic. My wife is more sensitive and felt even worse than me, our dog was unable to jump up on our bed. Since the leakage has been reduced, our symptoms have greatly improved, our dog can now jump up on the bed, which to me proves how dangerous the chemicals released are. This is an earthquake area, there are faults in the area, I lived here during the 1994 Northridge earthquake, the potential for disaster exists. If the government is "supposed" to protect the people (ha,ha) and not just money and big business, it is foolishness to allow the operation of the existing facility. They had their chance, they failed, and need to go to jail! If I caused that much havoc, they surely have put me there, but I am not a millionaire with giant legal teams to protect my crimes! My wife is very sensitive and she was complaining about smelling gas a month before the leak was publicly announced!

Sincerely,
Leonard Nicholson

From: [Leonard Nicholson](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Friday, January 20, 2017 1:08:03 PM

Please keep it closed or limit it's capacity, human life and safety is the first priority!

From: [Leonard Nicholson](#)
To: AlisoComments@DOC
Date: Monday, February 6, 2017 11:12:48 AM

To Whom it may concern,

The gas leak definitely affected my health, my wife's health and our dog's health! I am retired

so am in the area most of the time, I am in good shape and health. I enjoy the outdoors and hiking.

I hike to the top of Mission peak, Oat mountain, and hike Limekiln and Aliso canyons on a regular basis.

Because of the gas leak I was deprived of the enjoyment and health benefits that I receive from this activity,

I cannot put a price on that. I also cannot put a price on my family's and my health.

Due to the leak I felt tired, sick, and lethargic

my wife is more sensitive and felt even worse than me, our dog was unable to jump up on our bed. Since the leakage

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how dangerous the chemicals released are. This is an earthquake area, there are faults in the area, I lived here during the 1994

Northridge earthquake, the potential for disaster exists. If the government is

"supposed" to protect the people (ha,ha) and not just

money and big business, it is foolishness to allow the operation of the existing facility.

They had their chance, they failed, and need to go to jail!

If I caused that much havoc, they surely have put me there, but I am not a millionaire with giant legal teams to protect my crimes!

My wife is very sensitive and she was complaining about smelling gas a month before the leak was publicly announced!

Sincerely,
Leonard Nicholson

From: [Guillermo Lecuona](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:28:09 AM

I felt dizzy during and upon returning home from relocation, but unexpectedly it was my husband who got dizzy, blacked out and fell backward and cracked his head on the kitchen tile, landing him in ICU for 5 days. He was told he'd lose partial hearing from the fall and may forever tend to have seizures. Seizures do not run in his family and he never before the PR gas problem experienced this. Coincidentally my dog started these weird dizzy spell catatonic state seizure type things for which she still today takes medicine for. The vet also noted large bumps on her skin, and was blown away when I brought her back in after moving away from Porter ranch- with no cysts anymore!!! We moved to a one bedroom apartment in calabasas and my two kids live like second class citizens sleeping on a living room couch until we can get stable again. Until we can recover from leaving our PR home which we finally sold after eight months with extra disclosures to the new buyer. My youngest son was complaining of breathing issues while attending Castlebay Lane and was diagnosed with asthma. Now in Calabasas after eight months he says "mommy my chest doesn't whistle anymore". With tears in my eyes I am thankful for him but sad for all of my old Porter Ranch neighbor's children. I attended a fundraiser at Castlebay after we moved away because I love the community. While there a boy I knew was found hiding under a table, hiding his huge nosebleed out of embarrassment. His mother was in tears as she knows why this keeps happening. I volunteered for two years previous to the gas leak and while volunteering in Kinder there was at least one to two nosebleeds per day in the kinder class of 24 kids! I remember thinking, "Wow that never happened at Colfax in North Hollywood when I volunteered there. Hardly ever did a kid get nosebleeds and this happens all the time here!" In my naivety I shrugged my shoulders and continued grading papers, but when the gas leak happened a few years later I remembered this. These poor kids!!! They are babies! I also know an elderly woman who had so many nosebleeds that she had to have her nose cauterized, which progressed into a meningitis infection! She was in the hospital and nearly died! So I take great offense when SoCal gas sends letters that these things are temporary, for those of us who live with these things it is not temporary, one detriment in health leads to another one. And in their argument that it is temporary, do they plan on reopening and giving people " temporary " sickness in perpetuity?

Please imagine that these kids are your kids, please do the right thing and shut aliso down.

Sincerely,

Tera Lecuona

Sent from my iPhone

From: [Ilsa Marusa](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:28:02 AM

I am a resident of the Porter Ranch Community. I, like so many others, actually all of us, though some don't want to waste their time attending meetings, demonstration and writing to the Government Officials, believing that we are talking to a wall, have been affected with all the symptoms from the leaking gas storage field and the horrendous gas well blow out. The headaches, nagging cough, bloody nose, queasiness and light headedness have not left me when I am at my home. I was relocated for four months, it took six months to collect the rent due my landlord. The travel expense reimbursement promised at the beginning of this Porter Ranch exodus was not honored, but then, why should it? We are just a few thousand people in the scheme of things.

I have attended rallies, meetings, including the February meetings in Woodland Hills. The Government Officials present sat stone faced to keep from yawning from boredom as the emotion filled residents repeated their stories, repeated I don't know how many times, it had all been told in prior meetings, but no one listens or cares. Are our Government elected officials indeed writing off the entire Porter Ranch neighborhood for the benefit of the Gas Company? Time did proof that the storage facility was not needed in the heat of last summer and the so called gas shortage last month was no shortage after all. The facility is not need and needs to be shut down for the safety of the area, but you don't even want to give us a chance to learn what the real problem is with the facility by completing the studies needed. Is this whole issue just a greed driven maneuver to make the Gas Company richer and for the Government Official to insure their future finical support from the Gas Company? It's a question and not an accusation, but only time will tell.

Please do the right thing for the people, shut the facility down and if you are not sure that it needs to be shut down, then complete the research, studies and tests to have the facts speak.

I send this as a frustrated senior citizen who has her "golden year" turned into a living hell because of the Gas Company and now their Government supporters.

Ilsa Marusa

From: [Peter Rabadi](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:23:05 AM

Dear Committee,

The continuing Aliso Canyon Gas leak has created a tremendous affect on not only the Porter Ranch community but also the surrounding Los Angeles Areas. Affecting health of humans, animals, and its topography. Financially it has created a burden to many families in the community. Putting aside the legal and political issues that arise with such an operation, human lives are being threatened to an extent in which even medical specialists don't even know yet. Please keep in mind the signs and symptoms that have already been visually seen in Gas leak Victims. It is just a taste of what is yet to come in their future health. Please put yourself in our shoes and consider other options instead of reopening these toxic wells.

Gas Leak Victims,

Peter and Danielle Rabadi

Sent from my iPhone

From: [Adrienne Brooks](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:22:58 AM

Please close down the gas storage facility!!! It has caused health problems for my family and friends. My friend's 7 year old daughter was just recently diagnosed with leukemia. My mother had a bloody nose for an hour and a half and had to be rushed to the ER. These are just a couple of instances.

I beg and insist that you shut it down.

Adrienne Raheb

Sent from my iPhone

From: [Phyllis Butts](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:22:00 AM

To Whom It May Concern,

I am writing in reference to the Aliso Canyon gas leak. I am outraged that the reopening is even being considered. We, residents, have suffered more than enough! My household continues with stomachaches, headaches and bloody noses. I have 3 small children and this is so unfair to them. I can't even send my child to our homeschool, Porter Ranch Charter because of the uncertainty about this situation. I can't take them to the park that we so love because of the uncertainty of the air we are breathing. The facility is not needed. Give us our right to clean air! SHUT IT DOWN!!!!!!!!!!

Phyllis Butts

From: [Phyllis Butts](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Saturday, January 21, 2017 3:31:37 AM

To Whom It May Concern,

I am one of the many Porter Ranch residents who have been negatively impacted by the gas leak. I am writing as a plea to keep it all shut down as it still continues to negatively impact our lives. It is not only unhealthful air that we breathe, it is unsafe! We have to live worrying that a fire does not ignite up there or that a major earthquake does not cause an explosion in the midst of chaos. These are concerns in addition to our quality of life and health. My daughter still has continuous stomach aches and sore throats which all went away when we relocated. My son is constantly congested with eye redness. Again, went away when we relocated. My husband has stomach aches only when he is at home and I experience all of the above. This is not an acceptable way of living. How would you feel if you were forced to stay inside of your house and didn't feel safe enough to take walks in your own neighborhood or play in your own backyard. How would you feel if you were forced to incur the costs of private school because you didn't feel safe enough to send your child to its home school, Porter Ranch. This is no way to live! Aliso Canyon being shut down for the past year has proven that WE DON'T NEED IT! It's time to put the community first instead of the gas company and Jerry Brown's family's deep pockets! I have 3 children that have the right to breathe clean air!! So again, this is our request to SHUT IT ALL DOWN!!!

Regards,

Phyllis

From: [Hong Hyun Ahn](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:18:29 AM

To Whom It May Concern:

My whole family have been living in fear of another gas blowout. I am abhor to hear that the discussion of reopening the gas facility is even being considered.

My wife, my parents, and I are still suffering from nose bleeds, headaches and nausea. My mom is bed ridden most of these days due to nausea.

My wife, who is pregnant, is afraid to sleep at her own home, in fear of what might happen to our child.

If the gas facility keeps spewing more gas into the neighborhood, as LA Times and Southern California Gas is stating, why is the gas facility even consider opening? There were no rolling blackouts, nor was there a gas shortage during winter.

What is being done about the health and well being of the people in Porter Ranch? What health studies are being held for people in Porter Ranch?

Humans come first before corporate earnings.

Sent from my iPhone

From: [Christopher Choi](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:17:45 AM

Ever since the gas leak my wife and daughter developed skin rashes. It's scary to think what this gas have caused on their health. We could smell the gas every once in a while even though SoCal Gas is stating that everything is safe. I would believe they are safe when the board members of the SoCal Gas move into Porter Ranch.

From: [Dorothy Henry](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:17:23 AM

I am writing as a resident of Granada Hills within the area of concern of the Aliso Canyon gas leak. I have had symptoms of numerous sinus infections on extended courses of 3 different antibiotics, nasal sprays, medication, I am still suffering from them now as well as a daily headache, dizziness and just not feeling well. I have 2 dogs who have had eye drainage which will not clear as well. I am a Thyroid Cancer survivor and as such am very concerned about the long term effects of the continued leaks as I do not ever want to go through another cancer or a return of my Thyroid Ca which would be metastatic if it were to return. I work as a Cancer Registrar (I abstract information about cancer patients into data bases that use it for research, cures, and incidences so have seen the effects of all cancers including Hematopoietics (blood Ca) and exposure to carcinogens is a definite cause of probably any cancer which is something Aliso Canyon gas leak is exposing not only Porter Ranch and vicinity but larger exposure areas as well. Aliso Canyon needs to be closed down permanently please.

Dorothy Henry

From: [Mel Mitchell](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:16:33 AM

My name is Mel Mitchell and my family has lived in Porter Ranch for over 25 years. My wife and I attended the first Public Meeting in Woodland Hills on February 1, 2017, but were unable to speak. Unfortunately, we could not attend the following meeting on February 2, 2017.

We want the Aliso Canyon gas field operations shut down.

Since the blowout in October 2015, I have talked with many Porter Ranch residents, neighbors and friends. No one who I spoke with wants an active gas field operation in their backyard. I agree!

My fear is that the final decision of the hearings will be to begin reinjecting gas. Key questions that must be answered before going ahead:

1. Is the Aliso Canyon gas field operation really critical to maintaining the reliability of gas supply into Southern California?
2. Are the wells truly safe?

I believe that we need an orderly and organized plan to shut down gas field operations immediately or at the earliest feasible time. Please,

- Do not begin operations until the cause of the blowout is known.
- Consider the risks that future Porter Ranch earthquakes and fires will present when determining safety.
- Conduct a long-term health study on the people impacted by the blowout.

Mel Mitchell

[REDACTED]
Porter Ranch, CA 91326

818 [REDACTED]
[REDACTED]

From: [Vartan Pirlant](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:15:24 AM

Dear Sir or Madam:

My name is Vartan Pirlant . My family and I have been living in Porter Ranch for the past 18 years.

After the leak, I had nosebleeds. My wife still suffers anxiety, headaches and muscle aches every morning which she never had prior to the leak. We pray that our son have not been affected by this on going problem.

When I purchased the home in 1998, it was never disclosed to me that we would be living next to the largest natural gas storage facility in the West of the U.S. Such information would certainly make a difference in my purchasing opinion. Furthermore, during my conversations with the other parents where my son goes to school and the residents of my neighborhood I discover that, very few Porter Ranch residents knew how big this gas storage facility was until after the infamous leak in 2015. It was the best kept secret. What I can not comprehend is why more permits are issued to builders to construct more houses by the skirts of this facility. I find that an oversight on our government's part that need to be corrected.

I do not think that the permanent closure of this facility in order to protect the surrounding neighborhoods and people from harm would be as devastating as it is presented for the following reasons:

- a) In California, we have drought and water is a lot more important element then natural gas for the survival of humans and the environment. If we can manage to save water, we surely can manage to live with less natural gas. and without the Aliso Canyon Storage facility.
- b) While water is irreplaceable and there is no substitute for it, all technological advancements and renewal energy resources can replace the need for natural gas.

It would be very irresponsible and inconsiderate, If the representatives of the people allow the Aliso Canyon Gas facility to open without any study to understand the long and short term impact of this unprecedented leak on human beings. Preventive measures may have been in place now, but it may be too little, too late for many Porter Ranch Residents and their children. There is no question in my mind that there will be another leak, it is not if...but when. There are still 100 wells over there. How are they equipped to handle a major earthquake?

There are so many unknowns. Please do not gamble with people's lives. Help us save our future. SHUT IT ALL DOWN !

Sincerely,

Vartan Pirlant

[REDACTED]
Northridge, CA 91326
(818) [REDACTED]

From: [Craig Galanti](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:14:57 AM

Stop the madness and **SHUT Aliso Canyon DOWN**

1. People of and surrounding Porter Ranch got sick, people are sick and all indications suggest people will continue to be sick
2. The **common dominator is the proximity to Aliso Canyon, the 'largest natural gas storage facility in the west'** – which should have never been allowed to be located in a highly populace area in the first place
3. 69.3% of the 114 wells in Aliso Canyon FAILED as demonstrated by DOGGR testing
4. "Aliso Canyon has, on average, 2 leaks per day" as testified by SoCal Gas, under oath at a recent AQMD hearing
5. Demonstrating this field has been leaking unabated for a very long time
 - a. Just because we can't see the gas leaks with the naked eye, like an oil spill into the ocean or ground, doesn't dismiss the obligation of all parties to "mind the store" -- the system has failed and will fail again!
6. Aliso Canyon has been incompetently run for decades, 69.3% failure rate! How is that possible?
 - a. Either, SoCal Gas, DOGGR and CPUC knew and did nothing, which is **negligence**, or
 - b. SoCal Gas, DOGGER and CPUC were unaware and that's **incompetence**
 - c. Either way, SoCal Gas and parent Sempra Energy, DOGGR and CPUC have earned a NO confidence vote of this community and surely that of any logical thinking individual for continued operation of a decrepit, antiquated, and miss-managed facility
7. Further demonstration of this incompetence by all parties, is the very idea of a discussion to re-opening the facility without:
 - a. Complete of a **root cause analysis** and definitive causal findings of well SS-25's blowout; if you don't understand what happened how anyone can say, "we've taken the steps to ensure this won't happen again" – this is bad science, bad policy and worse, **gross negligence!**
 - b. Complete, **comprehensive, longitudinal health study** to understand how Aliso Canyon's proximity to a populace has impact our health; there are no health studies to date to determine the health risks we suffered due to long term exposure to the mercaptan and ALL other chemicals that leaked out during the blowout AND those used to stop the leak, including benzene a known carcinogenic
 - c. Completion of a **needs assessment of Aliso Canyon** – see letter from PRNC (Porter Ranch Neighborhood Council) for further details on the lack of need for Aliso Canyon
8. DOGGR, its illogical that capping the 70% of the failed wells with a plug covered with water under 3,500psi of pressure is prudent when you're advising the entire storage field be limiting to a max of 2,943psi – by your own testing these are unsafe wells and should NOT be subjected to such pressures – I am outraged by this suggestion! As all wells are like straws into the punch bowl of stored gas and its hazardous chemicals, which are ample risks of future catastrophic failures like SS-25.
9. Surrounding residents have zero confidence in SoCal Gas, DOGGR, CPUC or any other agency to protect us based on this **long running history of bad actors, incompetent operations and poor or ineffective regulatory oversight**
10. As history has demonstrated, NO ONE can protect us from another gas blow out like well SS-25:

- a. Mother Nature, human error, material failure, and equally important, greed* ensures another blow-out will occur and NO ONE can guarantee it won't
- b. *SoCal Gas has demonstrated their greed for profits over safety maintaining their facilities, endangering the lives and health of those working in or surrounding Aliso Canyon and there is no indication they will do so in the future. Keep in mind, SoCal Gas did nothing in good faith to come to the help and aid of those surrounding Aliso Canyon that wasn't court ordered. Relocation, cleaning of homes, added policing, etc. were court ordered, no voluntary on SoCal Gas' part – this organization is full of bad actors!

11. Shut Aliso Canyon Down as it never should have been allowed to be here in the first place!

Craig Galanti

Porter Ranch Resident for 26 years

O: [REDACTED] 0

C [REDACTED]

E: [REDACTED]

Skype: Craig.Galanti

From: [Tracton, Elizabeth](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:14:41 AM

Please shut down Aliso Canyon!!! The facility is not necessary to maintain energy reliability in Southern California. And everyone in the area gets sick. There is no reason why this horrible facility should be open and poisoning ourselves and our children.

Thank you,
Elizabeth Tracton
Porter Ranch Resident

From: [Tina Deis](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:11:29 AM

I am writing to voice my opinion regarding the Aliso canyon gas storage facility, which needs to be shut down and fully decommissioned.

I feel a deep sense of futility in writing this. Many of our elected officials and the appointees of the CPUC and other agencies seem to be fully in the pockets of the oil and gas industry. I fear the decision to open this leaking sieve of a piggy bank for Sempra Energy has already been made. My only hope is that there is power in numbers. If enough of us show that we care and are paying attention, perhaps this will shame these agencies and our government to making the right move.

As a 20 plus year resident of Porter Ranch, I am very upset with the CPUC, DOGGER our Governor and many others. What has been going on up here all these years?!?!?! The Gas Co. removed a safety valve in 1979 and never bothered to replace it??? The blown out well, SS-25 was showing signs of leakage for decades that were ignored. The Gas Co. was allowed to use both the tubing and casing for gas injection. They've been scarcely regulated all these years. Now they want to start injecting gas again before even competing a root case analysis of what went wrong with SS25. The tubing and casing that caused this disaster are still in the ground.

I also have other concerns. There are inadequate safety plans in case of future calamity. We are in a high fire and earthquake area. Each well needs to have a shut off valve.

The Gas Co. is also fighting the Department of Public Health in court, after all they've done to us. They are fighting a health study and refuse to clean up our homes. I moved back in March and they only cleaned my outside windows. Nothing inside, where a signature of metals has been found by the health department. And this is just all ok?

Your rush to reopen this facility is premature at best. It is also likely completely unnecessary to meet the energy needs of Southern California. I read in Sunday's LA Times that we actually have a glut of energy. If that's the case, why put an entire community in harm's way, just to create more reserves that are not needed. This facility seems nothing more than a piggy bank for Sempra Energy. One that my family is forced to pay for with our health and well being. During the blow out, the gas invaded our homes and our bodies. Do you know what it is like to sit in your house and smell the poison coming into your living room? To have it in your bedroom with you, and it's the first thing you smell in the morning? I do. I have not forgotten.

If you reopen this facility, I want you to know that I am here. I am paying attention and will be at every protest to voice my objection.

Sincerely,
Tina Gioulis-Deis
Sent from my iPhone

Sent from my iPhone

From: [Tina Deis](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:09:34 AM

I am writing to voice my opinion regarding the Aliso canyon gas storage facility, which needs to be shut down and fully decommissioned.

I feel a deep sense of futility in writing this. Many of our elected officials and the appointees of the CPUC and other agencies seem to be fully in the pockets of the oil and gas industry. I fear the decision to open this leaking sieve of a piggy bank for Sempra Energy has already been made. My only hope is that there is power in numbers. If enough of us show that we care and are paying attention, perhaps this will shame these agencies and our government to making the right move.

As a 20 plus year resident of Porter Ranch, I am very upset with the CPUC, DOGGER our Governor and many others. What has been going on up here all these years?!?!?! The Gas Co. removed a safety valve in 1979 and never bothered to replace it??? The blown out well, SS-25 was showing signs of leakage for decades that were ignored. The Gas Co. was allowed to use both the tubing and casing for gas injection. They've been scarcely regulated all these years. Now they want to start injecting gas again before even completing a root case analysis of what went wrong with SS25. The tubing and casing that caused this disaster are still in the ground.

I also have other concerns. There are inadequate safety plans in case of future calamity. We are in a high fire and earthquake area. Each well needs to have a shut off valve.

The Gas Co. is also fighting the Department of Public Health in court, after all they've done to us. They are fighting a health study and refuse to clean up our homes. I moved back in March and they only cleaned my outside windows. Nothing inside, where a signature of metals has been found by the health department. And this is just all ok?

Your rush to reopen this facility is premature at best. It is also likely completely unnecessary to meet the energy needs of Southern California. I read in Sunday's LA Times that we actually have a glut of energy. If that's the case, why put an entire community in harm's way, just to create more reserves that are not needed. This facility seems nothing more than a piggy bank for Sempra Energy. One that my family is forced to pay for with our health and well being. During the blow out, the gas invaded our homes and our bodies. Do you know what it is like to sit in your house and smell the poison coming into your living room? To have it in your bedroom with you, and it's the first thing you smell in the morning? I do. I have not forgotten.

If you reopen this facility, I want you to know that I am here. I am paying attention and will be at every protest to voice my objection.

Sincerely,
Tina Gioulis-Deis
Sent from my iPhone

From: [Dave Hasson](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 11:05:53 AM

Sorry I could not attend the Public Hearings last week, but I wanted to voice my support for the reopening of the Aliso Canyon Field. I recently visited the Field and observed the new casings and safety provisions done to the 34 Wells which passed all regulations. I also noticed the monitoring program implemented both at the Well Sites and along the field perimeter.

I feel as resident living only 2 Blocks from the Aliso Canyon Site, that reopening of the field is needed to provide a safe source of natural gas to not only to my home but to the million of other residents in Southern California.

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:56:40 AM

These are some of the main reasons for never reopening Aliso Canyon.

1. The facility is not necessary to maintain energy reliability in Southern California. It has been closed with no gas used for energy since January 2016 a. There is already infrastructure in place to keep gas flowing. Pipeline capacity alone is enough to meet gas demands without the facility (per independent analysis)
2. The energy agencies have adopted 31 mitigation measures to avoid the need for Aliso Canyon and they are working
3. During normal operations, the facility is the third most polluting gas storage field in the country (per the U.S. EPA)
4. Although shut down since January 2016, there have been 4 reported (by SCG) leaks plus elevated gas emission that our own Fenceline gas monitoring system has detected "There are 2 leaks per day, on average" (per SoCalGas sworn testimony Aug 2016)
5. Countless ongoing complaints of health problems reported, identical to those during the peak of the blowout According to the LA County Department of Public Health, 63% of residents reported health symptoms after the blowout was capped
6. We don't know why the BLOWOUT happened in the first place
7. Over half of the SCG wells are over 58 years old. Average age: 52 years! (per SoCalGas)
8. "A negative well integrity trend seems to have developed since 2008" (per SCG public docs). The facility is old and deteriorating.
9. 4 fires at the closed facility, including in October 2016 that burned 28 acres
10. The facility sits atop the Santa Susana Fault Line, potentially active with a capacity for a 6.5-7.3 magnitude. "Movement on the Santa Susana fault zone could cause extensive damage [to their facility] via ground rupture and strong seismic ground shaking" (per SCG)

From: [Candyjo Dahlstrom](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:54:55 AM

As a concerned citizen of the Los Angeles Valley who has family in and often visits the Aliso Canyon/Porter Ranch area.

I urge you to PERMANENTLY SHUT DOWN the Aliso Canyon Gas facility. I've been following the "largest gas leak in history" and I am appalled at the blatant disregard for the safety of the citizens of the Aliso Canyon/ Porter Ranch community.

It has been proven that we cannot trust the flagrant practices of the Gas Company, and we must act now to protect the lives of the people over the pocket books of the companies involved.

SHUT IT DOWN PERMANENTLY.

Respect,
CandyJo Dahlsrtom

From: [Rick Schenkel](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:53:12 AM

Like so many of our neighbors, we would be shocked if Aliso is allowed to reopen. We had a horrific event, and if we don't at least get the benefit of our government learning from that it will be very sad and disappointing. The clear lesson is that Aliso should not be allowed to operate when so many risks exist that can occur and endanger the lives and health of the tremendous number of families that live so close to the facility. And of course the economic hit related to our property values if Aliso is allowed to reopen cannot be underestimated. Please be responsible with your decision making and do not allow Aliso to reopen.

Thank you,

Rick and Isabel Schenkel
Porter Ranch residents

From: [Bhavna](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:49:16 AM

Hello,

I'm writing in regard to my concerns with the Aliso Canyon facility. I live in the Renaissance community and very concerned that the air quality is still not safe. My daughter has continued to complain about headaches and stomach aches, as recently as last week when she was sent home from school (PRCS). Please do not allow So Cal Gas to operate in this area, as it will have dangerous effects on all the residents in and around the area.

Thank you,
Bhavna Battu

Sent from my iPhone

From: [Christian & Mari Coerds](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:46:19 AM

To Whom It May Concern:

Our family of three are extremely appalled at the possibility of Aliso Canyon opening up before a comprehensive health impact study is completed to assure the community that the operation of this facility is safe for the peaceful community of Porter Ranch. We are one of the families that were displaced for 3 months because of the recklessness of SoCalGas and the operations of the Aliso Canyon facility and we want to make sure that the facility is safe to operate and if there were another accident, the emissions are safe for our family.

Since this facility has been shut down for over a year, it is clear that it is not imperative to the supply of natural gas to the greater Los Angeles area. Waiting until the independent study is completed should not be compromised, this company owes us the piece of mind that the facility is safe to run in our community, and if it isn't, it should be shut down. Furthermore, a root cause of the leak in October 2015 should be determined to prevent future such horrific accidents.

There have been a few leaks during the reparations process and each leak coincided with our 20 month old coming down with nose bleeds, there were too many occasions that this is coincidental.

PLEASE KEEP THIS FACILITY SHUT DOWN.

Thanks,
Christian & Mari Coerds
[REDACTED]
Porter Ranch, CA 91326
914 [REDACTED]

From: [cliff rayman](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:40:40 AM

Hello,

I think many of the improvements to the field have value, and should have been in place a long time ago. The simple fact is, each of these natural caverns should have a shut-off valve directly below the pipe, so that it can be shut-off remotely, no matter where along the pipe an issue occurs. In the event of a breach, perhaps by an earthquake, we need the ability to shut-off the gas from escaping.

We all know how dangerous it is to have this much gas, this close to residents. I have already become aware of the fact that my health will never be the same. I wake up with breathing problems every night, and my sleep will never again be peaceful. I never had these issues before October 2015. Please either do the right thing from a safety perspective, or empty the gas and leave this facility closed.

Cliff

____cliff rayman____

████████████████████

818 ██████████

From: [Alissa Rockhold](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:37:48 AM

TOP 10 REASONS FOR THE CONTINUED AND PERMANENT DECOMMISSIONING OF The SoCalGas Aliso Canyon Storage Facility

1. The facility is not necessary to maintain energy reliability in Southern California. It has been closed with no gas used for energy since January 2016 a. There is already infrastructure in place to keep gas flowing. Pipeline capacity alone is enough to meet gas demands without the facility (per independent analysis)
2. The energy agencies have adopted 31 mitigation measures to avoid the need for Aliso Canyon and they are working
3. During normal operations, the facility is the third most polluting gas storage field in the country (per the U.S. EPA)
4. Although shut down since January 2016, there have been 4 reported (by SCG) leaks plus elevated gas emission that our own Fenceline gas monitoring system has detected “There are 2 leaks per day, on average” (per SoCalGas sworn testimony Aug 2016)
5. Countless ongoing complaints of health problems reported, identical to those during the peak of the blowout According to the LA County Department of Public Health, 63% of residents reported health symptoms after the blowout was capped
6. We don’t know why the BLOWOUT happened in the first place
- 7 Over half of the SCG wells are over 58 years old. Average age: 52 years! (per SoCalGas)
- 8 “A negative well integrity trend seems to have developed since 2008” (per SCG public docs). The facility is old and deteriorating.
- 10 4 fires at the closed facility, including in October 2016 that burned 28 acres

BONUS REASON: The facility sits atop the Santa Susana Fault Line, potentially active with a capacity for a 6.5-7.3 magnitude. “Movement on the Santa Susana fault zone could cause extensive damage [to their facility] via ground rupture and strong seismic ground shaking” (per SCG)

Alissa Rockhold

Owner [Consumer Viewpoint](#)

From: [Joy Krauthammer](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:35:36 AM
Importance: High

[REDACTED]
Aliso Canyon Comprehensive Safety Review

To Department of Oil, Gas, and Geothermal Resources/DOGGR staff,

I do NOT want the Aliso Canyon gas facility to be re-opened.
This facility needs to SHUT DOWN for the safety and health of all residents of the northern San Fernando Valley. Friends of mine more south in the Valley also felt the poisons.

I, along with thousands of others, was extremely ill for all the months of the gas leak blowout and still suffer consequences of weakened lungs especially. I still need to see doctors because of the toxins in my body.

There are earthquake faults that run under Oat Mountain and under the facility. You know what that means.

I do not want future recurrence of gas leak. SHUT DOWN the facility.
I have suffered terribly already with toxins in my body from the Aliso Canyon gas leak.

Joy Krauthammer

[REDACTED]
Porter Ranch, CA 91326

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:34:10 AM

Hello,

My family lives in Porter Ranch nearby the Aliso Canyon facility. We wanted to express our concern and distrust for The Gas company and their facility. When we moved in 5 years ago, it was never disclosed that was there. Since that time it seems to have grown and expanded. With the major gas leak, it has affected our health (including our 6 year old child), our ability to live life in a normal state and put a very bad name on our community. There should be no reason for something of this magnitude to be housed so close to our homes especially with the danger it could cause and DID cause. We stand with our community and request it be shut down and relocated. Please take our thoughts and fears seriously.

Thank you,

Cristina Huerta Boykins

[REDACTED]
818-[REDACTED]

From: [Schshelly](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:32:43 AM

Please do not allow ALISO canyon to reopen. It is poisoning a whole community. We suffer from headaches nausea burning eyes fatigue dizziness. The facility leaks without it being used. We do not need this facility. Please put health above profits
Thank you Shelly schwartz

Sent from my iPhone

From: [Ledenilla Hernandez](#)
To: [AlisoComments@DOC](#)
Cc: [Edwin](#)
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:30:00 AM

Me and my family are against the re-opening of the Aliso Canyon facility.

The gas company has not done enough to study its safety. They prioritize profit over people and the environment. They have already done so

much damage to our health and property with the gas leak, and here they are trying to make it business as usual.

Please do not let these scrupulous people get away with this again. Do your duties right as public servants and not as instruments to these

businessmen.

Thank you!

From: [Mark Morris](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:19:29 AM

The Southern California Gas Company Facility in Aliso Canyon needs to be shut down and decommissioned. Residents, their children, and pets continue to get sick. This former Getty Oil Field is not suited for a natural gas storage facility and due to it's proximity to active fault lines will never be safe.

Please step up and advocate for the health of this community.

Mark Morris
Valley Interfaith Council
Social Concerns Co-Chair

Granada Hills South Neighborhood Council
Faith Based Director

818 3 [REDACTED]

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:17:29 AM

To Whom it May Concern:

I live in Chatsworth, California, just below Shepherd of the Hills Church in Porter Ranch, California. I also maintain a law office in Porter Ranch, California. Thus, most of my days are spent in the area. My family and I are vehemently opposed to the reopening of the Aliso Canyon Gas Facility. My family experienced headaches, lightheadedness and occasional nosebleeds. Some have occurred even since the facility has reopened. We did not move during the large leak, but certainly considered it. There is too much unknown about the long term impact of this gas in the atmosphere and the exposure that those close to the facility have had to consider reopening it at this time. I have two children, currently 8 and 10. I want them to live healthy lives without the fear of exposure to these toxins during their childhood.

We urge you to consider alternative supplies to meet the demand, which will most certainly significantly reduce over the next couple of months. This is a health issue that may become a health crisis. That should be a higher priority than the continued operation of this facility so close to a significant residential population.

Thank you for your consideration.

Best regards,

Karen L. Goldman

From: [Frances Gateward](#)
To: AlisoComments@DOC
Subject: Aliso Canyon
Date: Monday, February 6, 2017 10:07:46 AM

Shut Down the Aliso Canyon Gas Storage Facility in Porter Ranch. It is dangerous and it is not needed. We need sustainable energy, not this polluting and faulty storage site. It threatens the health of too many people. Lives are worth more than profits.

Southern California Gas has already demonstrated their ineptitude in handling the facility. My family has been sick. We are concerned about being sick in the future.

Frances Gateward

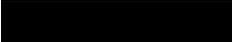
[REDACTED]

Porter Ranch, CA 91326

From: [David Klein](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 10:03:09 AM

I urge you to permanently shut down the Aliso Canyon storage facility. It is not needed because other energy sources are available. More importantly, methane, which invariably leaks into the atmosphere, is a potent greenhouse gas. Los Angeles, and the rest of the world must move as rapidly as possible toward 100% renewable energy.

Sincerely,
David Klein


Northridge, CA 91325

From: [dave S](#)
To: AlisoComments@DOC
Subject: Do not open Aliso Canyon
Date: Monday, February 6, 2017 10:03:06 AM

I am a 35 year resident of Porter Ranch. I support a moratorium on opening the Aliso Canyon Gas Field and I support Senate Bill 146 proposed by Sen Henry Stern. A complete seismic safety study and health safety reviews which are supported by Rep Brad Sherman and Chief of Hazmet, Bill Jones must be completed before any decision is made. It is irresponsible for a company that caused 100,000 metric tons of Methane to pollute our air and that made hundreds of residents sick, be allowed to reap great profits at our expense. I do not trust SoCalGas and Sempra Energy. We need to save our environment and support solar and wind power.

David Shell

[REDACTED]

Porter Ranch, Ca 91326

818-3 [REDACTED]

Sent from [Outlook](#)

From: [Rimma Sigal](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive safety review
Date: Monday, February 6, 2017 9:59:49 AM

Dear Sirs

I am a resident of Porter Ranch and demand the immediate closure of the Aliso Canyon facility. The gas company has been taking advantage of the community for years, keeping its existence under wraps and the residents not being informed of its existence until the blowout in 2016, which forced many families to leave the area and the residents have been affected immensely by the continuing aftermath. Many people are still getting sick despite SCG telling us the facility is safe. Anyone who has some scientific/medical background can attest to the fact there no such thing as "safe" oil/gas production facility. This is evidenced by the significantly elevated fenceline readings and the fact that many residents are still battling various degrees of symptoms, that seems to be unexplainable by anything else. This is happening now, when the facility is idle and not injecting gas! Porter Ranch is bound to become a 'Cluster" of mysterious illnesses 10-20 yrs down the road when the effects of toxic exposure will start taking place. They are polluting our neighborhood, our state and poisoning us and our children. There is plenty of scientific data to show the facility can not exist and continue poisoning people. The families have been through a lot and they had enough. SCG needs to be held responsible for the negligence and take their facility somewhere else away from residential community. Enough is enough, and their conduct has been absolutely inexcusable, putting profits above people's health and well being.

SHUT IT DOWN!!

We asking for your help to help us keep the facility shut down for good for the health and well being of the people of porter ranch and our children

Sincerely
the Sigal family

From: [Mike S.](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 9:46:35 AM

I am in favor of opening the Natural gas storage facility with strict oversight and safety regulations. Until there is a solution to providing natural gas to the Southern California area this facility should remain in use.

Respectfully,

Michael Smith


Porter Ranch, Ca 91326

From: [PAULINA AGUIRRE](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review".
Date: Monday, February 6, 2017 9:24:38 AM

To whom it may concern:

My name is Paulina Aguirre, I live with my husband and mother. You have probably read so many letters maybe you will read mine. It is hard to live in a place when we do not feel safe, when we somehow live in timing bomb, not knowing if there is an earthquake and if something happens, you will be able to tell the story knowing that every other week or month you will get an email from Socal about a small leak, and you can't do nothing about it, having your eyes red, your body lethargic, and some other health situations, because at the end weights more the business deals

Paulina Aguirre
www.paulinaaguirre.com
www.muchofruto.com
818- [REDACTED]

From: [Clara Tvarez](#)
To: AlisoComments@DOC
Subject: "Aliso Canyon Comprehensive Safety Review"
Date: Monday, February 6, 2017 9:02:29 AM

Please review...safety

My concerns:

I want you to figure out how to deal with the gas supply WITHOUT re-opening this facility.
I am anxious about more gas releases if they allow it to re-open, let them know...
I feel that the gas company has taken advantage of the community for too long.

My matter... my voice matter... just make sure it is heard.
Thank you
Clara Tvarez

Sent from my iPhone

From: [Charlie Jacquo-Stevenson](#)
To: AlisoComments@DOC
Cc: [Corey Stevenson](#)
Subject: Aliso Canyon Comprehensive Safety Revive
Date: Monday, February 6, 2017 8:38:33 AM

DOGGR:

What Aliso Canyon means to us. It's behind our home. A home with many sleepless nights that won't allow us to rest. A home we love but can't enjoy any outside activities in our own backyard, have a cup of coffee in the morning or a glass a wine in the evening to unwind. We can't swim in our pool or even watch our dogs play for any extended period of time due to feelings of a horrible hangover for days after. A home we feel trapped in, lethargic daily, irritable, always on edge and afraid for the next time our noses start to bleed, we're nauseous, vomiting uncontrollably from being poisoned, heads are relentlessly pounding from intense headaches with a face and body rash literally burning our skin. A home we're severely coughing in due to heavy congestion and excessive mucus running down our throats almost choking us at times. Going to sleep coughing and waking up coughing.

A medicine cabinet overloaded with prescriptions that provide little to no relief. A home I as a husband will never forget gave my 35 year old wife a person who would never get so much as a cold acute asthma forcing her to use a nebulizer twice a day with the most severe chronic gas exposure produced bronchitis I've ever seen.

What does Aliso Canyon mean to us? It mean sickness! It means postponing our family plans, not having our first and only child and grandchild for both our families due to being so sick and for years unsure why, when and if it will end. It means being abandoned and neglected for profit! It means uncertainty for our future!

After all the doctors and emergency room visits, medical cost, after relocating and self relocating twice with no reimbursement, after suffering through being poisoned day in and day out, being turned down for in home cleaning because we returned home thinking returning home would allow us to be available and covered for in home professional cleaning, after canceling holidays and family gatherings realizing we couldn't enjoy them and put our love ones at risk...to consider allowing this facility to reopen is insanity.

We've been told over and over by Socal Gas that we're fine, there is no harm to our community and there are no long term **effects** of being poisoned! We've never even received an apology. It's been a complete disregard for our lives and existence. Now yet again we're not being considered when it comes to allowing this facility to re-open. **WE'RE STILL SICK!!!** And it's closed!!!! What is everyone missing here? What do they not get? Those wells have been leaking for years!!! They are leaking now and no one cares!! It is unconscionable that in 2017 in Los Angeles, California a city and state that are suppose to be leaders for green clean living would allow an entire community to be taken advantage of for profit, blatant corruption and cronyism.

If SoCal Gas and California cared about the citizens of Porter Ranch they would have never allowed Socal Gas to use a facility built and solely intended for oil!!! That's the problem!! Those wells are old and decayed and consistently seeping gas into our air impairing our breathing. It's in the soil, it's in the wind, the dust...it's everywhere!! If our opinions matter, if we have a voice that you will now listen to, if we truly have a choice we say **NEVER** should

Aliso Canyon be allowed to reopen! NEVER!! Figure out a way to live without it. There's been enough damage done. There has been enough money made to our detriment. This entire experience has been a complete nightmare!! How can our local and state governments allow this to happen? Allowing this facility to continue poisoning us is beyond negligence at this point it's intentional with a complete disregard for human life! Shut it down! Shut it down forever!!!

Charlie & Corey Stevenson

Sent from my iPhone

From: [Charlie Jacquo-Stevenson](#)
To: AlisoComments@DOC
Cc: [Corey Stevenson](#)
Subject: Aliso Canyon Comprehensive Safety Revive
Date: Monday, February 6, 2017 7:40:42 AM

DOGGR:

What Aliso Canyon means to us. It's behind our home. A home with many sleepless nights that won't allow us to rest. A home we love but can't enjoy any outside activities in our own backyard, have a cup of coffee in the morning or a glass a wine in the evening to unwind. We can't swim in our pool or even watch our dogs play for any extended period of time due to feelings of a horrible hangover for days after. A home we feel trapped in, lethargic daily, irritable, always on edge and afraid for the next time our noses start to bleed, we're nauseous, vomiting uncontrollably from being poisoned, heads are relentlessly pounding from intense headaches with a face and body rash literally burning our skin. A home we're severely coughing in due to heavy congestion and excessive mucus running down our throats almost choking us at times. Going to sleep coughing and waking up coughing.

A medicine cabinet overloaded with prescriptions that provide little to no relief. A home I as a husband will never forget gave my 35 year old wife a person who would never get so much as a cold acute asthma forcing her to use a nebulizer twice a day with the most severe chronic gas exposure produced bronchitis I've ever seen.

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Charlie & Corey Stevenson

Sent from my iPhone

From: [Wileen K](#)
To: AlisoComments@DOC
Cc: [Greg Kromhout](#)
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 8:34:00 AM

To Whom It May Concern:

My husband and I feel strongly that the Aliso Canyon facility must ultimately be shut down. It poses a great health risk to thousands of community members that live in the area, and those effected were not limited to Porter Ranch. During the leak, our children experienced health issues for many months ranging from stomach aches and head aches to nose bleeds and vomiting. In addition, no one can tell us what the long term effects of this leak has caused in terms of the health and well being of so many.

With lots of questions still unanswered and so many outstanding lawsuits unresolved, we feel it is imperative that 1) the root cause of the leak actually be determined and shared publicly and 2) alternative location(s) for a facility be found that **will not** pose health and safety risks to anyone.

Wileen and Greg Kromhout
Porter Ranch residents (91326)

From: [Laurie Bernal](#)
To: AlisoComments@DOC
Subject: Reopening Aliso Canyon
Date: Monday, February 6, 2017 8:06:43 AM

To whom it may concern, I Laurie Bernal and I'm behalf of Edward Bernal and Hayley Bernal we all against re-opening Aliso Canyon. Do to the gas leak and all the recent gas leaks I feel that it is seriously affecting our health and putting our family in danger of an explosion and it's absurd after them only checking 14 wells out over 100 and wanting to reopen the. Facility.i feel like Mr. Brown was paid off by the gas company 2 million since his sister is apart of the Gas Company Committee!! I'm am so tried of crooked politicians and we need to put a stop to this madness. Sincerely Laurie Bernal

Sent from my iPhone

From: [David Lasher](#)
To: AlisoComments@DOC
Subject: Open Aliso Canyon
Date: Monday, February 6, 2017 8:05:54 AM

I support reopening the Aliso Canyon field--as long as safety valves and other infrastructure are in place to prevent futures leaks.

David Lasher

Porter Ranch, CA 91326

Typos courtesy of iPhone

From: [Kelli Rice](#)
To: AlisoComments@DOC
Subject: Comments in support of NEVER reopening Aliso Canyon
Date: Monday, February 6, 2017 7:46:42 AM

Having lived through several months of this terrible gas leak ordeal being claustrophobic with a family of four having to live in a hotel room across the opposite end of the valley from everything that was our lives was horrible. Husband, wife and two young kids (kinder and 5th grade) in ONE room with only 2 full beds and ONE bathroom for that long was horrible. I was and still am fearful for our health, especially that of my children's 20 years down the road - God only knows what we breathed in and how that might change our internal body compositions for the worst. Not only that, my little boy, the kindergartner, was born at 27 weeks gestation due to an emergency and already survived the NICU for 10 weeks. I really don't need his strength tested again and his health at risk yet again, what with the breathing issues of premature lungs, traveling with our own neblizer and expensive medications to ensure he can breathe properly, and my daughter with the nose bleeds, and my self and my husband with debilitating headaches. THIS CAN NOT AND WILL NOT HAPPEN AGAIN to my family or any other family in this beautiful community that we work so hard and sacrifice to live in to give our children a beautiful and what we all thought was a safe and healthy place to live! You've already managed to chase my daughter's very best friend away with a move all the way to North Carolina, and now she is devastated! My grandmother who also lived in Porter Ranch with my mom and dad was approaching her 94th birthday in excellent health suddenly took extremely ill just after the gas leak started and died just 3 months short of getting to celebrate her 94th birthday. I really do NOT think that to be just a coincidence. This incident not only ruined lives, it TOOK lives! My children's beautiful new Porter Ranch Community School was shut down and our kids shuffled to a horrible location for the remainder of the school year. This COMPLETELY disrupted our children's lives and educations (not only that, let's think of our friends who went through the same ordeal at Castle Bay). For you to even remotely THINK about for even a second of reopening this horribly old, aged, dangerous and outdated infrastructured facility is criminal to me! It can't and it won't happen. It doesn't matter to me or anybody else the tests you are running which you think make things different and safe - it doesn't! You know there's a work around, but you just don't want to do it out of maybe sheer laziness, it would cost too much money, whatever the reason. You need to think about what if this was you and your family or friends going through this. Everytime I get a headache now, I'm totally paranoid! People can not and will not live this way. Let this be a strong message to you that will be sent to congress and local politicians that this facility will NOT reopen EVER!

Signed
Extremely Concerned Porter Ranch Resident

From: [Bridget Brownell](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 7:31:22 AM

There are honestly too many issues to list/write about in detail! When, for example, they installed the new filtration and weather sealing, it took multiple days to complete what should have taken a few hours (first they didn't have the correct filter and then they were a no show on the filter installation-all of which required multiple phone calls and Aaron going to the house, etc).

The issue that has caused the most stress and taken the most time is moving hotels/rooms. When there was no availability at our last hotel, we were told we would be moved to the Ramada Inn in Chatsworth by our Temporary Housing Provider (THP). I looked this hotel up on Yelp and saw it only had 3 stars. More concerning, I saw that within the past 3 months people had posted photos of roaches and bed bugs as well as bed bug bites. When I shared my concerns with my THP, Henrietta Anikweze, she said, "If you are going to be so choosy, you will need to find your own hotel." I was exasperated because if a fulltime person being paid to relocate us could not find anywhere for us to stay, how was I expected to find us acceptable accommodations? On my own, I was able to secure a room at the Topanga Canyon Inn in Topanga Canyon. I was planning on staying there a few days until alternative accommodations could be arranged by my THP.

From: [Shiumei Lin](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Overview
Date: Monday, February 6, 2017 6:01:14 AM

To The Department of Oil, Gas, and Geothermal Resources:

I strongly oppose the re-opening of the Aliso Canyon gas storage facility. The mercaptans were a significant danger to me and my family's health, causing headaches and dizziness. The catastrophic methane release was also a horrific contribution to the greenhouse effect and global warming, with an average of 40,000 kg of methane released per day. There is ample evidence showing the significant danger posed by a facility so close to thousands of residents and to the global health of our planet. SoCal Gas's abysmal record in safety measures for the gas storage facility is especially alarming. How did it take MONTHS for an experienced gas company to find and cap the leak? Why wasn't the safety valve replaced in the 1979 AFTER IT WAS REMOVED (<http://www.latimes.com/local/california/la-me-0104-gas-leak-20160104-story.html>)??

I read, in the LA Times, that such leaks were historically common and dangerous, with a six day blaze in 1968 requiring Texas oil well firefighters to snuff out. Seven years later, the Texans had to return to put out 100 ft-high flames (<http://www.latimes.com/local/california/la-me-porter-ranch-delay-20160102-story.html>). I have two questions: (1) Why did this require firefighters FROM TEXAS and (2) Why did SoCal Gas continue to think this was a great idea?

At the time, no one noticed these fires because plans for Porter Ranch had just been laid. But now there are residents within a mile of the facility. This is a serious hazard for a community that has the added danger of earthquake susceptibility; the 1994 Northridge Earthquake was the most expensive natural disaster in the US up until Hurricane Katrina. Putting a gas well in a region with high risk of brush fires and earthquakes is like adding dry kindling and sparks to a dynamite factory.

SoCal Gas's parent company, Sempra Energy, also has an absolutely abysmal safety record in other communities, where the poverty of those residents has allowed them to get away with a lot more. FOR EIGHT YEARS, in Eight Mile Alabama, a mostly black community with a median income that is a third of Porter Ranch's has continued to deal with the stench of rotten eggs from a mercaptan spill -- and their children have grown up with serious respiratory ailments (<http://www.latimes.com/projects/la-fi-eight-mile-leak/>). Why is allowed to persist?

If you allow the Aliso Canyon Gas Storage facility to re-open, you are making a bold statement that the human rights of American communities matter less than the ability of an energy company to store gas in poorly monitored old oil wells.

Thank you for registering my concern.

Sincerely,

Shiumei Lin
Porter Ranch resident

--

Sent from my iPhone

From: [Marena Lin](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Overview
Date: Monday, February 6, 2017 5:33:23 AM

To The Department of Oil, Gas, and Geothermal Resources:

I strongly oppose the re-opening of the Aliso Canyon gas storage facility. The mercaptans were a significant danger to me and my family's health, causing headaches and dizziness. The catastrophic methane release was also a horrific contribution to the greenhouse effect and global warming, with an average of 40,000 kg of methane released per day. There is ample evidence showing the significant danger posed by a facility so close to thousands of residents and to the global health of our planet. SoCal Gas's abysmal record in safety measures for the gas storage facility is especially alarming. How did it take MONTHS for an experienced gas company to find and cap the leak? Why wasn't the safety valve replaced in the 1979 AFTER IT WAS REMOVED (<http://www.latimes.com/local/california/la-me-0104-gas-leak-20160104-story.html>)??

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At the time, no one noticed these fires because plans for Porter Ranch had just been laid. But now there are residents within a mile of the facility. This is a serious hazard for a community that has the added danger of earthquake susceptibility; the 1994 Northridge Earthquake was the most expensive natural disaster in the US up until Hurricane Katrina. Putting a gas well in a region with high risk of brush fires and earthquakes is like adding dry kindling and sparks to a dynamite factory.

SoCal Gas's parent company, Sempra Energy, also has an absolutely abysmal safety record in other communities, where the poverty of those residents has allowed them to get away with a lot more. FOR EIGHT YEARS, in Eight Mile Alabama, a mostly black community with a median income that is a third of Porter Ranch's has continued to deal with the stench of rotten eggs from a mercaptan spill -- and their children have grown up with serious respiratory ailments (<http://www.latimes.com/projects/la-fi-eight-mile-leak/>). Why is allowed to persist?

If you allow the Aliso Canyon Gas Storage facility to re-open, you are making a bold statement that the human rights of American communities matter less than the ability of an energy company to store gas in poorly monitored old oil wells.

Thank you for registering my concern.

Sincerely,

Marena Lin
Porter Ranch resident

From: [S Agarwal](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Shut it down
Date: Monday, February 6, 2017 4:56:10 AM

The gas company should understand that the Porter Ranch residents have had enough of their nonsense and it's time for them to shut down the Aliso Canyon facility. They have caused irreparable damage to our community. If they really need to drill in the populated areas then they should strongly consider the locations where their executives and board of directors live because why spare them from getting a taste of what it's like having to relocate and having your lives turned upside down. I am certain that their perspectives will change once they have had that experience.

Thank you,

Shri Agarwal

A long-time Porter Ranch resident who loves his community and is very upset with what the gas company did to Porter Ranch

From: [D.C](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, February 6, 2017 4:27:29 AM

Please do not permit use of Aliso Canyon Storage Facility. Please stop the development of new homes and neighborhoods in the area. Stop placing people and animals in harms way.

Aliso is done. Too old. Too decrepit. Too dangerous. It is a major fire hazard. The chemicals that emit from Aliso Canyon kill. I know, I have seen it first hand.

There are now abandoned wells peppered throughout Oat Mountain and on down to the 118 freeway corridor, in neighborhoods where families call home. These wells still draw out Aliso's gas and invade houses nearby. Aliso acts as a constant source of poison repeatedly filling the neighborhood with deadly fumes.

Having a pressurized field directly up slope from an urban area of Los Angeles is a recipe for disaster with a more likely than not scenario about to unfold during the next earthquake, a scenario with catastrophic consequences.

My family evacuated and now remain with symptoms that never went away. There is a lot more to the story that is being withheld from us by the Gas Company. We have lived here in Chatsworth for a long time, nearly five decades. These five decades have witnessed repeat releases and noxious fires that lasted for years before being extinguished at the Aliso Storage Facility. It is a game changer now, however, as the Aliso facility has been severely damaged by the Northridge Earthquake and repeat over-pressurizations of the storage reservoir. Do not allow the field to be re-pressurized, it will kill the children and the elderly of the neighborhood.

The community has a right to know what poisoned them. The secrets and lies and lack of transparency means one thing; the state regulator is acting as an instrument to bully the public into oppression to live in constant fear of death by Aliso Canyon Storage Facility.

Do not do anything other than permanently shutter this Aliso Canyon facility down forever. Thank you.

Carey Family, Chatsworth, CA

From: [Halleh Attai](#)
To: [REDACTED] AlisoComments@DOC
Subject: Please shut down Aliso Canyon for good!
Date: Sunday, February 5, 2017 11:34:13 PM

Hello. I'm Halleh and I'm a resident Granada Hills, which is a neighborhood that is adversely affected by the presence of the Aliso Canyon facility.

I'm writing this because quite frankly, I'm scared. Maintaining a healthy lifestyle has always been a priority in my life. As an otherwise healthy person, I've never been as sick as I have been within the past year and half thanks to SoCalGas and its negligent operation of the Aliso Canyon facility.

I was rushed to the ER twice since the blowout, have experienced nosebleeds, headaches, stomach issues, nausea, vomiting, respiratory issues, lightheadedness, memory loss, anxiety, burning skin, I have a permanent eye condition now, I run my fingers through my hair and handfuls come out. Even today I experienced this. I'm scared.

A person typically looks forward to going home to unwind after a long, stressful day. For me, I dread going home because I'm afraid of breathing the air in my neighborhood and getting sick. I'm also worried about how this is impacting my parents who I live with. I've seen their health suffer too since the blowout.

I've consulted with various physicians and they've all hinted that it would be best for me to move out of my neighborhood, acknowledging how dangerous our exposure to methane, benzyne and the other chemicals and gases are to our bodies.

We need to shut the facility down for good so that these leaks stop occurring!

Also, a comprehensive health study is imperative to discover

what chemicals and gases we residents were exposed to. It's crucial for us to understand how the largest methane release in the nation, an unprecedented event, has affected our health and how it may affect our health in the future.

I think the scariest part is not knowing what the long term effects of our exposure is. This is possibly a life or death situation for us because who knows how this will affect us in the future since a methane blowout to this magnitude has never happened and therefore, never been studied.

There's an average of 2 leaks per day, (even up to the present day!)

That's insane! Residents like myself are still getting sick.

We need to have this facility shut down for good. Also, the facility needs to be drained because its storing substances that are harmful to nearby residents' health. Lastly, the community deserves a comprehensive health study that extends over time to see how we were affected by this unprecedented blowout. I thank you for your time and consideration.

Sincerely,
Halleh Attai

From: [Nhspiegel](#)
To: AlisoComments@DOC
Subject: Aliso Canyon
Date: Sunday, February 5, 2017 10:27:53 PM

Dear DOGGR Decision Makers,

Thank you for being open to hearing public input on the reopening of the Aliso Canyon Gas Facility.

As a resident of Porter Ranch, it will be no surprise that I am strongly opposed to allowing SoCal Gas to inject gas into the wells in Aliso Canyon. Like so many others in the neighborhood, my family experienced, and continues to experience, health issues, financial issues, and general duress as a result of SoCal Gas Company's operations. They have never been transparent, honest, or ethical in their operations.

However, the bigger surprise is that you, DOGGR, would seriously consider the resumption of SoCal Gas Company's activities at Aliso Canyon given:

- 1) the enormity of the Oct 2015 leak and its environmental impact,
- 2) the lack of understanding of the root causes of this leak,
- 3) the absence of understanding of the extent of health (physical and psychological) effects of this event.
- 4) the unwillingness of SoCal Gas to install safety valves,
- 5) the unwillingness of SoCal Gas to cooperate with numerous requests of the Health Department,
- 6) the continued leaks in the facility,
- 7) the ongoing fire and/or earthquake dangers on this site.

It is easy to see that another major disaster at Aliso Canyon is inevitable.

Knowing all of this, and allowing SoCal Gas to resume full operations at Aliso Canyon, would be reckless and clearly negligent.

Please take your responsibility to us and the environment seriously and do not allow the SoCal Gas Company to make money at the expense of people.

Thank you for your attention,
Nancy H. Spiegel
Porter Ranch

Sent from my iPhone - please excuse typos and appearance of terseness.

Sent from my iPhone - please excuse typos and appearance of terseness.

From: [REDACTED]
To: [Harris, Ken@DOC](mailto:Harris_Ken@DOC)
Cc: AlisoComments@DOC
Subject: Comments on Aliso Canyon
Date: Sunday, February 5, 2017 9:29:27 PM
Attachments: [left.letterhead](#)



Dear Mr. Harris,

It was a please to meet you at the Aliso Canyon public hearing in Woodland Hills. I do have some very serious concerns and as you will notice from my questions, I have some knowledge about the underground storage operations. I want to make sure you are not caught in some surprise after the report is issued. Here are my concerns

- 1. I understand Aliso Canyon wells produce sand because of high gas flow rate. I further understand that the gas company reduces the flow from these wells to reduce erosion due to sand. Do you know how the minimum erosion rate is determined? How long the casing/ tubing/ surface piping can last under the minimum erosion rate accepted by the Gas Company? Is their entire system beyond the age they consider safe?**
- 2. There were 33 abandoned wells at Aliso Canyon Field. Most of these wells probably do not meet current standards of abandonment? I am not sure if any kind monitoring in done on surface location of these wells. I am not sure if surface locations are even marked. Please look into it. They may blow out anytime because of pressurization & depressurization of storage field every year.**
- 3. I wonder what the surface casing annulus pressures were prior to blowout on wells surrounding SS25 prior to blow out? I won't be surprised if the surface casing pressures exhibited pressure above the pressure the surface casing bottom soil could contain and the gas was constantly blowing from the surface casing bottom**
- 4. The gas company removed sub-surface safety valves in the gas wells to save money. It is like removing brakes from your car because it costs money to replace them. Should they have gone to manufactures to get sub-surface safety valves.**
- 5. It is well known that year after year of injection & withdrawal from gas storage wells causes cement bond to break & thus cause leaks? Should DOGGR have more stringent requirements for gas storage wells?**
- 6. I don't think anyone can assure us that there won't be a blow out in next 12 months or for that matter tomorrow?**
- 7. I imagine gas company must inject more gas every year to reach the same pressure underground, thus knowing that the**

- gas is leaking? Has there been measurement of gas produced by other producers in the area and a determination made that they are not producing any extra gas? What is happening west of IW70 area.
8. Please tell public that the underground gas pressure is about 100 times more than their car's tire pressure?
 9. SS25, the well that blew out was 63-year-old. Do you really expect for these wells to last forever? Do you have the legal power to replace gas storage wells after certain age? Shouldn't you have that power?
 10. The gas company probably sees shallow leaks in the storage field all the time? Do they even report these leaks? Can you require them to produce all that data to you. You may be surprised what a whistle blower might show you one day.
 11. My well-informed opinion is that you don't even have the damaging data that gas company has. I am sure you are interested in looking at that data? You may want to get legal powers to require Gas Company to produce all the data.

Jeevan Anand, PE, MBA

From: [Hal DeJong](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Sunday, February 5, 2017 9:15:57 PM

I am a resident of Granada Hills. Like any other sane human being, I am concerned about air and water pollution. However, I do not share the hysteria over Aliso Canyon expressed by so many who live in this area around it. I value the bargain that natural gas represents as a fuel for our homes and factories. The transmission of natural gas to and from and the storage of natural gas at the Alyson Canyon facility makes perfect and economical sense to me. The myriads of people who claimed health problems from the leaking gas were either lying to get money from the Gas Co, or were lied to about what was leaking to cover up something else in the air with a foul smell. While I do not like the smell of the oxidizer used to scent natural gas, I do recognize its necessity to enable detection of it where it should not be. So here is my suggestion: Require The Gas Co to spend the necessary money to make the pipes and valves into and out of the underground fields safe and effective. We need the gas stored there. But the old pipes used to drill for and remove oil seem to be in need of replacing to prevent future leaks.

Hal DeJong
(818) [REDACTED]
Sent from my iPhone

From: [Richard Allen](#)
To: AlisoComments@DOC
Subject: "Aliso Canyon Comprehensive Safety Review"
Date: Sunday, February 5, 2017 8:36:34 PM

Those that want it shut for all the obvious reasons, they say, need to answer where do you relocate this field that services 20MM +/- customers?

Further if successful relocating it, then at what cost to all customers?

Regulators need to regulate, and hysteria needs to be addressed and if proven just that then stand down.

Marge and Dick Allen residents behind ET Park since 1966!

From: [William Bauer](#)
To: AlisoComments@DOC
Subject: Comment on Aliso Canyon
Date: Sunday, February 5, 2017 7:56:54 PM

Dear DOGGR Member,

Given its history of duplicity and danger, I am deeply saddened and distressed at the attempts to resume operations at Aliso Canyon. My life, and my family members lives have been damaged and derailed by the reckless and dangerous actions of SoCal Gas at this location.

It is beyond understanding to me that with numerous leaks before and after the catastrophe of the October 2015 leak, there is no completed root cause analysis, no systematic study of the effects of the leak on our health, no assessment of the extent of the death and damage an earthquake could cause at this location, and incredibly even no basic provision of safety valves installed on existing equipment. Without taking even the most basic and foreseeable steps to lessen the chances of damage and death caused by the operation of this facility I believe it is negligent and reckless beyond reason to resume operation. Please don't.

Sincerely,

Dr. William D. Bauer


Porter Ranch, CA 92326

Sent from my iPhone

From: [Lea Dixon](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review".
Date: Sunday, February 5, 2017 7:40:37 PM

To whom it may concern,

I am in favor of shutting down ALL the wells in Aliso Canyon. I have lived here for over 20 years loving this area but now every day my mind is preoccupied with the potential physical ailments that we ALL could endure in the years to come. There are many of us already afflicted with serious illnesses as it is, and this new gas exposure only exasperates our symptoms. God knows whats to come. How can we as parents not have anxiety fir our children.

I beg of you, to please have empathy for all us who are suffering: men, women, children, animals, disabled, and those poor woman who are currently carrying a child. This is NO place for Aliso Canyon to be in such close proximity to a thriving, beautiful community.

Thank you in advance for doing the right thing for Porter Ranch.

Lea Dixon

From: [Jeena Cassidy](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Sunday, February 5, 2017 6:29:01 PM

To Whom It May Concern,

My name is Jeena Cassidy and I'm a resident of Porter Ranch. I'm writing this email to express my concerns with the re-opening of the Aliso Canyon gas facility. I'm expecting a baby girl this year and do not want to live in an environment dangerous to our health. We currently have not received a root cause analysis of the blow out which took place last year. We should not re-open this facility until we can analyze the root cause and put measures in place to prevent future gas leaks. The thought of my infant experiencing the harmful emissions from another blow out, devastated me. Re-opening this facility without proper regulatory controls preventing such blow outs from occurring is dangerous and frightening. I strongly encourage your agency to take a stance against the re-opening of Aliso Canyon. So Cal Gas should be held responsible for managing the gas supply shortage without re-opening this facility. There must be other options of dealing with the gas supply shortage that do not jeopardize the health and safety of our community.

Sincerely,
Jeena Cassidy

From: [J.B.](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Sunday, February 5, 2017 6:16:27 PM

To Whom It May Concern,

I am a resident of the Porter Ranch Area and, as such, I would like to register my objection to the reopening of the Aliso Canyon Gas Facility. The Southern California Gas Company has demonstrated a consistent disregard for the safety and well-being of the people unfortunate enough to live nearby to its facilities. Given that SoCalGas has not yet identified the actual cause of the initial gas leak which brought about so much destruction to the health of the inhabitants of Porter Ranch and to the natural environment of our state it would be irresponsible in the highest degree to allow them to continue their operations. At this junction, it is clear that the safety standards practiced by SoCalGas are vastly inadequate. Much improved safety standards would clearly be required to even consider reopening these facilities. As a resident of this area whose family and neighbors have experienced adverse health effects as a result of the gas leak, I urge you to demonstrate some modicum of compassion and common sense by preventing the reopening of the Aliso Canyon Gas Facility.

Thank you,
Justin Bauer

From: [Jennifer Marotta](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Health Effects
Date: Sunday, February 5, 2017 6:13:12 PM

My husband and I live at 19011 Kilfinan Street. The mountain is our backyard. We have a front row seat to all the So Cal Gas Company activity and effects.

Over the last six months my husband was no longer able to breathe out of his nose. He had such a horrible build up of polyps, it cut off his airways, completely. He had a very painful (and expensive) surgery, last month, to remove these polyps. The Doctor confirmed this was environmentally related and has a good chance of recurring.

We have a Labrador who has been having a multitude of symptoms, throughout the year; excessive loss of fur, hot spots, eye problems, irritated ears, horrible coughing, vomiting...

He recently had to go through surgery to remove his spleen, which had grown to 4x the normal size and ruptured in four places. He also was diagnosed with small cell lymphoma.

Going through fertility testing, back in August, it was found that I have a tumor on my ovary. At this point it is benign, however, it will have to be surgically removed. Our fertility options are over.

A lot of health issues in one household, living at the edge of the mountain.

Jennifer Marotta

From: [Betty Collins](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive safety review
Date: Sunday, February 5, 2017 5:27:12 PM

To whom it may concern.

It is my request that Aliso Canyon NOT BE RE-OPENED. I'm under doctor's care due to beathing problems, shortness of breath. Am on an inhaler and have to have a 3rd breathing test at Northridge Hospital in March. I'm under the care of Dr. Brooks Michaels in Simi Valley, my primary care physician and Dr. Gurdip Flora, Pulmanologist in Northridge. I have recently been widowed and am having a hard time, I have to leave my home permanently after living here since 1989 as soon as I am able to replace my home in another area. I was relocated for 2 months and should have stayed out longer but it was a hardship for me. Your goal should be to make this a safe place for all the homeowners.

Thanks you for your time,

Betty Collins

[REDACTED]
Northridge, Ca. 91326

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Betty Collins
Realtor®
Pinnacle Estate Properties, Inc.
[REDACTED]
Northridge, CA 91324
(818) [REDACTED]
CalBRE# 00551186

From: [Jane Tanger](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Sunday, February 5, 2017 4:42:43 PM

My husband, Dwight Herr, and I are residents of Porter Ranch and attended the safety review on February 1. We were unable to express comments prior to or at the meeting, so I am sending an email.

We feel the residents' safety has not been fully considered in the decision making process for reopening Aliso Canyon for gas injection. After reading the literature passed out the meeting, we learned that the Southern California Gas Company is performing the tests on the 114 active wells. We do not trust the Gas Company to be truthful in reporting the results of the tests. After the recent blowout we learned that the Gas Company did not replace the safety valve that had failed in the well years before the blowout, even though they reported that they would do so. Also, we were not informed of the blowout until four days after it occurred. After this reckless behavior, the Gas Company has the nerve to proclaim that "safety is our highest priority". This is perhaps the biggest lie of all. In my opinion, this betrayal of trust is reason enough not to allow the wells to be put back into operation; however there are many other reasons. We also understand that the wells have had leaks for some time and are still leaking. The Gas Company complains that we will have gas shortages if the wells are not made operational, but we have learned that this field is used to store gas that will be sold to other states and to Canada or Mexico. Thus, their first priority is **profits**, not out safety!

When we bought our house in Porter Ranch in 1987, we were not informed of the wells existence. Nor, so far as we know, was anyone else in the area informed. The wells were not designed for gas storage and do not belong in our neighborhood.

My husband I have numerous symptoms which we attribute to the gas leak. My husband has had asthma attacks. I have had nosebleeds, severe headaches, intestinal upsets, loss of hair, rashes, and loose fingernails. During the leak, we relocated to the desert. After two days our symptoms disappeared. They resumed when we returned to Porter Ranch. Thus, we are sure our symptoms are due to the leak.

We urge you to place the health of Porter Ranch residents before the gas company profits and not allow the facility to reopen. I cannot continue to live with the worry and anxiety I have been experiencing.

From: [Shelden, Carol](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Gas Storage Facility
Date: Sunday, February 5, 2017 4:30:17 PM

To the California Department of Conservation, Division of Oil, Gas and Geothermal Resources:

I am expressing my opinion and requesting that the Aliso Canyon continue to suspend any natural gas being injected into the storage facility permanently or until such time that the cause of the major leak can be determined and complete safety of the entire field be assured through at least three independent sources.

The lives of so many residents, of all ages, have been grievously affected by the leak. So many major health problems have occurred and we are all at risk for the potential unknown long term affects. My personal story is one of continuing lung problems that have been verified through CT scans. Pneumonia, inflammation, infection, and pleurisy intermittently have occurred and for the last few months I have been experiencing continuing pain in my lungs that is not yet fully diagnosed.

Additionally, so many of our residents are living in fear of future gas leaks and feel that our Porter Ranch area is no longer the clean and healthy place we loved.

Please, give us your attention and consider what fear we live with daily.

Carol Shelden

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon comprehensive safety review
Date: Sunday, February 5, 2017 4:07:02 PM

Me and my family have been and still are effected by this leak. I've just had a stay in the hospital and there still looking for the reason why. Please

SHUT THIS THING DOWN!!!

Thank you

Bernard Fowler

Sent from my iPhone

From: [Jackie](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review".
Date: Sunday, February 5, 2017 3:53:42 PM

Please please rethink reopening of Aliso canyon. Our family has been sick for way before the major leak. I really always felt there has been something wrong. But realized when the actual leak was finally noticed things even got worst. Please please find a different way. Don't reopen Aliso. We are scared for ours and our child's future

Jackie rumteen
Residents of porter ranch.

Sent from my iPhone

From: [Jane](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Sunday, February 5, 2017 3:48:58 PM

Hello-

I and my family , including my pets have been greatly impacted by this leak and continue to have physical effects of it. Therefore, it is still leaking.

My beloved Missy is dead, so I cannot take a walk two times a day , I will not bring a new dog into my life and watch her deteriorate as I did my Missy. My cats are losing their fur and are confused when we are home and don't use their kitty boxes. Which they had no trouble using while we were relocated for 7 months!!!

Briefly, my daughter had rapid heart palpitations, headaches, asthma, nausea, anxiety and depression and she was only 17, 18 she did leave home and hasn't had these health issues since!!!!

I am suffering from all the same symptoms and mine include hair loss!!! extreme stomach issues,sore throat, achy body, lethargic, anxiety and depression , itchy skin and rashes, etc etc.

My husband had the headaches and nausea but then he got anemia recently .

Extreme anemia. To the point the doctors said it was a miracle he was walking!!!

If my or any of our symptoms were gone I would be happy to be back in my home. If you think any of us enjoy ANY of this, you are wrong. We just want to be able to live and feel alright.

There is so much more to all that we have gone through

BOTTOM LINE, IF WE STILL FEEL SICK, NO MATTER HOW MANY "TESTS" YOU RUN THEY ARE INCORRECT. IT IS LEAKING SOMEWHERE. THE FACT THAT YOU DO NOT KNOW WHERE, IS EXTREMELY TROUBLING.

Please fix this because we are thinking of leaving the home we were expected to have grandchildren in and grow old.

Thank you for your time,

Jane Fowler

From: [Afsaneh Anvarhosseini](#)
To: AlisoComments@DOC
Subject: Alisa Canyon comprehensive safety review
Date: Sunday, February 5, 2017 3:45:39 PM

We are strongly against the reopening of Aliso Canyon gas facility. We believe they are poisoning us with repeating gas leaks from these wells.

Sent from my iPhone

From: [Al Martinez](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Sunday, February 5, 2017 3:38:45 PM

To Whom it May Concern;

Please do not re-open Aliso Canyon at this time. There are too many unanswered questions at this time to do so.

My husband and grandson became very ill during the leak. They both relocated during the leak. However, there was a significant period they suffered until relocation was available.

I suffered a reduction in income from my real estate and lending business. I'm certain many other people suffered hardships too.

The Gas Company obviously can't compensate us for health, please protect us from another potential incident.

Sincerely,

Mayko and Al Martinez

From: [Don Lombardo \(TMS\)](#)
To: [AlisoComments@DOC](#)
Cc: [William Cornner](#); [Pamela Lombardo](#) ([REDACTED])
Subject: "Aliso Canyon Comprehensive Safety Review"
Date: Sunday, February 5, 2017 3:28:22 PM

●● PROTECTED 關係者外秘

To: DOGGR:

You **MUST** not allow Aliso Canyon to reopen!! We must have DOGGR inspect ALL 118 gas wells and certify they are completely **SAFE** before SoCal Gas can even try to reopen this facility. It is really unbelievable we would even consider re-opening this facility without a complete safety study completed first. We live at 20315 Via Sansovino, Porter Ranch, CA and my biggest concern for us all, is the safety of my family and friends who live, work and play only 1 ½ miles from the largest GAS release well that exploded back in **October 2015** and was luckily sealed in **February 2016**. WE can't let this ever happen again as our home values took a hit then and if it happens again, I am sure the value of my home and others will be forever undervalued and **NO** one will want to leave in the area again.

We have to ensure it is completely **SAFE** before we can start it up ever again. IF not, then the facility should be closed!! Please consider the impact upon this community you are going to take and the affects to this vibrant community!

Donald J. Lombardo

[REDACTED]

Porter Ranch, CA, 91326

From: [Marty Laff](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: "Aliso Canyon Comprehensive Safety Review"
Date: Sunday, February 5, 2017 3:24:06 PM

We are not at an acceptable point of safety with the issue of Aliso Canyon.

Please DO NOT allow THESE HAZARDOUS WELLS to begin operations again.

Howard J Schwartz & Martha E. Laff, ChFC, CLU, CRPC
Email: [REDACTED]

From: [Jon](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review"
Date: Sunday, February 5, 2017 3:21:51 PM

My daughter and I've been getting bloody nose and headaches. Same symptoms like when the gas leaked last year~ please take this matter seriously ~ sincerely, Ham family!

Sent from my iPhone

From: [Neil Reizman](#)
To: AlisoComments@DOC
Subject: Risks of Re-opening Aliso Canyon Outweigh Benefits
Date: Sunday, February 5, 2017 12:02:36 PM

Risks Outweigh Benefits: Please keep the Aliso Canyon facility closed. The risks of reopening the Aliso Canyon facility vastly outweigh any potential benefits. The facility simply should not be located, so close to more than a million people. The proximity to so many people is further aggravated by the fact that Aliso Canyon is located in earthquake country.

Health Consequences: Due to its unprecedented scale, the long-term health effects of the last gas leak/blow-out are unknown. Moreover, additional health studies should also be done as to the health impact of Porter Ranch and other North San Fernando Valley residents face by continued smaller scale exposure to ongoing gas leaks that are likely to occur due to re-opening of Aliso Canyon.

Yet another potential risk is that the facility has no shut off valves, so it could potentially take another 4 months to stop a second gas leak/blow-out.

Marginal Benefits: By comparison, the benefits of re-opening Aliso Canyon are marginal at best. Aliso Canyon has been non-operational since October 2015. However, power outages, rolling black-outs and the other forecasted consequences from a closed Aliso Canyon facility have yet to occur. Since the facility has been closed for 16 months, I believe it is self-evident that Southern California can function without the Aliso Canyon facility.

Why I care and why others should care as well. I am a resident of Porter Ranch. My family and I were forced to move out of our house for 6 months. All of us suffered adverse health consequences due to the gas leak. My daughter could not attend her normal elementary school, because it was located too close to the gas leak. Even after the gas leak/blow-out was stopped, my family continued to get sick whenever we returned to our home. This was especially true for my 6 year old daughter and her grandmother. While my family's symptoms have largely abated, it is my understanding that other people in the area continue to get sick.

To me, this is not a question about energy, engineering, or even whether SoCal Gas should ever be trusted again, instead this is a question about the Health and Safety of my family and all other residents of the San Fernando Valley, who could again be harmed by another gas leak.

I believe regulators will be short sighted if they only at engineering studies. Instead, I think you must balance the health and safety of the more than a million residents who live near Aliso Canyon versus SoCal Gas' desire to use Aliso Canyon as an underground storage tank. Given that Aliso Canyon has not properly functioned since October 2015, and the Southern California region has not experienced black-outs, I believe it is becoming increasingly obvious that SoCal Gas does not need Aliso Canyon.

Lack of Remorse/Resistant to Regulation: Finally, the regulators should also consider that SoCal Gas has behaved in a remorseless manner. While SoCal Gas can offer "official apologies", the fact remains that the Gas Company has continually fought the LA Department of Public Health, with the goal of wiggling out of Court Orders, designed to protect the residents of L.A. County. SoCalGas has also fought with the LA City Attorney's office regarding the scope of Court Orders. I personally had to contact the LA Department of Public Health and City Attorney's Office to get my house cleaned, even though a Court Order unambiguously required SoCal Gas to clean my house. Based on its past conduct, there is simply no reason to believe that SoCal Gas will respect regulations or be proactive in its pursuit of safety. The health and seismic risks are simply too great to re-open Aliso Canyon without additional study.

I apologize for the length of this email, but I want you to understand the tremendous impact the gas leak/blow-out has already had. I also want you to understand that the risks of re-opening Aliso Canyon vastly outweigh the benefits.

Thank you for your consideration.

Sincerely,

Neil Reizman

Cell: (310) [REDACTED]

From: [Laura Rosenberger Haider](#)
To: AlisoComments@DOC
Subject: Do not allow the Aliso Canyon SoCal Natural Gas Storage Facility to reopen because:
Date: Sunday, February 5, 2017 10:09:42 AM

SoCal Natural gas Storage Facility at Aliso Canyon, Porter Ranch is the third most polluting gas storage field in the US (per the U.S. EPA). Although shut down since January 2016, there have been six leaks reported by SCG and spills plus elevated gas emissions detected by a Fenceline gas monitoring system belonging to Save Porter Ranch nonprofit corp. There were two leaks per day, on average at the Aliso Canyon Storage Facility (per SoCalGas sworn testimony Aug 2016). The facility is old and deteriorating. Countless ongoing complaints of health problems were reported, identical to those during the peak of the blowout. According to the LA County Department of Public Health, 63% of residents reported health symptoms after the blowout was capped. There were 4 fires at the closed facility and it sits on top of the Santa Susana Fault Line, potentially active with a capacity for a 6.5- 7.3 magnitude earthquake. (from Food & Water Watch www.fwwatch.org)

Also, when my daughter lived in LA, she was having frequent nosebleeds. Natural gas contains irritants like sulfuric acid, formaldehyde, VOCs and other carcinogens.

From: [Jon Teboe](#)
To: AlisoComments@DOC
Subject: SAFETY OF ALISO CANYON
Date: Sunday, February 5, 2017 10:08:56 AM

Please decommission the Aliso Canyon facility in Porter Ranch. Even though it has been "closed" for more than a year, leaks are still detected an "average of 2 times a day" according to Glenn LaFevers Facility Manager. He said that under oath an an AQMD meeting on August 6, 2016. See the youtube video - <https://youtu.be/tZQsv-j11XU>

I am still getting sick from the facility. I can no longer spend any time outside my house in my yard for more than 30 minutes. If I do, my severe headaches come back. I can not even leave my windows open because of the headaches.

I am now on high blood pressure medication (since Dec 2015) and an inhaler because of the gas facility.

I suffered great health problems in October 2015 that included severe nausea, stomach aches, gastrointestinal problems, rapid heart beat, lethargy, etc ! I thought I was dying !!! My symptoms were so severe that the doctors at the urgent care thought I may have had a heart attack so I was given extensive heart tests.

Socal Gas has not reimbursed me for \$1700 in lost wages in 2015.

My electricity bills have doubled because I can no longer open the windows AND I have to keep the AC and the air filters running all the time.

Please SHUT ALISO DOWN forever!

Thanks

JON TEBOE

From: [redacted]
 To: [redacted]
 Subject: [redacted]
 Date: [redacted]
 Attachments: [redacted]

Ladies and Gentlemen of DOGGR

I would have preferred to attend he meet ng in person but the emotions were too high and I knew it would mean words and feel gns would be lost n anger and rage. As predicted just that trump red and I feel my words and emo ions are far better expressed through images and wri tten out money. My mother sister and I l e e not under a mile from the blows well. Lucky or unlucky I should say for us in the direct downstream path of the leaking well. Interm mostly through the years but odd stretch was avoided but always occurred to something else. Except for worst one in late September 2016 the smell kept coming and going getting stronger and stronger and we couldn't figure out why. Through the next few weeks his dragging on goes ng from gas leaks to a dead animal n he attic or walls. Yet noth ng pinned out. Ironically we would open e very window to get the smell out thinking t was from inside. Complete ly unaware the danger was all around us coming from the outside n. My mother is a widow since she was 25 after my father died. She re ce did not remarry. Just focused on raising my sister and I. Six years years ago at 70 she made he dream of owning a home for her children a reality. This home e hat on its life so age her only in constant and out a few years ago. All her plot of land in the world. Imagine hat a single mother making the dream all by herself. She e ce decided to cut out her home and make it nice new shiny pretty. Why n marble floors nice walnut hardwood floors. Italian quar ri countertops and re-plas emg the pool. Turning a house in our home sweet precious home. Turning a couple hundred thousand into o er 1.2 m lion. Then the gas leak e announced and he dream becomes a nightmare. Not only were we to illud weeks after some time around No ember 10th. Suddenly e anything makes sense. The well i le dogs throwing up the bleeding gums the nose bleeds the headaches pet bink dying random dead e l f in the yard not being able o get up they lethargic and sleepy the skin rashes e. All the meanwhile he ha e been breathing this and opening the windows not e ng told there is a significant gas leak and you're less than a mile from i. Initially we planned to tra e but by he first week of December not only were here too many obstacles in being relocated but also finding people in our yard despite e l i ng in a gated community with a canyon side yard. The press had a field day calling a ghost town and criminals were coming in to take all anging. The cho ce to stay wasn't easy the damage was done physically and our house was under constant dread. We were the only family in between 35 houses that stayed. It was a dark creepy eer e feeling. In fact the policy who were called in four parols knew that and were kind enough o make sure that one house had it's lights on and e every ng was ok. Fracke in my mother's father had a stroke just before the gas leak began and was a he hospital clinging to life and our house was the halfway point between the hospital and he rest of our family member's houses there wasn't re ce pack mo e ad out and find something nearby so we can all gather. Something towards the end of January we finally get a a purifications to make things a little better. You can't go outside though can't open he windows and enjoy the scenery no fresh air and I am a id summer couldn't take any run through he streets I called home. E rday o e r another was a today and tomorrow and a cons are ha rage of you're ok there is no head b rsk from the Gas Company. But your body e to you di fferently and you start spend ng hundreds of do llars on medications and rummy jams just to ay healthy. Then he endless doctor visits for skin rashes nausea headaches bleeding noses and gams lack of energy and just a general I don't feel good. Not to include the countless e r rips. You're in just in your own home and it's slowly kill ng you. You just don't know how.

Now you know who we are what we lost what we go e up and what we went through. Let me tell you how we feel about you letting The Gas Company resume opera ions. They spent m lions on making repairs and mod ficat ions yet the heal h study e only worth \$300 000. Oh yeah they're really good neighbos e. The m lions w l come back infia e fold but the \$300 000 is a otal loss and could ery well end up being just someone else's fine al expense burden or medical expenses.

Not her problem right? The mill ions in fines are nothing compared to what profits could be generated. Let's pay and get it o e r w h. Yet not a penny has been gi en o he homeowners who ha e lost so much. A home is one's greatest in eement! Yet my pool at l has only residue and according to The Gas Company we w l not remo e the o ly residue from your pool we don't clean pools. Well we can't swim in it and I don't ha e \$10 000 to re-finish and plaster it after I just did it in 2011. My house has only re-fine and he floor. Intimate window co eatings and walls but you e eyed in your home you'll be fine. It ng w th the only residue. We at l ha e tick dogs hey both ha e a heart murmur now. We don't co e animals the gas was just a smell. We frequently wake up to nose bleeds our gums bleed our skin has unscepted red rashes and out of the blue dizziness and lightheaded which causes falls and injuries. In fact the morning you allowed The Gas Company to resume operation because of the frost ad lery my mo her fell e those thyme or fennel whilst on side and broke her arm and fractu of her cheekbone. She is the only parent we ha e e if the day who and what do we ha e? Are you will ng to make a decision hat could make no fatherless girls orphans all o e r again? Yet gas is odorless and harmless. The stink of charred coal can be smelled especially after 10pm until about 6am. Like se between those hours (we can see Tampa A e) big rigs do e up w th materials and God only knows what else. Why not in ood daylight? Why just under the co e of darkness? The day we had the fr e

On oher 2016 I saw in th my own eyes a well flare up as if the fire came from beneath at which point I do e right into danger to see what was happening. Coincidentally the fire department wasn't allowed up in o he facility right away. In addition on a hazard clean ng crew was on standby off in the distance when only two people remained staring at the remnants of the fire they were quickly submered into The Gas Company field and fact to up the mountain. At night e bright pla e of heat I gln not only keeps you awake but it ha e you set one and msson wondering what to go ng on.

Ask you I your house was your home would you feel safe knowing they are operating again? Would you be able o sleep at a job knowing you allowed them to open and resume operations yet they greedily ha e not offered o begin the health study? Don't we desoe e to know what happened to us and our bodies before we decide o stay here or mo e out? We can't e on sell to lea e 1.2 million is nearly \$800 000 if e on the. Don't we desoe e peace? Or should we h e in a jail cell while they drag us through courts subject ng us to bodily harm and trying o settle for pennies on the dollar when they ha e insurance that could cover e the loss fairly?

As I see e they make amends to the go e emment and it's agencies. The Gas Company is making amends to all those that ha e the power to allow them to resume operations and start mak ng money but nothing to those whom they ha e cause e f nancial loss to.

I beg of you I please help all of who are powerless and mine in this situation. Do not allow them to reopen and resume until he cause of that well is de emitted and related to the public. Until each and e very well e safe w h modern protections. Use the earthquake damage post bil rts are decreed. The first incident can be ca led a mistake but the second will be a catastrophe! I beg of you to ha e mercy on us and not allow them o reopen. We may blow up next time. Can you sleep at night if hat if actually happens? Could you carry that weight on your shoulders knowing that is a possibility?

I ha e you with some images of what the gas leak causing hoping your concions w ll allow you to make a decision hat is fa r to the people who call he place home. If you feel you need o see e hear more from me please feel free to con act me! I would lo e to tell you more about the hell my family and I e in.

Sincerely
 Arbelia M KhaifPard

The most powerful image I can show you is the a filter from my house. They were in about 7 days. The white one is a brand new and the black one is not a carbon filter er usual but rather an air filter after 7 days of use during the gas leak. Which has since been sealed awaiting legal procedure for tes ng. If that is what my air filter looks like imagine what the gas leak did to the inside of my body. A loving them to reopen and resume says it is ok but is it really? I may not be your daughter we may not be your relat es but we are human and we desoe e to h e without the threat of dying just because we are inhaling the air they are contaminating!









From: [Patricia Chitjian](#)
To: AlisoComments@DOC
Subject: Written comments about Porter Ranch Gas Leak
Date: Saturday, February 4, 2017 6:38:09 PM

Dear DOGGR and PUC:

I could not attend the public meetings. The Feb. 1 meeting apparently ended by 8:40 pm, and the “watch again” link just went to the conservation website. I did watch the presentation by your engineer on your website. However, I was not able to see any of the public comments offered at the meeting.

Here are my comments:

1. If Aliso Canyon gas storage facility is allowed to stay open, it must be kept at a minimum capacity (cu.ft.), and the minimum necessary pressure to meet the energy needs of the LA area that it serves.
2. Inspections should be required at the frequency required during the crisis period and as described in the Senate Bill 380, and these inspections should never be reduced in frequency.
3. DOGGR inspected the well that caused the disaster on its regular schedule in the year before the leak. Clearly, that was not often enough. DOGGR should have been in the forefront of revising the outdated standards that were in use.
4. The Public Utilities Commission has a recent history of scandal and poor management. Why should we trust them to look out for the public interest versus the gas company’s interests?
5. There was another leak that was blamed on a contractor at the facility after the main leak was sealed. Are there other contractors up there? If so, are they being held to the same higher standards in effect now?
6. Our property has a direct view of the wells at the east end of the facility from the back yard. Per your map, not all of these have completed the second inspection. Until every single well has been thoroughly inspected and passed or closed, the facility should be restricted from resuming normal operations. Also, complete analysis of the reasons for the failure of the disaster-causing well must be done.
7. After the devastating health effects of this event on so many people, my husband and myself included, what emergency evacuation and treatment plans have been developed in the event of a future occurrence?
8. Are there studies being done on the long-term effects of the methane, mercaptan, and other carcinogens released during this event on the health of residents? Any plans to change the odorant used?
9. Southern California Gas Company rate payers should not be subjected to any rate increases. SoCalGas has stated that most of the costs of this disaster are covered by their insurance. Any additional costs should be borne by them, their parent company Sempra Energy, and their shareholders.

Sincerely,

Patricia Chitjian

From: [Priyaanka J](#)
To: AlisoComments@DOC
Subject: Comment on Aliso Canyon Comprehensive safety review
Date: Saturday, February 4, 2017 5:08:51 PM

Hi

I wanted to give my comments regarding the potential re-opening of Aliso Canyon SoCal gas storage facility. I am a resident of Porter Ranch and live about 3.5 miles from the storage facility.

- My son who is only 3 years old has had several episodes of bloody nose throughout 2016 and this has occurred even after SS 25 was sealed and the facility was temporarily shut down.
- The projected summer blackouts (14 days) **never happened**. This was used as a reason to suggest that Aliso Canyon was needed for energy reliability.
- The storage field allows Socal Gas to buy gas when prices are low and use the storage field for supply when prices run high.
- The Energy Reliability was exaggerated by state regulators and utility.
- Aliso Canyon was the largest methane blowout in US history.
- We cannot re-open this facility when the **root cause analysis** has not been done to determine what caused the blowout in the first place. Rushing to re-open this facility is beyond reckless and will continue to endanger the health and safety of the residents and environment, both of which have suffered horrible symptoms even after the facility was temporarily shut down in February of 2016.
- Socal Gas has admitted that there are an average of 2 leaks happening regularly from the ageing and deteriorating wells. The wells are emitting methane and other carcinogenic chemicals into the air.
- The storage facility is sitting on top of earthquake faults and is in a high fire zone. We already had a fire very near this facility in 2016.
- All the wells have been built before 1972 and less than 1/3rd of the wells have passed rigorous testing. Out of 114 wells, 34 have been overhauled to replace inner tubing and the rest of the wells have been temporarily plugged which proves that this facility is a dangerous public hazard that has been mismanaged and not properly maintained for decades.
- Returning to whole capacity would never be needed for reliability purposes.

Therefore, we need the Aliso Canyon Gas Storage facility to be permanently shut down and not reopened.

Sincerely,
Priyaanka Chatham

From: [Barbara O'BRIEN, Ph. D](#)
To: [AlisoComments@DOC](#)
Subject: Sick in Canoga park
Date: Saturday, February 4, 2017 2:09:48 PM

My daughter has been sick for a year. She lives at [REDACTED] Blvd. I have called the gas company and they say it can't be methane. I think it is.
Her name is Susannah O'BRIEN 3107406012

From: [Behnam](#)
To: AlisoComments@DOC
Subject: Aliso Canyon
Date: Saturday, February 4, 2017 2:04:44 PM

Hi. I am an environmental engineer and work for the City of Los Angeles. We have a deep well injection site at Terminal Island and regularly interact with AQMD, DOGGR, CPUC, and EPA Region 9.

I also live in Granada Hills and have been adversely affected by the Aliso canyon blow out. I appreciate all the new bells and whistles such as MIT, temperature and noise monitors which have been deployed in SoCal Gas' wells. These equipment usually work as intended in many oil and gas wells, located mostly in an remote areas of the country. The problem with Aliso Canyon is that it's surrounded by residential and commercial sites. SoCal had at their disposal all those monitoring equipment as well as safety valves and chose not to use them resulting in the biggest natural gas leak in the US. SoCal's main objective is to make money from this facility, and they have failed to protect the public. We at Porter Ranch and surrounding area therefore no longer trust the company to put our safety first.

The oil and gas wells at Aliso Canyon have outlived their purpose. Because of their age, the old casings can crack, corrode, and leak again, especially under a major seismic event. Those well monitoring equipment cannot predict a rate of corrosion as well as an earthquake. Also continued use of this facility can create above ground leaks which is not subject of DOGGR's jurisdiction.

I urge you to not approve the reopening of Aliso Canyon storage facility due to inherent risk of a geological formation shift in a seismically active area and its proximity to a large residential population.

From: [Dwight Herr](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Aliso Canyon Gas Storage Facility should remain closed
Date: Saturday, February 4, 2017 1:56:51 PM

I oppose the reopening of the Aliso Canyon Gas Storage Facility. The facility should certainly not be reopened when we do not even know the cause of the leak! Nor should a facility like this be located next to a residential area.

If the well integrity is verified, this does not mean that the field is safe! The Santa Susanna Fault runs through the area and an earthquake probably will eventually cause rupture of the wells. The caprock in the field certainly has fissures that allow leakage. The safety standards on DOGGR's website allow the *field* to leak natural gas, apparently with no limit. The only limit that I saw was that if the field leaks *less than 250 Kg* of natural gas / hour monitoring will cease! What kind of limit is this?

Southern California gas has been risking our health and property with their unsafe management of the field. We have no confidence that SoCal Gas will manage the field in a safe manner, especially because they have lied to us repeatedly. They did not admit the leak for 4 days. We have smelled gas many times prior to and after the leak without SoCal Gas admitting anything. SoCal Gas asserted that the leak contained methane that was not hazardous and an odorant (mercaptan), but people stated getting sick. The gas cloud had Hydrogen Sulfide, and since the field is comprised of old oil wells, probably Acetone, Benzene, Toluene, and other compounds found in crude oil. SoCal Gas stated that the cloud would disperse into the air immediately. Food and Water Watch used a FLIR camera to showed that in fact the methane did not disperse, and rolled down the hill into the surrounding neighborhoods. SoCal gas has refused to tell us what was in the cloud, supposedly because it is proprietary information. This is ridiculous!

They refused to clean our house, and most other houses after the leak. SoCal Gas also removed a faulty safety valve and never replaced it. We hear repeatedly from SoCal Gas that our safety is their first consideration, an obviously false statement. Why would anyone trust them now?

This facility is not needed. Keeping the Aliso Canyon Gas Storage facility open is about profit, not about having adequate capacity. The Los Angeles Times reported after SoCal Gas drew gas from the field, that SoCal Gas had manufactured a shortage by not buying enough gas to supply daily demand. SoCal Gas stated they had problems getting adequate gas from suppliers, but the suppliers knew of no problems. SoCal Gas has stated repeatedly that there would be power blackouts without the facility. No blackouts occurred, demonstrating that this was another lie. An independent study by Bill Powers Engineering showed that there is more than adequate capacity to supply the area without use of the Aliso Canyon facility.

My wife (Jane Tanger) and I (Dwight Herr) have both had numerous health problems due the gas leaks. My wife has had the following health problems: Bloody nose, nausea, hair loss, finger nails coming loose, headaches, skin rashes, fatigue, and anxiety. I have had severe asthma attacks, bloody nose, headache, and fatigue.

SoCal Gas is a corrupt company that is trying to manipulate public opinion with lies! This facility should never be reopened.

Dwight R. Herr

[REDACTED]
Porter Ranch, CA 91326

(818) [REDACTED]

From: [Roberta Allen](#)
To: AlisoComments@DOC
Subject: Aliso Canyon gas leak
Date: Saturday, February 4, 2017 12:55:15 PM

My name is Roberta Allen and I live in the Tesoro Senior Apartments. I moved into Tesoro Senior Apartments March 2008. I worked at El Segundo High School (by LAX) retired March 29,2013.

Little by little I started feeling sick went to my Dr on 9/16/2013 complained of malaise and fatigue. Symptoms: headache, nausea, dizziness, fatigue, cough, sleeping issues, depression, eye problems such as decreased vision and eye irritation, shortness of breath.

Relocated 1/5/16 and moved back in June of 2016. Felt better thought I was on the road to recovery. Little by little have the same symptoms and getting sicker. Keep going to the doctor.

I have to move for my health, I am on a fixed income and can afford where I live now but cannot find any apartments for the money I spend. I love where I live and don't want to move don't know where to go and don't have the money to move. I am so angry I feel as though the SoCalGasCo is destroying my life. I am 76 years old worked hard all my life and found Tesoro Apartments. I can afford it, I feel safe here and have made many friends.

The gas company has not been honest with the people of Porter Ranch. We are humans and deserve better than this. Please try and figure out how to shut this down.

Sincerely
Roberta Allen

From: maureen.capra
To: AlisoComments@DOC
Subject: Aliso Comments please sent receipt that this was received (revised edition)
Date: Saturday, February 4, 2017 11:53:26 AM

February 4, 2017
Aliso Canyon Comprehensive Safety Review
Department of Conservation

From
Maureen and Larry Capra
[REDACTED]
Porter Ranch, Ca. 91326
818-[REDACTED]
[REDACTED]

When we moved into our forever home 43 years ago we were told it was Getty Oil Fields and they were not used anymore(on our contract). Since we moved in several years later I develop bronchitis, several times a year, then eventually turning into bronchial asthma over the years. My daughter was born in 1977 when she was a little girl she started having sever nose bleeds which continued, we had her nose cauterized several times over the years and then had her nose surgical done to stop the nose bleeds but it did not. Had we know that SoCalGas was up there leaking all these years we would have never put her through all this as the nose bleeds continued and to this day the she was in our house with the blow out. My granddaughter when she stays at my house to this day had nose bleeds but never at her moms in Mission Hills.

Now comes the Bow Out! We come home from church one Sunday and get a call on our answering machine, close your windows, close your doors, stay in side we had a small leak. SoCalGas. This was repeated a few days later and again a few days later. We did not even know they existed put here until then. Little Leak my foot, that stuff is all over our skin, our hair, our house, our furniture, our pool, oil our water, on our cars and in our cars, all over and in everything and in our LUNGS!!! I educated myself going to community meetings, AQMD etc after that. Do you realize how long they have ben poisoning us? The community, the children, the seniors, the pets? How many children have birth defects, autism,, how many people have died because of this and they are denying us the health study!

After the Blow Out we all had nosebleeds,, I had a sever cough lasting over 5 months, I thought I would cough my lungs out (I could not go anywhere coughing non stop like I was no inhaler cough syrup or anything was helping), suffered fatigue, headaches, stomach aches, muscle pains so bad I cannot walk up my own stairs, eyes red and runs. They pease us with air filters and then won't pay for the expensive filters that we need to replace. My son that lives across the street from 91344 but on the other side to their hill who has autism and other disabilities was denied an air filter by SoCalGas even when requested by representatives. He stays at my house during the day and his at night, head sever nose bleeds. Who knows if his autism was not caused by the fumes over the years??

What the 911 Firefighter in NYC suffered is what we will have here in Porter Ranch in years to come and that is why the Health Study is so important. When they had their 4 small negligent fires last year at least 14-18 firetrucks, hazardous material trucks and paramedics responded. I went and counted on time!

20 years ago we had severe rains here and part of their leased mountain slid, a very large portion! Come here and I will show you. There are several residents that were here then and can show you.

I saved them money as I did not move out, but they would not clean my house because of that and I live with in a mile of the well that BLEW!!! Makes no sense to me but they cleaned peoples homes that lives 5 miles away! I had to empty and redo my pool and refill it as I did not want my small grandchildren swimming in my pool with what unknown chemicals could be in there. They need to pay for that too.

We need to know exactly what was spewed out of those antiqued wells that have made us sick and still making us sick and what is the root cause of that well blowing and spewing all ion that into our atmosphere. We need answers and health studies as to why we are all still sick and why the fence line is till showing spikes to this day.

We can't believe anything SoCalFAs has to say to us anymore. They are not safe and will never be safe! They have enough money to give they big executives huge bonuses then they can go build a safe plant to store their so called "natural gas" far away from homes and people and far away from Porter Ranch and the surrounding communities.

Please Please I beg of you to listen to the people of Porter Ranch and the Surrounding communities and decommission Aliso Canyon SoCalGAs for good. Between the Blow Out, Fires, earthquake faults, landslides and the lives of the people it needs to be shut down forever.

I have so much more I can say but I am tired my brain is racked just do what is good for the people and not the dollar.

Thank you

Maureen & Larry Capra

From: maureen.capra
To: AlisoComments@DOC
Subject: Statement to be placed in Docket on DOGGR Site on Aliso Canyon
Date: Monday, January 16, 2017 4:00:33 PM

DOGGR, CPUC, CONSERVATION, ETC. TO WHOM IT MAY CONCERN,

My name is Maureen Capra, my husband and I have lived at 18838 Killoch Way Porter Ranch, Ca. 9326 for almost 43 years. We have raised our 2 children here and live about a mile and a half from the well that blew. Over the years my daughter suffered horrendous nose bleeds, we had her nose cauterized at various ages and even had her nose surgical done at 16 hoping to have the nose bleeds stopped but to no avail, not until she moved away and then when she did come back after 10 years they came back. In the meantime, my granddaughter now 21 when she would spend the night here had severe nose bleeds and they continue till this day. I myself had over the years severe bronchitis leading into pneumonia and then into asthma, my muscles hurts so bad I can barely walk up my stairs. During the blow out I coughed so much and so hard for about 6 months I thought my lungs were going to come out, not matter what cough syrup or asthma medication I used it did not work. We got the air purifiers as soon as possible and now they will not pay for expensive filters that need to be replaced every few months. My house was not cleaned in or out because I saved them money and did not move out so they would not clean my house. I drained my pool and had it resurfaced as I did not want my small grandchildren swimming in who knows what was in that water.

Now lets get down to more facts why they SoCalGAs and Sempra need to Shut down Methane Mountain forever, the welfare all antiques,, I was here before SoCalGas when it was Getty Oil fields and the sheep grazed the hills and it was dark and quiet up there.. Then came the fires and Red Adair could not put out that big Candle in the mountain that burned forever. More fires over the years caused by guess who?? SoCalGas and their negligence and ore fires even in the last year 34 of them little as they were thank fully the winds were down and about 18 firetrucks responded!!! Yes I counted them! There are active earthquake faults up in them their hills! There are new geological reports out there that prove it! Bill Powers reports prove that we can exist without SoCalGas and its so called "natural gas" that is piped in so how can it be natural gas if it is piped in??? Spill they even have negligent spills and under oath their lead man said they have 2 leaks per day! The quality of life here in Porter Ranch has gone down, people are not out as much as they use to be as they are not as well, not as trusting and are afraid. so many of our pets have either died or are very sick from all this. There were not even any coyotes or birds around for about a year!

Go on to our Facebook pages or Nextdoor Porter Ranch and read about what people are suffering still. I know myself I will never be the same. I feel 20 years older. I love my home and thought i would be here forever but I can barely do the stairs anymore with all my muscle problems and I am not the only one. My sinuses are bad all the time, bloody nose off and on, headaches continuously, fatigue and I could go on and on. My son stays over during the day has he is disabled and he has the same problems. Remember 911 and those firefighters, that is what is going to happen to the people of Porter Ranch and the surrounding areas. Please help us and Shut it all down permanently The kids in the schools nearby have suffered enough too. I am not that articulate but I hope I got my point across We need your help and the only way we will get it is if you shut it down.

My daughter would not allow her children up her during the blow out and the one day on Christmas that they did come it smelled so bad outside I let them ride their new big wheels inside the house scuffing up all my walls, SoCalGa won't pay for that wither!!!

I just found an partial by Brian Melley dated May 27, 2016 Official asked utility if it wanted help to quash order!
Los Angeles (A)

That a California oil and gas Official offered to try and get the governors office to quash an order from air pollution regulations aimed at utility responsible for massive gas leak. Naming Bret Lane chief operating officer for SoCalGas!

Maybe you should read over that article again! I am not going to give up so Shut it Down for the health and safety of the people

Sincerely

Maureen & Larry Capra

[REDACTED]

Porter Ranch, Ca. 91326

818-3 [REDACTED] 9 home

[REDACTED]

From: maureen.capra
To: AlisoComments@DOC
Subject: Fwd: Statement to be placed in Docket on DOGGR Site on Aliso Canyon
Date: Tuesday, January 24, 2017 4:59:28 PM

Begin forwarded message:

From: maureen capra <[REDACTED]>
Subject: Re: Statement to be placed in Docket on DOGGR Site on Aliso Canyon
Date: January 17, 2017 at 1:40:50 PM PST
To: '[REDACTED]' <[REDACTED]>

I did not get an email confirming that this was received!
Please respond that this was received
thank you
maureen capra

On Jan 16, 2017, at 4:00 PM, maureen capra <[REDACTED]>
wrote:

DOGGR, CPUC, CONSERVATION, ETC. TO WHOM IT MAY CONCERN,

My name is Maureen Capra, my husband and I have lived at 18838 Killoch Way Porter Ranch, Ca. 9326 for almost 43 years. We have raised our 2 children here and live about a mile and a half from the well that blew. Over the years my daughter suffered horrendous nose bleeds, we had her nose cauterized at various ages and even had her nose surgical done at 16 hoping to have the nose bleeds stopped but to no avail, not until she moved away and then when she did come back after 10 years they came back. In the meantime, my granddaughter now 21 when she would spend the night here had severe nose bleeds and they continue till this day. I myself had over the years severe bronchitis leading into pneumonia and then into asthma, my muscles hurts so bad I can barely walk up my stairs. During the blow out I coughed so much and so hard for about 6 months I thought my lungs were going to come out, not matter what cough syrup or asthma medication I used it did not work. We got the air purifiers as soon as possible and now they will not pay for expensive filters that need to be replaced every few months. My house was not cleaned in or out because I saved them money and did not move out so they would not clean my house. I drained my pool and had it resurfaced as I did not want my small grandchildren swimming in who knows what was in that water.

Now lets get down to more facts why they SoCalGAs and Sempra need to Shut down Methane Mountain forever, the welfare all antiques,, I was here before SoCalGas when it was Getty Oil fields and the sheep grazed the hills and it was dark and quiet up there.. Then came the fires and Red Adair could not put out that big Candle in the mountain that burned forever. More fires over the years caused by guess who?? SoCalGas and their negligence and ore fires even in the last year 34 of them little as they were thank fully the winds were down and about 18 firetrucks responded!!! Yes I counted them! There are active earthquake faults up in them their hills! There are new geological reports out there that prove it! Bill Powers reports prove that we can exist without SoCalGas and its so called “natural gas” that is pipped in so how can it be natural gas if it is pipped in?? Spill they even have negligent spills and under oath their lead man said they have 2 leaks per day! The quality of life here in Porter Ranch has gone down, people are not out as much as they use to be as they are not as well, not as trusting and are afraid. so many of our pets have either died or are very sick from all this. There were not even any coyotes or birds around for about a year! Go on to our Facebook pages or Nextdoor Porter Ranch and read about what people are suffering still. I know myself I will never be the same. I feel 20 years older. I love my home and thought i would be here forever but I can barely do the stairs anymore with all my muscle problems and I am not the only one. My sinuses are bad all the time, bloody nose off and on, headaches continuously, fatigue and I could go on and on. My son stays over during the day has he is disabled and he has the same problems. Remember 911 and those firefighters, that is what is going to happen to the people of Porter Ranch and the surrounding areas. Please help us and Shut it all down permanently The kids in the schools nearby have suffered enough too. I am not that articulate but I hope I got my point across We need your help and the only way we will get it is if you shut it down. My daughter would not allow her children up her during the blow out and the one day on Christmas that they did come it smelled so bad outside I let them ride their new big wheels inside the house scuffing up all my walls, SoCalGa won't pay for that wither!!!

I just found an partial by Brian Melley dated May 27, 2016 Official asked utility if it wanted help to quash order! Los Angeles (A) That a California oil and gas Official offered to try and get the governors office to quash an order from air pollution regulations aimed at utility responsible for massive gas leak. Naming Bret Lane chief operating officer for SoCalGas!

Maybe you should read over that article again! I am not going to give up so Shut it Down for the health and safety of the people

Sincerely
Maureen & Larry Capra

[REDACTED]

Porter Ranch, Ca. 91326

818 [REDACTED] 9 home

[REDACTED]

From: maureen.capra
To: AlisoComments@DOC
Subject: Fwd: Porter Ranch Resident
Date: Tuesday, January 24, 2017 4:59:58 PM

Begin forwarded message:

From: maureen capra <[REDACTED]>
Subject: Porter Ranch Resident
Date: December 7, 2016 at 12:40:10 PM PST
To: [REDACTED]

Please note that this weekend was horrible here the methane level was super high and I experienced severe headaches, very lethargic and nose bleeds and coughing, eye burning and draining. I know several other residents also complained of symptoms ranging from vomiting, nausea, and many of my symptoms as well. Something has got to stop and that the only thing is is to shut it all down up there in that methane mountain. Those wells are antique and the ground is saturated with the methane that is from the blow out. There will be another wether from an earthquake or another from their negligence but there will probably be another blow out as they have proved they are negligent in their responsibility in the keeping of those wells and the contaminants that they are using up there and blowing all over us. Think of the people and not the money our lives are more important than that. Remember the firefighters of 911 and how they are suffering years from then and how we will be years from now. Please help us!

Sincerely,

Maureen Capra a resident for over 42 years longer than what socalgas has been here

[REDACTED]
Porter Ranch, Ca. 91326
88 [REDACTED]

PS They SOCALGas has the money to build a facility far away from the people and put that "natural gas" there and pump it where they need it and not near us or any other people. We don't have the money to get up and move all of us away from them!

From: ma_capra@ca.gov
To: AlisoComments@DOC
Subject: Re: Public Meeting Agenda and Safety Review Webcast
Date: Tuesday, January 24, 2017, 5:01:15 PM

I resent the two please let me know that you received two of them. Why are they not going to be received and read before the meetings on the 1 and 2nd-
thanks
Maureen Capra

On Jan 24, 2017, at 4 03 PM, AlisoComments@DOC <[REDACTED]> wrote

Hi Maureen,
Can you please resend your comments to ensure we receive them within the public comment period (ends Feb. 6)? We will send you an email with confirmation of receipt.

Thank you,
Department of Conservation Public Affairs Office

From: maureen capra [mailto:[REDACTED]]
Sent: Tuesday, January 24, 2017, 1:57 PM
To: AlisoComments@DOC
Subject: Re: Public Meeting Agenda and Safety Review Webcast

Have you receive my comments that were sent awhile back regarding my concerns that were sent to [REDACTED]
Maureen Capra

On Jan 24, 2017, at 1 50 PM, Department of Conservation Division of Oil, Gas, Geothermal Resources <[REDACTED]> wrote

<1.png> **Department of Conservation**
Division of Oil, Gas, Geothermal Resources

January 24, 2017

In preparation for the public meetings February 1 & 2, please review the [meeting agenda](#), now available on line and pasted below. Familiarize yourself with the structure and opportunities for your feedback and engagement.

Our engineering team has also developed a webcast, [Aliso Canyon Safety Review Presentation](#) as a guided recap of the comprehensive safety review process DOGGR completed at Aliso Canyon.

The webcast walks through an extensive series of inspections and tests designed to ensure the facility meets public safety and environmental protection standards before the state decides whether to allow Southern California Gas to resume any operations. Please share this presentation with any member of the public who cannot attend the public meetings.

Aliso Canyon
Public Meeting Gas Storage Facility, Well Safety Review
Option to attend one of two sessions: February 1 or February 2
5:30 9:00 p.m.
Hilton Woodland Hills, 6360 Canoga Ave, Woodland Hills, CA 91367

Goals:

- Provide update and overview of the Division of Oil, Gas, and Geothermal Resources (DOGGR) safety review process
- Collect public comment on proposed pressure limits
- Provide information about the California Public Utility Commission's (CPUC's) reliability analysis and upcoming proceeding to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon facility

5:30 Registration

6:00 Welcome, Agenda Review, and Introductions

6:10 Presentation and overview: Safety Review and Status of the Aliso Canyon storage field

- Safety review and well pressure limits DOGGR
- Review of analysis of range of working gas necessary in Aliso Canyon storage field for safety and reliability CPUC.
- Next steps for CPUC proceeding to determine the future of the Aliso Canyon facility

6:40 Opportunity for opening comments by elected officials

7:00 Small group discussion on the following questions:

1. Do you have any comments on DOGGR's safety review findings?
2. Please share any comments you have on the proposed pressure limits.
3. What is your greatest concern about the Aliso Canyon Facility?

8:10 Break

8:25 Summary and next steps

- Summary of small group discussions
- Brief review of key themes from the session
- Closing comments by DOGGR and CPUC representatives

9:00 Adjourn

Reminder of Aliso Canyon Public Meeting Details

The public meetings are scheduled for the following dates and location

Wednesday, February 1, 2017 **Thursday, February 2, 2017**
5:30 p.m. 9:00 p.m. **5:30 p.m. 9:00 p.m.**
Hilton Woodland Hills
Trilium Room
6360 Canoga Avenue
Woodland Hills, CA 91367

Aliso Canyon Storage Facility and related documents and information are available on the Division's website at <http://www.conservation.ca.gov/dog/Pages/AlisoCanyon.aspx>.
Information about the range of working gas necessary to ensure safety and reliability for the region will be available on CPUC's website at <http://www.cpuc.ca.gov/aliso/>.

You're receiving this email because you have indicated an interest in Aliso Canyon updates.
Add [REDACTED] to your Safe Sender List to ensure emails go to your Inbox.
[Click here to unsubscribe.](#)

From: [Ethan Senser](#)
To: AlisoComments@DOC
Subject: Voicing Concerns AGAINST the Aliso Canyon Reopening
Date: Friday, February 3, 2017 11:55:15 PM

To Whom It May Concern,

I am writing in order to voice my strong concerns against the reopening of the Aliso Canyon gas facility. I myself am not a resident of the Porter Ranch area, (I live in Los Angeles's Koreatown neighborhood) but I am deeply concerned that such a facility would be reopened without first having determined the root cause of the blowout that occurred in 2015.

The idea that the facility could be deemed safe to be reopened without such knowledge is simply absurd, and is not something we should be willing to stand for. I have also heard that there has not been a complete health investigation into the effects of the blowout, which seems necessary in determine the risks that must be weighed.

I would hope that those in decision making positions would listen to these reasonable concerns, and address them. I have little doubt that if the political will was there, alternative energy sources could make up the loss suffered by keeping the facility shuttered. (As they have since the blowout).

Thank you for your time,

Ethan Senser
Los Angeles

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Friday, February 3, 2017 3:36:34 PM

Dear Department of Conservation, Division of Oil, Gas, and Geothermal Resources:

For 25 years, my family and I, as well as many of my neighbors have lived one mile adjacent to the Aliso Canyon Storage facility, in addition to the fracking and acidizing activity there. We've experienced ongoing sickness and adverse symptoms due to the storage facility to this day. Some of my neighbors have DIED from rare cancers. There is empirical evidence that after the 1994 Northridge 6.7 magnitude earthquake, my neighbors and I witnessed increased gas odors and leakage, which has only escalated over time. There was a massive fire that lasted for days. The wells have been damaged and are old. Since then, many more fires occurred. As of 2016 through now, the water smells like gas and chemicals. In October 2016, the water turned black. The community has been physically and emotionally injured.

The well safety review findings and minimum and maximum reservoir pressure will not ensure safe operations. Nor will subsurface safety valves. The current level of gas is leaking through the soil, and every time gas is injected and withdrawn, it is released onto the community. People continue to be sickened by its presence. We've endured regular discharges for decades and complained to AQMD with no remedies. This facility has been unused for over a year and only provides surplus gas which can be relocated elsewhere away from communities.

The Aliso Canyon Storage facility and the fracking/acidizing from other companies must be ceased, cleaned up, and closed down permanently. If not, the government is not only prioritizing profits over the people it allegedly serves, but directly injuring them. And the people will hold each one of you accountable. The people in this community of 30,000 and beyond have spoken, and want it shut down. The government is FOR the people and BY the people. It's purpose is to restrain evil and reward good.

Sincerely,

J.P.
The Highlands Community

From: [Wendy](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comments
Date: Friday, February 3, 2017 3:27:45 PM

To Whom It May Concern:

I fervently request that the Aliso Canyon Gas Facility be permanently decommissioned.

I have lived in Porter Ranch since 1976. I was pregnant with our first child when we proudly moved into our new home, where we have lived ever since. It was not disclosed in any of our home purchase documents that this facility existed. Even if it had been disclosed, it would not have meant a thing to us, since at that time we were not aware of how dirty and toxic a "natural gas field" could be.

There is more than enough "fault/blame" to go around.

- * SoCal Gas negligently allowing the facility to deteriorate.
- * SoCal Gas filing fraudulent documents over decades reflecting safety valves that weren't there.
- * SoCal Gas being responsible for the largest gas blow out in U.S. history.
- * SoCal Gas initially denying there was a blow out.
- * SoCal Gas putting profits before health and safety for decades.
- * SoCal Gas publishing updates for the past year+ that read "your safety is our top priority", which could not be further from the truth.

I could go on and on and on with this list, but will stop here.

- *DOGGR failing to DO THEIR JOB and regulate the facility
- *DOGGR accepting, without verification, fraudulent reports of the state of the facility
- *DOGGR simply being the fox guarding the hen house
- *DOGGR failing to fulfill its own mission statement

I could go on and on with this list, as well.

- * L.A. City allowing homes to be built over many decades right up the hill to the edge of this toxic facility.
- * LA County who undoubtedly played some part in all of this, as well.
- * Aliso was never intended to be a gas storage field and the methane is constantly seeping, migrating and leaking.

I raised my children and my children are raising their children in what we now know is a highly polluted and toxic environment. We all were displaced following the blow out and suffered the many health issues, of which you are well aware: headaches, dizziness, nosebleeds, rashes, etc. My husband has had a kidney removed and I now question whether our Aliso Facility polluted air, soil, and water may have led to this.

I now feel responsible, due to my ignorance of the existence of the field and its potential toxicity, for health issues of my children and my grandchildren.

I have watched my neighbors suffer in the most horrific ways!!

THIS MUST STOP!!!

Clean and renewable is our country's future and SoCal Gas could choose to be a leader in this arena. These hills could be used for Windmills and solar panels.

DECOMMISSION THIS FACILITY NOW!! Be the villains who became the heroes in this story.

Wendy and Barry Krowne

From: [REDACTED]
To: AlisoComments@DOC
Subject: Shut down Aliso Canyon Forever
Date: Friday, February 3, 2017 1:49:12 PM

Southern California Gas can still not say with certainty what caused the unprecedented four-month natural gas blowout at Aliso Canyon, which means that the facility remains unsafe and a threat not only to its neighbors but to the stability of the global climate on which all human life is dependent.

Moreover, research by Cornell University Engineering Professor Anthony Ingraffea, who helped develop shale hydraulic fracturing (fracking) techniques for the Energy Department, shows that over 20 years, one pound of methane (the main component of natural gas) traps as much heat as 72 pounds of CO₂. One hundred years after its release into the atmosphere unburned (from the fracking process and pipeline, compressor and processing unit leakage) methane remains 25 times more potent than CO₂. “When burned, natural gas emits half the CO₂ of coal but,” Ingraffea cautions, “methane leakage eviscerates this advantage because of its heat-trapping power.” In his 7/28/2013 NY Times OpEd, “Gangplank to a warm future”, Ingraffea concludes, natural gas “is not a ‘bridge’ to a renewable energy future — it’s a gangplank to more warming” ... precisely because of the heat-trapping potential of leaked methane. The National Oceanic and Atmospheric Administration has measured leakage rates of up to 17% at fracking fields in California, Colorado and Utah; though the National Center for Atmospheric Research has warned that leaks above 2% are sufficient to eliminate any climate advantage of gas over coal. Thus, as a biologist, it is clear to me that any and all potential methane leaks must be ended if humanity is to have any hope of stalling the most dangerous consequences of global warming and climate destabilization.

If California wants to be a global leader in climate change mitigation and not be seen as a green-washing hypocrite, our state and corporations cannot continue profiting from polluting fossil fuels extracted using extreme energy development (including hydraulic-fracturing derived natural gas) that are a threat to both our public and environmental health.

California must move away from fossil fuel infrastructure and lead the world, full speed ahead, in developing, building and implementing a clean, sustainable, renewable energy future now.

Aliso Canyon is a good place to start; shut it down now and forever.

Rose Ann Witt
Thousand Oaks, CA 91362

From: [REDACTED]
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: This is a national disgrace
Date: Friday, February 3, 2017 1:11:24 PM

To all involved in decision making on the Aliso Canyon Gas Field,

I am a Republican living who is currently living in San Diego and a former resident of Los Angeles (Woodland Hills). Typically, I am sympathetic to the needs of business surrounding public policy. But in this case, it's obvious that the Aliso Canyon Gas Field should NOT be reopened at this time, if ever.

Anything that made hundreds of residents sick with nosebleeds, nausea, rashes and extreme anxiety (who wouldn't be anxious in those circumstances) should be prevented from doing so again. How can anyone even consider reopening this field when the cause of the problem the first time has not been identified. What's more, I understand there have been additional leaks detected since the first closure in other places.

I can't begin to imagine the horror it must have been, and continues to be, for residents of Porter Ranch. The safety and wellbeing of the public is your primary responsibility, regardless of the additional expense of doing business and supplying power to Los Angeles. If any of the state regulators lived in Porter Ranch, I can't imagine the option of reopening Aliso Canyon would even be contemplated by these individuals.

This is my first time ever submitting public comments to a government entity about any issue. Although I live in San Diego, this is an issue that matters to people across the state. Indeed, it's a national disgrace that residents of California (or anywhere) were forced to suffer the way these people did and now they have to worry about what they may be subjected to going forward.

State regulators and the Governor must do what's right and find alternative sources of energy than this problem-plagued one. Since no one knows why the leak occurred to begin with, there's no way to determine it won't happen again. For the foreseeable future, and maybe forever, Aliso Canyon shouldn't be reactivated.

Sincerely,
Wendy Cohen
San Diego, CA

From: [Cyrus Davoodian](#)
To: AlisoComments@DOC
Subject: Fwd: Aliso Canyon gas leak
Date: Friday, February 3, 2017 11:05:11 AM

----- Forwarded message -----

From: **Cyrus Davoodian** <[REDACTED]>
Date: 2 February 2017 at 11:05
Subject: Aliso Canyon gas leak
To: [REDACTED]

It is really amazing that the health and well being of thousands of citizens of this city is not important for our public officials and government regulators.

The state officials are indicating that Aliso Canyon gas facility is safe with out even knowing how and why the biggest gas leak in the history happened in the first place.

I am not talking about hundreds of millions of reduction in the value of the homes in the area, but billions of dollars of losses due to health problems for now and future.

State and city officials and regulatory agencies should consider the very important health complications that thousands of people are experiencing and will experience in the future and consider closing the facility for ever.

Thanks,

From: [Ann King](#)
To: AlisoComments@DOC
Subject: Letter of Concern
Date: Friday, February 3, 2017 10:16:30 AM

2/3/17

To Whom It May Concern:

I am writing this letter to express my concern about Aliso Canyon gas field. I was a resident of Porter Ranch for 10 years living feet away from the facility. We are now in Chatsworth but still within the 5 mile radius. I recall smelling gas way before the blowout even happened. My daughter who is now 12 has had severe asthma all her life. All her memories of her childhood will be seeing doctor after doctor trying to get this under control. Using a nebulizer is just part of her childhood. She still suffers till this day. My Son has had issues with his eyes. Sometimes they would become so blood shot you could not see the white of his eye. He has also suffered with unexplained sores in his nose. Doctors say its allergies. Yes it may be allergies, allergies to all the chemicals in the air that he is breathing in. My mom who was living with us also suffered the same sores in her nose and unexplained dizziness, which I experienced also. My husband's dizziness was so severe at times his whole eye turned red from throwing up. It is not normal that so many of us experience dizziness. This all happened before the blowout. After the blowout, my husband came down with a cough that he cannot get rid of. He was given an inhaler but the cough still persists to this day. He has also had to have sinus surgery after the blowout, because he was having issues breathing because of stuffiness and mucus in his nose. The surgery almost killed him. When we got home he started hemorrhaging from his nose and went through entire towels saturated with blood and had to be taken back to stop the bleeding. During the height of the blowout, my oldest daughter suffered upper respiratory issues for so long she had to quit gymnastics, something she has been training for since she was 5 years old. She is now 16. She had fallen so far behind in her training and felt she couldn't catch up so she had to make the ultimate decision to quit because she didn't feel well enough to resume training which was 6 days a week sometimes 30 hours. She was on schedule to be at the right level when she graduated high school so she could go on to college with a scholarship. She was on the top 100 gymnasts in America. She was also Southern California state Champion in 2015 for her age and level. Her dreams of continuing on came to a halt when she became ill. I blame So Cal Gas for this. Ruining lives, dreams, and our health. This Facility is outdated, dangerous, and does not belong in a neighborhood where so many peoples live. This has not only affect people but pets too. We lost our dog at the height of the gas leak . She was in perfect health. She came inside after spending the morning out side. She came into the bathroom where I was and just looked at me like something was really wrong. She started to drool and pant and just laid down and died. How much more will it take to understand this Gas field is poisoning people, pets and wild life. I'm sure there are lots of other things I have forgotten to write but you get the point of what we have been going through. I know it is hard to understand and related when you don't live here but we who are here are suffering should have the right to live in a safe community as everyone else does. So I beg you to understand what is going on here and shut it down permanently. It is unsafe and out dated .They have mad so much money they should be able to construct a new facility away from homes (and never let homes be built next to it). When we purchased our home we were never disclosed that we were purchasing a

home that was so close to the biggest Gas Filed west of the Mississippi. This is disgraceful. Please make the right decision to close this down forever so people can live their lives with out illness and peace of mind that they are safe.

Sincerely,

Andrea King ,Bruce King , Carly King, Crysta King and Christian King

Sent from [Outlook](#)

From: [Kiki Lyon](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Friday, February 3, 2017 10:09:31 AM

RE: Aliso Canyon Comprehensive Safety Review

To Whom It May Concern,

I am writing to you today regarding your upcoming decision about the Aliso Canyon's storage facility. As you know, in 2015, the integrity of one well at Aliso Canyon was compromised. The leak was immediately caught and fixed. Since then the whole facility has under gone rigorous ongoing testing and is passing. Despite the growth in renewable energy technology we as a society are still dependent on natural gas; and will continue to be for years to come. Renewables are progressing but they do not have the robust capabilities of natural gas & oil. I for one am for Aliso Canyon storage facility to be put back online and used to its fullest capacity; this is after reviewing their safety procedures & realizing the benefits of cost savings down to the consumer.

It will also help stimulate the local economy, increase tax revenue and create jobs; comparably speaking to the counter of closing the facility. Along with that, the Gas Company will be able to provide the best price for natural gas to the consumer since the Gas Company can store the gas avoiding the open market prices during times of high fluctuation.

California has the strictest oil & gas production and procedure regulations in the world; since we live in a time that we are dependent on gas, its best & safest to produce, handle & store under the stringent regulations of California. We all have to share this one planet. I am for the preservation of the environment that California mandates gas companies to follow and I'm also for a local thriving economy.

I would also like to note, that I do not work for or financially affiliated with The Gas Company in any way but do support their efforts in reviving Aliso Canyon's storage facility use.

Thank you,

Kiki Lyon
Controller
C. D. Lyon Construction, Inc.

[REDACTED]
Ventura, Ca 93002

P: 805- [REDACTED]

F: 805- [REDACTED]

From: [Björn Paulsson](#)
To: AlisoComments@DOC
Subject: Comments on the Safety and the need for effective monitoring of the Aliso Canyon wells
Date: Friday, February 3, 2017 9:38:53 AM

Dear Sir/Madam,

Paulsson, Inc. is a San Fernando Valley high technology company headquartered in Van Nuys, CA. The company and our staff have been directly affected by the Aliso Canyon well failure in 2015 so we are keenly interested in the safe operation of the storage field. We appreciate the opportunity to submit the following comments that we believe will assure the safe future operation of the Aliso Canyon gas storage field.

The seven step investigation of the 115 wells at Aliso Canyon is a good first step on assessing the current condition of the 115 wells. It does not however address the need for long term permanent effective monitoring of the wells to assure their continued safety in the future. Gas detection sensors at the well head are simply not sufficient to assure the safe future operations of the wells. The process must be automated and involved continuous monitoring of each of the 115 well bores from the surface to the bottom of the well.

What must be installed in each of the existing 115 wells, as well as in future wells, is a combination of sensors that:

1. Monitor the entire lengths of the well bores for changes of temperature using an optically based Distributed Temperature Sensor (DTS) system. When methane gas leak from the high pressure storage reservoir into the wellbores, that are kept at a lower pressure than the reservoir, the temperature drop by the Joule-Thompson effect. A Distributed Temperature Sensor (DTS) system will be able to record temperature changes as small as 0.1°F at each point along the entire well. This temperature monitoring process can not only tell the operator if the wellbore has been breached, but in the case of a break, also where the failure has occurred to the nearest foot. This monitoring process can be automated and will thus not rely on human involved gas sampling which is highly prone to operational errors.
2. Monitor the entire well bore for changes in the noise level of the well using a optically based Distributed Acoustic Sensor (DAS) system. This technique will easily pick up the noise from leaks if methane enters the wellbore through a small leak in the casing. This system can both give an indication if a leak occurred and the location of the leak. This system will also be able to detect gas flow behind casing that might be an early warning that the seal around the wellbore outside the casing has been compromised.
3. Monitor the storage field with a distributed network of extremely sensitive seismic vector sensors placed in the boreholes at and above the reservoir level. These sensors will provide indication of fault related seismic activity in the reservoir far away from the wellbores. By monitoring the micro seismic recorded in the reservoir the active fault systems can be mapped and wells intersecting the active faults be secured and abandoned before fault related strain shears the casing intersecting the faults.

4. New wells should have optically based Distributed Strain Sensors (DSS) mounted to the outside of the casing. Any fault or subsidence related strain of the casing will be detected long before the casing has reached the point of failure.

The technology in points 1 – 4 can be economically achieved by using optical sensor technologies in existence today. Optical sensor technologies are used by the US Navy and have been found to be more sensitive and more reliable than legacy electronic sensors.

In addition to the above monitoring technologies an active borehole seismic imaging program should be implemented by recording 3D borehole seismic data in a number of the wells at Aliso Canyon. Not every well need to be surveyed but the goal should be to have a continuous 3D high resolution seismic image of the complex geology of the entire Aliso Canyon storage field. Due to the extreme topography in Aliso Canyon 3D surface seismic will not provide the high quality data necessary to generate high resolution 3D images.

We are available to discuss the practical implementation of the optical sensor technologies discussed above to assure the safe future operation of the Aliso Canyon.

Let us know if we can be of any assistance.

Best Regards,
Björn Paulsson, Ph.D.

+++++

Björn N.P. Paulsson, Ph.D.
CEO & President
Paulsson, Inc. (PI)

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Web Site: www.paulsson.com

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From: [David Goldstein](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Wells - Comment
Date: Friday, February 3, 2017 7:33:32 AM

To Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division),

My name is David Goldstein and my daughter (and her mom) live in Porter Ranch. I am concerned that the Aliso Canyon gas storage facilities would reopen without proper safety valves installed below the surface and that future leaks may occur again. My daughter, who is 15, and DID attend Porter Ranch Community Middle School, did relocate for three months in temporary housing in Tarzana due to the 2015-2016 leak and subsequent investigation. Her mom and her were inconvenienced by move, and DID experience a two-week "flu symptoms" and bronchitis which required time off from work and school. My daughter's mom's house in Porter Ranch, currently has two air purifiers, supplied by the Gas Company.

My concern is that unless underground safety valves are put in place to stop potential blowouts, which SoCalGas has declined to do, it should not reopen (RE; Brad Sherman, US Congressman). I am also concerned that Governor Jerry Brown's sister is on the Sempra Energy Board, causing a conflict of interest with the gas facility.

I live downstream 5 miles in Chatsworth...and although I did not get sick, I am still concerned about the persistent symptoms of bloody noses and relative health of my neighbors in Granada Hills and Porter Ranch. There were 43 cases of nose bleeds in the Porter Ranch Community School nursing office in October 2015. I implore you to do the right thing and delay the reopening until safety valves are installed. We can all live without gas energy for a day or two.

Thanks,

David Goldstein
Resident, Chatsworth

From: [Debby Boka](#)
To: AlisoComments@DOC
Subject: Re: Aliso Canyon reopening
Date: Friday, February 3, 2017 5:34:32 AM

Respected council members,

I was a preschool secretary down here in San Clemente. A few years ago, I and other teachers smelled a gas leak so bad that we called the Gas Company to report it. It took me nearly 45 minutes to get through to them because hundreds of other people in the area were reporting the "gas leak". They had no idea where it came from. This was not an isolated incident, either. When the wind was just right, the "gas leak" would come back over the entire coastal area covering Dana Point and San Clemente. We kept all the children inside until it passed. Funny thing is, this phenomenon stopped once the leak was shut down up at Porter Ranch. It has never happened again. And, as a 41 year Southern California resident, I don't ever remember it happening before. The lady at the Gas Company who I spoke with also had no idea what was going on and had never remembered something like that happening (this was before the leak at Porter Ranch was reported). So as a concerned citizen I am asking you to please not reopen that gas field unless the cause of the leak has been isolated with certainty and repairs made. My understanding of the situation is that it could not possibly have been fixed already due to the depth of the leak? I read that right after it was discovered though so perhaps it has been long enough. Regardless, the Gas Company has behaved in a less than altruistic manner throughout this incident and it will be up to the citizens to protect themselves and that starts with YOU, their representatives. Please do the right thing.

Sincerely,
Debby Boka

From: [DShell](#)
To: AlisoComments@DOC
Subject: Do not open Aliso Canyon
Date: Thursday, February 2, 2017 10:13:14 PM

I am a 35 year resident of Porter Ranch. I support a moratorium on opening the Aliso Canyon Gas Field and I support Senate Bill 146 proposed by Sen Henry Stern. A complete seismic safety study and health safety reviews which are supported by Rep Brad Sherman and Chief of Hazmet, Bill Jones must be completed before any decision is made. It is irresponsible for a company that caused 100,000 metric tons of Methane to pollute our air and that made hundreds of residents sick, be allowed to reap great profits at our expense. I do not trust SoCalGas and Sempra Energy. We need to save our environment and support solar and wind power.

Denise Hirsch-Shell

[REDACTED]
Porter Ranch, Ca 91326

[REDACTED] 2

From: [Ben Pongetti](#)
To: AlisoComments@DOC
Subject: Subscribe
Date: Thursday, February 2, 2017 9:59:58 PM

I believe the Aliso Canyon gas storage facility is a necessary component of the utility infrastructure that serves millions of customers in Southern California. I don't believe the vocal minority of NIMBY residents living in the vicinity of the facility should overrule the silent majority of millions served by the facility who rely on gas for electricity, heating, and cooking. Not to mention all the commercial enterprises that utilize gas as a core part of their business operations. Perhaps a lower pressure system with safety redundancy after redundancy could be utilized to safely provide for the needs of Southern California. The environmental impact of the recent gargantuan leak must not be understated. Nevertheless, it seems to me that deploying latest technologies could result in a project that appropriately balances safety and service. Lastly, I believe that creating another gas storage facility elsewhere would create significant adverse environmental impacts of its own and would likely consume open spaces that are so vitally needed in population dense Southern California.

Ben

From: [Scott Smith](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Safety Review Comments
Date: Thursday, February 2, 2017 4:28:04 PM

The Gateway Chamber Alliance is a group of nearly a dozen chambers of commerce located in the Gateway Region of Los Angeles County. We are very concerned about the region's energy reliability. The potential impact of natural gas shortages due to the continued closure of the Aliso Canyon storage facility is of great concern to the Chamber and our members. Natural gas plays a vital role in not only providing heat to homes and businesses, but also is used to produce electricity. Shortages could impact both public safety and the local economy. This is especially true in the event of another prolonged cold snap. Local blackouts and a limited supply of natural gas should be of concern to everyone in the Southern California community.

Although we understand the safety concerns in and around the storage facility, we also understand the efforts Southern California Gas Company has taken to ensure future safe operation of the wells located in the storage facility. We also understand the many of the wells have already been inspected and given an excellent safety rating. With this in mind, we believe these wells should be returned to active use as soon as possible.

Your time and consideration is appreciated, and I am available if you should require additional information or input.

Sincerely,

Scott Smith
Executive Director

GATEWAY CHAMBERS ALLIANCE

[REDACTED]
Cerritos, CA 90703

Phone: 562 [REDACTED]

Fax: 562 [REDACTED]

[REDACTED]
www.cerritos.org

From: [Scott Smith](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Safety Review Comments
Date: Wednesday, February 1, 2017 10:29:41 AM
Attachments: [image001.png](#)

The Cerritos Regional Chamber of Commerce is very concerned about energy reliability, especially the availability of natural gas during the winter months. The potential impact of natural gas shortages due to the continued closure of the Aliso Canyon storage facility is of great concern to the Chamber and our members. Natural gas plays a vital role in not only providing heat to homes and businesses, but also is used to produce electricity. Shortages could impact both public safety and the local economy. This is especially true in the event of another prolonged cold snap. Local blackouts and a limited supply of natural gas should be of concern to everyone in the Southern California community.

Although we understand the safety concerns in and around the storage facility, we also understand the efforts Southern California Gas Company has taken to ensure future safe operation of the wells located in the storage facility. We also understand the many of the wells have already been inspected and given an excellent safety rating. With this in mind, we believe these wells should be returned to active use as soon as possible.

Your time and consideration is appreciated, and I am available if you should require additional information or input.

Sincerely,

Scott Smith
President/CEO
Cerritos Regional Chamber of Commerce

████████████████████
Cerritos, CA 90703
Phone: 562.██████████
Fax: 562.467.0840

████████████████████
www.cerritos.org

Promoting and enhancing business in the greater Cerritos area



From: [Ron Martin](#)
To: AlisoComments@DOC
Subject: Keep the Sempra Aliso Canyon natural gas facility closed
Date: Thursday, February 2, 2017 4:10:13 PM

The Aliso Canyon natural gas facility should be kept closed. We should not risk more health threats to Porter Ranch residents, and we should not set up the planet for famine for millions of our descendents from the loss of arable land through climate change.

Ron Martin

=====

[REDACTED], Fresno Square, Fresno, CA 93726-1081
(559) [REDACTED], landline; (559) 3 [REDACTED], mobile

From: [Alex Fierro-Clarke](#)
To: AlisoComments@DOC
Subject: Alison Canyon Reopening
Date: Thursday, February 2, 2017 3:11:15 PM

Hello,

I'd like to leave a comment regarding the possible reopening of the Alison Canyon gas storage Facility. There needs to be a full inspection conducted to verifiably confirm the reason for "the worst single natural gas leak in U.S. history in terms of its environmental impact."

This gas storage facility is incredibly dangerous for residents of Porter ranch, as well as the people of California. This storage facility should be shut down permanently.

California needs to invest in more clean energy that unlike natural gas does not put the lives of its citizens at risk.

Thank you for your time.

Sincerely,
Alex Fierro-Clarke
90026

From: [Stefany Vad](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive safety review
Date: Thursday, February 2, 2017 2:54:14 PM

To whom it may concern,

I am a Porter Ranch resident for the past 19 years. I live in one of the closest communities to the Aliso Canyon Storage Facility (The Porter Ranch Estates) which is considered a "Methane Zone". I never knew what this was until the blow out and I have done hundreds of hours of research regarding this and other implications of this facility. I am a realtor in the area as well. I never knew this storage facility existed until the "blowout". I am perplexed with all the disclosures us realtors have that this facility was never pointed out! My life, my family's life as well as my pets has been significantly impacted by the "blowout" physically, emotionally and financially. I can go on regarding the nightmare physically for me personally, but that is not your issue. There are thousands of us who have had and are still having **severe** health issues and much more that have been impacted in some way. The thought of this facility being reopened causes anxiety and fear. My trust in SoCal Gas and its affiliated company and regulators is nonexistent. I fear that the "safety" of this facility can be presented in a way that may appear safe but in fact if you dig deeper (the stuff they aren't talking about) would produce a much different story. The facility may be "safe" for the moment that it is decided to inject, but the regulators and the Gas Company itself "WILL NOT" be on top of the situation especially once they get a green light. This is an aged facility and has served its purpose, it's time to figure out something else. It is proven in the past that they turn a blind eye to imperfections in the facility, are careless, and release gas during "maintenance". Big corporations only care about the least expensive most cost effective way to produce a profit with the least amount of collateral damage (us the community). No one has done a seismic study! The ground in the area is subject to major earthquakes. The storage is in a naturally occurring layer of earth beneath the wells that can be disrupted in an earthquake and the methane can and will percolate up. Why is no one considering this? Even without seismic activity I am suspect that this may be already occurring maybe not at the facility but underneath our homes. The more pressure that is put in the storage the more likely the gas will find a way to escape it's a gas it rises! Please I urge you to shut this facility down.

There has to be a better alternative that isn't as dangerous. It may be more costly but it's the RIGHT thing to do. In addition, I have knowledge that another company is up there fracking. That can't be good. Also, has anyone done a study on our water table?

Do we know all the chemical mixtures are that they use for fracking or what chemical combinations are created from the old oil wells? I could go on and on but these are my most important points. Thank you!

Sincerely,
Stefany Vad

From: [Kate Dennis - Skillings](#)
To: AlisoComments@DOC
Subject: Reopening gas facility?
Date: Thursday, February 2, 2017 2:40:16 PM

Hello,

I understand you were thinking of reopening the gas facility that was closed last year because it made made so many residents of the Porter Ranch area sick (and killed many pets). Please don't reopen this facility if there is no guarantee that the same issue will occur again. There seems to be no cause for the leak found and I can't imagine endangering more people and the lives of countless animals. I hope you will take this into consideration.

Thank you.

Kate Dennis-Skillings

From: [Stan Renfro](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Conservation Review
Date: Thursday, February 2, 2017 2:04:49 PM

Madam or Sir:

Methane is an issue that dooms our planet more than any other agent.

We must seal it in the planet, and not let it reach the sky, where it will prove lethal to our progeny and all of nature, by following its propensity to heat.

Thank you for receiving our messages of grief and outrage.

May we learn to walk again.

Stan Renfro

From: [Jill Brown](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Gas Storage
Date: Thursday, February 2, 2017 1:40:45 PM

I have lived in Porter Ranch since 1972. I was never advised that such a large storage tank was close to me, nor the risks of such a storage area. I have called the gas company several times when I smelled gas and the reply was always we are working on the equipment. It went on for several days each time. Some days I could smell it the minute I walked out my door and never had my windows open during that time. I have never had asthma but developed this about 10 years ago. In late 2014 and in 2015 I was in ER several times as my normal asthma meds were not working. I usually walked my dog at night but often stopped as the gas smell was overwhelming. I came home one day in July 2015 and there was blood all over my floor and on some walls. I was so unnerved I got my neighbor to go into the house with me. My big dog, Suzi, who weighed 90 lbs was bleeding heavily from her nose. LOTS OF BLOOD. I took her to the vet and she had to be put down as the vet said she pretty much bled out. The vet did not know what happened. Earlier in the year, prob January 2015 Suzi had a single severe seizure. Again vet could not find reason. Then I find out others in my neighborhood had animals that were ill and had severe nose bleeds. I moved in Dec 2015 because I was constantly sick, felt ill, trouble breathing, constant headaches, fatigue. After several weeks in the far end of Simi Valley I began to feel better. I still had to go home to check on pool, water plants/take care of yard. I only stayed long enough to get things done. I have live in the valley since I was 5 years old. I have great neighbors and have a nice house. I really do not want the Gas Co. to continue to lie to me and others. This is affecting my health and the health of my neighbors and my pets. I do not want to move but I do not want to be poisoned in my own home. I also got the largest bill from the Gas Company for the last billing cycle in Feb 2016. Never had a gas bill that high. MIND YOU I DID NOT LIVE THERE FOR 6 WEEKS OF THE 8 WEEKS BILLING CYCLE. Went to Gas Company, their reply - pay your bill or we will shut off your service we did not make a mistake. I had everything turned down or off as I was not living there. Please do not turn a blind eye to a whole community in distress. Would you want your family to live with this problem. Thank You, Jill Brown

From: [Paul Saldana](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Thursday, February 2, 2017 1:15:56 PM

The Tulare County Economic Development Corporation is pleased to submit these comments regarding the safety review findings for Aliso Canyon. Based on the findings of the safety review findings, we are in favor of lifting the prohibition on injection for those wells that have passed the Safety Review Testing Regime and meet regulatory requirements. As indicated in the CPUC Report on Aliso Canyon, there is a critical need for the storage facility for the winter season and in particular for the areas outside of the LA basin, which would be severely impacted without the reserve available at Aliso Canyon (CPUC, Aliso Canyon Working Gas Inventory Report, 1/17/2017, p. 8). As such, counties like Tulare who are served by SoCalGas have the potential to be impacted by curtailments due to the lack of reserves as well as unreliability that the absence of storage at Aliso Canyon would have. Likewise, the reliability and cost of electric systems is concerning, as we could experience negative impacts as Aliso Canyon remains out of service.

Analysis by the CPUC, the California Energy Commission, California Independent System Operator, Los Alamos National Labs, and the Department of Conservation's Division of Oil, Gas and Geothermal Resources all indicate that the analysis, safety improvements and monitoring are designed to render the wells operational. As such, we encourage the Department and the PUC to work expeditiously to return the wells that meet the requirements to service at the earliest opportunity.

We agree that safety and reliability of natural gas service is paramount in your decision making process and believe that the standards that have been set and the evidence that has been submitted so far achieve that safety and reliability threshold.

Thank you for the opportunity to comment.

Paul Saldana
President & CEO
Economic Development Corporation
Tulare County, CA

From: [Gary Hoover](#)
To: AlisoComments@DOC
Subject: Meeting 1-1-2017 Aliso Canyon
Date: Thursday, February 2, 2017 12:59:47 PM

To Comprehensive Safety Review Committee:

I attended the meeting on 1-1-2017 at the Woodland Hills Hilton Hotel. I came to hear about the Safety aspects of what the California Review Board was going to do about the Aliso Canyon Gas facility. The meeting became unruly as the "Porter Ranch Shut it Down" people took over the meeting! At this point I saw no reason to stay and listen. With all the police, and meeting coordinators in attendance it seems to me the meeting was run completely out of hand!! The unruly should of been escorted out of the room as to let "Us" the people that were there to learn, to enjoy a respectful meeting and hear from both sides of the problem.

I am sending this as to ask: **That before any existing or new wells are filled and pumping natural gas into them for future use begins, ALL the wells, I believe their are 114 or more, Must be Tested, Fitted with the correct safety valves and monitored 24/7 for the entire future of this storage field!!**

Please review my statement and include it as to when the Storage Field is reopened it will be a SAFE area for all citizens in the San Fernando Valley area.

Thank you,

Gary and Pat Hoover

Porter Ranch Homeowners

818-

From: [John Dixon](#)
To: AlisoComments@DOC
Cc: [REDACTED]
Subject: Re-opening Aliso Canyon
Date: Thursday, February 2, 2017 12:48:21 PM

I support re-opening the Aliso Canyon gas field. The delay has been excessive.

Porter Ranch residents have been directly affected because of their proximity, and they have been the most vocal in expressing their opinions. Their opinions, however, are not representative of most So Cal Gas customers.

It appears to me that many Porter Ranch residents have lost any sense of balance and proportion. Some have been misguided by false pseudo-science. Others have reacted in unreasoned fear. Sadly, I believe some Porter Ranch residents have behaved like opportunists seeking their own enrichment.

So Cal Gas has been incredibly patient and professional in the face of unreasonable penalties, excessive delays, and lavish resident demands.

Enough is enough. End the whining. There is enough hysteria in our country right now. Make a decision in the interest of ALL So Cal Gas customers based on scientific facts and financial considerations.

John Dixon
[REDACTED]
Thousand Oaks, CA 91360
805 [REDACTED]

From: [FP SKOCILICH](#)
To: AlisoComments@DOC
Subject: Aliso comment
Date: Thursday, February 2, 2017 8:47:25 AM

Thursday 2 Feb 2017

To whom it may concern,

This home owner citizen taxpayer urges that the field be approved to remain in use.

Regards,

F. P. Skocilich

[REDACTED]

Canoga Park, CA 91304

[REDACTED]

From: cfowlerstarrchoice
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Thursday, February 2, 2017 7:44:27 AM

I urge you to reject SoCalGas's application to reopen the Aliso Canyon Storage Facility. This facility should be permanently shut down to prevent any further catastrophes from occurring. On December 28, 2016 methane was found to be leaking from the "plugged" SS-25 wellhead.

Let's not forget. 7,000 residents were displaced; many were sickened as 109,000 metric tons of methane inexcusably spewed into our air. This leak was beyond control and took months to contain. It caused irreparable harm to our atmosphere.

Do the right thing - support SB146.
CLOSE ALISO CANYON!!!

Catherine Fowler
[REDACTED] Madera 93636

Powered by Cricket Wireless.

From: [Caitlin Lowerre](#)
To: AlisoComments@DOC
Subject: Aliso Canyon
Date: Thursday, February 2, 2017 1:23:53 AM

Hello,

Please, if you cannot determine the cause of the 4-month long gas leak that negatively impacted the health of too many residents and then find a way to ensure a leak of that magnitude and duration never happens again, shut the facility down permanently. It's not worth the risk.

Thank you,
Caitlin Lowerre

Sent from my iPhone

From: [TwinZebra](#)
To: AlisoComments@DOC
Subject: The comments I would have made tonight - SHUT IT DOWN
Date: Wednesday, February 1, 2017 11:45:55 PM

██████████ ██████████ ██████████

Lancaster, CA 93534

(818) ██████████

Feb. 1, 2017

Aliso Canyon Comprehensive Safety Review

Department of Conservation

801 K Street MS 24-02

Sacramento, CA. 95814

To Whom It May Concern:

Hello. My name is Courtenay Edelhart. I am here today on behalf of my sister and her family urging you to permanently shut down Aliso Canyon. My sister would be here, herself, except she's at the hospital, where she has pretty much lived since her 7-year-old daughter was diagnosed with leukemia in December. In *December*. Two weeks before Christmas. It was the second year in a row our holidays were ruined. The year before that, my niece was living out of a suitcase, having been relocated to temporary accommodations to escape the largest methane leak in United States history.

My niece should have opened presents this past holiday at home in Porter Ranch, surrounded by family and festive food. Instead, she was getting chemotherapy and crying because her hair was falling out. My niece was proud of her dark, curly hair, which was almost long enough to sit on.

It's hard to explain to a 7-year-old that she has to go bald and take in poison that makes her nauseous because the awful, debilitating therapy is necessary to save her life. It's even harder to explain to a 7-year-old that there are different types of leukemia, and hers is among the fastest growing and most deadly. Or that one of the risk factors for this particular type of cancer is repeated exposure to benzene, a known carcinogen that was spewing for months at the only home she's ever known.

My little niece misses her cat, and her friends, and her Doc McStuffins toys. And believe it or not, she misses school. When she gets bored at the hospital, she solves math problems on the white board. Just for the fun of it.

How many first-graders do you know who consider math entertainment? What will this smart, funny, amazing little girl grow up to accomplish if she survives? What creativity and innovation will die with her if she doesn't? And how many other families are going to have to endure the same agony before somebody in a position to do something about it has the courage to stop it?

Thank you for listening.

From: [diane charles](#)
To: [AlisoComments@DOC](#)
Subject: Please Shut This Gas Leak Down!
Date: Wednesday, February 1, 2017 11:07:52 PM

Please don't let this continue! Please shut this gas leak down so more citizens and animals are not hurt. Thank you, Diane

From: [Kristy Pace](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comments
Date: Wednesday, February 1, 2017 9:39:47 PM

No facility should be reopened when the state hasn't completed the analysis on what caused a massive blowout.

Aliso Canyon is not necessary for energy reliability. The facility has not been used for energy since January 2016 and there have been zero blackouts.

Aliso Canyon will never be safe. During the shut down of Aliso Canyon in the last year, the facility has seen 6 major leaks or spills, since the blowout and the facility leaks on average twice daily.

Thousands of residents in the nearby community are still getting sick and every day leaks and spills send more children and families to the emergency room.

I know you are all good people with families and neighbors. You wouldn't be sitting in this position, giving your time to public service, if you didn't have a sense of responsibility to make our world a better place, for the people of our community. Your responsibility is to protect the people, please do that. It's time to shut down Aliso Canyon permanently.

Be well,

Kristy Pace

"Be The Change You Want To See In The World"

From: [encore889](#)
To: AlisoComments@DOC
Subject: Keep the gas facility closed!
Date: Wednesday, February 1, 2017 8:06:57 PM

I am a resident of porter ranch and i went to the meeting at so cal gas a couple weeks ago regarding them installing a new multimillion dollar turbine on the property. Since then they are telling us that the city is using too much gas and had to withdraw from the facility because of the cold weather.

So instead of spending millions installing a new turbine, they should be forced to wean the city off using natural gas, so the facility never reopens again. For example, one thing they can do is give porter ranch and surrounding residents coupons to replace our gas heaters, dryers, and stoves with electric alternatives. And since we use gas to make electricity, They can also give us coupons to install solar on our homes, so the power we do use is Not from fracked gas! We need to get off fossil fuels asap.

Thats the least they can do considering they poisoned the whole community for months! If they have money to install multimillion dollar turbines they have enough to do what i suggested. Besides they are insured from the blowout. Why should our community suffer from pure disregard for safety and lack of emergency shut off valves! This facility should be shut down forever!

Thanks,
Art
Concerned resident.

From: [Margaret Hinch](#)
To: AlisoComments@DOC
Subject: Smelling gas early in the morning
Date: Wednesday, February 1, 2017 5:45:21 PM

I regularly run in the area around 5:30 am. I have had multiple mornings over the past few weeks that I call to report the smell of gas along Sesnon at the base of the hill. AQMD usually calls back around 8-9:00 am. Only one person was able to still verify the smell. If reports are coming in early in the morning is there a way to adjust hours or schedules in order to get someone out right away for verification?

Thank you,
Margaret Hinch

Sent from my iPhone

From: [Elenor Avanesian](#)
To: AlisoComments@DOC
Subject: Shut it All DOWN
Date: Wednesday, February 1, 2017 5:43:19 PM

To whom it may concern:

I am writing to you to ask you to shut this facility down permanently!!

It is time for our leaders to look into green energy and alternative energy!!!

As a resident of Porter Ranch, I am asking you on behalf of my family to consider shutting Aliso Canyon gas facility forever!!!

My family and I have experienced many headaches, unexplainable coughs, runny nose, nausea, bleeding in the nasal cavity, burning in the eyes, and achy teeth. The latter was news to my dentist whom I've been seeing for over 25 years. I have never before experienced achy and sensitive teeth.

In addition, we should and must know the chemicals that spewed during the blowout. The gas company claims that they are transparent with their 'neighbors'.

However, I have yet to see transparency!!!

Thank you,
Elenor T. Avanesian
Sent from my iPhone

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon
Date: Wednesday, February 1, 2017 4:45:56 PM

The thought of Southern California Gas Company reopening the Aliso Canyon facility in Porter Ranch is very disheartening. So Cal Gas has not fixed any of the ongoing safety issues and have proven that they are dishonest repeatedly year after year after year. During the recent blow out and currently, the residents of Porter Ranch have been burdened with ongoing health conditions caused by the leaking wells at Aliso Canyon. Also, Southern California Gas has not complied with any of the new policies to increase safety. They have caused our community, our schools, our citizens and our environment irreparable harm. Please do not let Southern California Gas Company ever reopen the Aliso Canyon facility. They cannot be trusted. Always remember, the best indicator of future results is past performance. Based on that alone, the residents of Porter Ranch can expect more lies, more accidents, more blow outs, more excuses, more fires, etc.....SHUT IT ALL DOWN.

From: [David Bond](#)
To: AlisoComments@DOC
Subject: SHUT IT DOWN
Date: Wednesday, February 1, 2017 4:40:16 PM

There have already been half dozen gas leaks, one of which was considered one the worst environmental disasters in American history! It's a FACT that there will be more leaks if the Aliso Creek facility is re-opened. There is no denying this. So either the powers-that-be will act in the interest of the continued good health of the citizens or you will value money and continue to poison your own people.

This is a very easy decision to make.

- David Bond

From: [George H. Denny](#)
To: AlisoComments@DOC
Subject: My Comments for the Record
Date: Wednesday, February 1, 2017 2:52:24 PM

We believe that permanently closing the Aliso Canyon gas reservoir is the best option, not just for the surrounding area, but for the general public. This area, closed to the public, would make a wonderful new park. This old oil field is today, nearly completely surrounded by park land. To the North is Santa Clarita Woodlands Park, Ed Davis Park at Towsley Canyon; to the east and north are East and Rice Canyons, and Michael D. Antonovich Open Space. To the east is O'Melveny Park and to the west is the Michael D. Antonovich Regional Park at Joughin Ranch. Making this area one large open park would be of enormous benefit to anyone visiting the San Fernando Valley, Los Angeles, and Southern California. Existing parks that abut to the south (Holleigh Bernson Memorial Park, Moonshine Canyon Park, Limekiln Canyon Park, Porter Ridge Park, and Aliso Canyon Park) could all be joined together creating a myriad of new hiking, biking and equestrian opportunities. Enlarging other area parks, such as Browns Creek Park, would further enhance these opportunities.

Having hiked to Oat Mountain, the highest point in the range, I was more than a little dismayed to find a new gate, excluding the public, less than ¼ mile from the summit. We need more access, not less.

No matter what new (and unbelievably late) steps are taken to assure the public's safety, one of the other wells, will again, fail, catastrophically. Many of the connecting pipelines are as old or older than SS-25. Several have leaked in the last year. More will leak this year. As long as this reservoir exists, it is a threat to public safety.

From: margery.brown
To: AlisoComments@DOC
Subject: The SoCalGas Aliso Canyon Gas storage field in Porter Ranch.
Date: Wednesday, February 1, 2017 2:07:44 PM

To whom it may concern:

Gentleman,

I am an almost 92 year old resident who lives right within the borderline of the Aliso Canyon five mile limit in Chatsworth, and I have been suffering, continuously, from burning watering eyes, a never ending running nose, and a chronic and incessant dry cough, starting when the blowout of the gas well SS25 occurred on Dec. 23, 2015. Being handicapped with severe arthritis, I was unable to manage relocating at that time, and no assistance was offered by the Gas company for either the elderly or the disabled victims. In addition, being a long time Opera singer, I have experience some troublesome breathing symptoms, and none of my symptoms are related to any diagnosed illness.

These troublesome symptoms are still continuing to date, even though only about 34 of the gas wells have been reopened...so far. In addition, my three bedroom condo is not on the list of those to be cleaned. My symptoms have been so continuous and chronic, that I have not even been able to report them to the Health Department. I would be on the telephone 24-7. I can tell when the Methane level rises without even looking at the Fenceline chart.

I understand that I have plenty of company, still suffering from illnesses, very much worse than mine, at the present time, and said to be thousands of unfortunate residents of Porter Ranch and the surrounding areas. We are talking about severe and unstoppable headaches, sinus problems, lots of bloody noses, unremitting fatigue, dizziness, nausea, vomiting and some cases of cancer...with a few more I have undoubtedly forgotten, in addition to many more cancer cases to be anticipated in the future.

Almost worse than the physical symptoms has been the psychological distress, for me. I am retired from a 45 year career as an L.A. County Deputy Probation Officer, who has spent most of those years and working hard to get juvenile offenders to take responsibility for their delinquent deeds, accept responsibility and make some changes that will keep them out of jail. A great deal of investigating also went along with my special assignment of Suitable Placement of minors ordered placed out of their homes by the Court. I continue to be devastated by the way that the Gas Company is treating all of the Porter Ranch victims.

In addition, I continue to be a 30 Volunteer with the American Red Cross disaster unit, currently trying to get the Red Cross to publish some Shelter In Place instruction for victims of a nuclear disaster. Unfortunately, sheltering in place would not help with the Aliso Canyon Disaster, as even the inside of the homes becomes contaminated. Nuclear contamination would probably do the same thing, but the possibility of evacuating millions of people is an impossible nightmare!

Needless to say, I continue to be appalled by the Gas Company's treatment of the Porter Ranch Victims, which has been much too often marked by their denial that the gas blowout has had anything to do with the victims' reported symptoms, their minimizing of the harm they have done, or, in some cases outright dishonesty designed to preserve their millions of dollars of financial profit. Lately, they seem to have manufactured a case for releasing some gas, to save all of us from an imagined gas shortage, and to bolster up their very premature and extremely unacceptable application to reopen the gas field.

Re-open the gas field? I don't think so. There is still no study, intent to study, or publication of one, of why the gas blowout of well SS 25 on Dec. 23, 2015 happened. What caused it? There is also no emergency plan in place, but there is an acknowledgment by the Gas Co. that there are about two gas well leaks a day. In addition, there has been no health investigation done, or one even mentioned as being contemplated. There are thousands of victims in Porter Ranch, and this data is

urgently needed. Is the Gas Company avoiding this study for a reason, or have other Governmental officials simply been disinterested to pursue it? Or...even more importantly....are they afraid to pursue it?

There has also been an apparent avoidance or outright refusal of the gas company to release information about other chemicals that are surely present in the Methane releases. Chemicals such as Benzene, Toluene, Formaldehyde and others that are carcinogenic, and some of those chemicals could be causing many of the illnesses that people are suffering from. There is also apparently frequent "off-gassing" going on, and no one seems to know the status of the ground water, although the very powerful So. Cal Water Board is supposedly investigating this.

Gentlemen, I urge you to keep this Gas Storage Field shut down. The Citizens of Porter Ranch really cannot and should not have to endure any more illness and distress, and they have more than earned the right to the quiet and healthy enjoyment of their homes and the protection of their children. There will be no shortage of gas, as a result. This is another it's all about MONEY Gas Company fiction! PLEASE, keep the Aliso Canyon Gas Storage Field shut down!!!!

Margery Brown,

[REDACTED]
Chatsworth, CA 91311

818 [REDACTED]

From: [REDACTED]
To: AlisoComments@DOC
Subject: PLEASE Do Not Reopen Aliso Canyon!
Date: Wednesday, February 1, 2017 11:04:29 AM

To Whom It may Concern:

I am a resident of Porter Ranch, California, where almost 100 metric tons of natural gas pummeled my home and family last fall due to the blowout at the SoCal Gas Aliso Canyon facility. I work for a local government and am sympathetic that "accidents happen." At first I was sure that it was "no big deal" and didn't worry too much. Then both my children began having daily nosebleeds and migraine headaches. We went away on vacation out of state and all symptoms disappeared. We returned and so did the symptoms. We moved out of our home last January to a nearby hotel only until SoCal Gas installed a filter on our HVAC system at home. We still have not filed any lawsuit against SoCal Gas although their ongoing evasive behavior and questionable tactics since the blowout are making me rethink this.

While I am grateful for their actions to relocate us and understand that they were unprepared for this unforeseen catastrophic event, their handling of the matter deserves serious scrutiny and concern. SoCal Gas was not honest upfront by reporting the blowout to authorities immediately and were fined for this evasion. SoCal Gas has not been honest with us as residents and has worked repeatedly on a public relations campaign to maintain shareholder profits at residents' expense (figuratively and literally). It took nine months of fighting to get my hotel costs reimbursed after originally being told to "not worry about it, OF COURSE we will reimburse you." They promised to do a health study of our community and have not done so; **OVER A YEAR LATER AND WE STILL HAVE NO IDEA OF THE HEALTH IMPACTS OF THIS DISASTER UPON OUR FAMILIES.** They have refused to share the chemicals used during the blowout and what was in the wells; they did not admit to residual oil spray from the old wells until residents showed proof of oil spots on backyard playground equipment and vehicles. In public hearings their own representatives stated, on the record and available on recordings, that they averaged "two leaks a day." Every time public hearings about the field are coming up for discussion, suddenly there is some manufactured "gas crisis" that requires SoCal Gas to use the field again. Is anyone at the State monitoring this to ensure that they are even being truthful?!

My husband and I are so concerned, we have discussed selling our home and moving. Where we used to feel proud to have purchased a beautiful home in a safe community with good schools, we now feel that we live in the specter of another Three Mile Island, wondering when the next blowout will occur, worrying about our children's health, worried whether or not we will be able to sell our biggest asset when we want to, and quite sure we will not be treated with honesty and care by this for-profit business with only shareholder profits in mind.

Who can protect us? YOU, our government representatives. Ensuring that the wells are now "safe" for re-injection does not eliminate nor dismiss the lack of transparency and concern shown by this company since the blowout, nor does it mean that gas volumes require the use of Aliso Canyon. **THEY CANNOT BE TRUSTED WITH OUR LIVES AND OUR HEALTH.** Allowing re-injection will not provide sufficient disincentive for SoCal Gas' poor behavior and will further reinforce the Porter Ranch community's complete sense of abandonment by our public officials.

Please do not allow injections to resume in Aliso Canyon. Thank you for your consideration to this VERY important, life or death, matter.

Sincerely,
Rebekka Hosken

[REDACTED]
Porter Ranch, CA 91326

From: [arlene.stein](#)
To: AlisoComments@DOC
Subject: Aliso Canyon - SHUT IT DOWN
Date: Wednesday, February 1, 2017 10:25:25 AM

I have been a 25 year resident of Porter Ranch and would like to express my deep concern for the situation at the Aliso Canyon Gas Facility. This facility is unsafe for multiple reasons, alternate energy sources should be used and the facility should be shut down! I support bill SB146 and hope you will do all you can to help keep us safe now and in the future.

Thank you,

Arlene Stein

From: [Jennifer Taylor](#)
To: AlisoComments@DOC
Subject: Aliso Canyon
Date: Wednesday, February 1, 2017 10:21:24 AM

My name is Jennifer Taylor and I am a Chatsworth resident. I am less than 3 miles down wind of the facility. The testing that has been done to the wells has done nothing to alleviate the problems that residents are experiencing. My family and I experienced numerous health problems during the blowout. I am now extremely sensitive to "the smell". And by smell, I am referring to the dangerous mercaptans that we are being exposed to. And since they are heavier than the natural gas, they float downhill. That "smell" makes my voice go hoarse, my vision blurry, my head ache at the base and sides. My daughter gets nauseous. My husband has to use an inhaler and my son gets raises when that "smell" is around.

Unfortunately, whatever SoCal Gas is doing there is not fixing the problem. When they were recently withdrawing from it because of the "cold weather" it the "smell" got really bad again. This old, dangerous facility needs to be completely shut down. Please stop putting profits about the health of our community.

Jennifer Taylor

From: [Daniel Smith](#)
To: AlisoComments@DOC
Subject: Aliso Canyon SoCal Gas Comments
Date: Wednesday, February 1, 2017 9:22:42 AM

I am strongly against the reopening of the Aliso Canyon Gas Facility. SoCal Gas failed to maintain the facility to any standard of care while spending huge amounts of money to increase its capacity. The blowout sickened my family and drove us out of our home for months. We suffered physical, emotional and financial harm for the blowout. The facility continues to have leaks and spills and my family is still suffering rashes and nosebleeds. We are worried that we will eventually get cancer or some disease from this operation. We had to leave our home unattended for an extended period of time and were very worried about securing our residence.

The conduct of SoCal Gas shows no real regard for integrity or concern of the residents. They want to run their facility to make money without public safety in mind. The recent withdrawals from the facility were only "necessary" as the result of an engineered shortage since the contingency plan was discontinued, again showing bad faith of the operator.

Even more than one year after the blowout was capped, 2/3 of the wells have been unable to pass the inspection process that SoCal is using, and it seems that most of these wells do not have a subsurface safety value to arrest another blowout. Additionally, the facility sits on top of an earthquake fault, making the lack of subsurface safety values more alarming if an earthquake caused a major blowout (especially if there were multiple failures).

SoCal has not yet completed a root cause analysis to find the true reason for the blowout in hopes of preventing another blowout.

SoCal Gas has also failed to be forthcoming about the substances at the well site that polluted our homes and lungs. No one cleaned the oily residue off of my home and we breathed it in until we were forced out of our home.

The Aliso Canyon facility is not safe, SoCal Gas has no integrity to protect our safety and it must not be allowed to open.

Daniel Smith

Daniel M. Smith
Director, Corporate Counsel
Guitar Center, Inc.
[REDACTED]
Westlake Village, CA 91362
(818) [REDACTED]
[REDACTED]

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Thank you.

From: [Jay Carsman](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Natural Gas Storage Facility
Date: Wednesday, February 1, 2017 7:50:52 AM

I live directly below the Sempra gas storage site. It is less than a mile away. I have lived through three massive leaks including one having a huge flame. The most recent and massive leaks were the worst yet and seriously endangered our health and safety. By Sempra's admission, the vast majority of wells are of unknown safety. That does not even take into account the potential rupture of the geologic cap layer due to the movement of the nearby earthquake faults. This could cause a massive and possibly explosive release of Methane. The potential damage would be incalculable both in loss of lives and property.

Conditions in Porter Ranch are significantly different from the 1950s when Aliso Canyon was converted from an old oil field to a high pressure gas storage facility. Today, hundreds of thousands of people live close enough to the facility to be endangered by a gas storage leak. Years ago, that was not the case.

There are many cost-effective alternate energy storage technologies now available at modest cost that will make Aliso Canyon unneeded. For example, I can install a Tesla Power storage unit in my garage that will power my peak demands for electricity. My solar array already supplies 98% of my daily needs summer and winter. The Tesla storage unit is about \$5,000. That's not very expensive to protect our lives from billions of cubic yards of Methane gas containing Mercaptin.

It is clear that we do not need Aliso Canyon anymore. Good luck public policy dictates it's immediate and permanent closure.

Sincerely,
Jay and Adrienne Carsman
[REDACTED]
Porter Ranch, 91326
[REDACTED]

From: [Henderson, Lynette K](#)
To: AlisoComments@DOC
Subject: RE ALISO CANYON GAS STORAGE FACILITY
Date: Wednesday, February 1, 2017 7:20:49 AM

Dear Sirs:

i am writing to urge regulators to permanently close the Aliso Canyon SoCal storage facility.

I live in Chatsworth, 6 miles from the site of the facility, and while not directly in the line of fire during the massive leak last year, I live and work in the area at CSUN.

This is my permanent home and I cannot be sure that there will be no other leaks. In fact I understand there was another small leak after the big one.

I have no idea how this leak has affected myself and my family, for the long run.

The facility is too close to residential areas and cannot be controlled, so it must be shut down permanently.

Thank you,
Lynette K. Henderson
[REDACTED]
Chatsworth, CA 91311

From: [Dempsey](#)
To: AlisoComments@DOC
Date: Wednesday, February 1, 2017 7:10:05 AM

To whom it may concern:

"I support the permanent closure of Aliso Canyon. For 112 days 94,067 metric tons of methane & other unknown toxic chemicals, (aka "proprietary information") spewed out of the faulty facility and showered residents with toxic chemicals. Nearly 95 THOUSAND TONS of pure benzene, xylene, toluene & methyl mercaptans rained down on thousands of living, breathing humans, animals & plants. And to this day, the facility CONTINUES to leak, and have spills and issues.

Please please please look out for humans beings and their health, not a corporation, and shut this down. Lives are at stake.

Sincerely,
xxxxxxx

Sent from my iPhone

From: [Winona Dorris](#)
To: AlisoComments@DOC
Subject: You've Got To Be Kidding
Date: Wednesday, February 1, 2017 4:20:07 AM

I'm curious if any of the people making the decision to leave Aliso Canyon open live in the area? Have any of you had to deal with the dangerous life threatening issues caused by inhaling the toxins coming from the plant? Imagine your child or your spouse being sick just from breathing in toxic air. There has to be some compass of morality and human compassion inside of the people refusing to shut down this facility. Knowingly leaving it open is murder. You are killing people. You actually should be prosecuted in court for this.... there is already a precedent. There has to be a point where corporations value life over dollars.

I support the permanent closure of Aliso Canyon. For 112 days 94,067 metric tons of methane & other unknown toxic chemicals, (aka "proprietary information") spewed out of the faulty facility and showered residents with toxic chemicals. Nearly 95 THOUSAND TONS of pure benzene, xylene, toluene & methyl mercaptans rained down on thousands of living, breathing humans, animals & plants. And to this day, the facility CONTINUES to leak, and have spills and issues.

Please please please look out for humans beings and their health, not a corporation, and shut this down. Lives are at stake.

Sincerely,

Winona Dorris
Concerned Caring Citizen

From: [Liz Tigelaar](#)
To: AlisoComments@DOC
Subject: I support the permanent closure of Aliso Canyon.
Date: Tuesday, January 31, 2017 9:43:05 PM

To Whom It May Concern --

I support the permanent closure of Aliso Canyon. For 112 days 94,067 metric tons of methane & other unknown toxic chemicals, (aka "proprietary information") spewed out of the faulty facility and showered residents with toxic crap. Nearly 95 THOUSAND TONS of pure shit (benzene, xylene, toluene & methyl mercaptans) rained down on thousands of living, breathing humans, animals & plants. And to this day, the facility CONTINUES to leak, and have spills and issues.

Please please please look out for people, not a corporation and shut this down. Lives are at stake.

Sincerely,
Liz Tigelaar
Venice, CA

From: [Blythe Robe](#)
To: AlisoComments@DOC
Subject: Shut it down!
Date: Tuesday, January 31, 2017 9:37:26 PM

I am a resident of Studio City, CA and I support the permanent closure of the Aliso Canyon for the health of the entire community.

Thank you,
Blythe Robe

Sent from my iPhone

From: [Saulius Labutis](#)
To: AlisoComments@DOC
Subject: Keep Aliso Canyon Closed.
Date: Tuesday, January 31, 2017 2:29:44 PM

To whom it may Concern,

I urge you to protect the health and safety of my family in Porter Ranch at 12112 Stewarton Dr by keeping Aliso Canyon closed permanently.

No root cause has been found. To open it up because So Cal gas has profits to gain in lieu of our health is insane.

On October 23, 2015, SoCalGas' Aliso Canyon Storage facility experienced a massive blowout, which released hundreds of thousands of pounds of methane gas, heavy metals and other harmful compounds into the San Fernando Valley community.

The blowout went unplugged for four months, forcing over 25,000 residents including my family out of our home where exposure to these compounds caused numerous health problems for me, my wife and my children.

The well was plugged in February 2016, but my homes are still contaminated by toxic chemicals from Aliso Canyon, and the facility still experiences regular leaks. We are still experiencing health problems. Nosebleeds, headaches, dizziness, nausea are a common occurrence there are now reports of leukemia, anemia and other more serious conditions are being reported. This scares the hell out of us.

SoCalGas and DOGGR are moving to reopen Aliso Canyon, but there has been no thorough analysis of the ongoing health impacts and chemical exposure in the five-mile impact zone. Further, the state has not completed a root-cause analysis; meaning, regulators and SoCalGas have no idea why the blowout happened in the first place.

This is unacceptable to me and my family. Please keep it closed.

My personal information

SAM AND INGRID LABUTIS

[REDACTED]

PORTER RANCH, CA 91326

(H) 818 [REDACTED]

(C) 310 [REDACTED]

(C) 310 [REDACTED] 3

[REDACTED]

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From: [REDACTED]
To: AlisoComments@DOC
Subject: (no subject)
Date: Tuesday, January 31, 2017 2:06:57 PM

SHUT IT ALL DOWN!!

When will the right thing be done for the health of our citizens? When?

Dina Amato

From: [Teresa Donnelly](#)
To: AlisoComments@DOC
Subject: "Aliso Canyon Comprehensive Safety Review."
Date: Tuesday, January 31, 2017 12:51:32 PM

Dear Senator Stern,

As a resident of Simi Valley, I have watched and listened to the concerns of residents of Aliso Canyon. I strongly believe that we are individually responsible for our own safety. When my husband and I were searching for a home 16 years ago, we took many things into consideration: was it near a school, by a busy street, next to the freeway, downstream from a garbage waste facility, next to "The Hill", etc. When the residents purchased their homes in Aliso Canyon, the natural gas facility was already present and in operation. They chose to purchase a home in a potentially unsafe location; now they want it closed. When will the residents of California step up and take responsibility for their own actions. That is part of what is wrong with this great state. No one wants to take responsibility for their own actions; it is always someone else fault.

We need the gas facility and it was there first!

Sincerely,
Teresa Donnelly

From: [Daniel Guimera](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Tuesday, January 31, 2017 11:52:02 AM

To Whom It May Concern,

I'm Daniel Guimera, a resident of Porter Ranch for the last 23 years. My wife and I have raised our son and daughter in Porter Ranch in the same home. Our daughter was born there. Our son bought another home just a mile away from us in Porter Ranch a few years ago. Now, he and his wife have given us a beautiful granddaughter, and a baby boy is in the way.

Home is the center and community achieved over time and in place. Porter Ranch is our home, and we are here to stay. I'm here to protect our home from SoCalGas; Division of Oil, Gas, and Geothermal Resources (DOGGR); and California Public Utilities Commission (CPUC) because we have lost trust in all these organizations. I'm here to protect the future of our kids and grandchildren in our home, Porter Ranch.

SoCalGas has been gassing and poisoning the residents of Porter Ranch and the soil surrounding Aliso Canyon for many years without our knowledge, and DOGGR has been a quiet witness to this environmental disaster. In 1979, SoCalGas was allowed to remove a safety valve out of SS 25 well at Aliso Canyon, without replacing it with a new one. Then, on September 1st, 1992, DOGGR reviewed and stamped a Flo-Log Inc noise and temperature survey conducted on SS 25. The survey revealed that a "distant noise was heard above 1200 feet, and heard an even higher activity at 500 feet". Admittedly, this test indicated that as early as November 7th, 1991, when the survey was conducted, there was a leak at SS 25. As far as we know, SS 25 continued to be operated by SoCalGas with the blessing of DOGGR and CPUC. If a safety valve were in place, we would not be at this hearing today. If DOGGR and CPUC had done their job to protect the safety, welfare, and health of California residents, the massive 109,000 metric tons of methane blowout into the atmosphere would have been avoided. The community of Porter Ranch would have been spared of this major environmental catastrophe, and the over 8,000 families, including school children, would not have been relocated out of their homes and schools.

Today, DOGGR and CPUC can change the legacies that they have written for themselves. They can become the stewards of the earth here in California if they protect the safety, welfare, and health of Porter Ranch residents. SoCalGas should not be allowed to renew gas injections and extractions at Aliso Canyon until at least two requirements are met. First, SoCalGas can not re-start their operations until the root cause analysis study on what caused the massive blowout is completed. Second, the AQMD health study that SoCalGas agreed to finance is suitably funded and completed to determine what is causing so many residents in Porter Ranch to continue getting sick from the polluted air and soil in and around Aliso Canyon.

Members of DOGGR and CPUC, you have an opportunity to re-write your legacies by decommissioning Aliso Canyon. Please shut this facility down forever. SoCalGas needs to pump all the gas away from Aliso Canyon into another storage facility that is structurally sound and poses no danger to the community living there. Let's clean up the soil to the extent possible, and turn Aliso Canyon into a green belt connecting all the canyons and trails in Porter Ranch. Let's turn Aliso Canyon into a wildlife corridor and sanctuary for the local fauna and native plants.

DOGGR and CPUC, please become the stewards of California residents by securing our safety, welfare, and health.

Daniel Guimera



Porter Ranch, CA 91326

From: [mel.kezeench](#)
To: AlisoComments@DOC
Subject: PLEASE Shut it down!
Date: Tuesday, January 31, 2017 11:36:01 AM

Hello,

We constantly wake up to the strong, nauseating smell of gas. My oldest complains of a headaches before she gets out of bed. After we smelled gas again on Monday, I called AQMD, and they confirmed the strong smell of gas in the neighborhood. This was the day Socalgas withdrew gas for the first time since last January. My little one was terrified when I dropped her off at school (Castlebay Lane Elementary), asking "Mommy will I get nosebleeds again?" The gas leak has become a childhood fear among Porter Ranch children. No one should live with the fear that their health may be in jeopardy - especially if the cause is an unnecessary and outdated process of using natural gas as our source of energy, instead of safe renewable energy . Please help us keep our children safe, and deny their request to reopen.

Thank you,

Melanie Sarkisyan

From: [REDACTED]
To: AlisoComments@DOC
Subject: Aliso Canyon
Date: Tuesday, January 31, 2017 11:32:23 AM

Please consider the health and welfare of the people living in Porter Ranch.

I've started with some nose and ear problems again and all of a sudden it dawned on me that they are taking gas out again. Last year I had to be relocated because of asthma developed due to the leak.

Please I beg of you consider peoples lives and forget about Governor Jerry Brown and his sisters pockets.

Thank you for your consideration,
Karen Hughes

Sent from my iPhone

From: [Sharon Bricker](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Tuesday, January 31, 2017 11:15:08 AM

To Whom It May Concern,

I urge the Division of Oil, Gas, and Geothermal Resources to keep the Aliso Canyon facility closed until:

1. The release and review of the complete investigation into why the well failed.
2. A formal survey and thorough review of the health symptoms of area residents is completed.

Sincerely,
Sharon Bricker

From: [Lori Kalman](#)
To: AlisoComments@DOC
Subject: Comment to support the continued CLOSURE of Aliso Canyon.
Date: Tuesday, January 31, 2017 10:32:17 AM

To Whom it may concern,

I am a resident of Porter Ranch for 21 years. When the gas blowout occurred on October 23, 2015, our community was greatly effected. My health was effected as I acquired a nagging cough that didn't stop until the leak **BLOWOUT** was plugged. I did not relocate because I was the only one in my family that had this cough. My kids did get moderately sick as the leak **BLOWOUT** continued and required inhalers, but we did not relocate. We lost our two pets during this tragedy. Finally, the leak **BLOWOUT** was plugged on Thursday, and my normally capable Dad (also a Porter Ranch resident) fell off a ladder and suffered a brain injury, which he died from weeks later. My neighbor (same age as my Dad) also fell in her home and suffered a brain injury and passed after a few weeks. Because of the health issues and injuries to my family and neighbor, I support a thorough Health Study to be conducted by a third party and funded by Southern California Gas. I DO NOT support a Health Assessment. I support a Health Study. I have spoken at the AQMD hearings and have asked them to support a Health Study.

I also feel the Aliso Canyon field should remain closed. We don't know the root cause of the well failure and we absolutely want to know the root cause to ensure we never have a disaster as we had with the Aliso Canyon Blowout of 2015. Senator Stern recently presented SB 146 and it is currently supported (unanimously) by our Board of Supervisors, [the Porter Ranch Neighborhood Council](#), and will be voted on by our City Council on Wednesday of this week, but we know our Councilman, Mitch Englander supports it. I support this bill as well.

Southern California Gas has acted without integrity and honesty throughout this entire disaster. [They should have disclosed every single chemical they use so that the public could be properly and thoroughly tested.](#) They should have been far more forthcoming with the distribution of air purifiers for every household as well as air scrubbers and weather seals for our doors. They should have reimbursed the expenses they said they would reimburse, but they lied to us in the "resource center" (a temporary office at the Porter Ranch Town Center) and then they refused to speak on camera. We never should have had to outlay the money for air purifiers and been forced to wait for reimbursement, we should have been able to show proof of our address / residence and received the appropriate amount of air purifiers to accommodate our homes. Our medical bills should have been paid because of the sickness that was caused by the blowout. Our Veterinary bills should have been paid as well. Our family was alluded into believing that our medical and veterinary bills would be paid, but they weren't.

Over the Summer, our quality of life was threatened with 14 days of blackouts if Aliso Canyon remained closed, however those blackouts never occurred. We have also had 2 other episodes where we were asked to “dial it down” and conserve natural gas with the added threat that if we don’t do so, they will have to withdraw gas from the Aliso Canyon facility. Last week, on Tuesday, I woke up with a nagging headache and I smelled gas when I was out, so I called AQMD. Later that day we found out that SCG was withdrawing from the facility (unbeknownst to us) and claimed it was critical to their delivery of natural gas. The next day, Wednesday, we found out that SCG shorted their gas supply and then blamed their supplier (Kinder Morgan) for shorting the order. Here is the article for your reference:

<http://www.latimes.com/business/la-fi-southern-california-gas-20170124-story.html>

The residents of Porter Ranch and the surrounding area have been lied to, deceived with our reimbursements, and continue to suffer health effects. There are kids that have been diagnosed with Leukemia, Teachers at Castlebay that have been going through Cancer treatments and still this company insists it doesn’t think a Health Study is necessary. This is unacceptable. We were never told that field existed when we purchased our home here.

We weren’t told that the Sesnon Fire was caused by their negligence. We were asked to evacuate during that fire and it caused a huge disruption in our life. We’ve had 2 big fires up here since the leak was plugged that require our fire department and our water (remember, we are in a drought) to put out fires that were originated on this company’s property.

This field needs to remain closed. Every well needs to have a safety valve on it. Every well needs to pass every single safety test by DOGGR and any other agency that will ensure our safety. We all need to know the root cause of the blowout, so that it can never happen again. If these conditions aren’t met, the field isn’t safe and the community remains at risk for a future blowout or any other disaster. I would be amendable to change my position if these conditions were met, but not before.

Thank you for listening to my concerns, please send me a confirmation that you have received my complaint.

Lori Kalman

From: [Dave Elliott](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Storage Facility
Date: Tuesday, January 31, 2017 9:55:50 AM

As a business leader in Orange County I would like to encourage the Aliso Canyon Storage Facility to move ahead as an energy facility. We need this type of facility especially as our county continues to grow. It seems that the Gas Company is/has met the requirements to comply with the issues and should be allowed to move ahead. I think this meets safety issues and will support economic prosperity in OC.

Thanks you

Dave E

Dave Elliott
President & CEO

Santa Ana Chamber of Commerce
[REDACTED]
Santa Ana, CA 92704

(714) [REDACTED]

From: [Michelle Theriault](#)
To: [AlisoComments@DOC](#)
Cc: [REDACTED], [Harris, Ken@DOC](#), [REDACTED]
Subject: Official Statement regarding reopening Aliso Canyon Storage field
Date: Monday, January 30, 2017 10:07:58 PM

Department of Conservation,

I am a concerned Porter Ranch community member that lives in the vicinity of the Aliso Canyon storage field. My daughter attends Castlebay Lane Elementary School, one of the two schools that had to relocate during the blowout. I have serious concerns about the possibility of the Aliso Canyon storage field being reopened.

While it *appears* to be good news that there are now multiple safety features in place to both reduce the risk of a blowout, as well as give early notification of a problem, **how do those safety features actually STOP a blowout from occurring in the first place?** I just watched the DOGGR Safety Review and did not see any safety features that would *prevent* a blowout. I did however see plenty of details, (actually too much in my opinion), on the testing that was completed on the existing wells. I can assure you that the community is more interested in how a blowout will be *prevented* in the future rather than all those details about testing. I understand that allowing injections and withdrawals to occur only in the center tubing will help **reduce** the risk of a blowout, and that reductions in pressure and amount of gas stored will also reduce the risk, **but how will those features prevent a blowout?**

If all the new safety features had been in place in early October 2015, exactly how would those features have STOPPED the blowout from occurring in the first place?

Yes, it's *less likely* the blowout would have occurred in the first place, but it's difficult to accurately answer that question without *first* knowing the exact cause of the blowout. So, even with all the new safety enhancements, if another leak like the one from SS-25 still happens, how will it be stopped? If filling the well with fluids doesn't stop it, does the community again have to suffer for at least a month while a relief well is drilled? **Or, has some new method been developed that can stop a blowout (like SS-25) within a day or so? If not, why are you even considering putting our community at risk again?**

If the Aliso storage field didn't exist, (i.e., no old empty oil field to utilize), we would still receive our "natural" gas, just like other parts of the country that do not have storage

fields. *This* community is well educated about that fact now, and **we want to know why it would be allowed to be reopened when it is not needed for our energy reliability in the first place.** Yes, now the community fully understands that Sempra/SCG *needs* this field to make huge profits. **But why would DOGGR and CPUC put the priority of profits ahead of the health of the community?** If there was absolutely no other way for us to receive our natural gas, than it might make sense, but this is not the case. If we all have to pay more for our gas in the future in order to protect the 100,000 plus people in all our surrounding communities (not just Porter Ranch), why wouldn't we?? **SCG has the capability to carefully manage the natural gas needs of the community, and has done so for the past year, (well, up until a week ago that is).** So, if Aliso did not exist in the first place, SCG would manage to get methane to everyone that needs it (minus the huge profits).

I see on your website that part of DOGGR's mission includes:

“...the wise development of oil, natural gas, and geothermal resources in the state through sound engineering practices that protect the environment, prevent pollution, and ensure public safety.”

YES! That is DOGGR's priority, not helping Sempra/SCG make profits!!

Since a main part of DOGGR's mission is to “ensure public safety”, I would assume that DOGGR would wait for the results of the “root cause analysis” to be completed before any decisions to reopen Aliso are made. In order for DOGGR to further “ensure public safety”, the solution to *prevent* another blowout must also be in place before considering reopening Aliso.

Thank you for carefully reviewing all the comments and concerns of our community.

Sincerely,

Michelle Theriault

From: [Robert Kahane](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, January 30, 2017 5:53:15 PM

This is the only storage facility in the valley and we need to keep this to help balance the load.

This facility was there WAY before the homes of the protesters were built.

Thanks,

Robert Kahane

From: [Paul Little](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Safety Review
Date: Monday, January 30, 2017 2:28:26 PM

Good afternoon,

The Pasadena Chamber of Commerce is very concerned about energy reliability, especially the availability of natural gas this winter. We are concerned that the extended closure of the Aliso Canyon storage facility could create shortages of natural gas vital to heating homes and businesses as well as the local generation of electricity. We fear that shortages, especially in the event of another lengthy cold spell here, could be a public safety and personal safety concern should there not be enough gas available to heat all our homes and businesses. We are also concerned that a lack of natural gas could result in rolling blackouts in our communities.

We appreciate the concern for citizen and neighbor safety in the Aliso Canyon/Porter Ranch area, but understand that a good number of Southern California Gas Company's wells have been inspected and upgraded to an excellent safety standard. If there are no safety concerns remaining with those wells, we would hope you would approve returning them to use.

We would like to see those wells that have been certified safe be returned to providing natural gas as soon as possible.

Thank you for your consideration of this important matter.

Sincerely,

Paul

Paul Little

Paul Little
President and Chief Executive Officer
Pasadena Chamber of Commerce

[REDACTED]
Pasadena, CA 91106
[REDACTED]

www.pasadena-chamber.org

From: [Rashelle Zelaznik](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, January 30, 2017 2:01:28 PM

I am writing to urge you NOT to reopen Aliso Canyon gas storage facility. We no longer want to keep using fossil fuels. Getting this gas causes methane to release (along with other harmful chemicals) into the atmosphere which causes even more warming. It is long past the time that we switch our needs to more renewable sources and to ween our dependency of fossil fuels. It's also time to side with the people and planet and against the corporate monied interests.

This facility is old and dangerous and has not been fitted with the proper implements to gauge it's leaks.

Sincerely,
Rashelle Zelaznik
Los Angeles resident

--

Rashelle Zelaznik

From: [Bernard Singer](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review
Date: Monday, January 30, 2017 11:29:25 AM

Investigate why the leak occurred, remedy it, and if it can't be fixed.....please keep it shut down.

Bernard Singer



Porter Ranch

From: [Alice Kaczor](#)
To: AlisoComments@DOC
Cc: [REDACTED] Harris_Ken@DOC
Subject: Still feeling ill in Porter Ranch
Date: Monday, January 30, 2017 9:32:56 AM

Hello, my name is Alice Kaczor. My husband, 2 children and I have lived in Porter Ranch for over 30 years. We purchased one of the first 4 homes built in the newest development in Northridge Estates. After being out of our home for 7 months, upon moving back, and having our home cleaned (per protocol) we have been experiencing the same symptoms as before we moved out! We all have complaints of daily headaches, fatigue, rashes, sore throats, nose bleeds and dizzy spells. Both of our children can not live in our home and have moved out! It is not a coincidence that when they come for a visit they immediately experience headaches and other symptoms which must be related to the still leaking gas wells above our home. As per So Cal Gas they have admitted there have been at least 2 leaks per day, which are obviously affecting our health. Something needs to be done so we and so many of our neighbors can live without feeling sick daily. This facility needs to be shut down, never to open again and the gas needs to be moved to a different facility which does not hover over our expensive and beautiful homes. We deserve to live without the methane spikes and leaks that are still making us ill ! We have reported,daily, to Mandy Bane of the health department. Why is this falling on deaf ears? The people of Porter Ranch and the surrounding areas deserve to live in their homes, feeling well and not sick all the time. The fence line shows high methane levels on a daily basis, why are you ignoring this and all of us and allowing so many people to be ill? Please, no matter what it takes do not let So Cal Gas continue to use this facility and Shut it Down, Now! Alice Kaczor

[REDACTED]
Porter Ranch, Ca.

Alice Kaczor
"Go Ask Alice"

[REDACTED]

From: [Ann Dorsey](#)
To: AlisoComments@DOC
Subject: Public comment regarding the use of the Aliso Canyon Storage Facility
Date: Sunday, January 29, 2017 8:41:40 PM

Mr. Harris,

I am concerned about the possibility of the Aliso Canyon gas storage facility becoming operational again. The leak caused the relocation of over 15,000 residents, the closure of two schools and affected dozens of businesses as well as causing people as far away as Northridge to experience symptoms from gas exposure (myself included). Not to mention the effect it had on contributing to atmospheric greenhouse gas concentrations.

I appreciate that the wells have been tested for safety, but the wells met whatever safety standard there was before the leak and yet the leak still happened. Also, LADWP and SoCalGas met the energy needs of the Los Angeles area without having to use gas from Aliso Canyon for over a year after the leak. Finally, the cause of the leak has not been determined, so no measures have been taken to prevent another leak of the same type or cause.

I ask that you keep the facility closed. This is an opportunity to replace the energy that was being stored at Aliso Canyon with renewable clean energy.

Thank you,
Ann Dorsey

From: [Richard Bratkovich](#)
To: AlisoComments@DOC
Subject: RE: Public Meeting Agenda and Safety Review Webcast
Date: Sunday, January 29, 2017 5:31:50 PM
Attachments: [image001.png](#)

There is a push to re-pressurize the facility without two vital items:

SoCalGas and the regulators are refusing to install shut off valves at the bottom of each well. These valves would protect the public from earthquakes, human error, equipment malfunction, etc. A shut off valve would have made the blow-out a minor incident.

The investigation into the root cause(s) of the blow out hasn't been started yet (11 months have passed). The pipes haven't even been pulled from the ground yet!

All this brings into question the fitness of SoCalGas and the regulators to safely operate the facility.

Richard Bratkovich
 Porter Ranch resident

From: Department of Conservation Division of Oil, Gas, Geothermal Resources
 [mailto: [REDACTED]]
Sent: Tuesday, January 24, 2017 1:40 PM
To: [REDACTED]
Subject: Public Meeting Agenda and Safety Review Webcast



Department of Conservation

Division of Oil, Gas, Geothermal Resources

January 24, 2017

In preparation for the public meetings February 1 & 2, please review the [meeting agenda](#), now available online and pasted below. Familiarize yourself with the structure and opportunities for your feedback and engagement.

Our engineering team has also developed a webcast, [Aliso Canyon Safety Review Presentation](#) as a guided recap of the comprehensive safety review process DOGGR completed at Aliso Canyon.

The webcast walks through an extensive series of inspections and tests designed to ensure the facility meets public safety and environmental protection standards before the state decides whether to allow Southern California Gas to resume any operations. Please share this presentation with any member of the public who cannot attend the public meetings.

Aliso Canyon
Public Meeting – Gas Storage Facility, Well Safety Review
Option to attend one of two sessions: February 1 or February 2
5:30-9:00 p.m.

Hilton Woodland Hills, 6360 Canoga Ave, Woodland Hills, CA 91367

Goals:

- Provide update and overview of the Division of Oil, Gas, and Geothermal Resources (DOGGR) safety review process
- Collect public comment on proposed pressure limits
- Provide information about the California Public Utility Commission's (CPUC's) reliability analysis and upcoming proceeding to determine the feasibility of minimizing or eliminating the use of the Aliso Canyon facility

5:30 Registration

6:00 Welcome, Agenda Review, and Introductions

6:10 Presentation and overview: Safety Review and Status of the Aliso Canyon storage field

- Safety review and well pressure limits: DOGGR
- Review of analysis of range of working gas necessary in Aliso Canyon storage field for safety and reliability: CPUC.
- Next steps for CPUC proceeding to determine the future of the Aliso Canyon facility

6:40 Opportunity for opening comments by elected officials

7:00 Small group discussion on the following questions:

1. Do you have any comments on DOGGR's safety review findings?
2. Please share any comments you have on the proposed pressure limits.
3. What is your greatest concern about the Aliso Canyon Facility?

8:10 Break

8:25 Summary and next steps

- Summary of small group discussions
- Brief review of key themes from the session
- Closing comments by DOGGR and CPUC representatives

9:00 Adjourn

Reminder of Aliso Canyon Public Meeting Details

The public meetings are scheduled for the following dates and location:

Wednesday, February 1, 2017
5:30 p.m. - 9:00 p.m.

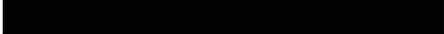
Thursday, February 2, 2017
5:30 p.m. - 9:00 p.m.

Hilton Woodland Hills
Trillium Room
6360 Canoga Avenue
Woodland Hills, CA 91367

Aliso Canyon Storage Facility and related documents and information are available on the Division's

website at: <http://www.conservation.ca.gov/dog/Pages/AlisoCanyon.aspx>.

Information about the range of working gas necessary to ensure safety and reliability for the region will be available on CPUC's website at: <http://www.cpuc.ca.gov/aliso/>.

You're receiving this email because you have indicated an interest in Aliso Canyon updates.
Add  [to your Safe Sender List to ensure emails go to your Inbox.](#)
[Click here to unsubscribe.](#)

From: [Tatiana David](#)
To: AlisoComments@DOC
Subject: Please don't reopen Aliso!!
Date: Sunday, January 29, 2017 3:59:55 PM

Even though I have not been very vocal because I am dealing with a ton of other problems, the gas leak has terribly affected me. First, I lost the use of my garden for such a long time. My main way of relaxing and rehab from surgery, is working in my garden, but every time I would spend time outside, I would get sick.

My husband has a recurring rash on his arms. My parrots got sick and one has almost plucked himself bald. The fire, caused by a downed line at the storage facility (I think) has caused black ash to rain down on my house for months - every time the winds blow (which is often). I am so tired of cleaning ash off of my patio and in my pool over and over again.

But the worst, and scariest, symptom for me is that, since the leak, I have not been able to hold a thought in my head. I am foggy all the time. I start to do something and forget what it was - 100 times a day. I am terrified for the future because I do not know if this will ever resolve itself.

Please, please don't reopen this facility and continue the fear, sickness and problems for so many residents.

Tatiana David
[REDACTED]
Granada Hills, Ca

From: [Cheri](#)
To: AlisoComments@DOC
Cc: [REDACTED] [vderohanian](#)
Subject: Aliso Canyon Comprehensive Safety Review-Written COMMENTS FROM RESIDENT VARTAN DEROHANIAN of PORTER RANCH, CA
Date: Saturday, January 28, 2017 1:40:07 AM

To: Calif Dept of Gas & Geothermal Resources,

I reside in Porter Ranch with my family: my wonderful wife and twin daughters, age 14. The 4 of us moved here in 2004, when our kids were still wearing diapers. We came for a better life, great schools, and sense of small-town community living. Both kids attend Porter Ranch Community School, grade 8.

I want to briefly tell you how the So Cal Gas Blowout of 10/23/15, negatively altered our lives. My wife has a mental disorder, but manages to work 40 hrs per week, full time, raise our 2 teenage daughters, cook, clean, help the kids with homework, and also volunteer as a community service liaison to LA City Hall. She did all this without much effort as she is, and always has been super-woman. During and since the Aliso Canyon/So Cal Gas Company as-25 gas leak catastrophe, my wife got severely depressed, cannot function or be her stellar self, as she was for her 1st 50 years of life.

The point I want to drive home today is that while the physical illnesses of thousands of Porter Ranch had been front page news for the past 15 months, the mental health stress issues are less tangible and yet much much more difficult to identify and acknowledge.

Please do not let the Gas Company resume operations, injections, and trading is gas for profit. If even 1 human life is destroyed, made ill or stressed, harmed, or disrupted due to corporate greed, that is one too many. How many people had to get sick before that Aliso Cyn storage facility? Mental health, stress-levels and mental health breaking points may be different for each individual, but the person suffering feels pain no matter the measure, no matter what others may or may not feel. Subjective illness measurements are not scaled, nor measured, making mental stress, depression and anxiety, to name a few,

Vartan Derohanian
13 year Porter Ranch Resident

Sent from my iPhone

From: [Karen Fogerty](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review Please send me written confirmation that my statement is being included in the public record.
Date: Thursday, January 26, 2017 3:31:04 PM

From: Karen Fogerty <[REDACTED]>
To: [REDACTED] <[REDACTED]>
Sent: Thursday, January 26, 2017 3:28 PM
Subject: SoCalGas Aliso Canyon -- Shut down this facility!

The SoCalGas Aliso Canyon Storage Facility needs to be shut down permanently because it is an unsafe site.

First of all, I have been sick since the blow out in 2015. I lost my job because of it. I am still not well. I am suffering severe respiratory problems. Those are the not only health problems I have suffered since the blowout -- but the respiratory is the most severe and permanently damaging (scar tissue in my lungs that will never go away and make breathing even harder).

People are still getting sick. SoCalGas has been withdrawing gas from wells the last few days, which is against protocol as I understand it -- and people are getting sicker because of it. We are smelling gas -- which you can verify with AQMD. If everything is fine, why do we still smell gas?

There is no reason to reopen the facility. There have been no shortages, and there are enough other facilities that Aliso Canyon is not needed.

During normal operations, this facility is the third most polluting gas field IN THE COUNTRY.

SoCalGas has not yet figured out why the blowout occurred to begin with. Shouldn't we have that answer before opening up a dangerous facility?

Only 1/3rd of their wells have passed all tests, yet residents are still smelling gas and getting sick. Over half of the wells are more than 58 years old!!! It's clear SoCalGas has not been maintaining them. What is going to stop another well from blowing? The facility is old and deteriorating due to SoCalGas' lack of maintenance.

SoCalGas has admitted that they have at least 2 leaks per day. I suspect the number is much higher than that.

This facility continues to be dangerous, even though it's "offline". There have been 4 fires at the facility, including one in October 2016 that burned over 28 acres.

Finally, the facility is right on top of the Santa Susana Fault Line and everyone knows that we are expecting a large earthquake. What's going to happen to Porter Ranch and Granada Hills then? It's going to go up in smoke, literally. One large earthquake and the facility is going to catch on fire -- and probably with several explosions.

I urge you to close down the Aliso Canyon facility permanently due to the health and safety issues I've outlined.

Respectfully yours,
Karen Fogerty

From: [Karen Fogerty](#)
To: AlisoComments@DOC
Subject: SoCalGas Aliso Canyon -- Shut down this facility!
Date: Thursday, January 26, 2017 3:30:15 PM

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I urge you to close down the Aliso Canyon facility permanently due to the health and safety issues I've outlined.

Respectfully yours,
Karen Fogerty

From: [Patty Glueck](#)
To: AlisoComments@DOC
Subject: Aliso Canyon Comprehensive Safety Review Please send me written confirmation that my statement is being included in the public record
Date: Thursday, January 26, 2017 8:27:58 AM

I am writing to urge DOGGR and the CPUC to shut down permanently the Southern California Gas storage facility at Aliso Canyon. Even though the facility has been under a moratorium to stop operating until the wells are checked, there are still methane leaks occurring. Over half of the wells have failed the initial testing. An onsite manager at the facility admitted under oath that there is an average of two leaks daily. This is unacceptable, and our communities here in the northern San Fernando Valley are worried that if it is reopened, these aging wells will suffer more blowouts.

The utility really doesn't know why last year's blowout occurred, but what really matters is that it did. Besides the methane, there were other chemicals that were spewed out into the air, our homes, our schools, our parks. We are still getting sick with respiratory problems, skin rashes, nosebleeds, migraines, muscle problems... the list goes on. And we don't know the extent of what is poisoning us because SoCalGas won't release a comprehensive list of what was used in SS-25 over the years. We do know our fellow residents' have lost many pets. We do know that children are still getting nosebleeds in their classroom seats. But even more scary: at least six people who live and/or work in this area have been diagnosed with cancer in 2016!

My family has been relatively "lucky" with our symptoms. When the blowout occurred, our daughter was away at college. While here on winter break, she suffered several migraines. After being back in the Valley for a just month this summer, she started to get respiratory problems. In October, she had to miss an exam because she couldn't stop coughing...and required a nebulizer treatment. While waiting for the doctor, I checked the fenceline monitoring website and discovered that the methane levels were elevated for several hours.

I had allergy-type symptoms as well as a strange metallic taste in my mouth for several months during the blowout. This summer, my doctor had to prescribe an asthma inhaler for me after I'd developed bronchitis. I found out that a few days before I started coughing, there had been a major leak at the facility that wasn't reported to the community. The month before, my hand started inexplicably hurting. The treatment plan my doctor tried (mega dosages of Advil for two weeks) didn't stop the pain. Some seven months later, I still have problems with the pain to the point that I have yet to sleep for more than four hours without waking up from the pain. I know of at least four other persons who live within six miles of the gas facility who have the same problem. I have to believe that this is not a coincidence, but possibly a reaction to the chemicals in the environment....chemicals that were released by SS-25.

My husband was getting aches whenever he rode his bicycle in November 2015. I found out that many others in our communities have reported getting strange aches

after being active. Then in May, he was diagnosed with high blood pressure, just as many others have been in this area. He has always taken care of his health, with a nutritious diet and plenty of exercise, so this was a shock for us.

As I said, our symptoms have been on the mild side, compared to many who live in the area between Chatsworth and Granada Hills. Some are getting several nosebleeds and headaches a week. Some have severe skin rashes. Some are like my daughter and me and are having problems with asthma, sinus conditions, and other respiratory problems. But given SoCalGas's refusal to divulge what chemicals have been used, our doctors can not properly diagnose and treat us. This is untenable and unacceptable.

As for the facility itself, the fact that SoCalGas took over these wells and then did not keep them properly maintained is inexcusable. Many of these wells, if they were people, would be able to order off of the senior menu at Denny's. They should have been retired years ago. But SoCalGas continues to use old wells due to poor management decisions. And continue to have problems due to poor maintenance, which includes the removal of sub-surface safety valves, such as the one removed from SS-25 in 1979 and never replaced.

Let's not forget that two active earthquake faults, including the one that erupted in 1994, run under this facility. Not to mention other faults that can affect those.

Another troublesome aspect of the facility is that just since November, there have been three incidents of note: a chemical release by a contractor, "off gassing" at the very well that was blown out the year before, and a diesel spill by a contractor. In these cases, SoCalGas did send out notifications, but I received those emails several hours after each one.

And that tendency toward a lack of communication about problems at its facility is another reason I opposed the reopening. In October 2015, SoCalGas denied the existence of a leak to residents who had contacted them about an increased odor. The utility has lied to lawmakers about the missing safety valve in the blown out well and other problems on its site, a point made by assemblyman Mike Gatto during a hearing he was holding about the disaster. And was a reason why Los Angeles County had filed criminal charges against the gas company.

There's also been at least four fires on the SoCalGas property in the last year. Fortunately none of these spread off their land to nearby houses, but many of us still remember the 2008 fire that started on SoCalGas property and was responsible for several houses being lost as well as the death of a man.

We residents have a legitimate reason to be concerned about our safety given these "incidents" and fires.

Given the reality, even if SoCalGas lines the pipes with heavy duty materials and all the bubble wrap in the world, when the major earthquake that is predicted erupts, we're goners. Even without a quake, there will be still cracks and leakage.

DOGGR will undoubtedly be receiving some statements from business and special interest groups trying to persuade the agency that this facility is needed to provide gas for Southern California. But here's what you need to be aware of: there's a manager from SoCalGas sitting on the board of directors of these organizations. These groups will be given the exact wording to use – that's from SoCalGas' public relations staff. Those sending in these statements, for the most part, live many miles away from the facility, and don't have to worry about their children developing cancer, or that they will end up in emergency rooms getting care for respiratory ailments brought on by these wells.

On the other hand, those who will be presenting arguments against reopening the facility are talking about their health, their safety, their quality of life. You will also hear from environmental experts who can attest to how hazardous this facility is to the air and water in Los Angeles. You can look at engineering studies that you received this summer that prove that this facility is NOT needed. We know that much of the gas that gets stored at Aliso Canyon doesn't get used in Southern California, but is sent elsewhere. And we residents carry the risk so that managers at SoCalGas get nice bonuses.

Again, I urge you to consider the health and safety of over 100,000 residents of the northern San Fernando Valley over the greed of the gas company. Shut down the SoCalGas facility in Aliso Canyon.

Sincerely,
Patricia Glueck


Porter Ranch, CA 91326

From: [Patty Glueck](#)
To: AlisoComments@DOC
Subject: Statement regarding the status of the SoCalGas storage facility
Date: Friday, January 13, 2017 9:03:37 AM

I am writing to urge DOGGR and the CPUC to shut down permanently the Southern California Gas storage facility at Aliso Canyon. Even though the facility has been under a moratorium to stop operating until the wells are checked, there are still methane leaks occurring. Over half of the wells have failed the initial testing. An onsite manager at the facility admitted under oath that there is an average of two leaks daily. This is unacceptable, and our communities here in the northern San Fernando Valley are worried that if it is reopened, these aging wells will suffer more blowouts.

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many others have been in this area. He has always taken care of his health, with a nutritious diet and plenty of exercise, so this was a shock for us.

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There's also been at least four fires on the SoCalGas property in the last year. Fortunately none of these spread off their land to nearby houses, but many of us still remember the 2008 fire that started there and was responsible for several houses being lost as well as the death of a man.

We residents have a legitimate reason to be concerned about our safety given these "incidents" and fires.

Given the reality, even if SoCalGas lines the pipes with heavy duty materials and mountains of bubble wrap, when the major earthquake that is predicted erupts, we're goners. Even without a quake, there will be still cracks and leakage.

DOGGR will undoubtedly be receiving some statements from business and special interest groups trying to persuade the agency that this facility is needed to provide gas for Southern California. But here's what you need to be aware of: there's a manager from SoCalGas sitting on the board of directors of these organizations. These groups will be given the exact wording to use – that's from SoCalGas' public relations staff. Those sending in these statements, for the most part, live many miles away from the facility, and don't have to worry about their children developing cancer, or that they will end up in emergency rooms getting care for respiratory ailments brought on by these wells.

On the other hand, those who will be presenting arguments against reopening the facility are talking about their health, their safety, their quality of life. You will also hear from environmental experts who can attest to how hazardous this facility is to the air and water in Los Angeles. You can look at engineering studies that you received this summer that prove that this facility is NOT needed. We know that much of the gas that gets stored at Aliso Canyon doesn't get used in Southern California, but is sent elsewhere. So we residents carry the risk so that managers at SoCalGas get nice bonuses.

Again, I urge you to consider the health and safety of over 100,000 residents of the northern San Fernando Valley over the greed of the gas company.

Sincerely,
Patricia Glueck


Porter Ranch, CA 91326

From: [Patty Glueck](#)
To: AlisoComments@DOC
Subject: questions regarding upcoming hearing
Date: Saturday, January 21, 2017 10:33:09 AM

I have at least two questions:

1. Will there be a docket posted online with all the written statements that have been sent in? I know that there was one containing statements submitted in 2016.
2. For those making statements at the public hearing, what is each person's time allotment? (couldn't find this info in the email sent)

Thank you in advance.

Patricia Glueck

From: [Christine Soderlund](#)
To: AlisoComments@DOC
Subject: Aliso Canyon So Cal Gas Facility
Date: Wednesday, January 25, 2017 5:19:40 PM

I'm sure that there have been many comments about this facility, the public is surely aggravated and most of us are at wits end. While I wish that I could put the events of the past fully behind my family and myself, unfortunately, we are a community that can not move on. We have been constantly and consistently tormented by this noxious neighbor. We were told that a recent fire was not their fault, although it originated on their property. We have been told that "a vendor" was guilty of hiding a hose leaking gases under a shrub to avoid detection. We have been told that there are no leaks, when our fenceline.org website frequently demonstrates that there are at least two leaks every day as also confirmed during testimony by So Cal Gas employee Glen Le Fever on 8/6/16 at a AQMD hearing.

We community members continue to suffer from headaches, nausea, lethargy, unexplained rashes and a host of other symptoms and ailments that only presented in the last few years when the leaks became more prevalent and more frequent. The worst part is watching our kids suffer. Recently, I drove up Tampa and Sesnon to take my children to school and we were assaulted by the stench of natural gas. I called to report the incident to the AQMD and was told by the inspector that he had multiple calls, that there were also calls a few days before and that it was his opinion that "something was still going on up there."

We also hear news stories of fabricated "emergency statuses" enabling So Cal Gas to again withdraw natural gas. As long as the facility is open, unfortunately, we can not expect the Gas Company to act as a decent corporate citizen. We can't expect that they will put human lives before profits. We can't expect that they will "do the right thing" for the community as evidenced by the fact that the facility was allowed to operate without the most basic shut off valves in case of an emergency. Shut off valves that the City ensures all of our homes have as a condition of buying or selling in the county. For these reasons, I respectfully request that this facility be prevented from operating any longer. They have demonstrated that they can not responsibly control the powder keg on which they sit.

Sincerely,

Christine Soderlund

From: [Tayler KNIGHT](#)
To: AlisoComments@DOC
Subject: Aliso Gas Pipeline
Date: Wednesday, January 25, 2017 1:06:06 AM

I run through Porter Ranch weekly. I run up Tampa and up and down the trail alongside Tampa and Rinaldi. I attend Shepherd of the Hills church and my Pastor along with thousands have suffered great health issues due to the gas leak. I'm am in favor of keeping the Gas line CLOSED!! You have a DUTY in keeping our neighborhood safe and our air CLEAN!

Please DO NOT REOPEN the gas line at Aliso Cyn.

Tayler Knight

[REDACTED]

818.6 [REDACTED]

Chatsworth resident

From: [REDACTED]
To: AlisoComments@DOC
Subject: Keep Aliso Cyn SOCALGAS SHUT!!!!!!
Date: Monday, January 23, 2017 12:24:27 PM

Dear Sirs,

I am urging you to keep this facility SHUTDOWN!!!We live a half mile away and with nothing going in or out we still smell Gas.We should not have to live like this. We were forced out of our home for 4 months. I never want to have to have that happen again.Without knowing why this BLOWOUT happened, how do we know this won't happen again.???We must know why?. Why are so many still suffering with illnesses. I have had numerous days Of eye irritation from the smell of their MERCAPTANS!Many Bloody noses. When will it end.? Never as this facility is old. We have had numerous gas smells over the last 10 years that we have lived here.This facility needs to stay Shutdown. SOCALGAS has proved they are not responsible owners, they lie,They fail to notify us immediately of a problem at their facility.They have had 4 fires. They are incompetant and should have to STAY SHUTDOWN FOREVER!!!!The Hill Family

Kelly, Ray, and Matthew Hill

Porter Ranch,

[REDACTED]
CA 01326

From: [Donna and Joseph Goldstein](#)
To: AlisoComments@DOC
Subject: Public Comment on Aliso Canyon Safety Review
Date: Thursday, January 19, 2017 1:20:25 PM



Porter Ranch, Ca., 91326
January 9, 2017

Sirs:

SUMMARY OF MY CONCERNS:

I read with trepidation that your Notice of Public Meeting and Comment Period seems to be incomplete, in that your material leaves too many Safety and Risk categories unanswered.

To be specific, I feel that two main areas are deficient:

- 1. Safety involves risk analysis, and I have not seen any publication of that risk analysis. To me, such an analysis will look at all possible risks and address them in a matrix that looks at criteria and then speaks to satisfying such criteria. Therefore, I would presume (since Cal-Tech studies predict it), that a review of possible EARTHQUAKE activity within the next 50 years is clearly a threat to system integrity and needs to be addressed. Clearly, the issue is that when an earthquake occurs, the storage facility can accommodate it. Let me stress this, WHEN is the operative word, not IF.**
- 2. Safety also requires that fault investigation be thoroughly addressed. In this case, SS25 detailed failure analysis is just beginning. It would appear that prior earthquake activity in Northridge in 1994 may have been a contributing factor, but to date, no investigative activity has been documented and no known investigation has been undertaken besides lining up a**

contractor to do the work.

Therefore, my concern is that DOGGR and the powers that be may have considered this failure mode, but have not addressed it satisfactorily. This is not acceptable, since DOGGR and CPUC are the public's watchdogs, and SoCalGas is the monopoly that is serving as a utility. These entities have a grave responsibility to assure public safety, and it is not at all clear that this is occurring. Assuring integrity of the existing installation hardware is not the same as preparing for a known event to occur.

BACKGROUND FOR MY CONCERNS:

I went to the DOGGR meeting on Gas Storage Rules in August, 2016 and noted that Section 1726 was unclear on retrofit requirements. Section 1726.5 clearly states that requirements include "Surface Controlled Subsurface Safety Valves" BUT THAT IS FOR NEW ACTIVITY, with no reference to adding these valves as retrofit to any existing, in-process, or pre-approved systems. I was told that there is a paragraph requiring retrofit of these valves but I was unable to corroborate that statement at that time. I recently received a SoCalGas update about "Technology, Safety, and Infrastructure Enhancements", replacing inner tubing in every approved storage well. Glad to hear that, but it does not assure that WHEN a FAILURE occurs, that it can be suitably shut off quickly at the source. You remember that that was the problem at SS25, they had to slant drill and pray that after three months they could get the thing capped. Also note that "when" is a much stronger statement than "if".

I also have reviewed reference (A) letter from SoCalGas to DOGGR and CPUC, and I note that it is a "Fitness for Service Analysis" not a Risk

Management Plan, nor a Safety Analysis, nor a thorough Fault Analysis of the Cause of the Aliso Canyon Failure. I certainly commend SoCalGas and DOGGR for having brought any wells under consideration for re-opening and re-pressurizing up to structural integrity, but that is not my main concern. My concern is “WHEN”. There are several other things of note within this letter, which will highlight my concerns:

1. It discusses risks based on fitness for service criteria of the existing configuration
2. It offers verification by checking the condition of the installed installation
3. It references CFR part 192, which speaks to the specific as-installed pipeline and threats that could affect it.
4. It references that during construction, the installation considers external conditions such as washout or flood, but I NOTE ABSENCE OF MENTION OF EARTHQUAKE (San Andreas Fault Proximity, 1994 Northridge Earthquake), and NO MENTION OF ROOT CAUSE OF SS25 FAILURE.
5. I also note that under Integrity Management Activities, SoCalGas states that they are utilizing MONITORING as management, but are not considering Repair or Replacement of specifically the sub-surface valves that had been in place but non-operative for many years.

In reference (B) letter to PRNC, SoCalGas simply claims the “Fitness for Service” aspect has been validated through compliance to regulations and the “Comprehensive Safety Review” under DOGGR, however all the conclusions and confirmations state that replacing certain pipes and monitoring are sufficient. Ref (B) letter is therefore premature since the failure analysis is not complete and the risk threats do not consider the probability of earthquake.

In reference (C) “FAQ’s”, it is stated that SB887 does not require the installation of Sub Surface Safety Valves (SSSV’s), but instead directs the DOGGR to consider whether SSSV’s would promote well integrity in developing new regulations. NOTE THAT PROMOTING INTEGRITY IS NOT THE ISSUE, IT IS CAPABILITY TO BE SAFE AS A CONSEQUENCE OF NATURAL OCCURENCES.

In reference (D), DOGGR states that the Risk Management Plan required under subdivision (g) must identify threats, assess risk, and identify preventative and monitoring processes. It states that storage wells not equipped with a failsafe mechanism will have to address this in the operator’s Risk Management Plan. Has the plan been submitted, and has this issue been addressed? Fitness for Service is not a Risk Management Plan, it speaks only to operating as a system.

I conclude that SOME of the following are fall-outs of current events:

- 1- DOGGR response to my initial presentation in August 2016 was erroneous- there was no reference to **requiring** retrofit
- 2- DOGGR may not have suitably considered my input
- 3- The final 1726 document allows the “single pipe plus annulus” replacement plus some form of monitoring, which will ONCE AGAIN RESULT IN THE NEED FOR SLANT DRILLING TO RESOLVE A FAILURE such as occurred in SS25
- 4- SoCalGas may have had logic for pipe replacement without shut-off safety valves, which has been approved by DOGGR, but not presented to the public.
- 5- The results of the Failure Analysis of the SS25 wellhead have not been factored into this effort because it is not to be available at least

until July of 2017. (see reference (D)).

6- and probably the most important aspect- **EARTHQUAKE**, which could shear the pipe assemblies at the root of the well have not been considered in the Risk of Natural Occurrences.

Well, “here we go again”- a solution, setting up for a repeat, ignoring the actual event, the acrimony, tension, and inconvenience it placed on the residents, and soon enough on everyone near existing gas storage facilities. The voice of reason and citizen safety has not been adequately addressed.

In my work in aerospace, quite often the governing oversight agency (FAA for aircraft work) would be willing to allow an interim solution, such as inspection, to be put in place until the final hardware fix was retrofit. But it appears that this is not heading in that direction. The installation design has a flaw, and that is that a single event can cause catastrophic consequences.

I think that most parties have tried to get this thing right, but this is an example of potentially flawed industry action/government oversight, a quasi-utility based business decision, and the public to bear the brunt.

Respectfully submitted,

Joseph K. Goldstein
Porter Ranch Resident
Tele: [REDACTED]
e-mail:

[REDACTED]

References:

(A) Letter SoCalGas (Brett Lane) to DOGGR (Kenneth A. Harris) and CPUC (Timothy Sullivan), dated November 1, 2016, "Re: Fitness for Service Analysis of the Aliso Canyon Storage Facility"

(B) Letter SoCalGas (Lisa Alexander) to Porter Ranch Neighborhood Council, dated December 5, 2016, "Re: PRNC position regarding the Aliso Canyon Gas Storage Facility"

From: [Patricia Larcara](#)
To: AlisoComments@DOC
Subject: Aliso canyon should be shut down!
Date: Monday, January 16, 2017 4:43:51 PM

Patricia Larcara

[REDACTED]

Porter Ranch, CA. 91326

Aliso canyon is Not a facility that should be located in a neighborhood where thousands and thousands of communities, developments where people live.

Aliso canyon is a METHANE mountain has caused tremendous health problems to me.

I'm STILL suffering from HEADACHES that costed me my job. Living and working two miles away from METHANE mountain where I moved in 1989, a place that I choose because of the horse trails, hiking, biking, walking and safe place to live and spend my retirement, and golden years is NOT SAFE ANYMORE. I'M BROKE, ILL, DEPRESSED WITH NO WAY OUT.

Aliso canyon should NOT BE HERE WHERE LOTS OF HUMAN LIVE, WHERE CHILDREN LIVE, WHERE SCHOOLS ARE LOCATED, AND WHERE BUSINESSES ARE LOCATED.

I HAVE SEEN MANY DISASTERS, FIRES, EARTHQUAKES BECAUSE OF METHANE MOUNTAIN. SO. CAL. GAS ALISO CANYON HAS BEEN OPERATING FOR YEARS IN A VERY UNSAFE WAY. NOW IS TIME FOR ALISO CANYON METHANE MOUNTAIN THAT REMAINED SHUT DOWN. WE DONOT NEED ALISO CANYON. ALISO CANYON IS BEEN SHUT DOWN FOR 15 MONTHS, AND NOT BLACK OUTS. ALISO CANYON IS THERE JUST TO MAKE MONEY. IS TIME THAT SO. CAL. GAS THINK ABOUT CHILDREN NOT MONEY. CHILDREN ARE THE FUTURE OF PORTER RANCH. ALISO CANYON SHOULD REMAINED CLOSED.

SINCERELY

PATRICIA LARCARA

From: [Joni Spiers](#)
To: AlisoComments@DOC
Subject: SoCalGas/Aliso Canyon - Residents" Feedback
Date: Wednesday, January 4, 2017 3:51:40 PM

As one family of the potentially 30-40k who I believe have suffered in some way as a result of the Aliso Canyon/SoCalGas blowout, I'm writing to not only briefly share my awful experience, but to tell you I believe the facility is extremely unsafe and far too antiquated for SoCalGas or any company to be allowed to inject into the wells ever again. I also believe that Sempra/SCG have completely lost their credibility and residents/customers no longer trust anything this Company says. It's my opinion that the prospect of the facility possibly reopening will ultimately result in many more thousands of residents, pets, wildlife and the Los Angeles environment suffering the grave consequences, should you decide to let SCG return to business there. The fact that SCG admits to having at least two leaks a day and now have also informed residents that the rains/winds cause "gas off" issues, only heightening ongoing health symptoms while the facility is nonoperational, that alone is too much for residents to endure. The facility still emits poisons and after reading the U.S. Dept. of Energy's Task Force report, the Task Force agrees the facility is too close to the heavily populated area.

My home is 1.8 miles SE of Aliso in Granada Hills (Highlands). SoCalGas never notified us when the blowout supposedly began in October 2015. We assumed it was because they initially wanted to report it as just a Porter Ranch problem. When I spoke at City Hall in Nov. 2015, I asked SCG executives that day how gas/toxins knew how to stop spewing at invisible city limits. Had we been notified, I probably wouldn't have developed neurological issues and seizures, but by the time we found out the last week of November 2015, our older dog had already gone into full blown organ failure and had passed away and we had been mysteriously experiencing life threatening symptoms — like seizures and much more. I personally believe SS25 was leaking much earlier based on my family's very unusual medical history since we moved there 12.5 yrs. ago. I cannot believe the Court only invoked a \$4 million fine on SCG, when it took many phone calls and research on our part to find out that our lives were in danger. I know that most residents remain very concerned about the unknown chemicals that SCG used during all their unsuccessful top kill attempts to stop the leak are still not being disclosed. Obviously, these poisons do not just dissipate in thin air, because residents have found out that the poisons have clung to anything porous in homes, schools, buildings and remain in the soil, bedrock and earth. We hope it has not reached the water system, as we had concerns when we'd develop rashes after taking showers and had changed our entire home water filtration system (spending many thousands) while living there, because we would itch from the water. It's so frustrating to pay some of the highest housing costs in the U.S. and yet this is what we've been forced to live with -- a dangerously unhealthy environment, while watching the property values drop only in the San Fernando Valley North area. The only alternative is to just find a way to permanently leave, which we've been trying to do.

I don't understand why the news has not reported the deaths and disease that are a result of the blowout, but obviously Sempra can pay the right people to handle that damage control. I've heard about the 19 yr. old young man died of nasal cancer; spoke with the mothers of a 7 yr. old girl is fighting leukemia and another one has aplastic anemia; I've known many parents who have battled brain tumors and cancers, several have passed away and now I'm hearing about several more teachers in the area with cancers, as well, so as awful as my family's life has become, I feel like we are some of the fortunate ones who got out. However, it has not

been easy, my family has just had to move for the 11th time since the gas blowout, we are still sick, our finances and credit have been destroyed, but we are not dying. However, we can thank our family's doctors for their urgent advice after they explained we are considered a "high risk" family to develop life threatening diseases because we already had been exposed to the worst toxic molds at our previous home near the beach before we moved to GH. SCG executives heard me speak at City Hall and at a AQMD Hearing, they know me and my story and yet they intentionally stood up my husband on Memorial Day to clean our house, then they refused to ever clean it afterward, they denied us the air filters/scrubbers and didn't offer to weatherproof it, they left us with no relocation benefits on June 4th and they were fine knowing that our sick family of four and a dog had essentially become homeless. My husband tried to clean the house himself, got very sick and went into kidney disease, developed high blood pressure (that was not being controlled with meds.), asthma, conjunctivitis, skin rashes, etc. for the first time in his life and was put on disability. Does this sound like a Company who cares about their paying customers or the residents?! Absolutely not!! After complaining to ever County & State government official, we finally got SCG to clean our house in August. After they did clean, they somehow made the home 10x more toxic. We tried to move back to the house after the cleaning, we made it three weeks, but ended up in Urgent Care, ER with massive nosebleeds, high blood pressure/high pulse rate, severe chest pain, migraines, conjunctivitis, rashes, seizures, vomiting, diarrhea, bone pain and more. Even our houseguests got massive nosebleeds after a 30 minute visit and I sent photos to Mandi Bane at DPH to prove it. Mandi argued that she and her Dept. helped develop the cleaning protocol, so in other words, it's our problem now if the house remains unlivable, I guess she didn't want to hear it since they've become environmental hygiene experts now. I was left with no choice but to complain to the U.S. Dept. of Justice that we've been unable to live in our home for 14 months now because it's too toxic to live in and everyone in the real estate community and neighborhood know about it. Not sure if it's the location at the end of a cul-de-sac on a hill that gets hit with the hardest winds, if it was SCG's cleaning methods and/or the fact SCG refused to give us air filters and scrubbers, but we still find black soot in the house after heavy winds when we stop by to check on it. All our possessions inside smell like toxic chemicals, we cannot take it to wherever we eventually settle into as a new home and will be forced to start with nothing. SCG/Sempra should have been made by DPH to go back in and tear out the insulation and carpet from my house if need be, they caused the problem and should be liable, but they don't care. They even denied us reimbursement of costs when they illegally stopped paying our relocation benefits in March and we were forced to cover expenses totally over \$11,972 back then. They've been intentionally vindictive to me, especially Gillian Wright, the VP of Customer Service. Since then we've incurred about \$50-60k more in out-of-pocket rent, mileage & meals in temporary housing. My husband and I are in our late 50's, sick, thought we'd retire on our 40% (& growing) equity we had pre-blowout, have instead been knocked out of middle class now and are living like full blown vagabonds, as we've dragged our poor daughters and dog from one Airbnb, hotel to the next in the last 14 months (depending on rates & availability). Our oldest daughter has had to hand over her entire paycheck to help keep a roof over our heads. It is mind blowing how nobody cares! I do believe my story is newsworthy. Nobody will give us a long term lease until we can figure out how to sell our toxic house and we have no money to start replacing insulation, carpet, front doors, etc. Temporary housing is about \$250-300 per day in L.A., which means we are essentially homeless people paying rent as high as a mortgage for a mansion. I had complained to Supervisor Antonovich's office before his term ended, he sent my complaint to the U.S. CFPB and I was informed they've sent my complaint to a few other Federal agencies. Residents that moved out of state have said when they began unpacking their belongings, their clothing and porous items cause them to get sick all over again. Whatever

toxins spewed, they're obviously clinging to all porous items, furniture and clothing. Families like mine are out thousands (in our case it can quickly turn to \$100k if something doesn't give soon) if our house doesn't sell and/or we'll likely take another huge loss of at least 1-2 hundred thousand from the sale of our home but the Sempra & SCG execs. have still awarded themselves with giant year end bonuses each year after destroying a countless number of families. "Profit over People". It's so frustrating as a paying customer who has no choice but to do business with the evil monopoly ran by greedy executives and shareholders. Sempra/SCG refusing to pay for a health study proves they have a lot to hide and can never be trusted. Hundreds of dogs who have died from the blowout, ours included. I believe the poisons killed off much of the local wildlife as well, they made our homes toxic and/or unlivable, interfered with children's education, caused many to have to uproot and leave the City, County & State, so it's maddening to see SCG never show remorse and instead call all the sick residents "privileged" for complaining our air is toxic and they've even brainwashed their low level staff to treat us with indignation. Now SCG appears completely confident they'll be allowed to start injecting again in early 2017. That's definitely a recipe for disaster, especially since the facility is on the fault line and SCG is also responsible for the three big brush fires we had in the past decade, along with the fact they are a dishonest corporation who cuts corners to save pennies.

Pre-blowout, my family was hard at work, had good credit, a beautiful cozy home, thriving careers/educations but 14 months later, we're on 11th temporary residence, our credit is destroyed, house remains unlivable, health is severely compromised, lost our medical benefits, oldest daughter had to drop out of her last yr. at CSUN in early 2016 due to vomiting on campus every day and work to help support the family, and the youngest is a High School Sr., her thriving acting career come to a dead halt when she developed a severe chronic cough from the blowout and had to stop auditioning, plus now her college plan have also been destroyed, as she had always planned to attend CSUN while she pursued her acting career, but she cannot be on campus there either without experiencing the chronic "Aliso cough".

SoCalGas threatened blackouts in early 2016, but its been shut down for over a year and the community seems fine without them. I'd be willing to wear several layers of clothing during the winter to conserve energy, rather than ever see Aliso reopen. I've heard many, many residents say they will sell their homes and leave the area should Aliso reopen. Real estate values would drop even more. The decision is in your hands, praying you will do the right thing. As much as many of us would like to see California do away with fossil fuels, I don't believe residents would be opposed to Sempra/SCG continuing to remain in business as long as they store the gas in another facility many miles away that will not affect residents. In the long run, it seems it would be more affordable to rebuild a new facility, rather than continue to try to fix the unsafe wells at Aliso, while constantly battling what will ultimately become constant ongoing legal fees. Thank you for your consideration in favor of SHUTTING IT ALL DOWN.

Sincerely,

Joni Spiers & Family


A M E R I C A N B E V E R A G E
A S S O C I A T I O N

January 24, 2016

The Honorable Edmund G. Brown, Jr.
Governor, State of California
State Capitol, First Floor
Sacramento, CA 95814

Dear Governor Brown,

The American Beverage Association (ABA) is a trade association that represents the non-alcoholic beverage industry in the US, including beverage producers, distributors, franchise companies and support industries. In California, our industry has a direct economic impact of \$17.1 billion, provides nearly 24,000 jobs and helps to support tens of thousands more that depend, in part, on beverage sales for their livelihoods. California's beverage companies and their employees provide significant tax revenue - \$1.9 billion at the state level and \$2.9 billion at the federal level.

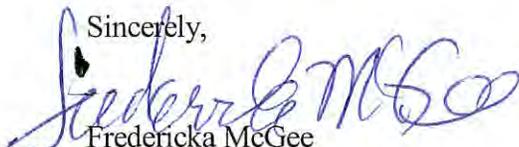
Natural gas is a key input for many of our members' manufacturing and distribution processes. Our member companies' environmentally friendly distribution fleets also rely on compressed natural gas (CNG) to operate, which can be supplied from Aliso's natural gas reserve. Even the slightest disruption in natural gas service could have significant consequences for our industry and the region's economy.

As such, energy reliability is important to our daily operations and we are not alone in this concern. To date, state agencies and the California Independent System operator have issued successive technical assessments cautioning that Southern California Gas Company's (SoCalGas) Aliso Canyon natural storage facility is crucial to regional energy reliability.

As long as California state regulators have confirmed SoCalGas has complied with all regulations and requirements, ABA supports its reopening.

Thank you for your consideration.

Sincerely,


Fredericka McGee
VP CA Govt Affairs & Operations

CC:

Mr. Clifford Rechtschaffen
Office of the Governor
State Capitol, First Floor
Sacramento, CA 95814
[REDACTED]

Ms. Nancy McFadden
Office of the Governor
State Capitol, First Floor
Sacramento, CA 95814
[REDACTED]

Mr. Saul Gomez
Office of the Governor
State Capitol, First Floor
Sacramento, CA 95814
[REDACTED]

Mr. Kenneth A. Harris, Jr.
State Oil and Gas Supervisor
Division of Oil, Gas, and Geothermal Resources
801 K Street MS 18-05
Sacramento, CA 95814
[REDACTED]

The Honorable Michael Picker
President
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
[REDACTED]

Mr. Timothy J. Sullivan
Executive Director
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102
[REDACTED]
[REDACTED]

February 6, 2017

Via email to Alisocomments@conservation.ca.gov

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814

I am a resident of Southern California and a chemical engineer who has worked in the oil and gas industry for 25 years. Although California has been blessed with natural resources, as the years have progressed, the State has become an energy island where it no longer produces enough oil and gas to fulfill the needs of its people.

I am the mother of a young child. I recently heard that we needed to lower our gas usage during the coldest days of winter because we might run out of gas. I considered how I could help. My toddler has in home care and we cannot leave him cold at home all day. My office was freezing even with a small space heater and it seemed impossible to sit in the cold for over eight hours each day. More broadly, we cannot ask schools or hospitals to cut back. The point is that this is a very basic need. Our state should be encouraging and of course regulating private enterprise so that there are plentiful supplies of energy on hand in the coldest months when it is needed. It is critical that we safely maintain our supply chains for energy, not shut them down.

There are many regulations that contribute to ensuring the safety of the public. One of the most important aspects of maintaining a safe operation is the integrity of the wells that are in use on the site. There need to be redundancies in their construction in the event something fails. Basically, there has to be a back up plan. The findings of the October 21, 2016 checklist say exactly this. Requirement #3 ensures that all active storage wells are properly equipped with redundancies.

Secondly, for wells that will no longer be used, SoCalGas needs to safely abandon them using the procedures in the regulations. I read in requirement #21 that SoCalGas is also compliant with meeting the condition to complete testing or plug and abandon each well that has been isolated and thereby has addressed the wells not in use.

Requirement #3 and Requirement #21 address all wells and assures me that the proper work has been completed. Alongside the other 21 conditions which I have not mentioned, I feel the facility should be reopened to continue to meet the public need for energy in Southern California.

I would also like to provide input about the letter to Mr. Harris regarding seismic hazards at Aliso Canyon. It calls for additional theoretical research into seismic impacts. While I feel it is good to have additional insight, the letter calls for too broad of a research program particularly if it is at taxpayer expense. If this subject is pursued, this scope should be narrowed to try yield insights in a cost effective manner. I hope you will consider collaborating and taking input from industry scientists who are practioners before taking future steps along this course of study.

I would like to thank you for taking public input.

Sincerely,



Amy Roth
Redondo Beach Resident

GREAT FUTURES START HERE.



February 6, 2017

To Whom It May Concern;

This letter is in regards to my own personal "Due Diligence" in consideration of donations from So Cal Gas and their actions at the Aliso Canyon Facility. To clarify, the donations from So Cal Gas enhance a very strong program for our Boys & Girls Club. Their donations have made a great impact on the quality of life for the children we serve. However, if it were found that the Gas Company's actions were to be in contrast to the good will and intentions of our Club, we would discontinue our relationship immediately. The Club is committed to the highest ethical standards and to ensuring that our work, providing at-risk youth with out-of-school enrichment programming, is conducted with integrity and without the bias of corporate influence. I feel my research and questioning was without bias because while ending our relationship would impact our programs, it would not be so impactful as to close the doors at any of our 22 locations.

After much dialog, reading information from DOGGR, and watching the "Aliso Canyon Natural Gas Storage Safety Review" video, I feel I have a reasonable amount of knowledge to make an intelligent decision in the support or termination of our relationship with Southern California Gas.

I am very happy to say that my hopes of positive action and honorable intentions from The Gas Company were exactly what I thought and hoped they would be. I feel they have not only made an attempt to be fair and respectful to the home owners nearby, but they were very aggressive in the upgrades and repairs of the facility.

Upon speaking with a civil engineer friend of mine on more than one occasion, we looked at the actions being taken and were impressed with the engagement efforts of So Cal Gas to ensure a successful outcome for the community of Southern California. I understand the importance of this "Holding Tank" and the benefit from quick access to clean fuel, especially in summer when energy needs are high.

In closing, it is reassuring that a company that donates to support the health and well-being of children actually does carry that mind-set in their work actions and ethics as well. I have no doubt that The Gas Company is acting honorably and respectfully. I support their actions and efforts to re-open the Aliso Canyon Facility.

Thank you for your time.

Jay R. Duke

A handwritten signature in black ink that reads "JDuke".

Executive Director

Antelope Valley Boys & Girls Club



Promoting & Enhancing a Positive Environment for Business & Community

February 6, 2017

The Camarillo Chamber would like to show support for the Alsio Canyon Facility. The business community need a safe and reliable source of natural gas and we feel that SoCalgas has taken the necessary steps to insure that there will not be any further safety issues with this facility.

We are supportive of the process that was outlined in SB 350 and hope that this will lead to the use of the facility to being able to reinject the wells and have the reserves needed to power our energy needs in Southern California.

Sincerely,

Gary Cushing
President/CEO



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January 30, 2017

Attn: Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA 95814

To Whom It May Concern:

On behalf of the Center for Asian Americans United for Self Empowerment (CAUSE), I am writing to urge your review committee to allow the reopening of the Southern California Gas Company's Aliso Canyon storage facility.

CAUSE was founded in 1993 as a nonprofit community-based organization dedicated to the civic and political empowerment of the Asian Pacific American (APA) community. Our leadership development and voter outreach, training, and education programs ensures our communities are able to have a voice in our democracy. SoCalGas has always demonstrated a commitment to cultivating our community's women and veterans through our Veterans Initiative and Women in Power programs.

As a long time community partner with SoCalGas, we can be confident in their consideration and concern for the community. For over ten years, SoCalGas and its employees have always showcased an outstanding dedication to corporate citizenship.

SoCalGas has worked tirelessly with countless experts and environmental agencies such as the Division of Oil, Gas and Geothermal Resources and the California Public Utilities Commission to ensure the safe reopening of the facility. They have been complying with the state and have passed numerous safety reviews. It is now time for us to ensure they are able to offer the quality of service and access to the energy that California needs.

The Aliso Canyon facility's reopening is critical and vital to the energy reliability and well-being of all of Southern California. I ask that you approve the reopening of Aliso Canyon.

Should there be any questions or need for additional information, I can be reached via email at [REDACTED] or by phone at (626) [REDACTED]. Thank you for your time and careful consideration.

Sincerely,

Kim Yamasaki
Executive Director



The Chamber OF THE SANTA BARBARA REGION

Helping Business Succeed Since 1899

02 February 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814
Submitted Via Email – [REDACTED]

RE: Aliso Canyon Storage Facility

To Whom It May Concern:

My name is Ken Oplinger and I am the President/CEO of the Chamber of the Santa Barbara Region and the Chair of the Economic Vitality Team of Santa Barbara County.

On behalf of the Chamber's 800 members and their 25,000 employees, I would like to offer our support for Southern California Gas Company as they move to fully reopen their Aliso Canyon facility.

In Ventura and Southern Santa Barbara Counties, energy transmission and production are difficult tasks. Our geography and limited connectivity mean we are always at risk of energy curtailment, a potential harm to our economy and our communities.

Projects like Aliso Canyon, which are located here in our region, provide some security in that difficult energy picture. We strongly support the effort of Southern California Gas Company to determine the cause of the leak in 2015, and encourage your support for reopening this facility as soon as possible.

Sincerely,

Kenneth Oplinger, ACE, President/CEO
The Chamber of Commerce of the Santa Barbara Region

[REDACTED], A, Santa Barbara, CA 93101
Telephone: [REDACTED]
e-mail: [REDACTED] | website: www.sbchamber.org



City of Diamond Bar

21810 Copley Drive • Diamond Bar, CA 91765-4178

• Fax ([REDACTED]

www.DiamondBarCA.gov

February 1, 2017

Department of Conservation
Attn: Aliso Canyon Comprehensive Safety Review
801 K Street, MS 24-02
Sacramento, CA 95814
Transmittal by email: [REDACTED]

Department of Conservation,

In order to ensure an adequate supply of natural gas to residents and businesses, and as a Council Member from the City of Diamond Bar, I support the reopening of the Aliso Canyon Storage Facility.

Natural gas is widely used in homes and businesses throughout California. The Los Angeles region is highly dependent on natural gas to generate electricity. Over 60% of the electricity generated in the greater Los Angeles region is generated using natural gas and roughly 95% of homes use natural gas for cooking, space heating, and hot water.

On January, 17, 2017, the Department of Conservation's Division of Oil, Gas, and Geothermal Resources completed its comprehensive safety review of the Aliso Canyon Storage Facility. The Aliso Canyon Storage Facility satisfied the comprehensive safety review for 114 injections wells and the requirements of Senate Bill 380. For the reasons stated above, I support the re-opening of the Aliso Canyon Storage Facility.

Sincerely,

Nancy A. Lyons
Councilmember

c City Council
James DeStefano, City Manager
Ryan McLean, Assistant City Manager
Anthony Santos, Assistant to the City Manager

Jimmy Lin
Mayor

Ruth M. Low
Mayor Pro Tem

Carol Herrera
Council Member

Nancy A. Lyons
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Habitat for Humanity
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Wattenbarger Construction

February 3, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA 95814

RE: Reauthorization/reopening of Aliso Canyon Facility

To Whom It May Concern:

On behalf of the Desert Valleys Builders Association, representing nearly 200 member companies located in the Coachella Valley & Imperial County region, and conducting business within the new residential and commercial development industries, we respectfully request the reauthorization-reopening of the Aliso Canyon Facility.

The widespread use of natural gas creates new, California-based jobs across several sectors including construction, manufacturing, engineering, automobiles and clean technology. Additionally, the historically low cost of natural gas saves consumers money at the pump, allowing them to put more money back into the slowly recovering economy. Natural gas could be a part of further stimulating the economy, as we move forward into a new era of review and transparency for this facility. Further, the closure or limited use of this facility will have long term negative impacts on available services, rates and economic benefits to communities throughout the region.

Therefore, we urge the review committee to reauthorize/reopen the Aliso Canyon facility. Thank you for your evaluation of this process and our correspondence.

Sincerely,

Gretchen Gutierrez
CEO
Desert Valleys Builders Association

February 6, 2017

Ken Harris, PG
State Oil & Gas Supervisor
California Department of Oil, Gas & Geothermal Resources
801 K Street, MS 18-05
Sacramento, CA 95814

Re: Fault related well failures at Aliso Canyon oil/gas storage field

Dear Mr. Harris,

This letter is in response to the notice for public comment in connection with safety of operating the Aliso Canyon gas and oil field. I have noted from both comments by the public and by the advisory team from LBL and other national labs who are consulting with DOGGR that it is generally agreed that the cause of the SS 25 and the risk of certain specific geologic hazards such as potential movement on the Santa Susana fault (for example, as expressed by Davis, see references attached in Exhibit 1) have not been fully addressed.

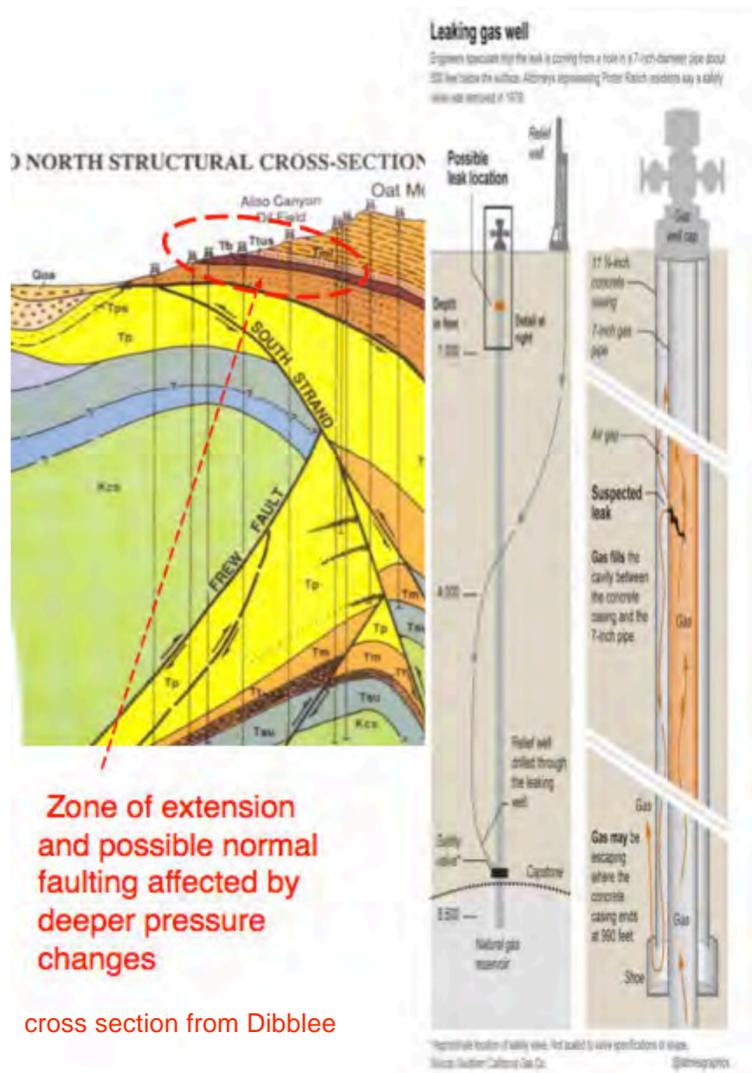
I am writing to suggest that the examination of such important topics needs to be expanded to include other conditions such as aseismic casing well failure(s) in relatively shallow zones induced by pressure changes at deeper and shallow levels. In fact at least one theory of the failure indicates a well failure at within the canopy-like structure of the Santa Susana hanging wall (upper plate) overlying the gas producing and storage zones as being the cause of the gas release (LA Times diagram).

In fact as shown following, this mechanism involving tension and normal faulting has been seen as particularly detrimental to casing and tubing stability in other California oilfields such as the Inglewood field (Hamilton and Meehan; Frame; see References)

Faulting or other extensional local features or processes above producing zones are not generally of prime importance to field operators. Minor faults have not been studied or recorded here in the Aliso Canyon Field and none of the proposed future safety investigations identify these factors as being possibly significant, even though, in my view, they may be determinative of both the cause of the failure, future public safety, and feasible remedies to the casing failure and gas release hazard.

Douglas H. Hamilton PhD, PG, CEG

2 [REDACTED]
California 94027
650-321-3071.
[REDACTED]



References

Thomas L. Davis "The Santa Susana fault, Aliso Canyon gas storage field, southern California-possible fault rupture hazard, gas well integrity, and regulatory implications" AAPG Datapages/Search and Discovery Article #90266 © 2016 AAPG Pacific Section and Rocky Mountain Section Joint Meeting, Las Vegas, Nevada, October 2-5, 2016 October 5, 2016 Wednesday 9:50 A.M. AAPG Pacific Section and Rocky Mountain Section Joint Meeting, Las Vegas, Nevada

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NATURAL GAS STORAGE OPERATIONS AND THE GEOLOGY OF THE ALISO CANYON FIELD, LOS ANGELES CO., CALIFORNIA Dale S. Kunitomi, Geologic Consultant; Thomas Schroeder, Aliso Canyon Storage Operations Manager, Southern California Gas Co.

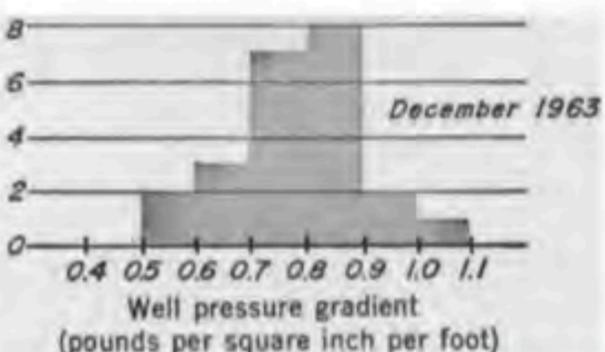
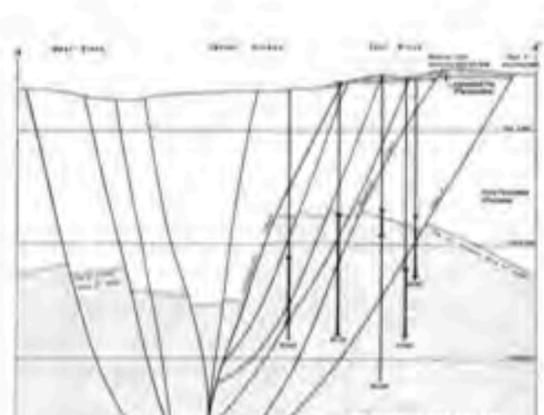


Fig. 5. Injection history for Vickers east block, 1957-63.

Above for comparison, Inglewood Oil Field: Operating the field at injection gradients as shown here caused fault slippage and casing failures without earthquakes.
From Hamilton and Meehan Science 1971.

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February 6, 2017

Timothy Sullivan
Executive Director
California Public Utilities Commission
505 Van Ness Ave, San Francisco, CA, 94102

Kenneth Harris
State Oil and Gas Supervisor
Division of Oil, Gas, and Geothermal Resource
801 K St., MS 18-05, Sacramento, CA, 95814

Subject: Aliso Canyon Reinjection

Dear Mr. Sullivan and Mr. Harris,

Thank you again for the opportunity to submit comments related to the current decision before your respective agencies concerning reinjection into the Aliso Canyon natural gas storage field.

EDF previously submitted comments on the overall issue of authorizing reinjection and permanent operation of the facility (dated December 6, 2016), but in those comments we did not address the instant matter of whether reinjection should be authorized. Rather, we said since SB 380 created an implicit preference for minimizing or eliminating Aliso Canyon so long as electric reliability was not impacted, *if* reinjection was authorized, it should be done so on a temporary and limited basis, and only after several conditions were met. EDF continues to stand by those prior recommendations (summarized below). The comments we submit today provides a discussion of additional concerns that militate against allowing for injection into the facility at this time.

Summary of prior recommendations

On December 6, 2016, EDF argued that no reinjection, even limited and temporary, be allowed until several conditions were met, including:

1. All SB 380 requirements were met and proven complete, including having all well inspection and repair documentation available online for public review and having DOGGR articulate how each well's subsurface and surface equipment has been optimized to minimize the likelihood of further accidents.
2. The joint energy agencies, with input from the CAISO, conduct a newly revised energy reliability analysis based on updated meteorological modeling, current and planned progression towards achieving the requirements of action plans, and updated forecasts associated with increasing use of clean energy resources
3. A maximum threshold was established based on the minimum volume necessary to maintain energy and electric reliability for the region, and that only that amount of gas was used.

EDF also argued that permanent operation should not be allowed until several other conditions were met, including:

1. Completion of key ongoing analyses and rulemaking processes that may have a direct bearing on the operations – including the comprehensive root cause analysis and DOGGR permanent rules for well-integrity at storage sites.
2. Completion of the CCST studies on the proper role of natural gas storage in California and proper role of Aliso Canyon.
3. Completion of CAISO and CPUC long-term planning, rule development, and market instrument design efforts to facilitate improved deployment of flexible energy resources, including both natural gas and zero carbon resources that can provide the ancillary services necessary to balance variable load and demand to maintain electric reliability.
4. Completion of a risk-based plan that determines the fate of all remaining non-active wells at the site
5. Removal of the authorization for regional power plants to burn liquid fuels for power generation instead of natural gas.

Additional recommendation on delaying injection into Aliso Canyon

As a general matter, EDF notes that we are not challenging the technical analysis, review or oversight process undertaken by the state of California related to Aliso Canyon gas storage wells since SS-25 was plugged in February 2016. On the contrary, EDF has been supportive of the Aliso Canyon inspection protocol and we continue to be complimentary of the intensive technical work, intergovernmental cooperation, and stakeholder engagement on technical issues that has gone into the overall process.

However, notwithstanding the fact that many million dollars and thousands of work-hours have gone into refurbishing and testing the Aliso Canyon field and its wells over the past year, major public policy concerns must be weighed in making the decision to allow for reinjection into the field, even on a limited basis. In particular, the fact that neither the technical root cause analysis nor CPUC investigation are yet complete has raised concerns among many stakeholders. These concerns go beyond the technical work to develop a reinjection protocol and delve into matters of public confidence, transparency and overall fairness to the people and ratepayers of California. EDF asserts that on balance, these concerns militate against allowing for reinjection into the facility until, at a minimum, the root cause analysis is completed. We therefore urge DOGGR and the CPUC to delay until then a decision on So Cal Gas' request to reinject into the facility – thereby maintaining the status quo condition of only allowing limited, and tightly controlled, amounts of emergency natural gas to be held in the facility.

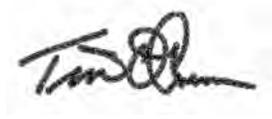
EDF bases its position on delaying reinjection into the facility on two main public policy grounds.

- As witnessed at the recent field hearing in Woodland Hills, the community in close proximity to the facility has been significantly negatively impacted by the major release event that continued for nearly four months, and remain intensely concerned about potential future impacts from this facility. Additionally, recent comments by the LA County Fire and Public Health Departments (local entities entrusted with protecting public safety and health) have publically detailed their views on deficiencies in the emergency preparedness plans and public health impact studies that have been developed – yielding even greater unease and tension to the situation going forward. Public confidence in the gas company and in statewide regulatory agencies has been significantly harmed by the Aliso Canyon incident, and rebuilding public trust will require additional effort and assurance by agencies. The completion (and public release) of the root cause analysis, including the

discounting of seismic activity contributions to the release cause, is a key assurance the public needs to reestablish trust in the process related to reopening the facility. Reinjection should not be allowed until the root cause analysis and related efforts are complete.

- As detailed in a January 2017 CPUC analysis of the effectiveness of reliability action plan implementation efforts titled "Aliso Canyon Demand-Side Management Impact Summary," several different efforts were evaluated and contrasted. As this analysis shows, while the DSM program was effective at reducing gas demand at Aliso Canyon by approximately 4.5 BCF between March 2016 and January 2017, the vast majority (about 98%) of this savings resulted from tighter gas balancing requirements, and only 2% from gas demand reductions associated with existing energy efficiency, new energy savings, and solar thermal. Such a skewed result, whereby only 2% of gas demand reductions was the result of actual gas burn reduction efforts, raises the public policy question of whether So Cal Gas should be called upon to execute more gas savings measures before they are allowed to reuse the facility.

Thank you again for your attention on this serious matter.

A handwritten signature in black ink, appearing to read "Tim O'Connor". The signature is fluid and cursive, with a large initial "T" and "O".

Tim O'Connor
Senior Attorney and Director, Legislative and Regulatory Affairs
Environmental Defense Fund

To: California Division of Oil and Gas and Geothermal Resources (DOGGR)

Re: Comments on Supplement to SoCalGas' Storage Risk Management Plan #2, (10/11/2016), and shown as Attachment B to Letter from Southern California Gas to DOGGR and CPUC, dated November 1, 2016.

From: Geologic Maps Foundation, Inc. (GMF), Ventura, CA

Date: February 6, 2017

General comments

Hazard and risk reviews of the safety of the Aliso Canyon Gas Storage Field (ACGSF) should always keep in mind two distinctive features of the field: 1) It is located very close to a large urban area, and 2) the field is developed across a known earthquake hazard, the Santa Susana fault (SSF).

SoCalGas' Storage Risk Management Plan #2 (SRMP #2) lacks detailed discussion, analysis, and technical support for its statements and conclusions. Some of the geologic statements in SRMP #2 are without foundation and should be corrected or eliminated (these are noted below in specific comments). There is an abundance of published geologic data and information on the SSF. All of the gas storage wells cross the SSF to reach the storage reservoir at the ACGSF. The SSF is a well-established earthquake hazard (Yeats, 1987, 2001; CGS, 2003). SRMP #2 devotes much its discussion of the SSF on geologic facts of little consequence to the SSF threat to gas well integrity. SoCalGas has not sufficiently addressed the SSF displacement hazard to its storage wells, gas asset, and southern California's energy supply. In addition, fault displacement on the SSF could compromise well integrity and produce methane leaks with severe impacts to the environment, safety, and local communities. SRMP #2 minimizes these impacts by stating that if SSF displacement were to occur the damaged storage wells would not leak methane to the atmosphere. Even if there was no leakage from SSF displacement, SoCalGas fails to offer a mitigation plan for the possibly many damaged wells open to the deeper gas reservoir, and to offer a plan to alleviate a serious disruption in energy supplies. A thorough earthquake and fault hazard evaluation with potential impacts, risk assessment, and mitigation and emergency plans should be required before gas injection is approved by DOGGR at the ACGSF. A probabilistic fault displacement hazard analysis (PFDHA, Wells and Kulkarni, 2014) of the SSF should be part of any evaluation. Many large geotechnical firms that perform design and siting for major construction projects such as large building, tunnels, and bridges provide this type of analysis. Such an analysis provides sensitivities for the various model components like the size and rate of an earthquake on the SSF, extent of rupture on the SSF, expected fault displacement on the SSF, and the impact of fault displacement on the individual gas storage wells. SoCalGas should use a registered California Professional Geologist(s) to prepare the geologic portions of its SRMPs (for details see: http://www.bpelsg.ca.gov/about_us/). For technical and scientific accountability in SRMP #2, and future SRMPs, these documents should show the geologist's California professional certificate number and license seal stamp. A SRMP should be considered an important professional document and all citations in the text should be fully referenced at the end of the document.

Previous to the massive methane leak at the ACGSF in late 2015 and early 2016 (aka Porter Ranch), the earthquake fault displacement hazard and risk to gas well integrity and storage fields received minimal attention. Consequently, such a low occurrence but very high impact event is poorly appreciated by the adjacent communities, storage field operators, gas industry organizations, and likewise by state and federal policymakers. There is no public record that the SoCalGas, over the four decades of its operation at the ACGSF, addressed the fault displacement hazard and risk posed by the SSF to its storage field wells. Similarly there is no public record that the state regulators of gas wells, DOGGR and the California Public Utilities Commission, recognized this hazard and risk. The recent ACGSF leak, although probably not due to fault movement, showed the difficult and lengthy process to regain control of a subsurface leak in one gas well and its significant regional and local impacts (Harris and Walker, 2016). Fault displacement from an earthquake on the SSF could compromise the integrity of numerous wells. This regulatory oversight is beginning to change. DOGGR published a Discussion Draft for safe operation of gas storage fields in California following the ACGSF leak (DOGGR, 2016); see <http://www.conservation.ca.gov/dog/Documents/GasStorage/Public%20Discussion%20Draft%20-Requirements%20for%20Underground%20Gas%20Storage%20Proj.pdf>

Further discussion and details on the SSF displacement hazard to the ACGSF are available in Davis (2016a, b, & c).

Specific comments

The following comments are addressed in the sequence presented in SRMP #2

1.2 Approach

Comment: SRMP #2 provides a cursory identification and assessment of the geologic hazards at the ACGSF. An “outline” of protocols for mitigation is unacceptable given the significance of the request for injection.

1.3 Summary

Comment: The local fault displacement hazard posed by the SSF to storage wells is not recognized. The regional seismic hazard is recognized but that is a different hazard than the threat posed by rupture along the SSF. SoCalGas intends to submit additional data and information on the geologic hazards but at this time SRMP #2 could have easily provided and discussed the large body of easily available geologic data and information that focuses on the earthquake hazard presented by the SSF.

2.2.1.1. The Santa Susana Fault (SSF)

Comment: The SRMP #2 does not address the unique geologic setting of the ACGSF and the significant fault displacement hazard posed by the SSF. The SRMP #2 fails to address the hazard and potential impacts of fault displacement along the SSF to the numerous gas wells at the ACGSF. No risk assessment, and mitigation and emergency protocols for such an event are presented.

SRMP #2 cites Yeats and others (no publication date provided) for total fault displacement and the movement history of the SSF. Oddly Yeats (2001) was not cited in SRMP #2, and from a literature search, it appears to be one of Yeats’ most recent publications on the SSF. In Yeats (2001) total displacement on the SSF is stated to be greater and the slip rate much higher than in most of Yeats’ older works. In the 2001 publication Yeats’ states the SSF had 4.9-5.9 km of slip during the last 600,000-

700,000 years that yields the exceptionally high slip-rate of 7.0-9.8 mm/yr. This rate is nearly a plate boundary rate and roughly 1/3 to 1/2 the convergence rate of the entire western Transverse Ranges (Namson and Davis, 1988). If this high slip rate is valid it shows the SSF is a much more significant fault rupture hazard than previously thought.

Figure 1 should show the Alquist-Priolo Earthquake Fault Zoning (AP) and seismic hazard zone mapping along the SSF and its proximity to the ACGSF; see (<http://www.conservation.ca.gov/CGS/rghm/ap/>).

SRMP #2 cites Lung and Weick (1987) that the last age of movement on the SSF is greater than 10,010 \pm 50 years (^{14}C age). However, SRMP #2 fails to mention that this age and relationship is from a site 10 miles west of the ACGSF. SRMP #2 also fails to mention that Lung and Weick caution that this site may not provide a complete history of the SSF's movements as other strands of the SSF may be present off-site. At a site near the ACGSF (Limekiln Canyon) the age of latest movement on the SSF could not be determined; however, SRMP #2 does not mention this important fact.

SRMP #2 states "Just like Aliso Canyon, most oil and gas fields in California are inherently bounded by or otherwise constrained by Holocene faults." This is an unfounded statement that distracts from the uniqueness of the ACGSF where all 114 gas storage wells are intersected by a fault with a very high slip rate. If SoCalGas believes that most oil and gas fields in California are adjacent or intersected by Holocene faults with similar high slip rates as the SSF then it should provide both geologic evidence and citations for such an interesting and unconventional statement.

SRMP #2 is confused about the definition of an active fault and is out of date. It claims that the term is only applicable to habitable structures and faults with surface displacement within the last 11,500 years. Faults that have moved during the last 11,700 years are shown as Holocene displacement faults by the California Geologic Survey; see (<http://maps.conservation.ca.gov/cgs/fam/>). The United States Nuclear Regulatory Commission (NRC) does not use the term active faults: <https://www.nrc.gov/reading-rm/doc-collections/cfr/part100/full-text.html>. Based on the 10,010 \pm 50 years (^{14}C age) the NRC would classify the SSF as a capable fault; that is a fault capable of generating an earthquake in the future. There is no fixed rule about what geological time scale should be used to address the activity of a fault; see discussion in (<http://diss.rm.ingv.it/diss/index.php/help/50-understanding-active-faulting>) and there is certainly no rule making the term applicable only to habitable structures. Granted that gas wells are not habitable structures, however, the regulatory limits to fault rupture zoning at the earth's surface (like the AP zoning in California) do not diminish or negate the subsurface fault rupture hazard to gas wells. Likewise the Pipeline and Hazardous Material Safety Administration (PHMSA) already has regulations and guidelines for surface gas pipelines crossing potentially active faults (PHMSA, 2011) but to date federal regulations do not extend to the storage wells and field. An odd and dangerous regulatory gap has developed where only surface fault rupture hazards are recognized. This is troubling given the much more difficult work of controlling subsurface leaks from gas wells compared to leaks in surface pipelines.

SRMP #2 shows the USGS' 2009 PHSA model for the portion of southern California adjacent to the ACGSF. The PHSA (Probabilistic Seismic Hazard Analysis) presents a generalized seismic hazard forecast for the ACGSF area but the PHSA does not address the specific fault displacement hazard to the ACGSF wells that intersect the SSF. To address the more significant fault displacement hazard would require a probabilistic fault displacement hazard analysis (PFDHA, Wells and Kulkarni, 2014).

SRMP #2 review of the SSF focuses too much on geologic features and observations irrelevant to the threat to gas well integrity posed by the SSF. A comprehensive and usable SRMP should have addressed the more significant and well known facts about the fault rupture hazard presented to gas well integrity. For convenience, these are listed:

- 1) The unique geologic setting of the ACGSF presents a hazard where 114 high pressure gas wells cross the potentially earthquake active SSF at shallow subsurface depths to reach the deeper storage reservoir. No other gas storage field in California has such a well-documented, high-slip-rate fault crossing all of the wells in its field.
- 2) To the west and east the SSF merges with the active Oak Ridge and Sierra Madre faults respectively, which increases the likelihood that the SSF is an active segment of a regional earthquake fault system that produced a very damaging earthquake with surface rupture (1971 Sylmar, $M_w=6.4-6.7$).
- 3) The ACGSF is located in one of the most seismically active areas of southern California as shown by the nearby and damaging 1971 Sylmar and 1994 Northridge earthquakes.
- 4) Numerous published geologic and seismological studies of the SSF conclude that this fault has a high, late Quaternary slip-rate relative to other southern California faults (with the exception of the San Andreas fault). The Third Uniform California Earthquake Rupture Forecast (UCERF3, 2015) shows the SSF's average slip (fault movement) is 2.9 mm/yr, and Yeats (2001) concluded the SSF has the exceptionally high slip-rate of 7.0-9.8 mm/yr over the last 600,000-700,000 years (late Quaternary). In general a fault having a high, late Quaternary slip-rate is characterized by a higher frequency of moderate to large earthquakes if the fault lacks aseismic slip. The SSF lacks aseismic slip.
- 5) The Southern California Earthquake Data Center at CalTech estimates the characteristic earthquake magnitude for the SSF to be from M_w 6.6-7.3. World-wide historic records for this range of magnitudes indicate that from 0.3 to 2.8 meters fault displacement can be expected (Wells and Coppersmith, 1994). Such large amounts of nearly instantaneous displacement are probably sufficient to comprise the integrity of many, if not all of the wells crossing the SSF (Figure 1). At the Wilmington oil field up to 0.25 meters of earthquake fault movement damaged numerous oil wells (Frame, 1952). This movement was in response to small earthquakes with small fault displacements. The moderate to large earthquakes characteristic of the SSF will produce much larger fault displacements.
- 6) Shallow intersections of the high pressure gas wells and the SSF make gas migration to the surface more likely. Many of the fault intersections are at shallow depths (less than 800 m below the earth's surface). At ACGSF there are several available migration pathways from the damaged wells to the atmosphere: along the exterior of well casings (as occurred during the ACGSF leak), and along established geologic migration pathways such as fracture sets and highly permeable fault

zones. Vertical and near vertical fracture sets, that favor gas migration to the surface, dominate the geologic strata between the SSF and the earth's surface. In addition, the SSF zone reaches the surface very near the Porter Ranch community that was severely impacted by the prior ACGSF leak.

7) The California Geologic Survey recognizes via the Alquist-Priolo Act, that the eastern segment of the SSF is an earthquake and surface rupture hazard based on surface displacement during the 1971 Sylmar earthquake ($M_w=6.4-6.7$) (CGS, 2003). Surface developers wanting to build along the SSF have been required by state and local jurisdictions for over four decades to do geologic studies of the SSF and mitigate for potential fault rupture at the earth's surface. These studies, while limited to the construction sites and not across the entire width of the SSF zone, show late Quaternary fault movement has occurred along much of the SSF (CGS, 2003). A rupture hazard at the surface is also a rupture hazard to wells crossing faults in the subsurface. Fault rupture propagates upward along the fault surface from the deeper earthquake source to the earth's surface. The regulatory limit to active fault zoning in California's Alquist-Priolo Act, which only applies to occupied structures on the earth's surface, does not diminish or negate the subsurface fault rupture hazard to gas wells. An odd and dangerous regulatory gap exists where it is difficult, if not impossible, to permit construction above the SSF but there is nothing preventing a gas storage field from being located across the SSF.

8) The recurrence time of recent fault movement on the SSF is presently unclear due to its poor surface exposure, extensive landslide deposits covering much of the fault zone, a wide and complex shear zone with two major splays, and limited fault trenching that does cross all of the strands and zones of the SSF. All of these factors constrain surface-based paleoseismic knowledge and have prevented determination of the last time of surface rupture on much of the SSF

9) Given the shape of the SSF and its splays at depth it is unlikely that new wells can be drilled to avoid crossing the SSF to reach the storage reservoir.

2.2.1.2. Nearby Faults

Comment: As pointed out in SRMP #2 the 1994 Northridge earthquake caused casing failure in one well at the ACGSF, however, that was the result of seismic shaking and not the result of the more significant fault displacement hazard posed by the SSF.

2.2.2 Well integrity and tectonic/seismic failures

Can additional studies demonstrate that fault displacement along the SSF will be distributed over a broad zone and unlikely to cause casing failure? This is not the same as showing the SSF has a wide fault zone. A wide fault zone is the result of many earthquakes and displacements on the SSF. SRMP #2's claim that hydrocarbon containment occurs because faulting pinches-off casing and tubing needs further investigation and is very speculative at this stage. The high pressure of gas storage wells, the shallow intersections of the wells with the SSF, and the available migration pathways to the earth's surface do not support such a conclusion.

3.1 Overview

Comment: SRMP #2 does not offer evidence that the risk is low at the ACGSF from displacement on the SSF. At this stage of evaluation it appears the risk is high since the potential negative impacts of fault

displacement on the SSF could be very significant. It is unclear how implementing appropriate engineering design could mitigate this risk since no plan is provided in SRMP #2 for wells being damaged by fault movement in the subsurface.

3.3.10 Tectonic/seismic induced failures

Comment: SRMP #2 proposes that casing deformation from tectonic fault displacements can be mitigated by well design and monitoring. At the Wilmington oil field fault displacements of up to 0.25 meters severely damaged numerous wells (Frame, 1952). It is instructive to review the photos in the Frame paper showing casing damage caused by small fault displacements. The characteristic earthquake for the SSF will probably generate fault displacements of 0.3 to 2.8 meter. Whether well design, increasing casing strength, and monitoring wells will sufficiently mitigate well damage from such large displacements events are a matter of concern and further study. Even if a leak did not migrate to surface following a moderate to large earthquake on the SSF there could be numerous damaged wells. What is the plan to address the loss of critical energy supply after movement on the SSF? And what is the plan for the damaged wells that would be of concern as they are in communication with the storage reservoir?

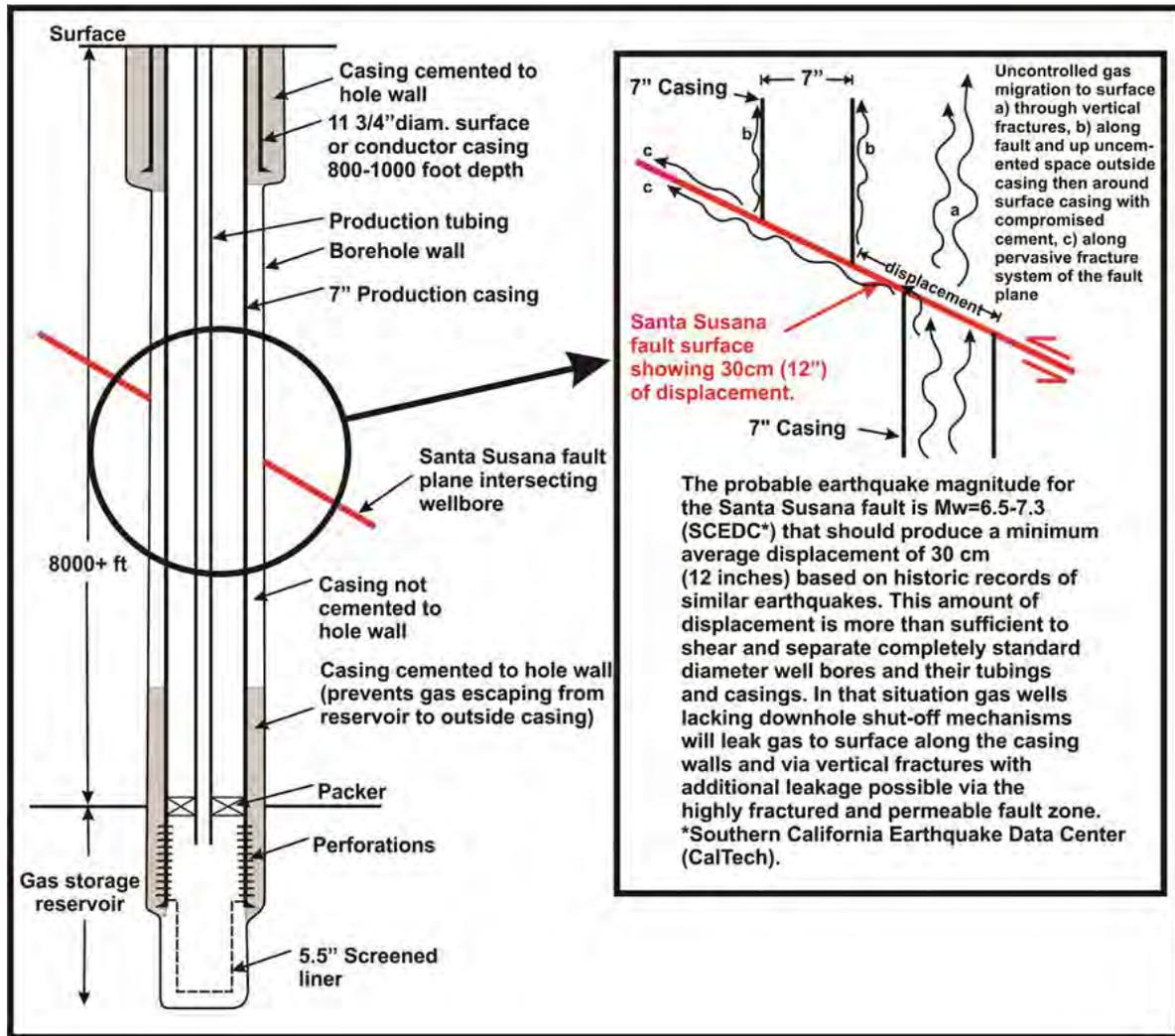
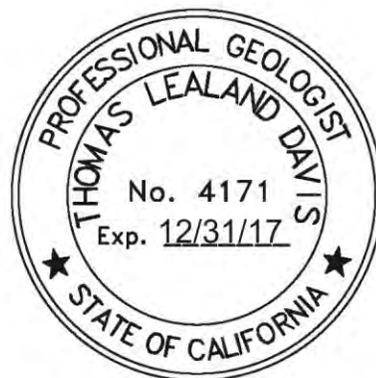


Figure 1. Well schematic showing a gas storage well at the Aliso Canyon Gas Storage Field on the left. Diagram on the right shows earthquake sourced fault displacement along the Santa Susana fault offsetting the well and methane migration pathways from the damaged well.

Thomas L. Davis

Thomas L. Davis PhD
 California Professional Geologist #4171
 Geologic Maps Foundation, Inc.
 Ventura, CA

Date: February 6, 2017



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Greater Antelope Valley
Economic Alliance
Allies for Enterprise

February 6, 2017

Aliso Canyon Comprehensive Safety Review

Via email: [REDACTED]

RE: So Cal Gas Aliso Canyon Facility Fitness for Service Analysis – project restoration

To whom it may concern,

As a regional economic developer for 3000 sq. miles of North Los Angeles and Southeast Kern County it is paramount that the natural resources our economy relies on is safe and reliable to our daily efforts to retain, expand and attract new wealth creating jobs.

As a result, we have monitored the situation with the SoCal Gas Company Aliso Canyon Storage Facility and the historic gas leak and casing failure of the SS-25 well site, with great interest. The negative effect a natural resources shut-down of this magnitude could have on our southern California economy is troublesome, yet the health and safety of our fellow neighbors remains top-of-mind.

We understand that So Cal Gas has now completed the reconstruction of the well sites, and has complied with the requests of regulators for the Fitness-for-Service Analysis and is ready to resume production and storage at the site. SoCal Gas is an integral part of our economy for the positive impact clean, safe, affordable and reliable natural gas production has on our businesses and the families that work there. We therefore cannot underestimate the value natural gas production and reliability has on our daily lives.

Please accept this letter of support for So Cal Gas' completion of the Fitness for Service Analysis of their Aliso Canyon Facility and allow them to reopen the facility as soon as possible to ensure our access to this clean, renewable resource.

Respectfully submitted,

Kimberly

Kimberly Maevers, President
[REDACTED]

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February 6, 2017

Aliso Canyon Comprehensive Safety Review - Department of Conservation
 801 K Street, MS 24-02
 Sacramento, CA 95814

Re: Aliso Canyon Comprehensive Safety Review – Support Reopening

To whom it may concern:

This letter is being written in support of the safe reopening of the Aliso Canyon Natural Gas Storage Facility.

The Greater Conejo Valley Chamber of Commerce is the representative voice of over 1,000 businesses in the Conejo Valley region – all of whom receive service from Southern California Gas Company and whose natural gas has come from the Aliso Canyon facility. Additionally, we are writing on behalf of the Chambers of Commerce Alliance of Ventura and Santa Barbara Counties. The Chamber Alliance represents 14 chambers of commerce and roughly 250,000 jobs in Ventura and Santa Barbara counties.

Both the Greater Conejo Valley Chamber of Commerce and the Chambers of Commerce Alliance of Ventura and Santa Barbara Counties are in support of the safe reopening of the Aliso Canyon facility.

After reviewing the test results from the California Department of Conservation we are satisfied that Southern California Gas Company has made significant repairs to the wells associated with Aliso Canyon. Many of them have passed all of their tests and many more failed only a single test and their casing has since been repaired.

The natural gas provided by this facility provides the energy needed to maintain our workforce and the economic impact of removing this reliable storage would be disastrous for our local economy – which is largely supported by manufacturing jobs.

Please feel free to reach out to me directly with any questions.

Sincerely,

Jill Lederer, MBA, ACE
 President/CEO
 Greater Conejo Valley Chamber of Commerce
 Vice President
 Chambers of Commerce Alliance of Ventura and Santa Barbara Counties

T: [Redacted] • Westlake Village, CA 91361
 [Redacted] • ConejoChamber.org





February 1, 2017

ATTN: Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814

Subject: Aliso Canyon Comprehensive Safety Review

The Greater San Fernando Valley Chamber of Commerce (GSFVCC) represents businesses across the San Fernando Valley and surrounding areas. We welcome the opportunity to comment and strongly support the safe and responsible reopening of the Aliso Canyon Natural Gas Storage Facility.

Keeping this facility functional is critical to the infrastructure that gives residents and businesses of the San Fernando Valley and throughout the Greater Los Angeles area a steady energy supply, important especially through this unusually cold winter. Failing to reopen Aliso Canyon would only negatively impact the local economy. Without a reliable, strong natural gas supply, businesses, especially high volume users such as manufacturers and large industrial users would experience significant unforeseen costs. In fact, outages cost manufacturers twice as much as other businesses, putting at risk not only their efficiency, but risking the employment of over half a million people in the LA area.

In order to improve the safety of the facility, SoCalGas has enhanced their system upgrade its operations, technology and safety, including, but certainly not limited to: installing more than 40 miles of new steel piping; around-the-clock pressure monitoring of all wells in a 24-hour operations center; daily patrols to examine every well, conducted four times a day; additional training for all employees and contractors.

Furthermore, a great deal of thoughtful effort has been put forth to continue to address the needs of both the environment and the Porter Ranch community. Natural gas is still needed where other more environmentally sound energy options do not meet the required need, a cleaner option than diesel. Greenhouse gas emission mitigation is being evaluated by multiple sources, and the finalized plan will be introduced in the near future. In regards to the community, a new Aliso Canyon Community Advisory Council has been formed, consisting of residents, business owners and community leaders throughout the Porter Ranch area. In addition to this council, SoCalGas will send update emails regularly to the community, and an air quality notification system has been put in place.

We need to work to safely reopen the Aliso Canyon Natural Gas Storage Facility. GSFVCC thanks you for your thoughtful work in ensuring California a safe, resilient, and reliable supply of energy.

Sincerely,

Nancy Hoffman Vanyek
Chief Executive Officer



Western States Petroleum Association
Credible Solutions • Responsive Service • Since 1907

Catherine H. Reheis-Boyd
President

February 6, 2017

ATTN: Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814

Re: Aliso Canyon Comprehensive Safety Review

To Whom It May Concern:

The Western States Petroleum Association thanks you for the opportunity to comment on the *Aliso Canyon Comprehensive Safety Review*. The ability to inject and produce natural gas from the Aliso Canyon facility is critical to the maintenance of reliable energy supply throughout Los Angeles and Orange Counties. The recent reliability plans developed by the California Energy Commission and other agencies demonstrate that simply decommissioning Aliso Canyon would place all of Southern California at risk of a severe disruption of electricity and natural gas supplies. As customers of the natural gas and electric utilities, we are critically concerned about the reliability of energy supplies.

Service outages—whether gas or electric—will have significant economic consequences and, in some cases, further risk public safety. A steady supply of natural gas and electricity is necessary and both are integral components of the management of refineries. The Western States Petroleum Association and its members who operate refineries and other facilities are particularly concerned about the impact any service outages may have on the state's transportation fuel supply – approximately 60% of which is produced in the LA Basin. The availability of gasoline, diesel fuel and aviation fuel is critical to ensuring public safety and health. These fuels are used by police vehicles, ambulances, fire trucks, the military, etc. Virtually all of these customers currently defined as “essential use” are not only consumers of electricity; they are also consumers of transportation fuels. Without these fuels, their ability to operate would be seriously impaired. In addition, rapid shutdown of a refinery can result in excessive flaring, destabilize refining operations, and present potential safety concerns.

[REDACTED], Sacramento, California 95814

• Fax: [REDACTED]

• Cell: [REDACTED]

• www.wspa.org

During the electricity crisis in January of 2001, California experienced significant shortages of gasoline, aviation fuel, and diesel fuel caused by the interruption of electric service to terminals and pipelines transporting these fuels to market¹. Frequent interruptions over a period of several days resulted in several pipeline companies being unable to deliver refined products. Production of gasoline, diesel and jet fuel was curtailed at more than half of the state's refineries due to an inability to transport these products through the distribution system. Based on that experience, we understand that the threat that Aliso Canyon poses to the state's transportation fuel supply is serious.

Additionally, the California Energy Commission recognizes this threat and as a result of a June 17, 2016 workshop on the issue, dedicated a section of its *2016 Update to the Integrated Energy Policy Report* to the discussion of Aliso Canyon's potential impacts on transportation fuel supply reliability. In the report, CEC found that curtailments from Aliso Canyon could potentially affect the eight refineries in the greater Los Angeles area.

The most responsible and effective solution to Aliso Canyon will require that all stakeholders do their part to mitigate the risks of natural gas and electric service disruption while safely and incrementally returning Aliso Canyon to full operation. WSPA supports the prompt return of Aliso Canyon to service to the extent it can be done safely. Regulators should continue to explore all alternatives, especially the partial or incremental return to service, and commit all necessary resources to achieve this goal.

WSPA and its member companies have worked and will continue to work collaboratively with the relevant State Agencies to better understand the implications that the Aliso Canyon issue poses to refining in southern California. We welcome that collaboration and believe that such risk evaluation must also be accompanied by comprehensive monitoring of electric and natural gas supply to ensure that regulators can effectively forecast any possible reliability issues that could impact transportation fuels.

We look forward to continued dialogue with you on this important matter. If you have any questions, please contact me at this office, or Tiffany Roberts of my staff at (916) 325-3088 or by e-mail at:

[REDACTED]

Sincerely,



¹ AB X1 57 (Dutra)—Committee Analysis, <http://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml>.

January 27, 2017

Nick & Heidi Tortorici

[REDACTED]

Westlake Village, Ca 91361

RE: Aliso Canyon Comprehensive Safety Review

DOGGR

Department of Conservation

801 K Street, MS 24-02

Sacramento, Ca 95814

I am writing this very important letter to beg you to use your influence and keep the Aliso Canyon/SoCalGas Storage facility located in Porter Ranch, California CLOSED because it is an unsafe site and poses a dangerous risk to millions of people.

My name is Heidi Tortorici, during the big blowout it was months before I realized that our bloody noses, coughing, nausea, leg cramps, impaired vision, gut cramps, blood in our stool, blood in our urine, fatigue, rapid heart rates, chest pains, hair loss, gasping for air plus many other health issues including unexplained dental issues such as teeth falling out, were caused by the on-going gas leak.

Living in Northridge we were told by SoCal Gas & the Health department we were far enough away and it posed no danger to our community and schools. After multiple emergency doctors visits we began to piece the puzzle together and our doctor told us we needed to evacuate immediately to get away and to get fresh air. We were poisoned, We had open soars on our scalp, My children ages 13 & 16 were passing out, I couldn't walk a straight line. We were dizzy, suffered slurred speech, vision loss, and unbearable stomach & gut pain accompanied with chest pain, shortness of breath, according to our doctor our central nervous system was shutting down. I knew we were dying and if we stayed we certainly would.

As a family our health issues were so severe, our family spent the next months fleeing to hotels, couch surfing at friends homes, day trips to clean air anywhere I could think of, staying with family and at this point we were found ourselves homeless. Finally we found a house providing temporary relocation. But our life was here in Northridge. We needed to return for recurring doctors appointments, dental appointments, work, schools etc. We found ourselves lethargic even after only a hour of exposure in Northridge and the surrounding areas. Working & school became impossible.

Eventually our children were no longer able to keep up with their honors classes at school and began to fail. We finally had to give up school altogether and spend the next months and months in bed, sick from ailment after ailment and at doctors and emergency rooms. Pneumonia, bronchitis, asthma, trips to the cardiologist plus many

many other illnesses were now a common recurrence including coughing up blood. My daughter became anemic with low platelets, skin tone was ghostly white with the energy and appearance of a dying child. From all of the antibiotics she had to take she is now antibiotic resistant. We finally were forced to sell our beloved large home that we worked a lifetime to build. We had to leave our possessions behind and move like refugees into a tiny rental house 45 minutes away in an attempt to rebuild our lives and to try to rebuild our health. It has been an unbearable journey and I even suffered going blind for months after poison entered my eye and I developed a corneal ulcer from Benzene all caused by the blowout. We have suffered tremendous pain and It has been the worst year and a half of our lives. We now live in fear that that facility will reopen and this disaster will repeat itself again. There has been NO Health Study's on the sick victims and SoCal Gas/Sempra wants to reopen the Gas chamber again without ever revealing vital information on exactly what came out of that facility during the blowout and their failed attempts to cap it. The proprietary formulas that were used are killing people. If I poisoned my neighbor with gas & agents, I am positive that it would be a crime and would not be proprietary. Please, I beg you Do Not let SoCal Gas reopen the facility.

Until several months ago our family lived in Northridge where for the last 25 years we have called the San Fernando Valley our home. We loved our home, community & lifestyle but have lost them all. My children lost their security, health, schools, home, community, neighbors, pets, friends, youth group, sports teams, honor classes they worked so hard to achieve are gone, all gone, nothing left but to rebuild a broken life dictated to us by a mega large corporation who stole our health and lives. It is in your power NOT to let this disaster happen again.

The wells at Aliso Canyon are ancient and will never be safe, especially as they are on active earthquake faults that run under the site. They are a collection of 114 wells that are all inner connected under the earth so they operate as one vessel. If one well erupts, cracks or leaks it doesn't matter because it affects the entire underground system and poses a threat and danger again. There have been NO short or long term health studies on the residents who moved or are currently living in the Valley (Porter Ranch is NOT the only city of the San Fernando Valley where people are deathly sick) Wind holds NO boundaries and the Valley is in the shape of a cup so the carcinogenic poisons emitted from SoCal's Gas Facility saturate ALL of the surrounding communities where millions of people live.

There are dozens of carcinogenic toxins our family was exposed to from the Porter Ranch Gas Leak and we will live in fear for the rest of our lives.

Please, I beg and I urge you to close down the Aliso Canyon Gas facility due to the health and safety I've outlined.

Thank You, Heidi

Comments of Herbert S. Emmrich

To the State of California Natural Resources Agency Department of Conservation Division of Oil, Gas, and Geothermal Resources Concerning the Aliso Canyon Gas Storage Facility and Well Safety Review

My name is Herbert S. Emmrich and I appreciate the opportunity to comment on the Aliso Canyon Gas Storage Facility and Well Safety Review hearing. As a way of background, I have been employed in one form another in the energy industry for the past 42 years both as a government regulator and industry employee. In 1975 I started working for the US Bureau of Land Management in Offshore Oil and Gas Leasing; then for Getty Oil Company as an Economic Policy Manager in the Getty Oil Company Planning Department; then for Southern California Gas Company and San Diego Gas and Electric Company in a variety of positions but mostly in strategic planning and Gas Demand Forecasting and Gas Supply Planning for 24 years; I was the State Coordinator for the *California Gas Report* for several years while working for SoCalGas; then I worked for the US Agency for International Development as Senior Energy Advisor in the Republic of Georgia; I then returned to SoCalGas as Demand forecasting Manager; then for a short time I worked for Pacific Gas and Electric Company in the Regulatory Affairs Department; and finally, for the past two years as an expert demand forecasting consultant for The Utility Reform Network (TURN) in CPUC proceedings concerning pipeline expansion and gas storage requirements and gas storage and capacities required for core residential and commercial customers and their associated cost allocation in the recent SoCalGas/SDG&E Triennial Cost Allocation Proceeding (TCAP).

My comments in this proceeding are strictly as a residential gas and electric customer of Southern California Gas Company, Southern California Edison Company and Pacific Gas and Electric Company. My comments are not coordinated with nor intended to imply that I am representing the utilities or TURN. My comments are strictly based on my experience in the area of gas and electric demand forecasting and supply planning to assure that all natural gas and electric customers' gas and electric requirements are safely and reliably met under cold year, dry hydro and peak day cold temperature conditions in a 1-in-35 year cold temperature event.

My comments in no way take a position as to the culpability of Southern California Gas Company in the Aliso Canyon storage well gas leak nor the consternation and distress caused to the residents in the area surrounding Aliso Canyon. Those issues are being litigated by the CPUC and the court system.

Based on my experience, I believe that the Aliso Canyon Gas Storage Field needs to be made operational and put into service at least at a 67 billion cubic feet (BCF) level to assure reliable gas service to Southern California's gas and electric customers. However, based on the retrofits, safety improvements and testing of refurbished gas wells a full

restoration at an 83 BCF level as approved by the California Public Utilities Commission (CPUC) in the most recent Triennial Cost Allocation Proceeding (TCAP) is warranted. With all of the upgrades, retrofits and monitoring devices installed, the Aliso Canyon gas storage facility is now the safest gas storage field in the United States and probably the entire world. If the Division of Oil and Gas finds a lower level and lower pressure is warranted due to an abundance of caution the historical Aliso Canyon 67 BCF level should be adopted. Aliso operated at that level for over 30 years without incident. My position that Aliso storage levels are safe at those volumes and associated pressures is supported by the January 17, 2017 DOGGER report as follows:

“The independent experts consulted by the UGS Unit believe that a maximum reservoir pressure of 3,595 psi and a minimum reservoir pressure of 1,080 psi is prudent, the UGS Unit finds that a more conservative maximum pressure should be approved until all wells in Aliso Canyon Storage Facility have either been plugged and abandoned or tested and remediated in accordance with Order 1109. The GeoMechanics Technologies (UGS) Unit has estimated the hydrostatic pressure (using a pressure gradient of 0.433 psi/ft) in the reservoir from wells P-69G & P-68B, both completed in the Sesnon (S4) sand and located between the top and bottom of the reservoir structure as seen in Attachment 5. Maximum reservoir pressure is estimated using a gas gradient of 0.061 psi/ft from the top of the S1 sand in the reservoir to its base. Until the final disposition of all wells, the bottom-hole pressure in the reservoir should not exceed 2,926 psi at the Porter 69G well, which has a true vertical depth (TVD) of 7,142 feet. All other wells in the reservoir may operate at a bottom-hole pressure of 2,926 psi plus the gas gradient for the difference between the TVD of Porter 69G and the TVD of each individual well.

Proposed Minimum and Maximum Pressure Recommendation
 (psi) Minimum Pressure (psi) Maximum Pressure (psi)

GeoMechanics Technologies	900 - 3,600
SoCalGas	1,080 - 3,595
UGS Unit	1,080 - 2,926.

Source: DOGGER Report Recommended Minimum and Maximum Reservoir Pressure for the Aliso Canyon Storage Facility January 17, 2017.

As to the Aliso Canyon reliability requirements to serve customers on a peak Cold Temperature Day, the CPUC reports the following Winter Cold Year and Peak Day requirements based on the 2016 California Gas Report:

“Winter Reliability The critical role of the Aliso Canyon storage facility is expressed in the independent review conducted by the Los Alamos National Laboratory and Walker & Associates. The report states: “The most critical

concern for the winter season is the availability of the reserve in the Aliso Canyon storage facility. Using the gas stored in Aliso Canyon is very important to reducing the risk of gas curtailments and electrical service interruption this coming winter. Because in the past the Aliso Canyon facility has provided a large reserve supply of gas in the winter, SoCalGas was previously able to supply the LA Basin with that supply while servicing areas outside of the LA Basin with flowing supplies from pipeline interconnections. Without this reserve available, SoCalGas will have to choose whether to maintain service to their peripheral customers or supply those within the basin.”

The CPUC then shows the following Peak Day reliability level of storage required:

Aliso Inventory Requirement for Winter Peak Day Demand Table 1 Most Recent demand forecasts based on 2016 CGR data.

Month	Peak Demand	Withdrawal Need	Aliso Inventory*
January	4.939 Bcf.	.839 Bcf	29.4 Bcf
February	4.653 Bcf.	.553 Bcf	20.9 Bcf
March	4.428 Bcf.	.328 Bcf	15.4 Bcf

*Inventory necessary to provide sufficient pressure to support indicated Withdrawal Need.

The analysis provided is correct for a one day event but based on my experience, peak day events are at least four day events. Therefore, prudent reliability planning would require at least 32.8 Bcf of inventory to reliably serve core residential and commercial customers during such a peak day event while non-core commercial, industrial and electric generation customers would need to be curtailed; i.e., experience supply cuts, to maintain system reliability and integrity. The CPUC appears not to take non-core customers’ requirements into account.

Proponents of Aliso Canyon closure advocate more renewable energy sources such as wind and solar to reduce natural gas demand in California. I support those efforts but renewables’ electric supplies are intermittent and do little to help meet peak day natural gas requirements. The sun does not shine at night when gas demand is at its peak and wind is highly variable. Therefore, for each renewable supply source gas-fired electric generation turbines need to be on standby when the sun does not shine or winds are calm. These issues may be resolved in the future with battery storage of electricity but that is not going to be available on the massive scale needed to provide reliable electric supplies to customers in the next ten years or more.

SoCalGas’ gas transmission and distribution system is designed based on a system of interstate pipelines and associated flowing supplies and gas storage supplies to meet system requirements during the year especially in cold and dry hydro years. In addition, as shown above, Aliso Canyon is needed to meet peak day and cold winter and dry hydro requirements. In addition, interstate flowing supplies are subject to disruption due to pipeline outages and well freeze-ups in New Mexico and West Texas and Wyoming

where most of California gas supplies originate. These sources are more than a thousand miles from the gas demand centers of Los Angeles and San Diego. These potential disruptions were realized during the Energy Crisis when the El Paso interstate pipeline experienced a massive pipeline disruption and SoCalGas' storage fields were not at full capacity heading into the winter. The result was rolling electricity brownouts and curtailment of supplies to electric and industrial gas customers. It is true that the gas transmission and distribution system is now more reliable but with the closure or reduction in Aliso Canyon's inventory level it will once again subject California's natural gas and electric customers to potential energy supply disruptions. Some will argue that with natural gas fracking more natural supply is now available from the interstate pipeline system but gas moves at only 20 miles per hour and if there is a disruption on the interstate pipeline system it would take several days to increase supplies while withdrawal from Aliso Canyon, given there is an adequate reserve margin available, can meet increased requirements due to a pipeline disruption or cloudy and calm days within hours. Therefore for reliability purposes and gas cost savings Aliso Canyon should be recommissioned at least at a 67 Bcf level. This level would be safe and prudent to meet the gas requirement of California's natural gas customers both core residential and commercial and non-core commercial, industrial and electric generation customers.

In addition, the CPUC does not provide any analysis as to the benefits of buying gas in the summer when prices are low and withdrawing those supplies in order to avoid higher winter prices. The following is my analysis as to the economic benefit of Aliso storage based on current NYMEX gas futures prices. (See Table 2 below). Southern California gas and electric customers would save an average of \$17.15 million per year and \$171.5 million over a 10-year period with an 83 Bcf storage level, \$13.84 per year and \$138.4 million over 10 years at 67 Bcf and only \$3.51 million per year at 17 Bcf. These benefits would more than double if the summer-winter price differential were to increase to the historical \$.50/MMBtu.

This concludes my comments. Again, I appreciate the opportunity to comment of this important issue.

Table 1

Value of Aliso Canyon Natural Gas Storage	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total 2017
Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
NYMEX Summer (May-Oct) Price of Gas/MMBtu	\$3.38	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48	\$3.48
NYMEX Winter (Dec-Mar) Price of Gas/MMBtu	\$3.58	\$3.58	\$3.58	\$3.58	\$3.58	\$3.58	\$3.58	\$3.58	\$3.58	\$3.58	\$3.58
Difference Winter - Summer'	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20
Cost Saving for 83 BCF \$Millions	\$17.15	\$17.15	\$17.15	\$17.15	\$17.15	\$17.15	\$17.15	\$17.15	\$17.15	\$17.15	\$171.48
Cost Saving for 67 BCF \$Millions	\$13.84	\$13.84	\$13.84	\$13.84	\$13.84	\$13.84	\$13.84	\$13.84	\$13.84	\$13.84	\$138.42
Cost Saving for 17 BCF \$Millions	\$3.51	\$3.51	\$3.51	\$3.51	\$3.51	\$3.51	\$3.51	\$3.51	\$3.51	\$3.51	\$35.12
Annual Increased Cost of Gas at 67 BCF \$ Millions	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31	\$3.31	\$33.06
Annual Increased Cost of Gas at 17 BCF \$ Millions	\$13.64	\$13.64	\$13.64	\$13.64	\$13.64	\$13.64	\$13.64	\$13.64	\$13.64	\$13.64	\$136.36

Table 2 (NYMEX Natural Gas Futures)

Month	Open	High	Low	Last	Change	Settle	Estimated Volume	Prior Day Open Interest		
Last Updated: Tuesday, 24 Jan 2017 09:30 AM										
							About This Report			
17-Feb	3.28	3.35	3.267	3.34	UNCH	-	22,544	41,747		
17-Mar	3.285	3.357	3.274	3.347	UNCH	-	21,299	289,923	Injection \$/MMBtu	
17-Apr	3.309	3.37	3.294	3.362	UNCH	-	8,034	113,989	May-Oct	
17-May	3.32	3.387	3.316A	3.379A	UNCH	-	3,347	101,311	\$3.38	
17-Jun	3.363	3.429	3.363	3.42	UNCH	-	1,097	50,130		
JLY 17	3.401	3.462	3.393	3.459	UNCH	-	845	62,909		
17-Aug	3.399	3.46	3.394	3.457	UNCH	-	463	33,118		
17-Sep	3.379	3.436	3.379	3.436	UNCH	-	328	45,101		
17-Oct	3.395	3.456	3.385A	3.448	UNCH	-	2,383	90,260	Withdrawal	Withd.-Inj.
17-Nov	3.442	3.489	3.442	3.487	UNCH	-	806	36,000	Dec-Mar	\$/MMBtu
17-Dec	3.544	3.602	3.544	3.601A	UNCH	-	713	36,485	\$3.58	\$0.20
18-Jan	3.626	3.683	3.626	3.678A	UNCH	-	1,173	43,191		
18-Feb	3.616	3.627	3.61	3.627	UNCH	-	225	17,089		
18-Mar	3.521	3.535	3.51	3.527	UNCH	-	888	37,846		

ATTACHMENT 1

Statement of Qualifications: Herbert S. Emmrich

My name is Herbert S. Emmrich. **I have recently been an energy consultant for The Utility Reform Network (TURN) and testified on behalf of SoCalGas/SDG&E for various CPUC proceedings but I am not representing TURN or the utilities in this hearing.** I was previously employed by Pacific Gas and Electric Company (PG&E) as a regulation manager in the Regulatory Affairs Department from Dec. 2012 to May 2013, managing the PG&E Gas Transmission and Storage rate case, the PSEP implementation project and the Biomethane proceeding. Before that time, I was employed by Southern California Gas Company (SoCalGas) and San Diego Gas & Electric Company (SDG&E) as Gas Demand Forecasting and Economic Analysis Manager in the Regulatory Affairs Department and held various other positions from 2002 until my retirement in 2012. I also worked for SoCalGas from 1984 until my first retirement from SoCalGas in 1998, in various economic and demand forecasting analyst, manager and director positions in the Regulatory Affairs, Planning, Customer Services, Commercial and Industrial Services, Marketing and Gas Supply departments of SoCalGas.

I earned an undergraduate degree in Economics and Behavioral Sciences from California State University at Dominguez Hills in 1970 and a Master of Arts Degree in Economics from California State University at Long Beach in 1974. I also completed 2 years of post-graduate coursework in Economics at UCLA from 1970 to 1972.

My employment outside of SoCalGas, SDG&E and PG&E has been in the areas of economics, environmental assessment, business planning, and energy sector development. I held the positions of: Economist, Regional Economist and Environmental Assessment Manager at the U.S. Bureau of Land Management's Pacific Outer Continental Shelf Office, in Los Angeles, from 1975 to 1979; Economic Policy Supervisor and Issues and Policy Manager of Getty Oil Company from 1979 to 1984; and, Senior Energy Advisor of the U.S. Agency for International Development's Caucasus Office in Tbilisi, Republic of Georgia, from 1998 to

2002. In addition, I have taught Micro and Macro economic theory at El Camino College, Torrance, CA; Cal State University, Dominguez Hills, CA; and the Georgian Institute of Public Policy in Tbilisi, Republic of Georgia.

I have previously testified before the CPUC and California Energy Commission on issues ranging from cost allocation, cost of capital, gas demand and gas supply and gas price forecasting. My most recent testimony in the SoCalGas/SDG&E TCAP concerning Core residential and commercial gas storage requirements and capacity allocation is attached below.

Attachment 2.

Table 3					
<u>2016 Storage Embedded Cost Allocation Based on Firm Rights</u>					
	Allocation %	Allocation Volume	Total	Units	Costs(\$MM)
Core Reservation					
Inventory	11%	83	138	Bcf	\$ 6.5
Injection(summer)	18%	388	770	MMcfd	\$ 8.7
Injection(winter)		190	390		
Withdrawal(winter)	71%	2,225	3,175	MMcfd	\$ 44.4
Withdrawal(summer)		1,081	1,812	MMcfd	
Total Core	100%				\$ 59.64
Load Balancing					
Inventory	11%	5.1	138	Bcf	\$ 0.4
Injection	18%	200	770	MMcfd	\$ 5.7
Withdrawal	71%	525	3,175	MMcfd	\$ 15.0
Total Load Balancing	100%				\$ 21.11
Unbundled Storage					
Inventory	11%	50.0	138	Bcf	\$ 3.9
Injection(summer)	18%	182	770	MMcfd	\$ 3.0
Injection(winter)		0	0		
Withdrawal(winter)	71%	425	3,175	MMcfd	\$ 8.5
Withdrawal(summer)		206	1,812		
Total Unbundled Storage					\$ 15.44
Total Storage Cost					\$ 96.19
BTU Factor					
			1.0235		

TABLE 4					
Applying Gas Accord V Cost Allocation to 2017-19 SCG TCAP					
(MDth)					
	Storage Services	Injection	Inventory	Withdrawal	Total Storage Units
Row 1	Core Reservation	114,347	84,951	580,552	779,850
Row 2	Load Balancing	128,884	5,220	196,128	330,232
Row 3	Unbundled Storage	39,863	51,175	110,892	201,930
Row 4=1+2+3	Total Storage	283,095	141,345	887,572	1,312,012
TABLE 5					
	Storage Services	Injection	Inventory	Withdrawal	Storage Units
Row 1	Core Reservation	9%	6%	44%	59%
Row 2	Load Balancing	10%	0%	15%	25%
Row 3	Unbundled Storage	3%	4%	8%	15%
Row 4=1+2+3	Total Storage	22%	11%	68%	100%
Table 6					
2017-19 Storage Embedded Cost Allocation Based on Firm Rights					
	Allocation %	Allocation Volume	Total	Units	Costs(\$MM)
Core Reservation					
Inventory	11%	83	138	Bcf	\$ 7.2
Injection(summer)	22%	388	915	MMcfd	\$ 9.6
Injection(winter)		190	535		
Withdrawal(winter)	68%	2,225	3,175	MMcfd	\$ 48.9
Withdrawal(summer)		1,081	1,812	MMcfd	
Total Core	100%				\$ 65.73
Load Balancing					
Inventory	11%	5.1	138	Bcf	\$ 0.4
Injection(summer)	22%	345	915	MMcfd	\$ 10.9
Injection(winter)		345	535		
Withdrawal	68%	525	3,175	MMcfd	\$ 16.5
Total Load Balancing	100%				\$ 27.83
Unbundled Storage					
Inventory	11%	50.0	138	Bcf	\$ 4.3
Injection(summer)	22%	182	915	MMcfd	\$ 3.4
Injection(winter)		0	535		
Withdrawal(winter)	68%	425	3,175	MMcfd	\$ 9.3
Withdrawal(summer)		206	1,812		
Total Unbundled Storage					\$ 17.02
Total Storage Cost					\$ 110.58
4 BTU Factor		7	1.0235		

Jacki Swift 818- [REDACTED]

Why the Aliso Canyon gas storage facility should be permanently shut down for the safety of the north valley residents.

My families health problems began around October 2015 with one of my daughters getting a rash every evening near dinner time. It was itchy and painful, and sometimes had hives. We started looking for answers in the usual way, assuming food allergies, or detergent, or soap...all the typical things. We went to several different doctors and had all of the available tests, but she was not "allergic" to anything the doctors could come up with. We joked that she was allergic to her family because it only happened in our home, or just outside our home. Weeks went by, and we followed the only recommendations the doctors could give, which was to take Zyrtec and Benedryl together, with an advil.

Here's an example of my daughter's DAILY rash



All of our family members were also having symptoms that were related to the Gas Blowout, such as headaches, heart fluttering, blood pressure issues, dizziness, tooth pain, hair loss, etc. At the time, we did not associate it with SoCalGas. It was not until we took a four day trip out of the area in early Dec. 2015 (where none of us had any symptoms) that I realized we were suffering from the effects of the gas company chemicals.

While we were away, all of our symptoms went away, and when we came home, all of our symptoms returned. This has been the same every day since - when we are in, or around Porter Ranch, we have symptoms. When we leave the area, our symptoms go away.

My daughter Melissa, who had the most easily recognizable (rash) symptoms, leaves for work everyday in Los Angeles and has no rash all day, but as soon as she starts to get near Porter Ranch, her rash returns.

Whenever I was in, or around, my home, I had a headache, sinus pain, and hearth fluttering. Some days I had a heavy metallic tingling on my tongue. I have had a throat scan that says I have a chemical burn. This is no way to live!

Everyday, my children had symptoms that only go away when we leave the area.

We began reaching out to the health department in January 2016 seeking answers as our own doctors and specialists could not understand our families symptoms. But, even the DPH was unable to help us.

Our Doctors do not know what we have been exposed to, and they do not understand the symptoms we are displaying. However, they all agree that it was related to “something” from the gas leak, but they did not know what, and they all agreed that we should stay out of the Porter Ranch area.

This is unprecedented, and the health community is not able to give us the help we need.

My family has suffered potentially irreversible damage to our health, and my daughter (who previous to the gas leak had perfect health) is now suffering daily with what may be a lifelong chemical sensitivity.All caused by the SoCalGas blowout.

Just recently, we made the decision to relocate away from Porter Ranch (where we have lived for more than 20 years) It was a heartbreaking decision, as we had to complete uproot an entire family. But, we had no choice considering the amount of daily suffering our family was experiencing.

Since moving away, we immediately saw our symptoms go away. However, when we began opening our moving boxes, we all started getting our symptoms again. This has continued even after two months. We have stored all of our Porter Ranch boxes away from our new living quarters, but as soon as one of us opens these boxes, we get symptoms again. The symptoms go away again as soon as we leave the boxes.

...I feel this is a very significant observation that we have made. This suggests that whatever toxins have blown out into the community, do not just fade away. I have informed the Health Department, and our doctors about this.

The entire facility is too old to operate with a Guarantee of Safety. There are many days when the facility still has accidents and or leaks.

It may be leaking only small amounts now, but we are only one pipe away from a major blowout again. The infrastructure is too old to continue to operate safely.

Time will show how serious the health consequences are for the people living next to Aliso Canyon, but you can stop this from happening again to current, and future residents by shutting down the facility. SoCalGas has shown that they are not the good neighbor that they want us to believe they are. And There really is no other option for the safety of the residents, than to shut down Aliso Canyon.

We are an average family with no prior interest in politics or environmental issues. We were never activists, and we did not want to be involved in writing letters or going to rallies, but we have no choice now, as we are continually being poisoned.

This has been our life for over a year. Constant symptoms when we are in the area, and constant fear.

From: Mandi Bane
Sent: Monday, November 28, 2016 1:29 PM
Subject: DPH Confirmation

Hello,

This is to confirm that DPH has received your health symptom report related to the Aliso Canyon gas leak disaster. We will update our records to include your report.

We recommend following up with your regular medical provider regarding health symptoms. If you detect gas odors, please call 800-CUT-SMOG to report them.

If you would like to discuss your report with someone from our office, please reply to this email or call us at (213) [REDACTED]

Thank you,

Mandi

Mandi Bane, PhD
Staff Analyst, Los Angeles County Department of Public Health
Toxics Epidemiology Program
[REDACTED]
[REDACTED]

From: p [REDACTED]
Sent: Friday, November 25, 2016 10:18 PM
To: [REDACTED]
Subject: Report-a-Problem Confirmation email

Dear Mrs Petralia:

This email communication is to confirm our receipt of your Report. Please be assured that your communication will be given the highest priority, and forwarded to the appropriate Program. You will receive a follow-up communication as soon as possible.
Thank you for contacting us.

Los Angeles County
Department of Public Health

Contents of email you submitted:

Confirmation No: 62650

E-Mail: [REDACTED]

Day Tel: 818-[REDACTED]

Eve Tel:

FAX:

Mailing Address: [REDACTED] Porter Ranch

Type of Incident: Other

Description of Incident: There was a strong gas/methane (rotten egg) smell outside the shopping center/parking lot. Our real time monitoring did in fact show a spike in levels for current active methane leaks from Aliso Canyon.

Date of Incident: 11/25/2016

Location: Whole Foods shopping center in Porter Ranch (Rinaldi/Tampa)

*****End of Report*****

From: Mandi Bane
Sent: Friday, November 4, 2016 10:56 AM
Subject: DPH Confirmation

Hello,

This is to confirm that DPH has received your health symptom report related to the Aliso Canyon gas leak disaster. We will update our records to include your report.

We recommend following up with your regular medical provider regarding health symptoms. If you detect gas odors, please call 800-CUT-SMOG to report them.

If you would like to discuss your report with someone from our office, please reply to this email or call us at [REDACTED]

Thank you,

Mandi

Mandi Bane, PhD
Staff Analyst, Los Angeles County Department of Public Health
Toxics Epidemiology Program

[REDACTED]
[REDACTED]

From: p[REDACTED]
Sent: Wednesday, November 2, 2016 9:22 PM
To: p[REDACTED]@hotmail.com
Subject: Report-a-Problem Confirmation email

Dear Mrs. Petralia:

This email communication is to confirm our receipt of your Report. Please be assured that your communication will be given the highest priority, and forwarded to the appropriate Program. You will receive a follow-up communication as soon as possible. Thank you for contacting us.

Los Angeles County
Department of Public Health

Contents of email you submitted:

Confirmation No: 62483

E-Mail: p[REDACTED]@hotmail.com

Day Tel: 818-470-1100

Eve Tel: 818-470-1100

FAX: 818-470-1100

Mailing Address: 1 [REDACTED] way

Type of Incident: Other

Aliso Canyon Methane leak **Description of Incident:** Headache on the temple of my right eye. All day. We need real-time monitoring so the residents that continue to get symptoms can check for ongoing leaks that are causing these symptoms.

Date of Incident: 11/02/2016

Location: My home in Porter Ranch

*****End of Report*****

From: [REDACTED]
Sent: Wednesday, September 14, 2016 3:43 PM
To: [REDACTED]
Subject: Report-a-Problem Confirmation email

Dear Mrs Petralia:

This email communication is to confirm our receipt of your Report. Please be assured that your communication will be given the highest priority, and forwarded to the appropriate Program. You will receive a follow-up communication as soon as possible. Thank you for contacting us.

Los Angeles County
Department of Public Health

Contents of email you submitted:

Confirmation No: 61864

E-Mail: p [REDACTED]

Day Tel: [REDACTED]

Eve Tel: [REDACTED]

FAX: 8 [REDACTED]

Mailing Address: 1 [REDACTED]

Type of Incident: Other

Aliso Canyon Methane leak **Description of Incident:** Feeling light headed, headache on the right temple of my forehead. Nothing unusual in my diet, exercise. Unfortunately, the AQMD real time monitoring will not be posted until 2 weeks after the incident. Therefore, I am still reporting the incident and keep checking the monitor results as they get posted.

Date of Incident: 09/14/2016

Location: porter ranch

*****End of Report*****

From: Mandi Bane
Sent: Monday, September 12, 2016 11:26 AM
Subject: DPH Report Received

Hello,

This is to confirm that the Department of Public Health has received your online report related to Aliso Canyon. We will update our records to include your information.

We recommend that you follow up with your regular medical provider for any ongoing health symptoms. If you smell odors, please report those immediately to 800-CUT-SMOG.

If you would like to speak to someone at our office about your report, please reply to this email or call us at [REDACTED]

Thank you,

Mandi

Mandi Bane, PhD
Staff Analyst, Los Angeles County Department of Public Health
Toxics Epidemiology Program
[REDACTED]
[REDACTED]

From: [REDACTED]
Sent: Friday, September 9, 2016 2:38 PM
To: [REDACTED]
Subject: Report-a-Problem Confirmation email

Dear Mrs. Petralia:

This email communication is to confirm our receipt of your Report. Please be assured that your communication will be given the highest priority, and forwarded to the appropriate Program. You will receive a follow-up communication as soon as possible. Thank you for contacting us.

Los Angeles County
Department of Public Health

Contents of email you submitted:

Confirmation No: 61792

E-Mail: P [REDACTED]

Day Tel: 818 [REDACTED]

Eve Tel:

FAX:

Mailing Address: 11443 Wistful Vista Way Porter Ranch

Type of Incident: Other

Symptoms of methane leak **Description of Incident:** Throbbing headaches on the temple above my right eye, off and on throughout the day and late evening. Nothing was out of my usual routine, diet, etc. I checked the methane monitoring this evening. Fenceline shows a spike in the morning around 8am when we were already out of the house to drop off kids off at school. I also checked AQMD monitoring data/readings for 9/7/16 but will not be available to see for another 2 weeks. I would like to add that perhaps the reason that there aren't submitting complaints to the DPH is likely because we automatically assume our symptoms are due to the change of weather, etc. which is possible. But having symptoms due to spiked methane levels is possible too. We are quick to dismiss it but we shouldn't. Therefore, please don't draw to conclusions that because there aren't hundreds of complaints a day that everything and everyone is feeling great in Porter Ranch. It's still not OK. Thank you.

Date of Incident: 09/07/2016

Location: Porter Ranch

*****End of Report*****

From: Mandi Bane
Sent: Friday, August 19, 2016 1:58 PM
Subject: DPH Confirmation

Hello,

This is to confirm that your health complaint was received and will be added to our records related to the Aliso Canyon gas leak. We advise anyone experiencing health symptoms to consult with their regular health care provider. If you smell gas inside your home, please call the gas company to inspect your appliances. For outdoor odors, please call 800-CUT-SMOG.

If you have questions or would like more information, please reply to this email or call us at (213) [REDACTED]

Thank you,

Mandi

Mandi Bane, PhD
Los Angeles County
Department of Public Health
Toxics Epidemiology Program
[REDACTED]

From: ph [REDACTED]
Sent: Friday, August 19, 2016 1:10 PM
To: [REDACTED]
Subject: Report-a-Problem Confirmation email

Dear Mrs. Petralia:

This email communication is to confirm our receipt of your Report. Please be assured that your communication will be given the highest priority, and forwarded to the appropriate Program. You will receive a follow-up communication as soon as possible. Thank you for contacting us.

Los Angeles County
Department of Public Health

Contents of email you submitted:

Confirmation No: 61567

E-Mail: P [REDACTED]

Day Tel: 818 [REDACTED]

Eve Tel:

FAX:

Mailing Address: [REDACTED] Porter Ranch, CA

Type of Incident: Other

Rotten egg odor outside (methane odorant) Description of Incident: Rotten egg smell outside (Methane)

Date of Incident: 08/19/2016

Location: 1 [REDACTED] Porter Ranch, CA 91326

*****End of Report*****

From: ph [REDACTED]
Sent: Wednesday, July 6, 2016 11:39 AM
To: [REDACTED]
Subject: Report-a-Problem Confirmation email

Dear Mrs. Petralia:

This email communication is to confirm our receipt of your Report. Please be assured that your communication will be given the highest priority, and forwarded to the appropriate Program. You will receive a follow-up communication as soon as possible. Thank you for contacting us.

Los Angeles County
Department of Public Health

Contents of email you submitted:

Confirmation No: 61018

E-Mail: [REDACTED]

Day Tel: [REDACTED]

Eve Tel: 81 [REDACTED]

FAX:

Mailing Address: 1 [REDACTED] Porter Ranch, CA 91326

Type of Incident: Other

Gas Leak Symptoms Description of Incident: I have had a headache lasting all morning. The headache is only on my right temple. I have taken all measurements such as eating, drinking water. The headache will still not go away. Exact same symptoms as when the So Cal Gas Blow Out. My 2 year old son had a short nose bleed a few days ago and has been complaining of an itchy nose. I have checked his nose and there is no mucus. It is clear. Please follow up with me on the status of the problem.

Date of Incident: 07/06/2016

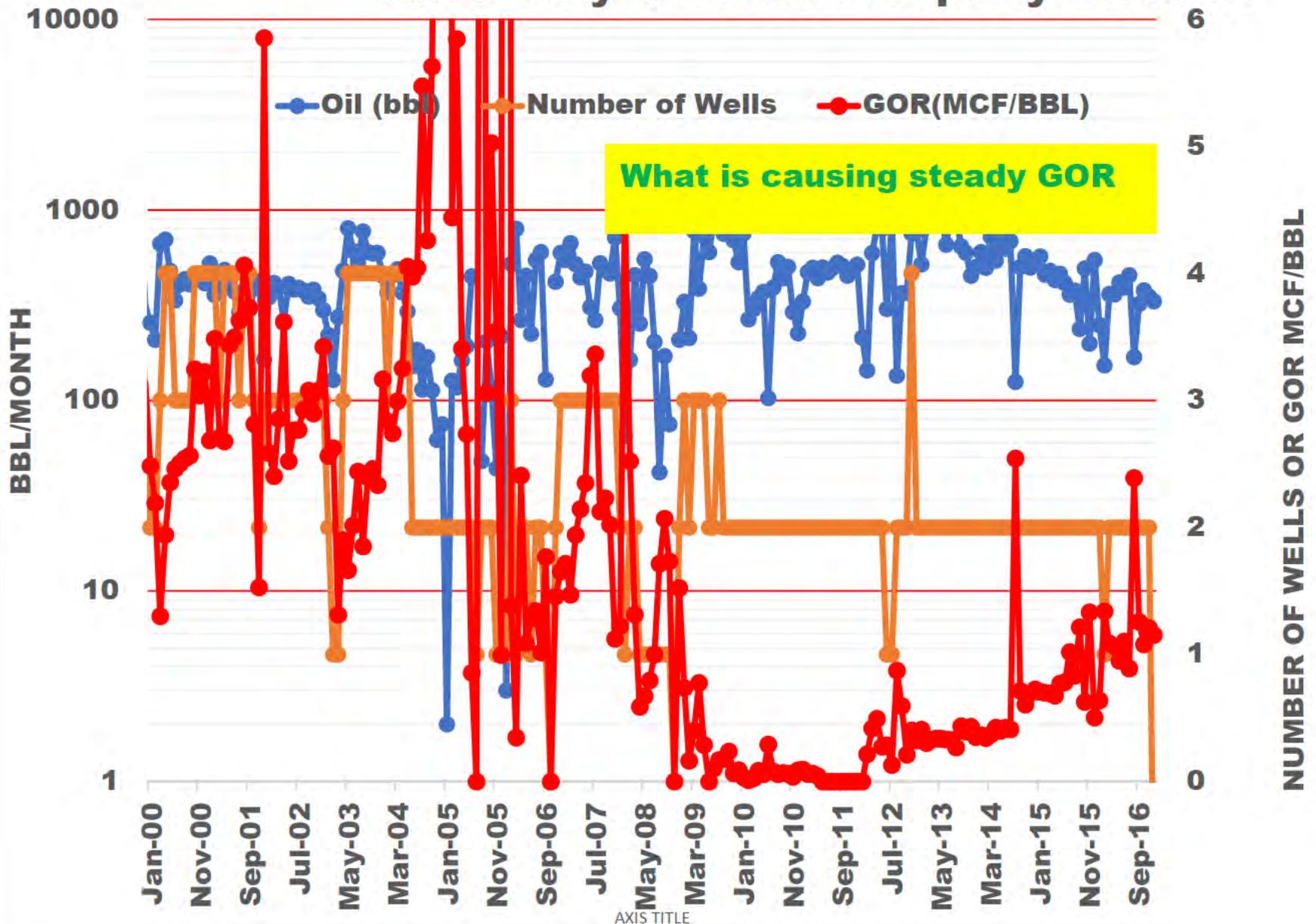
Location: Porter Ranch, CA

*****End of Report*****

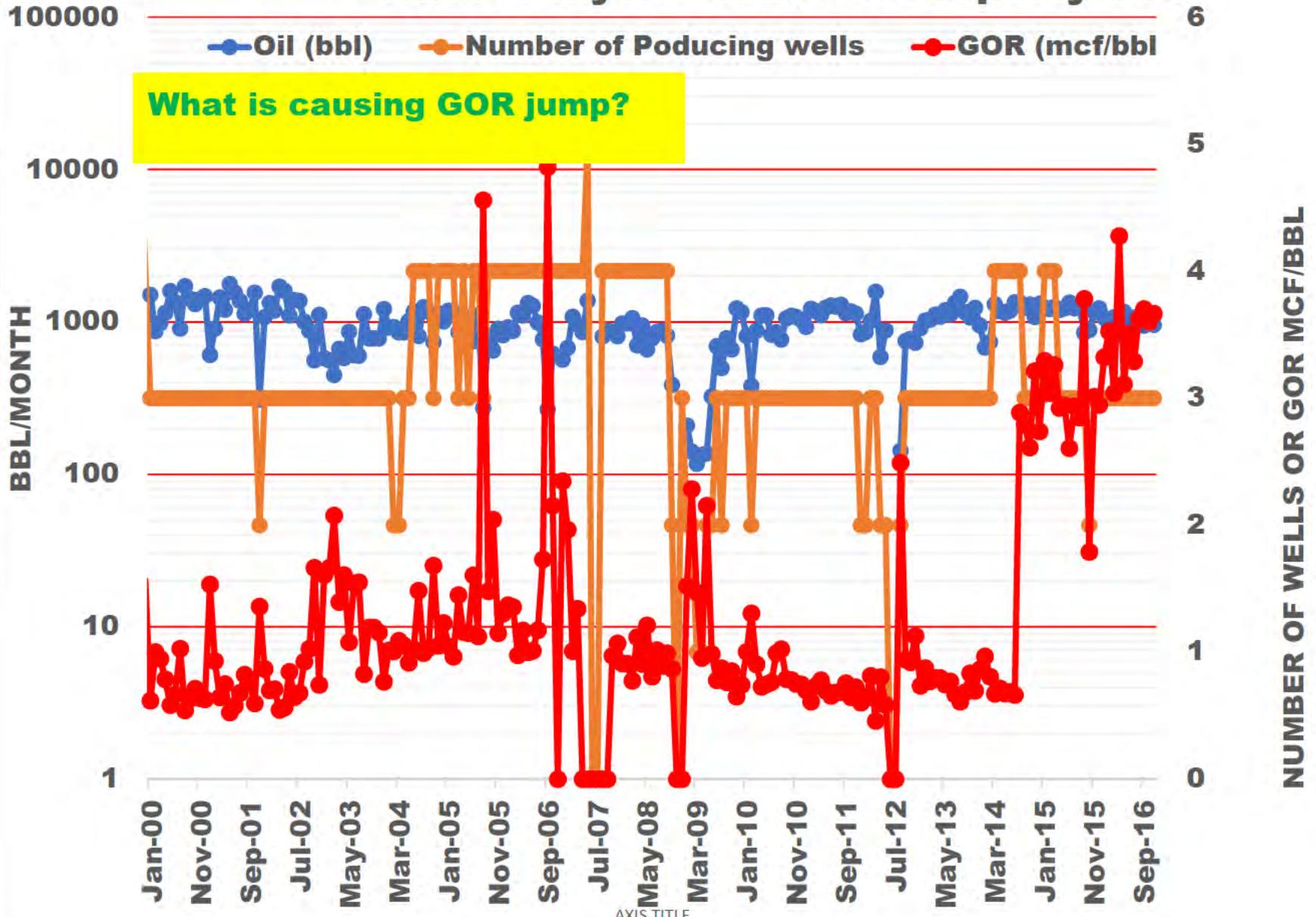
**Questions for
Division of Oil, Gas & Geothermal Resources Representative**

- 1. How many abandoned wells are at Aliso Canyon that were there before start of gas storage operation and do not meet current standards of abandonment?**
- 2. What was the pressure in surface casing annulus before SS25 blew out?**
- 3. Why did the gas company remove sub-surface safety valves in the gas wells?**
- 4. What is the impact of year after year injection and production on casing cementing? Does this ballooning & deflating cause leakage in cement?**
- 5. Can you assure us that there won't be a blow out in next 12 months or for that matter tomorrow?**
- 6. Is Gas company injecting more gas every year to reach the same pressure underground, thus knowing that the gas is leaking?**
- 7. Is it true that the underground gas pressure is about 100 times more than my car's tire pressure?**
- 8. When was the well that blew out drilled?**
- 9. Is it true that the gas company sees shallow leaks in the storage field all the time?**
- 10. Is it true that the gas company has refused to share all the data it has with you?**

Aliso Canyon - Termo Property Del Aliso



Aliso Canyon - Crimson Property SS1



*****BE ADVISED: This Email is PRIVATE & CONFIDENTIAL, ONLY to be used as a public comment specifically pertaining to the potential reopening of the Aliso Canyon Gas Storage Facility vis a vis the Mandated Public Meetings being held by DOGGR & the CPUC on 2/1 & 2/2/17. This email, as with other correspondence from me to any other government entities / agencies, is not to be used against me, in any legal manner, pursued by SoCal Gas or any other entity.*****

To Whom It May Concern:

My name is Jennifer Milbauer, and I am a board member of the Porter Ranch Neighborhood Council, as well as a stakeholder of both Porter Ranch & Chatsworth, but I'm not writing to you on behalf of the Neighborhood Council, or the City of Los Angeles. Just like when I spoke to you last night & Wednesday night, I'm writing to you as a wife, a mother, and a human being who matters to many people in this world. I spoke to you on both nights of your public meetings, and I hope that you listened. But I have more to say, and I hope you will read this through carefully all the way until the end, because my story matters. And it is as important as anyone else's and it's as important - if not more important - than SoCal Gas's desire to hang on to that decrepit cash cow of a facility.

I believe with clear conviction that my family and I were sickened **before, during & after** the largest methane Blowout in US history, due in part to the negligence of SoCalGas and their lack of maintaining this monstrosity of a gas storage facility, which I suspect has been "leaking" for much longer than anyone was ever privy to, and due in part to YOU, the regulators of that facility being derelict in your duties. How many blowouts had this facility had in the past and no one informed the community? I smelled the mercaptan smell many times prior to October 2015, yet every time I called they told me it was "routine maintenance" and they were "opening up the wells to air them out." I was told this by the LAFD, as I had NO CLUE that the second largest natural gas storage facility in the Western United states was my backyard neighbor. I saw the guard shack and I saw the pipes. I figured it was just pipelines. And despite the propaganda put out by Gas Company Shills that the people who moved up here, "should have known" that SoCal Gas was "here first," no one ever knew. It was a big, dirty, profitable secret, because I'm the kind of person who researches before I make a big decision like where to raise my family. Before we moved up here I **did** my due diligence, and I did internet searches galore on Porter Ranch. Never ONCE did the brochure talk about an old beaten down, previously-used-as-an oil-storage-facility-turned-natural-gas-storage-facility that was decrepit and decaying, holding **32 BILLION** cubic feet of natural gas just chilling out practically underneath the home we lived in, and on top of two fault-lines, mind you, in one of the most seismically active areas in the Northern Hemisphere.

We moved to Porter Ranch in May of 2009, (just a mile from the SoCal Gas Facility - which again, I had no idea even existed up there until the blowout in October 2015,) I had never had a sinus infection before in my life. After the birth of my son in September of 2009, and after living here for about 7 months, I began getting sinus infections back-to-back-to-back-to-back, and not just a normal sinus infection - no, something deep, deep in my sinus cavities called "pharyngiolaryngitis" (which forced me to give up breastfeeding so I could start taking antibiotics, which really upset me because it impacted how I could care for my child.) I was baffled as to why I suddenly started getting these crazy, horrible, migraine-inducing, sinus pressurized infections, and my Doctor was perplexed. He suggested that maybe it was because I'd had a baby. He didn't know. But, by the first part of 2011, I had taken so many antibiotics for so long, my body had a horrible reaction, (which no one correlated to a reaction to Augmentin at the time.) I thought I was going to die. I had debilitating stomach pain and at one point, in the middle of a February night, as I cried on my bathroom floor, unable to move, while my husband and baby slept in the next room. I was certain they would wake up in the morning, and find me dead in there. I thought about how my husband would raise our son without his mother. **THAT'S** how horrible this pain was. I was terrified. I despise going to the doctor, and I absolutely loathe hospitals, so for me to crawl out of the bathroom at 4:30 in morning, crying and exhausted, and wake up my husband to ask him to take me to the Emergency Room ... well, that meant that something was very seriously wrong. What I found out after many tests, was that I had C-Difficile, (a reaction to all the antibiotics I had taken.) And the doctors said that had I waited any longer to come to the ER, that I very well could have died. **THAT** is how sick I was.

I had unexplainable, bothersome rashes up and down my arms and on the inside of my legs that would come and go during the time we lived in Porter Ranch proper. I went to three different doctors who all had no idea what this rash was, and the super strength medicine they prescribed me didn't help my condition at all. I changed my laundry detergent to the mildest, no perfumes, no dyes, no sulfates formula, stopped using my soap in favor of a milder, gentle, soap; no lotion besides the prescription creams. But to no avail, there was not a single change to these mystery rashes. They came and went for three years. I had an awful, complicated miscarriage in the fall of 2011. My son had three cases of croup in three years, and in the Spring of 2012 my now three-and-a-half year old son was diagnosed with High-Functioning Autism. Before we moved in June 2012 my hair began to fall out in clumps. It was so bad, that I had to cut my hair short. My doctor said maybe it was just stress or hormonal change. Looking back now, this all makes sense to me. It was the leaky craphole that is Aliso Canyon that was (and continues) to poison me and my family. You have no idea how angry that revelation makes me.

In June of 2012 we moved just down the hill, (to where it was slightly less windy, on the border of Porter Ranch & Chatsworth, now roughly three miles as the crow-flies from well SS-25.) The sinus infections tapered off a bit, but whenever they flared, I took a different antibiotic than the one that made me react with C-Difficile. I still have migraines from time to time, (which flared up during and after the blowout.)

Then came October 23, 2015, It smelled like (what I know now is,) Mercaptans. The sickening stench that I've smelled many times over the years.

When I called the Gas Company on day 4 or 5 because the smell wouldn't stop, and I could barely go outside to take my dog to go to the bathroom. I shared with the Gas Co rep on the phone my symptoms of headache, dizziness, eye irritation, sore throat, plugged up ears & mental fog, and the phone rep at the Gas Co said "Oh no, it's just an annoying odor ... there are no short-term health." This response angered me, and I told her that I begged to differ because of the symptoms I listed above - THOSE are the very definition of short-term health effects. *Why would she minimize my health concerns and dismiss my complaints?* She had no sympathy for me whatsoever, and directed me to seek updates on their website moving forward. That's when I noticed on Facebook other people in the community feeling the same thing, going through the same experience, asking the same questions. And we started to put it all together.

For over a year, (15 months!!) we've been dealing with the most historic gas blowout in US History & then its aftermath. My family has been sickened, (our symptoms during the gas blow out included headaches, dizziness, nausea, fatigue, mental fog, burning eyes, sinus inflammation, the Aliso Canyon cough, body aches, bloody noses, sore throats, anxiety, diarrhea, and more.) We were displaced from our home, my pets were sick, my son's service dog was vomiting, and my cat has never been the same since the blow out (he takes medication daily now.) I believe we all suffer from Post Traumatic Stress Disorder because of this event. When we smell something unusual we panic. I have continuous nightmares about SoCal Gas. I'm worried about retaliation from SoCal Gas because I've been so outspoken about my experiences and so harsh with my criticism toward them. I have tremendous anxiety about what the long-term health impacts are as I read about child after child, and adult after adult being diagnosed with rare forms of cancer; lukeemia. Are we next? Is my child next? Will I be dead before he graduates High School? Will my husband have a stroke like that jogger who dropped dead in the first week of the blowout as he was running through the trails that are around Aliso Canyon? These thoughts and worse, are the ones that constantly run through my head. And when I'm not panicked, I'm preparing. I'm writing. Logging symptoms. Reaching out to our

elected officials, begging people to listen to us. Crying with my neighbors - people I never knew until this horrific disaster that has forever changed the shape of our community. This is my life now. This is not the life I want. So Cal Gas is a part of my life and I hate them for that. They have taken so many things away from me; my peace of mind. My child's peace of mind. Last year, after we came back from being relocated when the "leak" was capped, my then 6-year-old proclaimed, unprompted, that he didn't feel safe in his own home & began packing up his belongings, demanding we move. The tears stung my eyes, but I blinked them back. I had to be brave and smile and tell him our home was safe and that he was ok. Do you have any idea how awful it is to look in your child's eyes and tell him that "it's ok, your home is safe" when you aren't even sure that's the truth? It's frightening, and upsetting ... and I've tried so hard to make it appear that "everything is ok" even when it isn't, even when I feel so dizzy and nauseous that I can't stand up, and even when I have a migraine that no medication will quell ... And even when I want to sit down and cry because I'm tired of fighting them. I'm tired of fighting you. And trying to convince you that our health matters more than the profits of SoCal Gas.

My emotions are frazzled, my rope is frayed, I'm beyond the end of it. I have no more rope left. Because normal life is stressful enough, but then add all of "this" into the mix. It's no kind of life. I hope you get that. My child deserves a childhood devoid of these kinds of heavy, serious stressors. And I am determined to give it to him. But the reality is, is that, like I said, SoCal Gas is part of our lives and I hate them for that. I don't want these memories with them. I want them gone. I hate the things they've done to us. I hate adding up the hours I've spent worrying and dealing with and documenting their destruction. I'm angry. This has taken a toll on our lives in every aspect: it has taken a toll on our marriage, on our careers, on our finances, on our future, on our health - all encompassing, physical health, mental health & emotional health ... there is not one part of my life that SoCal Gas and this most epic disaster has not impacted. And it needs to stop. And it needs to stop now & apparently YOU are the only people who can make that happen. And what is mostly upsetting is that the burden is somehow on *ME* to prove to *YOU* that this has impacted us in such a way that it makes living our lives nearly impossible.

Aliso Canyon is the "invisible disaster" -- there are no cute seagulls or baby seals covered in oil. My child doesn't have third-degree burns on his body, and he isn't bleeding out his eyes. But we have been suffering. For too long now. And we just want to get back to "normal" ... will that ever happen? I can't see it happening unless and until this facility is close. And if it isn't closed, we are leaving, like so many of our friends have done. It's not worth the stress to me, it's not worth risking our lives to live in our beautiful home that we worked so hard to purchase. When I moved in here, I said this would be our forever home, but I can't live here

if it means being poisoned by SoCal Gas. But is that fair to do to another family?
Because either someone is going to buy my house and be subjected to the same suffering, OR the North San Fernando Valley will become a ghost town.
Tell me which one is better? Tell me how you can go home and lay your head on your pillow after knowing what you know, after seeing what you've seen, and after hearing what you heard last Thursday night. You people are human, correct? Where is your compassion? How much does doing the morally right thing cost?

So I am on my proverbial knees begging and pleading with you - for the love of God - or whatever you may believe in, please, do the right thing and shut down Aliso Canyon.

Sincerely,

Jennifer Milbauer
Chatsworth, CA
(818) [REDACTED]

2/5/17

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Dear State Regulatory Agencies,

If you reopen this facility, what if the gas blowout happens again? I was sick and we had to move for a many weeks, and I lost my sense of smell because of you. If you want to reopen this facility, do it on another planet.

Keep Aliso closed so we kids feel safe.

From,

Nicholas Milbauer

Minor Child - Age 7, (sent with the consent of his parents, Mr & Mrs Milbauer)

(818) [REDACTED]

Monday, February 6, 2017

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To Whom It May Concern

re: Potential RE-Opening of Aliso Canyon,

After reading through your report, I have concluded that there is not enough evidence to support the safe reopening of the Aliso Canyon Gas Storage Facility, currently managed and maintained by The Southern California Gas Company. For over 15 months my family and I have dealt with the blowout and the aftermath of the blowout, including adverse health affects, and long-lasting impacts to our family's well-being, peace of mind and financial security. I suffered from debilitating sinus infections, and extreme fatigue which rendered me useless and unable to work much of the time of the blowout.

The Southern California Gas Company has toyed with our community, from lying about the blowout in the beginning, to minimizing our health concerns, to not divulging what toxic chemicals we were exposed to for 112-plus days, to threatening us with blackouts during the summer and creating fake gas shortages in the winter.

I would not support the reopening of Aliso Canyon without the following things:

- 1) A determination of the cause of the blowout - we are at least owed an explanation for why it occurred.
- 2) A comprehensive health study (including the long-term health impacts, as my family was exposed to known, and unknown toxins, and we do not yet know what the long-term health impacts are for either.)
- 3) A thorough seismological examination of the entire geographical area of Aliso Canyon - which, as you may know, sits on three different fault lines.
- 4) Revision of the amount of methane release from the facility that is acceptable to indicate NONE, not 6 tons. NO amount of release of methane, mercaptans, benzene, etc., is acceptable for a facility which is adjacent to communities of living people.

I strongly urge you to keep the facility offline until you can complete the suggestions above. As far as I can tell from reading carefully through your reports, and conducting my own research, Aliso Canyon is not necessary to energy reliability in the Los Angeles

basin. It has been shut down, in essence, for fifteen months and was only needed for an emergency, (albeit an “emergency” created by SoCal Gas.) Let’s keep it that way.

Regards,
Ron Milbauer
Resident, Chatsworth, CA
(310) 2 [REDACTED] (cell)

COMMENTS FOR DOGGR ALISO CANYON SAFETY REVIEW

Presented by Joseph K. Goldstein

Porter Ranch Resident

On Wed, Feb 1, 2017 at Hilton Woodland Hills

[Email:](#)

Tele: 818

Summary of Concerns

- Risk Analysis results do not address probability of EARTHQUAKE OCCURANCE
- Failure Analysis of SS25 fault has not been conducted prior to intent to re-open facility
- Implies that SS25 failure cause not a consideration
- All tests to date ONLY verify mechanical integrity of each well
- Consideration of Sub-surface shut-off valve incorporation not addressed

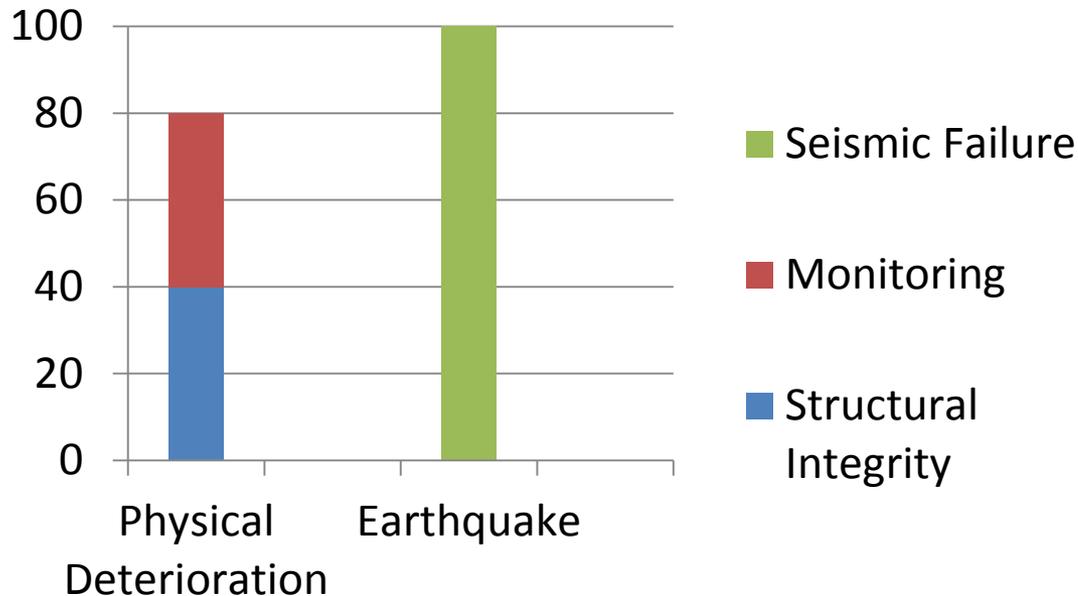
RISK ANALYSIS

- REQUIREMENTS

- Cost, Performance, Schedule, Supportability, Risk

- **Safety/Risk Analysis** and Acceptability-

- CalTech Assurance of earthquake activity will occur sometime within next 50 years



REQUIREMENTS AND TRADE-OFF MATRICES

Trade-offs are always conducted
Against the Requirements

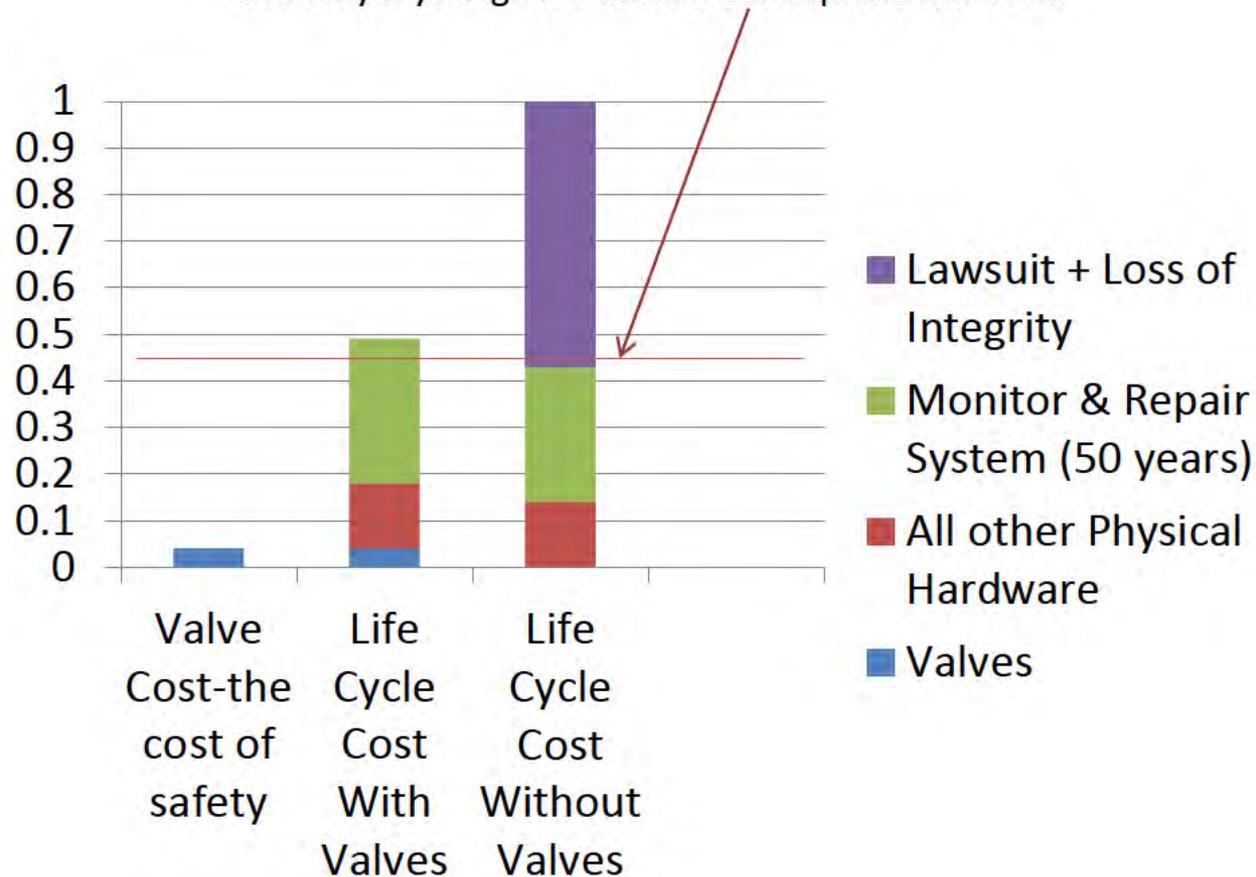
If your Requirement is 100%, (such as safety)
Then you must incorporate the feature in the design
and evaluate it's penalty.

100% safety assurance for the community,
can only be achieved by adding hermetically sealed,
Remotely actuated Sub-Surface Shut-off Valves,
And accept periodic test and replace.
(As a last alternative, use squib as an equivalent)

NOTIONAL TRADE-OFF

COST VS SAFETY OF VARIOUS CONFIGURATIONS

Note that non-recurring plus recurring is only slightly cheaper and only if you ignore that an earthquake will occur



CONCLUSION

- On the assumption of satisfying charter, DOGGR and CPUC are not fully transparent if they have considered these factors but not presented their results
- The REQUIREMENT of citizen safety is being circumvented by a focus on system integrity but not addressing prior failure and consequences, nor bona-fide risk issues



[REDACTED] Andover, MA 01810
310-929-7147
[REDACTED]

2017, February 5

Dear State, or To Whom It May Concern,

Porter Ranch is an important residential neighborhood to California because it is where important “bonding” and “bridging” happens between people with varying socio-political backgrounds.¹ Though the residents of Porter Ranch share a common place to call home, they are ethnically, culturally, and religiously diverse. As such, Porter Ranch must be protected so that the “bonding” and “bridging” can continue to happen in safety and with good-faith – now, and for years to come. The Aliso Canyon gas facility should not be re-opened at this time, or ever in the future, so long as there remain residents and schools nearby the area.

I believe that the future contains the possibility of miracles to come. Of course, I know that there may be skeptics who don’t believe. But if we want to retain the promise of hope, then we must do all we can to ensure a *healthy* space where hope can germinate, grow, flourish, and mature. I believe that Porter Ranch is one of those kinds of places

¹ According to Professor Danielle Allen from Harvard University, “Scholars of social capital distinguish among three kinds of social ties: bonding, bridging, and linking. Bonding ties are those (generally strong) connections that bind kin, close friends, and social similars to one another; bridging ties are those (generally weaker) ties that connect people across demographic cleavages (age, race, class, occupation, religion, and the like); and linking ties are the vertical connections between people at different levels of a status hierarchy, for instance, in the employment context. Bridging ties are the hardest ones to come by. Bonding ties take care of themselves, really. They start with the family and radiate out. But bridging ties are a matter of social structure. Schools, the military, political bodies—these have typically been the institutions that bring people from different backgrounds together. A connected society is one that maximizes active— in the sense of alive and engaged— bridging ties. This generally takes the work of institutions.” ([Toward A Connected Society](#), 2016. p 87) Professor Allen suggests in her recent work, a vision of a “connected society” characterized by “social connectedness” (i.e., bonds and bridges).



where hope can mature into a state of health. It certainly is not the only place in California. But it is one of the places.

Porter Ranch is also an important symbol. In some ways, and for some people, it represents something larger than life. For me, it is a symbol of spirit of small-town participatory-democracy. I believe that it can grow into the sort of town which produces young people who, in the spirit of President John F Kennedy, will ask not what their country can do for them but instead ask what they can do for their country. So the State of California must first, protect the health and safety of Porter Ranch; second, the State must continue to encourage Porter Ranch to continue to build “bonds” and “bridges” within the community. If we are to expect much from the future, then it only makes sense that we invest in the seeds of that future with generous nurture. The State of California must acknowledge that human health is a priority. The State must continue to support Porter Ranch in its attempt to be resilient, responsive, and responsible citizens.

Not every resident of Porter Ranch will assert viewpoints, as I do. But it is not the silence of those who are apathetic; rather, it is the silence of persons who have been habituated to the virtue of justice, and of doing one’s own work well. It is the same silence of Spartans at Thermopylae, who challenge the orators to also do their part and to do it at least as well as they have. It is a silence of deliberate and active trust. Porter Ranch is not a neighborhood of hysterical mobs. It is a town of intelligent, considerate, and generous individuals, who share a common passion for health and beauty. That is generally what brings people to Porter Ranch.

Finally, I’d like to say that Porter Ranch is meaningful to me because it is a place that holds some of our best memories. My son attended Castlebay Lane Elementary School, and later graduated from the Porter Ranch Community School. In the years that I have lived in and been a part of the Porter Ranch community, I have actively participated and invested my time and energy into the improvement and well-being of that community. It matters to me even now, what happens to Porter Ranch.

Bonding and bridging takes some time. It cannot be rushed, if it is to grow strong. It’s a process; and it is my belief that it is in the interests of the State of California to preserve a safe space for it in Porter Ranch.

Sincerely,
Kendi Kim





February 6, 2017

Aliso Canyon Comprehensive Safety Review
Mr. Ken Harris
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814

Dear Mr. Harris,

On behalf of the Kern Economic Development Corporation (Kern EDC), we respectfully submit our **strong support** for the reopening of Aliso Canyon.

Kern EDC is committed to stimulating a diversified and strong economic climate in Kern County. We accomplish this through the recruitment of new business opportunities and assisting in the retention and expansion of existing businesses.

Aliso Canyon is the largest natural gas storage facility in California and an essential part of Southern California's natural gas and energy delivery systems. The facility serves millions of residential, commercial and industrial customers with natural gas for heating, water heating cooking and other thermal processes throughout the Los Angeles basin. Additionally Aliso Canyon serves 18 electric generating facilities in the Los Angeles basin.

This critical infrastructure is essential to support the future growth of the region, as California's population is expected to increase 26% by 2040, and its economy to triple in size. Currently, natural gas produces over 60% of the state's electricity generation and Aliso Canyon's operations deliver a high degree of energy certainty, reliability, and security, all invaluable assets for California's residents and businesses.

Thank you for your time and consideration of this highly important matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard D. Chapman", is enclosed in a thin blue rectangular border.

Richard D. Chapman
President & CEO

the California Aqueduct, which is the principal feature of the California State Water Project. It lifts water 1,926 feet (600 m) to cross the Tehachapi Mountains. The station power requirements are so great that several power lines from the Path 15 and Path 26 are needed to provide power to the facility. It is the most powerful water lifting system in the world, not considering pumped-storage hydroelectricity stations. Total electric motor rating: 1,120,000 hp (835 MW)." How does Southern California get its water over the Tehachapi Mountains? With electricity created with natural gas.

Of course, KernTax supports best practices, more precautions and more protections. But Southern California needs the Aliso Canyon and the natural gas storage it provides. For ratepayers and electric car owners we need many types of power to address our needs.

Respectfully,

Michael Turnipseed

Michael Turnipseed
Executive Director



February 6, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA 95814

Dear Sir or Madam:

On behalf of tens of thousands of low-income clients who are served by Kheir Center annually, I am writing **in support of the resumption of safe operations at the Aliso Canyon natural gas storage facility**. The availability of affordable natural gas is critical for the daily needs of our patients, and potential service interruptions from the facility's continued closure could severely impact the most vulnerable members of our community.

Kheir Center is a 501(c)(3) nonprofit service agency, providing culturally and linguistically-sensitive health care & human services to the uninsured & underserved residents of Southern California. Kheir, a Federally Qualified Health Center, operates two primary care clinics with the capacity to provide more than 75,000 patient visits annually, including cancer screenings, immunizations, family planning, prenatal, behavioral health, x-rays, mammography, pediatrics, dental care, optometry and other essential services at low or no cost. Located in the multicultural Koreatown district of Los Angeles, Kheir serves a diverse population that is 96% low-income; and because Kheir offers all services in English, Korean & Spanish, patients visit our clinics from 302 zip codes.

Aliso Canyon is an important source of energy for our community, and any service interruption due to prolonged closure of the facility will have a negative impact on underserved populations, hospitals, and clinics like ours. Curtailments could adversely affect electric generators, large manufacturers, and most notably in our industry, hospitals that we partner with to serve our patients. **Temporary outages of even a few hours could mean losing a week's worth of groceries in the refrigerator. Curtailment could result in patients' at-home CPAP machines turning off in the night, putting them at greater risk of a heart attack or stroke in their sleep. Power loss would endanger vaccines and temperature-controlled medications in clinics, and could interrupt critical procedures in hospitals.**

Safety is critically important, and SoCalGas has been dedicated to complying with all regulations, making operational enhancements, and working with regulatory agencies to ensure that there are no complications. They have been transparent about diagnostic testing results, and we trust that they will continue to make safety a priority going forward.

We urge you to consider the individuals and families who cannot afford the risks associated with shutting down the Aliso Canyon facility. We support its return to operations as soon as can be safely accomplished.

Sincerely,

Erin K. Pak
Chief Executive Officer

ADMINISTRATION
COMMUNITY CLINIC- 6th Street
COMMUNITY CLINIC- Wilshire
PATIENT RESOURCES
ADULT DAY HEALTH CARE - VERMONT

	Los Angeles, CA 90020	Tel (213)		Fax (213)	
	Los Angeles, CA 90020	Tel (213)		Fax (213)	
	Los Angeles, CA 90010	Tel (213)		Fax (213)	
	Los Angeles, CA 90020	Tel (213)		Fax (213)	
	Los Angeles, CA 90005	Tel (213)		Fax (213)	



LOS ANGELES AREA
CHAMBER OF COMMERCE

February 3, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814

To whom it may concern:

On behalf of the Los Angeles Area Chamber of Commerce, I am writing to express our support for the resumption of operations at Southern California Gas Company's (SoCalGas) Aliso Canyon storage facility ("Aliso"). The Chamber attended the February 1st public hearing in Woodland Hills, however we did not have the opportunity to deliver the below comments due to the meeting being shut down by protestors unwilling to listen to other viewpoints.

The Chamber represents over 1,600 business and civic organizations, many of whom have also been active in submitting letters and speaking at public meetings to express their concerns about the impact the moratorium on injection at Aliso is having on their operations and planning efforts. Many of this region's largest businesses and critical infrastructure providers depend on natural gas to operate, often 24 hours a day, 7 days a week. These include hospitals, universities, refineries, manufacturers, transit operators, airports, ports, and electric generators. Even a small disruption in service can have a significant impact on their operations, employment and earnings. As indicated by the State's "*Aliso Canyon Winter Risk Assessment Technical Report*", these businesses also have limited ability to fuel switch and may not be able to comply fully or quickly with a curtailment order, increasing the risk of power outages.

Los Angeles businesses were fortunate to not experience significant power outages this past summer, however, that came at the expense of dirtier energy sources and state-imposed measures that made it more difficult and costly for large users to manage their energy needs. Tighter system balancing rules also limit the ability of large users to manage energy supply price fluctuations. Not being able to utilize Aliso is jeopardizing energy reliability and undermining our region's air quality and climate goals.

Los Angeles businesses cannot continue to get by without Aliso. It is one of our region's most critical energy infrastructure assets. We will continue to do our part and work with Los Angeles businesses to ensure they conserve energy during this difficult time in order to prevent energy shortages. However, we urge the regulatory agencies overseeing the re-opening of Aliso to work with all stakeholders to review and process SoCalGas' request to resume injection as quickly and safely as possible. SoCalGas should be allowed to reopen the facility if they can demonstrate that they have complied with all of the state's requirements.

Sincerely,


Gary Toebben
President & CEO

February 6, 2017

To: The Division of Oil, Gas and Geothermal Resources (DOGGR)

From: Larry Vad

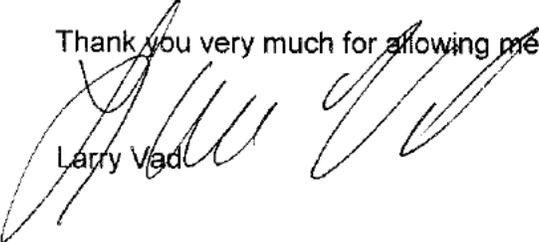
████████████████████
Porter Ranch, CA 91326

Dear Sir/Madam,

Please do not allow SoCalGas to reopen the Aliso Canyon Storage Facility. At this point no one knows why the blowout happened and I can tell you, living through it was the worst thing our family has ever endured. I think it would be very irresponsible to open the facility when you can't assure the community a blowout won't occur again. We were sick, our dogs were sick, we had to move out of our home for three months, move one of my children to a different school and too many other stressful things to list. Please understand as residents of Porter Ranch we want a detailed explanation of what happened to well SS25 and what SoCalGas will be doing to prevent that failure before we can feel comfortable opening this facility so close to our homes.

As you are aware, there are many other reasons and concerns why you shouldn't allow the facility to open, but most importantly what I mentioned above should come first. Without knowing the root cause of the blowout, you can't make a determination that the rest of the wells are safe and certainly can't promise us that they are. This decision lands on your shoulders, please do the right thing and don't allow the facility to reopen until the root cause analysis is complete and you can guarantee the site will not have another blowout.

Thank you very much for allowing me to comment.


Larry Vad

Comments on the Aliso Canyon Gas Storage Facility – Well Safety Review

2/6/17

I hereby certify that I am Leonard Chansky and have resided at 12001 Falcon Ridge Way in Porter Ranch for 27 years.

On February 2, 2017 I entered comments into the public record at the Aliso Canyon Public Meeting – Gas Storage Facility, Well Safety Review held in Woodland Hills.

Because of the limited 2 minute time allotted to each member of the public, I wish to complete my comments for entry into the public record.

My comments at the meeting were based on the following:

SB 380 enrolled 5/3/16

SB 887 filed with the Secretary of State on 9/26/16

The Findings in the DOGGR letter from Ken Harris to Roger Schwecke at SoCal Gas dated 1/17/17.

The Statutorily Required Determinations in the CPUC Report

The Findings and the Determination were both produced to meet the specific requirements in SB 380 and SB 887.

I first wish to complete my comments expressed directly to Ken Harris:

The Findings in your letter dated 1/17/17 were produced to meet the requirements of SB 380 Section 1 in which Section 3217 is added to the Public Resources Code. Section 3217 contains the following provisions:

“The supervisor shall continue the prohibition against Southern California Gas injecting any natural gas into the Aliso Canyon natural gas storage facility located in the County of Los Angeles until a comprehensive review of the safety of the gas storage wells at the facility is completed and the supervisor determines that well integrity has been ensured by the review, the risks of failures identified in the review have been addressed, and the supervisor’s duty to prevent damage to life, health, property, and natural resources, and other requirements as specified in Section 3106, is satisfied.”

“The gas storage well comprehensive safety review shall include the following steps to ensure external and internal well mechanical integrity. [Four steps are then described in SB 380]”

There were many comments at the meeting that the review conducted by DOGGR was neither a safety review nor a comprehensive review.

At least two competent professional petroleum engineers enumerated specific critical technical deficiencies in the Findings and concluded that while the Findings might meet the requirements of the second provision quoted above, both the results and the methodology do not meet the main provision cited in Section 3217.

Many members of the public detailed their health problems including deaths resulting from the gas well blowout that triggered SB 380 and SB 887, and the renegeing by SoCal Gas on their commitment to

support a health study by the Los Angeles County Health Department. Therefore the supervisor still has not fulfilled his duty to prevent damage to life and health.

At the meeting all I was able to do was to recommend a simple action to Ken that he send another letter to Roger Schwecke stating that the Findings are not sufficient for the supervisor to allow injecting gas.

But I also want to add these specific comments as a professional engineer with a doctorate and 30 years of experience including the design of industrial control systems for safety and reliability:

The Findings contain the following statement for Requirement #12:

“The inspection team found Checklist #12 and the on-site conditions are compliant. Subsurface safety valves are not present in any wells currently designated for injection/production at this time. Function testing of sliding sleeves are proven via successful casing and tubing/packer pressure tests. If a sliding sleeve valve did not functional properly and seal the tubing from the annulus, the pressure tests would fail.”

Indeed we must focus on the need to kill the well if any problem occurs in the well bore. The proximate cause of the damage and devastation from the well blowout was the removal of the subsurface safety valve from the bottom of the well bore by SoCal Gas which could have been used to kill the well immediately after detection of the initial gas leak. SoCal Gas has justified the removal by stating that there were no requirements by DOGGR to have such a valve. That is pure nonsense.

The Finding related to Requirement #12 has a fatal flaw. It infers that a sliding sleeve valve is adequate safety protection to kill the well. That is simply not the case. While a sliding sleeve valve can be used to kill a well under certain types of failures, it is not the main purpose or use of the valve which is to enable servicing of a well. The sleeve valve rides on the tubing and will not be able to be sent to the bottom of the well if the tubing is deformed, blown out, or severed. Any of those failures are likely in an earthquake. Also the sleeve valve cannot protect against multiple points of failure in the tubing.

- The Finding on sleeve valves is deficient in meeting the most basic design principals for safety and reliability of systems:
- When a system fails it must fail in safe mode. In this case the well must be automatically killed by closed or open loop controls or at the very least by manual control.
- Any design must account for multiple point failures. In this case for simultaneous failure of both the tubing and the casing.
- Each component in the system should be designed with the least probability of failure. In this case selecting and providing the most rugged single purpose valve available.
- Each component must be placed in the most effective point in the system to maximize the safety and reliability of the system. In this case at the bottom of the well bore.

Any junior undergraduate engineering student learns those design principals.

SB 887 Section 3180 contains the following provisions:

“In developing the regulations [governing operation of a well] the division shall consider enhanced design, construction, and maintenance measures that could meet the standard in paragraph (2), including any of the following:”

“Surface controlled subsurface safety valves or Christmas tree valves with the required integrity to contain reservoir pressure that halt flow through the well” [i.e. that kill the well]

Therefore DOGGR needs to include a clarification in the follow-up letter to Roger Schwecke that sleeve valves are not fit for purpose to safely and reliably kill a well.

Furthermore DOGGR can take a simple action to prevent a repeat of the proximate cause of the damage and devastation from the blowout. Never allow SoCal Gas to operate a well again without a safety valve in the bottom of the well bore that must be activated to effectively kill the well at the first sign of a leak.

DOGGER should issue that finding immediately because SoCal Gas is going before the CPUC to request that the wells that have been certified as compliant in the Finding be reactivated based on inadequate supply to meet demand.

That brings me to completing my comments expressed directly to Tim Sullivan.

The most relevant provisions in SB 380 and SB 887 for actions by the CPUC are:

“Before the completion of the gas storage well comprehensive safety review, production of natural gas from gas storage wells at the facility [Aliso Canyon] shall be limited to gas storage wells that have satisfactorily completed the testing required under subparagraph (B) of paragraph (4) of subdivision (c) unless insufficient production capacity is available. Only if production capacity supplied by the tested and remediated wells is demonstrably insufficient may the supervisor allow other gas wells to be used.” [SB 380 Section 3217]

“Notwithstanding Chapter 3.5 commencing with Section 113400 of Part 1 of Division 3 of Title 2 of the Government Code, including subdivisions (e) and (h) of Section 11346.1 of the Government Code, the emergency regulations amending Section 1724.9 of title 14 of the California Code of Regulations adopted by the Division of Oil, Gas, and Geothermal Resources in the department of conservation effective February 5, 2016, shall continue in effect until the adoption, amendment or repeal of the regulations is promulgated by the division pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.” [SB 887 Section 6]

The Determinations made by the CPUC state that 66 wells are required to be operating in Aliso Canyon for there to be adequate supply to meet peak demand in the summer of 2017. Further that a level of 66 wells may not be achieved until the fourth quarter of 2017.

SoCal Gas will shortly be coming before the CPUC to force the reinjection of gas into the wells certified as compliant by the DOGGR Findings and also additional wells because of the CPUC Determinations.

The CPUC cannot permit any reinjection of gas into any of the wells because the review conducted by DOGGR was not a comprehensive safety review as required by SB 380 and in addition the supervisor has not adopted new operating regulations, or amended or repealed the existing emergency regulations as required in SB 887.

Regardless, the CPUC has a more basic duty to fulfill. It must adopt a definition and standard for the word “demonstrably” in SB 380 before considering any request from SoCal Gas.

At the meeting I suggested that the necessary standard to protect the public from the risks inherent in the Aliso Canyon wells should be “Proof Beyond A Reasonable Doubt”.

I then said to Bill that there is plenty of reasonable doubt about the actions and data supplied by SoCal Gas underlying the Determinations, and that the CPUC has not asked SoCal Gas the proper questions to determine supply.

For example:

Is all of the gas currently stored in Alison Canyon owned by SoCal Gas? If not was the gas sold by SoCal Gas to the current owners? If those sales were executed through futures contracts what are the delivery dates?

What have been the destinations of gas previously released from the field?

SoCal Gas publicly stated recently that deliveries of gas from suppliers in Northern California have been reduced during the winter peak demand. The suppliers have gone on record to the Los Angeles Times that there is plenty of gas to supply and that SoCal Gas reduced their orders for gas. Was this a “manufactured” shortage?

Do the gas pipelines from Northern California have spare capacity?

If any or all of the above things are true, why doesn't the CPUC simply direct SoCal Gas to buy the gas and use it on demand?

The CPUC needs to perform a forensic accounting to determine the historical ordering practices of SoCal Gas and also a detailed operational analysis of the timing and sources of gas input to the field and destinations of gas released from the field.

A more fundamental observation or comment:

SoCal Gas has played the CPUC and DOGGR against each other. When it couldn't get what it wanted from DOGGR it blocked SB 380 in committee until Senator Pavley consented to allow amendments on the floor of the Senate. Then the supply and demand provision was added on the floor to allow SoCal Gas to force the injection of gas and reactivation of the field through the CPUC.

This type of gamesmanship cannot be allowed to continue. Currently proposed legislation to prevent reactivation of the field or shut down the field stands no chance of passage given the history of SB 380 and SB 887. Resolutions from City and County governments will be ignored or fought by SoCal Gas. The County Health Department doesn't have any power to stop the abuse. Too many people have suffered and the field isn't needed.

February 6, 2017

To Whom it May Concern,

I am writing regarding my objections to the re-opening of the Aliso Canyon gas facility. My name is Lori Aivazian. My family have been residents of Porter Ranch for 17 years. Our home was built in 1969, before SCG took over Getty's oil field and converted it to natural gas storage. When we bought our dream home in 2000, we were given no disclosures that the second largest natural gas storage facility in the United States was located approximately 1.5 miles from us. If this fact had been disclosed, we would not have purchased this house that we thought was so perfect in such a quiet, safe area, away from the pollution of other areas of the Los Angeles basin, to raise our then 1 year old daughter in.

Our lives and entire world were turned upside down in October of 2015. We received two notices in the mail from SCG, informing us of a gas leak in Aliso Canyon. My family and our pets soon became horribly ill and lived with the retching, horrible stench of mercaptans, with no relief. Some of the symptoms we experienced were: constant terrible headaches, nosebleeds, severe nausea, vomiting, diarrhea, intestinal pain, shortness of breath, hacking coughs, wheezing, joint and muscle aches, ear ringing and pain, swollen, red eyes, racing and irregular heart beat, debilitating fatigue, brain fog, difficulty functioning normally, and hair loss. My husband and daughter were away at work for many hours of the day. At first, their symptoms were not as severe as mine were. We trusted local government when we were continually reassured that there were no long term health effects to our exposure to what we were told was making us ill: the mercaptans in the natural gas. We believed that two hospital grade air purifiers and the airscrubber installed on our HVAC system were cleaning the air of any toxins. So, we chose to try and continue living in our home until January 18th, 2016.

Our then 16 year old daughter spent her entire 3 week winter break in bed due to vomiting, diarrhea, migraines, shortness of breath, coughing, and bloody noses. We also found out that there were high levels of poisonous hydrogen sulfide, and cancer causing benzene being detected in our neighborhood. On the advice of my doctor, in fear for our health and lives, we evacuated our home. I cannot even describe how stressful this major disruption in our lives was for all three of us, our yellow lab, and our two cats. My daughter, an honors student, was a junior in high school; her most difficult and important year towards making the grades and completing classes for admission to college. Our commute time was doubled, causing us to lose a lot sleep, family time together, and giving Natalie less time for her studies.

Since moving back to our home in June, it has taken us months to try and resume some semblance of our former happy, normal lives. We lived through 4 months of hell, disruption, fear, anxiety, reimbursement nightmares, fighting to have our home cleaned, and then having it not cleaned to health department protocol. This is time that my family will never get back and that will affect our psyches forever. We still suffer from health symptoms, with headaches, shortness of breath, coughing, bloody noses, and I suffer from a new symptom of rashes. Our

dog had to be put down this past November. One of our cats, who was very healthy until the blowout, is near death, after suffering from pneumonia, numerous respiratory infections, asthma, COPD, hair loss, and lesions which will not heal. Our second cat, who is only two and up to that point was healthy, has been treated for 3 respiratory and numerous eye infections. My family lives in constant fear and anxiety of what will occur next at that ancient and dangerous facility so near to us. We often notice a horrible, chemical burning skunk smell at night and early in the morning, and have often reported this and the stench of mercaptans to the AQMD.

The fact that you are even considering allowing SCG to resume injections into the Aliso Canyon facility belies any logic or sense, and is unconscionable after the harm our community has experienced and continues to experience due to the negligence of SCG. So, SCG has managed to patch up to new safety requirements 35 of 115 of the 40-60 year old wells at this decrepit, poorly maintained facility? This is only 31% that are deemed safe. Seriously? These are extremely poor odds in my opinion. You also cannot convince me that the facility is safe for operation when you don't even know what caused the worst natural gas disaster in United States history. There are no safety valves required on the wells, which could have prevented the disastrous blowout. I do not believe that the new capability to immediately plug wells with heavy liquids will solve the inherent danger of future blowouts, since 6 attempts to plug the blown out SS-25 failed, and spewed all of this mud into our community, onto and into our homes, properties, and lungs. Even more concerning is the fact that the facility lies on two active earthquake faults. Not if, but WHEN the big one hits, the result of possibly 115 wells shearing could be catastrophic to all of Southern California. Since the blowout was capped, there have been 6 reportable releases of further poisons spewed down on our community, and 2 fires at the facility. This is further proof that SCG cannot operate Aliso Canyon safely, even when the facility is not in use.

The biggest concern regarding the Aliso Canyon facility which affects my family is the fact that nothing has been done to address the health impacts and continued symptoms due to the blowout and continued emissions from the facility which are affecting us and thousands of our neighbors. The mission statement of DOGGR states that you "administer a variety of programs vital to California's public safety, environment, and economy." The mission statement of the CPUC states that you regulate "natural gas companies" and "serve the public interest by protecting consumers and ensuring the provision of safe, reliable utility service and infrastructure." Absolutely nothing in the past 15 months has been done in terms of the long term health study required by the AQMD abatement order against SCG, and additionally ordered by the Los Angeles County Health Department. No long term health study has ever been conducted on the effects of such a severe and prolonged exposure to such huge amounts of natural gas, its components, mercaptans, or the ingredients of the plugging mud. This facility absolutely cannot be deemed safe for operation until our community finds out what the long term health effects are from the numerous toxins we were exposed to, and continue to be exposed to. SCG refuses to give a comprehensive list of the chemicals contained in their natural gas formula, and contained in the plugging mud spewed out on our community during the blowout so that our physicians can treat us properly. In terms of the CPUC's obligation for

providing reliable utility service, an argument has been made by SCG that their service area is at risk for blackouts and brownouts without the storage facility. This argument has been disproven in the past 15 months through engineering studies, and the fact that no such events have occurred. SCG has not used the mitigation measures compiled to prevent shortages. In fact, SCG manufactured a gas shortage during the last week of January during a cold spell by purposely shorting their natural gas order, and blaming it on their suppliers. During the two days they were given permission to extract natural gas from Aliso Canyon due to this manufactured shortage, the AQMD and LACHD received numerous odor and health complaints. My daughter experienced nosebleeds on the evenings of January 24th and 25th, the days gas was extracted. This is further proof that the facility is unsafe for operation.

For the numerous reasons above, I plead with you, for the health and safety of my family, my neighbors, and the entire Los Angeles metropolitan area, to permanently shut down and decommission the SoCalGas Aliso Canyon facility.

Sincerely,
Lori Aivazian

February 6, 2016

Department of Conservation
Division of Oil, Gas, and Geothermal Resources
Attn.: Ken Harris, Supervisor
801 K Street, MS 24-02
Sacramento, CA 95814
Via Email to [REDACTED]

RE: Aliso Canyon Comprehensive Safety Review

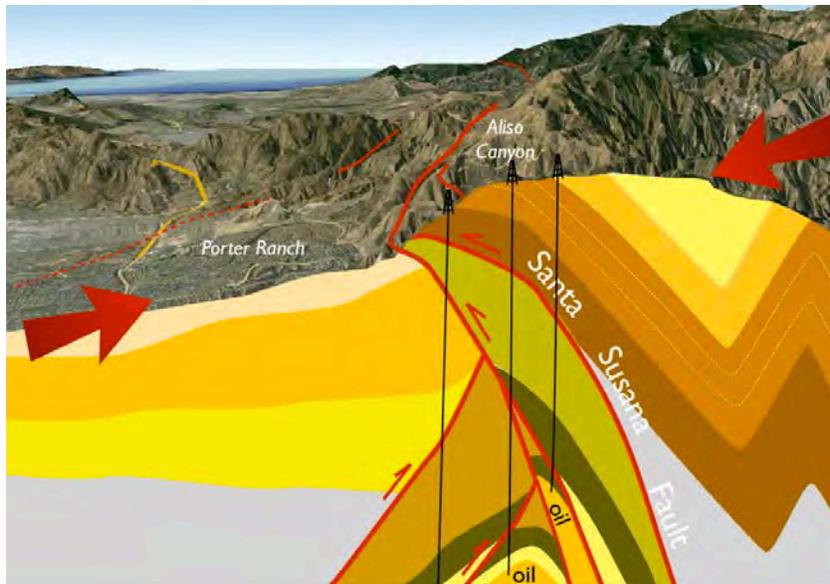
Dear Mr. Harris and DOGGR:

Summary

Seismic hazards are significant at Aliso Canyon and should be quantified and mitigated before Aliso Canyon is permitted to reopen. SoCalGas should submit results showing the effects of ground shaking and fault rupture on the surface and underground facilities. Once they have fully identified these risks, they should be required to mitigate them before the facility is permitted to operate. Mitigation measures should include the installation of subsurface safety valves that protect against leaks caused by seismic events.

Background

The Aliso Canyon gas storage facility is located directly above the Santa Susana fault and associated structures. The state recognizes this fault as active and has designated an Alquist-Priolo special study zone around the fault. The state maps have a note that the precise surface expression has not been officially investigated in the area of Aliso Canyon. However, we can see evidence of numerous subsurface fault crossings in the mud logs of the oil and gas wells drilled at Aliso Canyon. The wells cross the north strand of the Santa Susana fault around 1000 feet, the southern strand around 2500 feet, the Frew fault around 4500 feet, and various other unnamed structures at depth. These faults appear on geologic cross sections specifically because we know of their existence from where the oil and gas wells crossed them. If these wells were houses being built at the surface, the state would mandate a special study and specific mitigation measures. I prepared the attached geologic cross section graphic to illustrate the faults underlying Aliso Canyon.



Geologic cross section through the Santa Susana mountains by Dibblee (1992)¹ overlain on a Google Earth perspective view.

According to the Uniform California Earthquake Rupture Forecast (UCERF3) developed by the USGS², the Santa Susana fault is capable of producing a M7 earthquake, and we know that the eastern section of the fault ruptured in 1971, terminating just east of the Aliso Canyon field. We currently have no information about the last rupture of the section beneath Aliso Canyon. Based on standard models³, the average slip along the Santa Susana fault will be approximately three feet in size during the next large earthquake and could easily be twice that amount in certain locations.

How would a gas well handle being sheared by three to six feet? We don't have a lot of examples, but in 1949, 200 wells in the Wilmington oil field were damaged when a fault slipped less than one foot and tore the casing apart. In 1983, 14 wells failed by casing collapse or shearing due to shaking in the Coalinga earthquake even though they were not in the immediate epicentral area. And in 1961, an earthquake as tiny as M3.5 damaged nearly 150 wells in Wilmington. While modern casing is improved, 2-6% of the wells at Belridge fail every year from subsidence-induced shearing even in the 21st century⁴. In Table 1, I listed examples of earthquakes in southern California damaged oil and gas wells.

¹ Dibblee, T. W. (1992). *Geologic Map of the Oat Mountain and Canoga Park (north 1/2) Quadrangles: Los Angeles County, California*. H. E. Ehrenspeck (Ed.). Dibblee Geological Foundation. <http://www.dtsc-ssf.com/files/maps/Geologic%20Map%20of%20Oat%20Mountain%20and%20Canoga%20Park%20-%20North%20Half.pdf>

² USGS Open File Report 2013-1165. <https://pubs.usgs.gov/of/2013/1165/pdf/ofr2013-1165.pdf>

³ Wells, D. L., & Coppersmith, K. J. (1994). New empirical relationships among magnitude, rupture length, rupture width, rupture area, and surface displacement. *Bulletin of the seismological Society of America*, 84(4), 974-1002.

⁴ Fredrich, J. T., Arguello, J. G., Deitrick, G. L., & De Rouffignac, E. P. (2000). Geomechanical modeling of reservoir compaction, surface subsidence, and casing damage at the Belridge diatomite field. *SPE*

The risk of damage is so real that the Aliso Canyon field has already experienced such damage. In the 1994 Northridge earthquake (which did not rupture the Santa Susana fault line that runs under Aliso Canyon) SoCalGas reports that well SS-40 collapsed at the Aliso Canyon field. According to their submission, the casing collapse thankfully sealed the well so that there was no uncontrolled leak. As I discuss in recommendation 6 (below), SoCalGas has not provided sufficient evidence that we can always expect such a favorable outcome.

Department of Energy Letter

Recommendation 1) Perform the actions recommended by DOE scientists

Six scientists from the Department of Energy signed a letter to DOGGR dated December 12, 2016. They agree that that “a risk exists from ground shaking and direct shearing/deformation of well casings.” The letter suggests several actions and I concur with all of them:

Recommendation 1.1) Perform Probabilistic Seismic Hazard Analysis (PSHA) and probabilistic fault displacement analysis (PFDA).

Recommendation 1.2) **Calculate site-specific shaking hazard rather than relying on the USGS PSHA map.** The 2009 data set present shaking estimates for the entire coterminous 48 states providing regional-scale estimates of shaking. The maps are smoothed and present data at resolution of about 5 km, which is too coarse in an area as geologically complex as Aliso Canyon. Shaking can vary dramatically within a 5 km radius based on the local geology, and DOGGR should require more localized models for a critical facility like this one.

Recommendation 1.3) **Determine a critical threshold for fault slippage as a result of fluid-injection.** Injection wells in Oklahoma have famously triggered earthquakes because of mismanagement of injection pressures. What volume of gas or injection pressure at Aliso Canyon is likely to trigger an earthquake? Supplement #2 includes a page of geomechanical equations and assumptions but never actually presents any findings, indicating that “the stability of the Aliso Canyon faults *will be* assessed...” (p. 8, emphasis on the future tense added).

Recommendation 1.4) **Carry out a detailed analysis of formation-wellbore interaction under seismic loading.** This is an essential step in quantifying seismic risk, but it will be very challenging. Because there is no industry-standard methodology for this, I have concerns that it will be too easy for an applicant like SoCalGas to make assumptions that favor decreased mitigation costs. The process

will require extensive peer review and consultation between those in the industry and outside to develop a reasonable methodology.

Recommendation 2) Quantitative Seismic Risk Analysis Should Not Wait

The DOE scientists state that necessary seismic studies "should be planned and executed in a deliberate manner" but claim that the studies can be done later. I strongly disagree. The DOE scientists base their judgement on professional instinct, but not on any specific data or quantification of known risk.

The risks and hazards of seismic events at Aliso Canyon requires immediate investigation and analysis before gas is reinjected at high pressure. We wouldn't allow a school to be built near an active fault, allow students to enroll in it, and then schedule a seismic hazard analysis to be completed at a later date. In fact, schools, hospitals, nuclear power plants, dams, housing developments, and even natural gas pipelines at the surface are all required by state or federal regulations to perform such analyses before they are allowed to operate. Gas storage facilities had fallen through the cracks when it comes to regulation, but state law SB380 now requires Aliso Canyon to remain closed to injection until DOGGR's "duty to prevent damage to life, health, property, and natural resources ... is satisfied." This duty clearly cannot be satisfied without quantifying and mitigating the seismic risks.

Supplement to SoCalGas' Storage Risk Management Plan #2

In their October 11, 2016 supplement, SoCalGas has set forth a long list of hazards faced at the facility. However, simply listing them is not sufficient to fully address them. Below, I outline several additional recommendations:

Recommendation 3) SoCalGas should be required to act on the mitigation measures spelled out in Section 3.3.10 regarding tectonic/seismic induced failure *prior to reopening the facility.*

Supplement #2 states, "Mitigating casing deformation and tectonically induced failure can be enhanced by well design and monitoring in new wells. Heavy wall, higher strength pipe and good casing cement jobs add strength to resist tectonic forces. The use of liners in existing damaged wells can add resistive strength." (p. 14)

Commentary: This section is entirely written in the hypothetical. These measures do nothing to mitigate the current risk exposure since they have not been implemented in the field.

Recommendation 4) SoCalGas needs to use the results of well integrity tests to calculate the risk of casing deformation.

Supplement #2 states, "The well integrity program currently being performed on the wells should determine if casing deformation is a significant threat to well integrity." (p. 14).

Commentary: Since the well integrity program is nearly complete, SoCalGas should provide a determination. Does casing deformation pose a significant threat?

Recommendation 5) SoCalGas should install Subsurface Safety Valves in Aliso Canyon

Supplement #2 states, “Also, SoCalGas supports the State’s interest in examining the feasibility and efficacy of subsurface safety valves for gas storage fields, to address hazards and risks, and to determine if and what types of valves might be appropriate.” (p. 14)

Commentary: It is time for DOGGR to act on this important issue. In the July 2016 working group in Denver about well integrity, the discussion consensus was, “One thing that is becoming clear after presentation: There are going to be places where there is a need for safety valves, but there are places where one can mitigate risk without safety valves.”⁵ With Aliso Canyon located on top of the active Santa Susana fault and having a 78% chance of a major earthquake nearby in the next 50 years, Aliso Canyon should be one of those places where downhole safety valves *are* necessary. The risk from intense ground shaking, landslides and subsurface fault rupture are very real at Aliso Canyon, and SoCalGas acknowledges this.

It appears that the main concern is over the cost and operational down time of the valves. To perform a true cost-benefit analysis, SoCalGas needs to quantify the risks (and potential costs) from seismic hazards. The cost of a single well failure on SS-25 has been hundreds of millions of dollars. An earthquake can cause the failure of multiple wells simultaneously. Further, the actual costs of safety valves may be much smaller in the long term than operators anticipate. Discussion at the July working group on well integrity noted that safety valves manufactured today have higher reliability than they did in the past (i.e., operators may be working with a false preconception about their actual performance), and that “with time and work, they will also be able to manufacture ideas you currently may have only in your mind.”⁶ In other words, requiring safety valves *now* may spur innovations that will enhance safety at significantly lower future costs.

Recommendation 6) SoCalGas needs to quantify the possible outcomes of casing/tubing damage.

Supplement #2 states, “The tectonically induced casing/tubing damage described above normally does not result in loss of hydrocarbon containment outside of the wellbore. Casing collapse and shear, by nature of the failure, pinches off the casing (and tubing) significantly reducing and often stopping flow potential.” (p.11)

Commentary: This claim needs to be supported with references and quantified. Does ‘normally’ mean that wells get sealed 90% of the time they collapse? Or does normally imply 51%? And in the wells that do have a leak, is the flow reduced by 90%? Or is it more like 25% reduction. These numbers make a difference; if 90% of the wells are sealed but the remaining 10% of wells leak at just 10% of their normal flow rate, the result would still be a leak *bigger* than the SS-25 event ($114 * 0.1 * 0.1 = 1.14$). And unlike the SS-25 failure which was sealed with a single relief well, it would take months to deploy enough rigs to eliminate these simultaneous well failures.

⁵ <https://energy.gov/sites/prod/files/2016/12/f34/Appendix%20I%20-%20Well%20Integrity%20Working%20Group%20Report.pdf>, p. 19

⁶ Ibid.

Conclusion

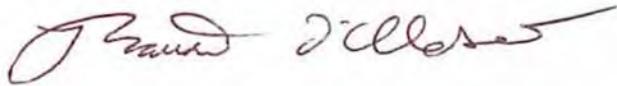
Under the current proposal, Aliso Canyon will store 29 billion cubic feet of flammable, climate-destroying, and health-disrupting natural gas. The state has responded to last year's gas leak with a range of productive safety enhancements, and they should be applauded for those regulatory improvements. However, DOGGR should require SoCalGas to finish the job and complete a seismic hazard analysis followed by appropriate mitigation measures before a decision is made about re-opening the facility.

Qualifications

I have a Ph.D. in Geology from the University of California, Berkeley with an emphasis on active tectonics. I have studied the San Andreas fault system as a researcher and postdoctoral fellow with the U.S. Geological Survey Earthquake Hazards Team and as a visiting professor at the University of Tokyo. Findings from my research are part of the input to the USGS UCERF 3 model of fault rupture hazards for California. I currently teach in the Department of Geological Sciences at California State University Northridge. I have attached a copy of my CV.

I request a written response to my comments prior to any final decision on approving gas injections at Aliso Canyon. Thank you for your consideration.

Sincerely,



Matthew d'Alessio
Associate Professor, Department of Geological Sciences

Enclosure: CV

Table 1: Previous Earthquake-induced Damage to Oil and Gas Wells in Southern California

Year	EQ Mag	Oil Field	Damage	Source
1941	4.9	Dominguez	15 Wells Damaged	7
1944	4.5	Rosecrans	16 wells found damaged by subsurface movement	8
1949	4.4	Wilmington	200 wells went out of production, many permanently closed; lateral displacements of about 20 cm at ~500m depth.	9
1952	7.5	Tejon Ranch	6 wells had tubing that couldn't be pulled and had to be re-drilled next to them. 1 Well at South Coles Levee collapsed	10
1961	3.5	Wilmington	~130 wells failed, and another ~20 damaged	11
1963	3.4	Inglewood	Three wells damaged	12
1971	6.7	San Fernando	"A few wells" reported minor damage	13
1983	6.2	Coalinga	14 wells failed by casing collapse	14
1994	6.7	Aliso Canyon	1 well failed by casing collapse; landslides, cracked well cellars, tank farm damage, and pipe support damage	15

⁷ USGS Professional Paper 0679 (1969), p. 64; Bravinder (1942)

<http://pubs.usgs.gov/pp/0679/report.pdf>

⁸ USGS Professional Paper 0679 (1969), p. 64; Martner (1948)

<http://pubs.usgs.gov/pp/0679/report.pdf>

⁹ Kovach, 1974, <http://www.bssaonline.org/content/64/3-1/699.full.pdf+html>; Nicholson and Wesson (1992), p. 572, <http://earthquake.usgs.gov/research/induced/pdf/Nicholson-Wesson-1992-Pure-and-Applied-Geophysics.pdf>

<http://earthquake.usgs.gov/research/induced/pdf/Nicholson-Wesson-1992-Pure-and-Applied-Geophysics.pdf>

¹⁰ <http://www.bssaonline.org/content/44/2B/201.full.pdf+html>

¹¹ Dusseault, M. B., Bruno, M. S., & Barrera, J. (1998). Casing shear: causes, cases, cures. In *SPE International Oil and Gas Conference and Exhibition in China*. Society of Petroleum Engineers. <http://www.geomechanicstechnologies.com/article/spe72060.pdf>

¹² USGS Professional Paper 0679 (1969), p. 65; Hudson and Scott (1965),

<http://pubs.usgs.gov/pp/0679/report.pdf>

¹³ USGS Professional Paper 0733, p. 118. <http://pubs.usgs.gov/pp/0733/report.pdf>

¹⁴ USGS Professional Paper 1487, p. 400 <http://pubs.usgs.gov/pp/1487/report.pdf>

¹⁵ SoCalGas Risk Management Plan, Supplement #2, p. 6.

[ftp://ftp.consrv.ca.gov/pub/oil/SCG Attachment/B/4 supplement socialgas storage risk management plan2 10-11-2016.pdf](ftp://ftp.consrv.ca.gov/pub/oil/SCG%20Attachment/B/4%20supplement%20socialgas%20storage%20risk%20management%20plan2%2010-11-2016.pdf)



ONTARIO
CHAMBER of COMMERCE
FOR THE BENEFIT OF COMMUNITY AND COMMERCE

February 6, 2017

ATTN: Aliso Canyon Comprehensive Safety Review

Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814

Re: "Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability For Reliability - Updated Report - Section 715 of the Public Utilities Code"

Dear Mr. Tim Shular,

On behalf of the membership of the Ontario Chamber of Commerce, I am writing to you in support of the reopening of the Southern California Gas Company's Aliso Canyon Storage Facility.

The facility plays an important role in the reliability of energy resources throughout California. The facility not only serves our residents, community and businesses, but also serves fueling gas-fired power plants that are needed to meet the regional electric demand during peak periods. In California, about 60% of electricity is made using natural gas. This is significant. Even with the increased availability of renewables, the majority of the electricity consumed by us is still produced by power plants fueled by natural gas.

As significant as the summer use is for natural gas, the winter months are even more demanding on our natural gas supply. Aliso Canyon played a key role in meeting customer needs this past winter - and this winter that demand will most likely be as great, if not greater.

SoCalGas must have the ability to meet the needs of this growing region, supplying electric generation for hospitals, large manufacturing facilities, refineries, and our educational institutions. Without Aliso Canyon, our region will face problems that will impact all of our lives and not just those in Los Angeles County.

For more than 145 years, SoCalGas has been committed to delivering clean, safe reliable natural gas to the Inland Southern California region. They have been a great community partner and supporter of the Inland Empire and Southern California.

[REDACTED]
Ontario, CA 91764
909. [REDACTED]
www.ontario.org



ONTARIO

CHAMBER *of* COMMERCE
THE INTERSECTION OF COMMUNITY AND COMMERCE

Please allow the Aliso Storage field to begin operating safely again, with all of the proper safeguards in place. Our region's energy demands depend on it.

Thank you,

A handwritten signature in purple ink, appearing to read 'Peggi Hazlett', written in a cursive style.

Peggi Hazlett
President/CEO
Ontario Chamber of Commerce

February 2, 2017

California Public Utilities Commission and
Division of Oil, Gas and Geothermal Resources
Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814

RE: PUBLIC COMMENT FOR ALISO CANYON STORAGE FACILITY

To Whom It May Concern:

Orange County Business Council (OCBC) represents nearly 300 of Southern California's largest businesses that employ over 250,000 men and women in our region and more than two million employees globally. OCBC's mission is to enhance the region's economic prosperity while maintaining a high quality of life. OCBC focuses on four initiatives: improving infrastructure, enhancing workforce development, increasing the supply of workforce housing and maintaining a robust economic climate.

Natural gas is the backbone of Southern California's entire energy system, accounting for 60 percent of all electricity used throughout the state and is used in 95 percent of the homes and businesses in Southern California. Aliso Canyon is California's largest natural gas storage facility and is an essential part of the region's energy delivery system. It serves millions of residential, commercial, and industrial customers with natural gas for a variety of thermal processes throughout Southern California. Aliso Canyon also serves 17 electric generating facilities in Los Angeles and Orange counties, operated by private and publicly owned utilities and independent generators.

Southern California Gas Company (SoCal Gas) completed a comprehensive suite of tests and upgrades under the direction of the Division of Oil, Gas and Geothermal Resources, and independent technicians, to ensure the facility is ready and safe to end the prolonged closure. As such, if the utility cannot resume injection operations at the facility, the region will face continued uncertainty of possible shortages and curtailments and significantly increased costs. When the facility is operational, SoCal Gas can buy natural gas, which is one of the most environmentally friendly of all energies, when the price is low and store it for times of peak demand, such as during the cold of the winter months and the heat of the summer.

February 2, 2017

Page 2 of 2

As the economic engine for California and the Country, it is imperative to support the continued economic growth of Southern California through its recovery from the Great Recession. OCBC commends the hard work and diligence of SoCal Gas in ensuring that the facility is secure and ready to meet the demands of the region's vibrant communities.

Therefore, we ask that you do what you can to make sure the facility is returned to service as expeditiously as possible to avoid the economic consequences of power outages and have reliable and affordable energy to the millions of residents and businesses depending on the facility.

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan Starr", with a horizontal line extending from the end of the signature.

Bryan Starr
Senior Vice President Government Affairs



CONCRETE MASONRY UNITS
OBP BLENDED PRODUCTS
ORCO WALL SYSTEM
ORCO PAVINGSTONES
ORCO MORTARLESS WALLS

**ORANGE / LOS ANGELES
HEADQUARTERS**

██████████
STANTON, CA 90680
██████████
(714) ██████████ FAX
MAIL ADDRESS
PO BOX E
STANTON, CA 90680-0129

INLAND EMPIRE

4 ██████████
RIVERSIDE, CA 92509
(951) ██████████
(951) ██████████ FAX

TEMECULA VALLEY

2 ██████████
ROMOLAND, CA 92585
(951) ██████████
(951) ██████████ FAX

SAN DIEGO

3 ██████████
OCEANSIDE, CA 92056
(760) ██████████
(760) ██████████ FAX

COACHELLA / IMPERIAL

██████████
INDIO, CA 92201
(760) ██████████
(760) ██████████ FAX

MAIL ADDRESS

██████████
INDIO, CA 92202

ORCO PAVINGSTONES

██████████
RIVERSIDE, CA 92509
(951) ██████████
(951) ██████████ FAX

WWW.ORCO.COM

February 3, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814

To Whom It May Concern:

As president of ORCO Block & Hardscape, I would like to share that our company uses natural gas to cure our products. We are a 71 year old company. Natural gas has been an economic source of energy to cure our materials at our various Southern California locations. We recommend that you keep the Aliso Canyon storage facility open.

Sincerely,

Rick J. Muth
President

70+ Years of Service...Thank You!

Methane is Explosive!

All the media attention concerning the health risks from contaminants and additives to natural gas have overshadowed the true danger of such a large amount of methane near the 2nd largest city in the nation. This is because people are very familiar with the controlled pretty blue flame of methane. However, if Methane is diluted down to 4% to 15% in the atmosphere and then ignited the result is a dangerous boom! A hundred cubic feet of methane diluted before ignition will blow the roof off a house, killing everyone inside.

The fact is that 3,858 cubic feet of methane is equal to 1 Ton of TNT. The below picture is 100 Tons of TNT (= 285,800 cf methane) exploding. Note the devastating shock wave.



Aliso Canyon holds 168,000,000,000 cubic feet of methane (587,823 times larger than above explosion). Aliso has several earthquake faults running through it and is prone to accidents because its piping dates back 70 years far exceeding the intended use and expected life span; this is a mixture leading to disaster. Countless other possibilities exist as to what could rupture the facility ranging from human error, terrorists, or an unfortunate plane crash because it is near the flight pattern of local airports. Aliso has no Safety Valves, thus no “off switch” in case of catastrophic accident, nor any emergency contingency plan. Although unlikely, it is possible for a full and sudden release since the reserve is pressured at over 3,500 PSI. The October 2015 blowout was comparatively minor, at low pressure, and only one well partly faulted, yet could not be stopped for 4 months. Several well heads being sheared off simultaneously could not be stopped before an explosive cloud of methane hovered over the city.

A catastrophe full release of all 168 Billion cubic feet of methane would dilute to a 500 square mile cloud of explosive gas 12 stories high with a TNT Tonnage equivalent to 2,824 times the power of the bomb (AKA “Little Boy”) that dropped on Hiroshima. Even if it is argued that only 1% of the facility would be released, that would still be 28 times the power of an Atom bomb over an urban area.

Benefit must be weighed against Risk. In this case it is highly debatable if any of reserve in Aliso is required to protect against an inconveniencing rolling black out. Aliso hold the equivalent of 42,363,619 Tons of TNT. Is any risk to life worth the benefit? The person who approves the unreasonably dangerous use of Aliso Canyon is risking the legacy as single handily killing more people than anyone else in history.

Paul Hunt
Porter Ranch

February 3, 2017

My name is Richard Guy, a long-time resident of Sherman Oaks, and a supporter of the Aliso Canyon Gas field's importance to Los Angeles—yet also one who is concerned about its seismic safety.

After reading through a number of publicly available scientific geotechnical studies about the Aliso Canyon oil and gas field operations over the past 80 years—some by SoCal Gas consultants, others by academics, yet others by CGS and USGS—I have been struck by the **absence** of affirmative statements along the following lines:

“Our team has studied the drilling, operation, maintenance, and plugging records of well number X in this field, as provided by the operating firm(s). The records appear to be complete in all respects from today's date back to the well's origin in 19xx, and in particular, appear to be complete in the 12-month periods preceding and following every seismic event of any magnitude in USGS seismic event catalogs with an epicenter within 20 miles of the field. The well records show no indication of any well shear, unexpected change in well behavior or pressure not attributable to normal operation, or interwell communication in the field, either preceding or following any such events.”

or,

“SoCal Gas testifies under penalty of perjury that the provided records are complete in all respects, and that no well shear or interwell communication has been observed in this field by its employees, consultants, contractors, partner firms, government investigators, or outside researchers, since 1938.”

or,

“Should well shear occur on any known active or inactive fault that currently intrudes on the field, suitably placed safety devices will ensure that no leaking results.”

While limited statements regarding the absence of well shear were made following the 1971 San Fernando event, no such statements seem to exist for the 1994 Northridge event.

Without such assurances, the continued safety of this field remains in question.

I strongly encourage CGS and DOGGR to obtain all such records from SoCal Gas and the other firms operating (now or in the past) at Aliso Canyon, verify their apparent completeness and accuracy, and assess the records for indications of well shear or other indications of seismic impact on the field, especially in the context of the 1994 event.

Sincerely,
Richard Guy

████████████████████
Sherman Oaks, CA 91423
████████████████████



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Union Pacific

February 3, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA 95814

RE: Comments on the re-opening of the Aliso Canyon Natural Gas Storage Facility

On behalf of the San Gabriel Valley Economic Partnership, I submit these comments in support of re-opening Aliso Canyon in a safe and expeditious manner. The Partnership is a regional business organization in eastern Los Angeles County dedicated to advancing the economic vitality and quality of life of the San Gabriel Valley.

Natural gas is the backbone of electricity generation for southern California, home to 27 million people. At the heart of that natural gas system is the Aliso Canyon storage facility which is essential to storing gas for use throughout the region. No other storage facility compares with the capacity available at Aliso Canyon. In the wake of a serious gas leak, the Southern California Gas Company has completed a rigorous, thorough and sound inspection of all wells at the site and other key structures at the facility, taking months to replace old equipment and install new infrastructure. Southern California Gas Company has done all that it can to remedy this serious situation and worked tirelessly with state regulatory agencies to ensure that such a leak will not occur again.

Opponents want Aliso Canyon to be permanently closed. Such a decision carries grave consequences for all of southern California. State regulatory agencies such as the Independent System Operator have expressed concerns that the permanent loss of Aliso Canyon may jeopardize electricity generation and leave the region with a precariously limited supply of natural gas in the immediate geographic vicinity. Having an at-hand reserve of natural gas is critical during peak-demand for electricity during the hot summer months. A loss of electricity would also jeopardize the the production schedules for hundreds of thousands of businesses throughout southern California. Without power, assembly lines shut down, computer data can be lost, businesses must close and thousands of employees can be furloughed.

We fully support rigorous inspection and safety measures at Aliso Canyon and believe an expeditious return to its full operating capacity should be a top priority for California regulatory agencies. We believe it is time to re-open Aliso Canyon.

Sincerely,

Jeff Allred
President & CEO



SANTA BARBARA COUNTY TAXPAYERS ASSOCIATION

Promoting lower taxes since 1956!

Thursday, January 26, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
State of California
801K Street, MS 24-02
Sacramento, CA 95814

RE: Support Restoration of Aliso Canyon

Dear Department of Conservation:

The Santa Barbara County Taxpayers Association (SBCTA) supports restoration of the Aliso Canyon Storage Facility as Southern California Gas Company is satisfying the requirements of SB 380.

There could be energy disruption to southern California customers, both residential and businesses, without adequate natural gas storage and this could cause hardship to taxpayers and loss of jobs/revenue to small businesses.

Natural gas storage is also essential in keeping the cost of gas affordable and rates low. Storing natural gas is a way to balance the higher priced winter gas with the lower summer gas price, so customers/taxpayers benefit by a balanced or modifies rate.

Thank you for considering our concerns on this matter.

Sincerely,

Joe Armendariz
Executive Director



Santa Barbara Technology and Industry Association

January 31, 2017

Mr. Tim Shular
Government and Environmental Relations
Aliso Canyon Comprehensive Safety Review
Department of Conservation State of California
801 K Street, MS 24-02, Sacramento, CA 95814

RE: Renewable Natural Gas and Aliso Canyon

Dear Mr. Shular:

The Santa Barbara Technology and Industry Association (SBTIA) supports the new technology of obtaining renewable natural gas from dairies and other agriculture sources, wastewater/sewer treatment plants, landfill/dumps and other sustainable sources where natural gas is produced indigenously.

Renewable Natural Gas not only helps California obtain clean air goals; it can assist in meeting California's ever growing demand for power and energy.

However, Renewable Natural Gas must be stored in facilities like Aliso Canyon and other underground storage fields, so customers can have access to this resource during peaks of high usage.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Armendariz". The signature is stylized with a large loop and a long horizontal stroke extending to the right.

Joe Armendariz
Executive Director



Save Porter Ranch

** Porter Ranch, CA 91326 * 818*

Save Porter Ranch is a 501 (c) (3) Non Profit California Corporation
EIN # 47-5311796

February 6, 2017

To: The Department of Conservation, Department of Oil, Gas, and Geothermal Resources

To: The California Public Utilities Commission

Re: The Southern California Gas Co.'s application to begin injection of gas at their Aliso Canyon gas storage facility.

OUR PUBLIC COMMENT REGARDING YOU CONSIDERING ALLOWING THE FACILITY TO CONTINUE REINJECTION

Save Porter Ranch, est. 2014, represents a few thousand PR area residents. We are COMPLETELY OPPOSED to the Facility being allowed to inject gas, on the following grounds:

1. People are *still* getting sick with symptoms they attribute directly to the SoCalGas Aliso Canyon facility.
2. You are not in compliance with CA State Law, Senate Bill 380.
3. Independent sources and CA State reporting show continued emissions from the facility.
4. Earthquake risks are too great and have not been assessed.

CURRENT AND ONGOING HEALTH PROBLEMS IN PORTER RANCH ATTRIBUTED TO THE SO CAL GAS FACILITY

Despite what SoCalGas, the AQMD and other agencies say about the air testing

being "normal", I provide here a small part of the rest of the story. The story of what is actually happening to the people because of that facility. Happening since SoCalGas applied to reinject. No health agency, public or private, nor DOGGR or the CPUC has done any kind of health investigation save for the Los Angeles County Department of Public Health (DPH) "CASPER" study in April 2016 which showed that 62% of the people in the area still suffered ongoing symptoms after the blowout was stopped. That's where all health investigation ended.

A local private doctor, Dr. Jeffery Nordella did, just today February 6, 2017, release preliminary findings on his study of area residents. He said he's seeing abnormal pulmonary functions among some of those patients, and low red blood cell counts in others. He's reviewed the files of residents whose family members died and said he's seen a rare case of anemia that can be connected to toxic exposure. He believes it's also important to understand the health impacts the leak had on residents before natural gas is allowed to inject gas.

Link to his news release:

<http://www.dailynews.com/health/20170205/la-doctor-sounds-alarm-over-effects-of-aliso-canyon-gas-leak>

Your representatives were at the February 1st and 2nd hearings in Woodland Hills and had better be familiar with that public comment regarding the health of nearby residents that is now on record.

Clearly you would be guilty of dereliction of duty, your mission statement and SB 380 by not addressing the health issues.

Attached are some Facebook "screenshots", threads, of many residents telling of their many health problems they attribute to the facility. I only have 1 thread here. I could provide hundreds of these conversations. The identifying information of the people has been removed as this is a "closed" (private) Facebook group and I don't have all participants' permission to use it. Those that I do have are visible.

This is all AFTER Nov 1, 2016 when SoCalGas applied to reopen their facility! I'll let those conversations speak for themselves. Please read them.

YOU CURRENTLY HAVE NOT FULFILLED SENATE BILL 380 REQUIREMENTS:

You have completely ignored health and safety. California legislation, Senate Bill 380, that you are familiar with states:

“The supervisor shall continue the prohibition....until...the supervisor determines that well integrity has been insured.....,and the supervisors duty to prevent damage to life, health, property, and natural resources, ... is satisfied.”

You have completely ignored health in your so-called “safety review”. There is no health investigation, information, or consideration. The word “health” does not even appear in any of the documents.

Then there is **this** document, commissioned by SoCalGas, posted on the DOC website as support for your “safety review”, entitled:

Estimated Geomechanical Properties for the Aliso Canyon Gas Storage Field

It is rendered meaningless as well as deceptive and possibly criminal (by it’s very inclusion or use) by it’s own disclaimer which states:

LEGAL NOTICE: This report was prepared by GeoMechanics Technologies as an account of work sponsored by Southern California Gas Company. Neither GeoMechanics Technologies, members of GeoMechanics Technologies, nor any person acting on behalf of GeoMechanics Technologies:

1. Makes any warranty or representation, express or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any apparatus, method, or process disclosed in this report may not infringe privately owned rights; or
2. Assumes any liability with respect to the use of, or for damages resulting from the use of, any information, apparatus, method, or process disclosed in this report.

Using anything from this document or any reference to it as part of your

findings is abdication of your duty and knowing intentional disregard for human life and health. That may also be considered criminal on your part.

Your November 1st, 2016 letter to SoCalGas states:

“Before any reinjection can occur, the Division must confirm through inspection that SCG and the Aliso Canyon facility are in compliance with all the conditions set forth in [Senate Bill 380](#); “

...making it clear that you know you must comply with SB 380. You are NOT in compliance.

FENCELINE COMMUNITY AIR MONITORING

Attached are some images of our "Fenceline" methane monitor system display / graph. Fenceline is a real-time measuring system, which plots a point on that graph every 5 minutes but gathers much more data than shown here. These images are all AFTER November 1, 2016 when SoCalGas applied to begin re-injection, except for one. I can provide scores of these showing spikes and elevated levels since November 1st.

Some of the graphs cover the period of Dec 7 through Dec 14 when we counted 48 unique health complaints on our social media network.

Our current system only covers an area the length of a single backyard...around 40 ft., of the 3600-acre facility

The wind information is removed as it only shows the farthest right end of the graph and is misleading in this context.

The saved data from this system shows that the levels are high predominately when the wind is from the direction of the facility: North, Northwest, Northeast, etc. The bottom plot shows the time and date of the reading. It is a rolling 24-hour readout. Some of the graphs show a bubble with the wind direction. Normal levels of background methane are the red line, as seen on the first graph. We RARELY see this flat line!

Some graphs show normal with various spikes or long term elevated levels.

On December 10-13 as mentioned above, you will see that the levels are elevated and for a long period of time. And that is when the many health symptoms from above were reported.

As you know, Methane never travels alone. It carries: Benzene (carcinogen), Toluene, Xylene and a host of other chemicals and compounds known to be

harmful in many ways to humans.

ONGOING EMISSIONS, ONGOING DANGERS

Included are 4 different recent spill / emission release reports as examples. These are only the few that were actually discovered and reported on that 3600-acre facility:

9/12/16 leak due to corrosion from above-ground pipeline equipment: Shortly thereafter on 10/26 CPUC safety and enforcement division ordered SoCal to conduct the corrosion assessment of the facility. There are how many miles? 100s, 1000s ? of pipes and equipment that are not part of your "safety review".

11/21/16 Bromine Trichloride / workers evacuated

12/24/16 methane leak detected. Blamed on off-gassing, rain, 11 months later. STILL OFF-GASSING!

From SoCalGas:

"We believe this is a continuation of off-gassing from the soil that has previously been observed at other locations at the site."

Yet we don't know where or how much off-gassing was occurring at these unspecified locations.

1/05/17 Diesel spill / blamed on third party contractor. May have gone straight into a storm drain and the creek that runs through Porter Ranch.

10/18/16: 28-acre brushfire started on SoCalGas property because the place is in partial operation.

1/24/17: SoCalGas claims to have used gas from Aliso Canyon due to demand and per CPUC regulations. On 1/23 and the morning of 1/24 dozens of residents reported smelling gas again! The LA County Department of Public Health had many reports of new symptoms that day and the AQMD had around 30 complaints of the smell of gas (mercaptan) at their homes. Across a wide area of Porter Ranch! The reports started coming in before it was announced that Aliso was being used again.

UNKNOWN EARTHQUAKE RISK

Attached is a report from Dr Matthew d'Alessio from Cal State University Northridge. Read it.

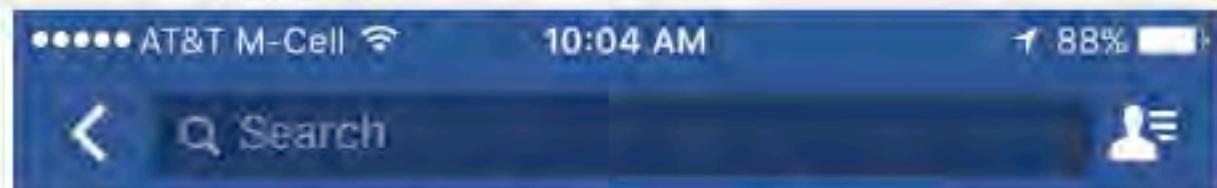
CONCLUSION

You are not in compliance with SB 380 and cannot allow it to reopen without violating state law. There is overwhelming evidence showing that you are not in compliance with and overwhelming evidence that methane (which includes other toxic substances) is still being emitted by the SoCalGas facility.

Do not allow that facility to begin reinjection.

A handwritten signature in black ink, appearing to read 'Matt Pakucko', with a long horizontal line extending to the right.

Matt Pakucko
President and CoFounder
Save Porter Ranch
10-Year Porter Ranch Resident



Jacki Swift ▶ **Porter Ranch Gas Leak**

Yesterday at 7:40 PM - 🌐

Something for the DPH to think about. (Are they even around anymore?)

After suffering too long, we had to move out of our PR home of 20 years. ...Moving away is the only way we have had any relief from our constant symptoms. (Keep that in mind everyone)

We had all of our belongings in a pod for a month...when we went inside that pod, we all got our symptoms again, just like PR...

Slowly, after serious cleaning again, our symptoms went away. However, we just had a visit from someone from PR, and guess what, ...yep, we got symptoms again.... ...Attention DPH...this stuff remains on everything, boxes, clothes, furniture...sidewalks, Everything!!

This has been such a nightmare and it never seems to get any better.

Plus, if I can react to opening a box months after relocating, what is the fate for all of you who are still there.

Mandi Bane?

#Porterranchrash #Alisocanyonrash





Search



Mandi Bane?

#Porterranchrash #Alisocanyonrash



Like

Comment

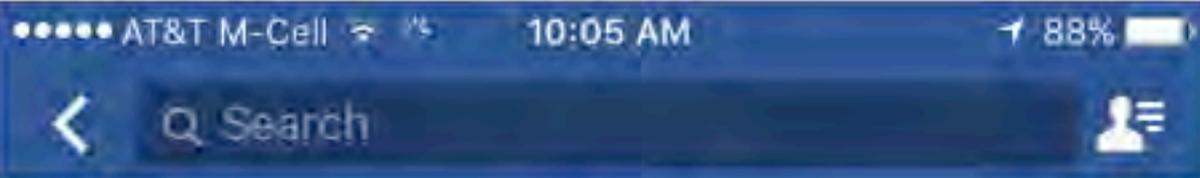
and 20 others



Write a comment...



Post



 **V [redacted]** and 20 others



Jacki Swift

Unbelievable!! Now you've made me wonder if my family has been really sick again from the most recent leak (even though we're in Glendale now) or now I'm questioning if it's because we've been wearing a few of our winter jackets we recently picked up from the house. This is terrifying to me **Jacki**, but thank you for sharing. I'm convinced we can't bring anything at all when we do finally get our own home again. So scary, what on earth have we been exposed to?!!

Yesterday at 7:50 PM · Like ·  1 · Reply



Jacki Swift

It's probably the clothes. This is just never ending.

Yesterday at 7:55 PM · Like · Reply



Jacki Swift

Plus, all of us are hypersensitive now to metals and certain chemicals. The doctors don't know if it's a temporary sensitivity or a lifetime one? No one knows anything ..we are in uncharted territory, and basically on our own. Thank goodness for SPR or this would all just be swept under the rug.

Yesterday at 7:58 PM · Edited · Like ·  2 · Reply



Search



just be swept under the rug.

Yesterday at 7:58 PM · Edited · Like · 2 · Reply



J. S.

Probably right, I've washed everything after picking it up from our house, except the jackets. I couldn't believe my daughter's nose began bleeding today, and mine is swollen & burning, ugh - now I think we have to go buy new jackets and we're so financially strapped. Yes, so thankful for SPR, I can't wait until I can send them a donation for my appreciation.

Yesterday at 8:22 PM · Like · 1 · Reply



Write a reply...



M. A.

Just opening a box today even if I don't go through d items in it I get so itchy plus muscle spasms and light migraine if I go through d items my symptoms gets so much worse. I really hate it! I moved to NC but I took 1/2 of our stuff coz we can't afford to buy everything new. I did almost a 100 load d 1st week and was sick handling clothes so I had to laundry it all. Stuff b4 I packed mind u I cleaned & wiped it all b4 putting in d box. When we unpacked I had to clean all over but was sick. I still have other boxes we haven't opened or cleaned like



Write a comment...



Post



Search



other boxes we haven't opened or cleaned like tons of extra cmas decors etc... I have relief when I don't handle those but there's times I have to double check or find something so I do. Symptoms all over when that happens...

Yesterday at 8:21 PM · Edited · Like · 1 · Reply

**Jacki Swift**

I wish I could have just left everything behind. We even had to throw away our very expensive vacuum because each time I used it in got severe nasal pain and a headache (and we had thoroughly cleaned it)

Yesterday at 8:44 PM · Like · Reply

**J S**

My gosh, so basically like I had to do when we were exposed toxic molds long ago, we left everything we owned in the house and then had it demolished. Good to know about the vacuum, I was wondering if we could keep ours because I had invested in a really good one too, now I definitely won't.

Yesterday at 9:25 PM · Like · Reply

**V**

That's amazing you pre washed and still it was not enough. I wash everything now, bag in clean bags, and label and close up. I can't find anything, it's a mess, but I'm



Write a comment...



Post



Q Search



I can't find anything, it's a mess, but I'm hoping it has helped a bit. If I have not used something in a while, it goes straight into the washer, then packed up. Too bad we can't all be in a community together, from here. We all understand. My friends and family are all over the US, I can't afford a big move nor to rent in CA. It's so sad for everyone.....

9 hours ago · Like ·  1 · Reply

Write a reply...



V... D...

Jacki Swift the same thing happened to us. It took us 3-4 months to clean everything. 80 loads of laundry washing everything 2-3 times. We used cleansing hematite gemstone rocks, air filters, we were diffusing frankincense n Idaho balsam fir and used plants to kill the chemicals about 10 ferns. N we are continuing to use those until now.

Yesterday at 8:33 PM · Like ·  2 · Reply

M... R...

My husband and my 5 year old daughter has the same rashes

Yesterday at 9:26 PM · Like · Reply



M... R...



Write a comment...



Post



Search



the same rashes

Yesterday at 9:26 PM · Like · Reply



M. R.

My 5 year old daughter getting rashes all over again.



Yesterday at 9:27 PM · Like · Reply



J. S.

Oh no, so sorry to see this.

Yesterday at 9:30 PM · Like · Reply



N. F.

I just got this rash last week but am now just realizing what it is.

Yesterday at 9:53 PM · Like · Reply



Jacki Swift

So many people with this rash. I'm so sorry.

9 hours ago · Like · Reply



Search



Jacki Swift

So many people with this rash. I'm so sorry.

9 hours ago · Like · Reply



Write a reply...



J S

My husband's rash was on his lower abdomen, it was the ugliest rash I've ever seen and left scars.

Yesterday at 9:28 PM · Like · Reply



N N

Where did you move to?

Yesterday at 9:47 PM · Like · Reply

[View 1 previous reply...](#)



M R

How is it there in Idaho?!? Better than California?!

8 hours ago · Like · Reply



Jacki Swift

It's nice, the air is clean. No fracking or storage wells near us, but I never intended to do this. I never thought I'd have to leave. Our family is separated, our financial situation is terrible because my husband's business was local to Los



Search



Jacki Swift

Out of state. Idaho

10 hours ago · Edited · Like · Reply



M. R.

How is it there in Idaho?!? Better than California?!

8 hours ago · Like · Reply



Jacki Swift

It's nice, the air is clean. No fracking or storage wells near us, but I never intended to do this. I never thought I'd have to leave. Our family is separated, our financial situation is terrible because my husbands business was local to Los Angeles. One of my daughters worked in the entertainment industry, so that job doesn't exist here. ...

Whine Whine..but it is really beautiful, I definitely have to say that.

3 hours ago · Unlike · 1 · Reply



N.

Wow! I hope the transition goes smoothly as possible. If you have a lawsuit, keep records of all this! Financial strain, loss of income, moving expenses! Thank God you have no symptoms now.

2 hours ago · Edited · Like · 1 · Reply



Write a reply...



Search



3 hours ago · Unlike · Reply



N. [redacted]

Wow! I hope the transition goes smoothly as possible. If you have a lawsuit, keep records of all this! Financial strain, loss of income, moving expenses! Thank God you have no symptoms now.

2 hours ago · Edited · Like · 1 · Reply



Write a reply...



Matt Pakucko

Here is just another morning at my house in Porter Ranch. Like countless mornings. Well actually she is counting.. and logging ...and reporting every one.

<https://admin.publichealth.lacounty.gov/phcommon/complaints/phcomp.cfm>



Just now · Like · Reply



Write a comment...



Post



Search



Merry Christmas to us 🙄

Yesterday at 12:07 AM · Like · 1 · Reply



J L

My daughter had a bloody nose so bad, all over her sheets like a crime scene, and my nieces who are visiting and staying with us also had one the same day as off gassing is reported. 😞



Yesterday at 5:11 PM · Like · Reply



L W

Horrible just horrible and today I'm soooo nauseous all day too.

Yesterday at 5:28 PM · Like · 1 · Reply



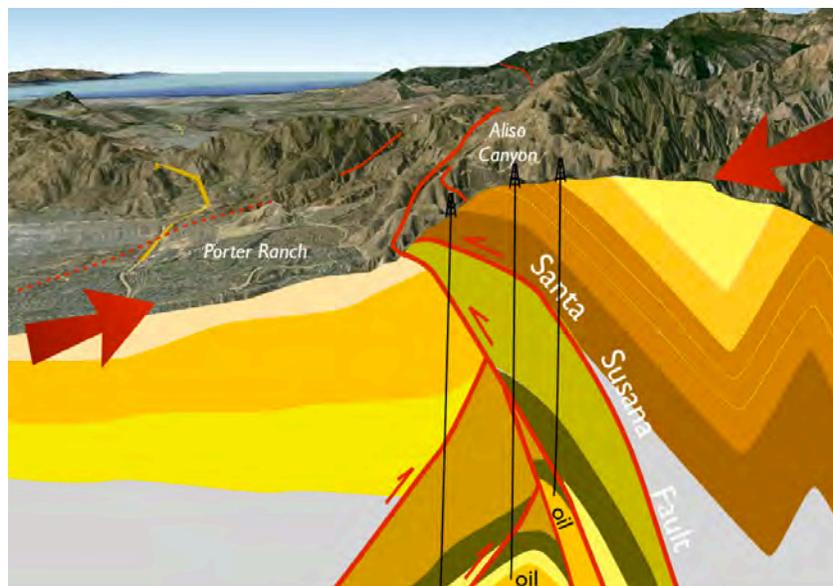
Beth G

August 11, 2016

Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814
RE: Discussion Draft Underground Gas Storage Regulations

Background

The Aliso Canyon gas storage facility is located directly above the Santa Susana fault and associated structures. The state recognizes this fault as active and has designated an Alquist-Priolo special study zone around the fault. The state maps have a note that the precise surface expression has not been officially investigated in the area of Aliso Canyon. However, we can see evidence of numerous subsurface fault crossings in the mud logs of the oil and gas wells drilled at Aliso Canyon. The wells cross the north strand of the Santa Susana fault around 1000 feet, the southern strand around 2500 feet, the Frew fault around 4500 feet, and various other unnamed structures at depth. These faults appear on geologic cross sections specifically because we know of their existence from where the oil and gas wells crossed them. If these wells were structures built at the surface, the state would mandate a special study and specific mitigation measures.



Geologic cross section through the Santa Susana mountains by Diblee (1992)¹ overlain on a Google Earth perspective view.

¹ <http://www.dtsc-sf.com/files/maps/Geologic%20Map%20of%20Oat%20Mountain%20and%20Canoga%20Park%20-%20North%20Half.pdf>

According to the Uniform California Earthquake Rupture Forecast (UCERF3) developed by the USGS², the Santa Susana fault is capable of producing a M7 earthquake, and we know that the eastern section of the fault ruptured in 1971, terminating just east of the Aliso Canyon field. We have no information about the last rupture of the section beneath Aliso Canyon. Based on standard models³, the average slip along the fault will be close to 3 feet in the next large earthquake and could easily be twice that at certain locations.

How does a 7” wide gas well handle being sheared by 6 feet? We don’t have a lot of examples, but in 1949, 200 wells in the Wilmington oil field were damaged when a fault slipped less than one foot and tore the casing apart. In 1983, 14 wells failed by casing collapse or shearing due to shaking in the Coalinga earthquake even though they were not in the immediate epicentral area. And in 1961, an earthquake as tiny as M3.5 damaged 150 wells in Wilmington. While modern casing is improved, even fields like Belridge have experienced 3-6% casing failure from subsidence-induced shearing in the 21st century. There are probably only a dozen cases like this in southern California in the last 80 years (see table below) despite thousands of earthquakes, so the risk is small but it is very real.

Comments on Suggested Rules

[1726.3(a)(2)]

When the casing is sheared off at depth, safety valves located at the surface are useless — the leak is somewhere down the hole. In such cases, only a subsurface safety valve would be of any use. However, the proposed DOGGR regulations require a subsurface OR surface safety valve [1726.3(a)(2)]. Basically, all of California is seismically active and I think **the public interest is best protected by mandating subsurface safety valves at all gas storage facilities.**

The proposed rules also seem to ignore the global implications of methane leaks. While a leak near a home obviously causes a direct and immediate life safety concern, ALL methane leaks have major implications for climate. As a result, safety valves should not be optional or “as appropriate” based upon certain risk factors.

Remove: “as appropriate” and the list of possible conditions.

Add: “Subsurface safety valves are mandatory in all California storage facilities.”

² USGS Open File Report 2013-1165. <https://pubs.usgs.gov/of/2013/1165/pdf/ofr2013-1165.pdf>

³ Wells & Coppersmith, 1994

[1726.8(a)]

The proposed rules also allow 90 days for an operator to fix a faulty subsurface safety valve [1726.8(a)]. An earthquake could happen at any time, so a subsurface safety valve's failure should be treated seriously, just like failing the casing wall thickness inspection [1726.6(a)(2)].

Safety valve failures should require the suspension of injection and withdrawal and immediate remediation.

Remove: "Within 90 days of finding that a surface or subsurface safety valve is inoperable, the operator shall either repair the safety valve or temporarily plug the well. An appropriate alternative timeframe for testing a valve or addressing an inoperable surface or subsurface safety valve may be approved by the Division."

Replace with: "If a surface or subsurface safety valve is inoperable, then the safety valve should be repaired and the associated wells and shall not be used for injection or withdrawal without subsequent approval from the Division."

[1726.9(b)]

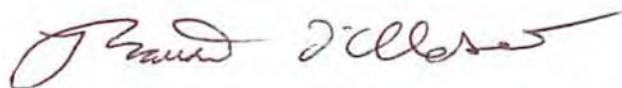
Given that there are examples where earthquakes caused simultaneous well failures, perhaps Emergency Response plans should explicitly discuss catastrophic failure of multiple wells simultaneously. Having an explicit plan for triage and prioritizing repairs could significantly minimize the chaos in such an extreme event.

Add: "(9) Catastrophic failures on multiple wells simultaneously."

Previous Earthquake-induced Damage to Oil and Gas Wells in Southern California

Year	EQ Mag	Oil Field	Damage	Source
1941	4.9	Dominguez	15 Wells Damaged	4
1944	4.5	Rosecrans	16 wells found damaged by subsurface movement	5
1949	4.4	Wilmington	200 wells went out of production, many permanently closed. Large lateral displacements of about 20 cm at ~500m depth.	6
1952	7.5	Tejon Ranch	6 wells had tubing that couldn't be pulled and had to be re-drilled next to them. 1 Well at South Coles Levee collapsed	7
1961	3.5	Wilmington	~150 wells failed, and another 35 damaged	8
1963	3.4	Inglewood	Three wells damaged	9
1971	6.7	San Fernando	"A few wells" reported minor damage	10
1983	6.2	Coalinga	14 wells failed by casing collapse	11

Thank you for your consideration,



Matthew d'Alessio
Associate Professor, Department of Geological Sciences

⁴ USGS Professional Paper 0679 (1969), p. 64; Bravinder (1942)

<http://pubs.usgs.gov/pp/0679/report.pdf>

⁵ USGS Professional Paper 0679 (1969), p. 64; Martner (1948)

<http://pubs.usgs.gov/pp/0679/report.pdf>

⁶ Kovach, 1974, <http://www.bssaonline.org/content/64/3-1/699.full.pdf+html>; Nicholson and Wesson (1992), p. 572, <http://earthquake.usgs.gov/research/induced/pdf/Nicholson-Wesson-1992-Pure-and-Applied-Geophysics.pdf>

⁷ <http://www.bssaonline.org/content/44/2B/201.full.pdf+html>

⁸ Dusseault, M. B., Bruno, M. S., & Barrera, J. (1998). Casing shear: causes, cases, cures. In *SPE International Oil and Gas Conference and Exhibition in China*. Society of Petroleum Engineers. <http://www.geomechanicstechnologies.com/article/spe72060.pdf>

⁹ USGS Professional Paper 0679 (1969), p. 65; Hudson and Scott (1965),

<http://pubs.usgs.gov/pp/0679/report.pdf>

¹⁰ USGS Professional Paper 0733, p. 118. <http://pubs.usgs.gov/pp/0733/report.pdf>

¹¹ USGS Professional Paper 1487, p. 400 <http://pubs.usgs.gov/pp/1487/report.pdf>

Message Board

11/19/2016 21:22 - The community air monitoring system that detects methane gas is back on-line. We would like to thank the Parris law firm for making this possible by sponsoring this website.

Real-Time Air Monitoring Data

Methane 2.3 PPM

Weather Conditions

Wind Direction 0270 (MINIMUM)

Wind Speed 2.0 MPH

Temperature 48.0

Humidity 70

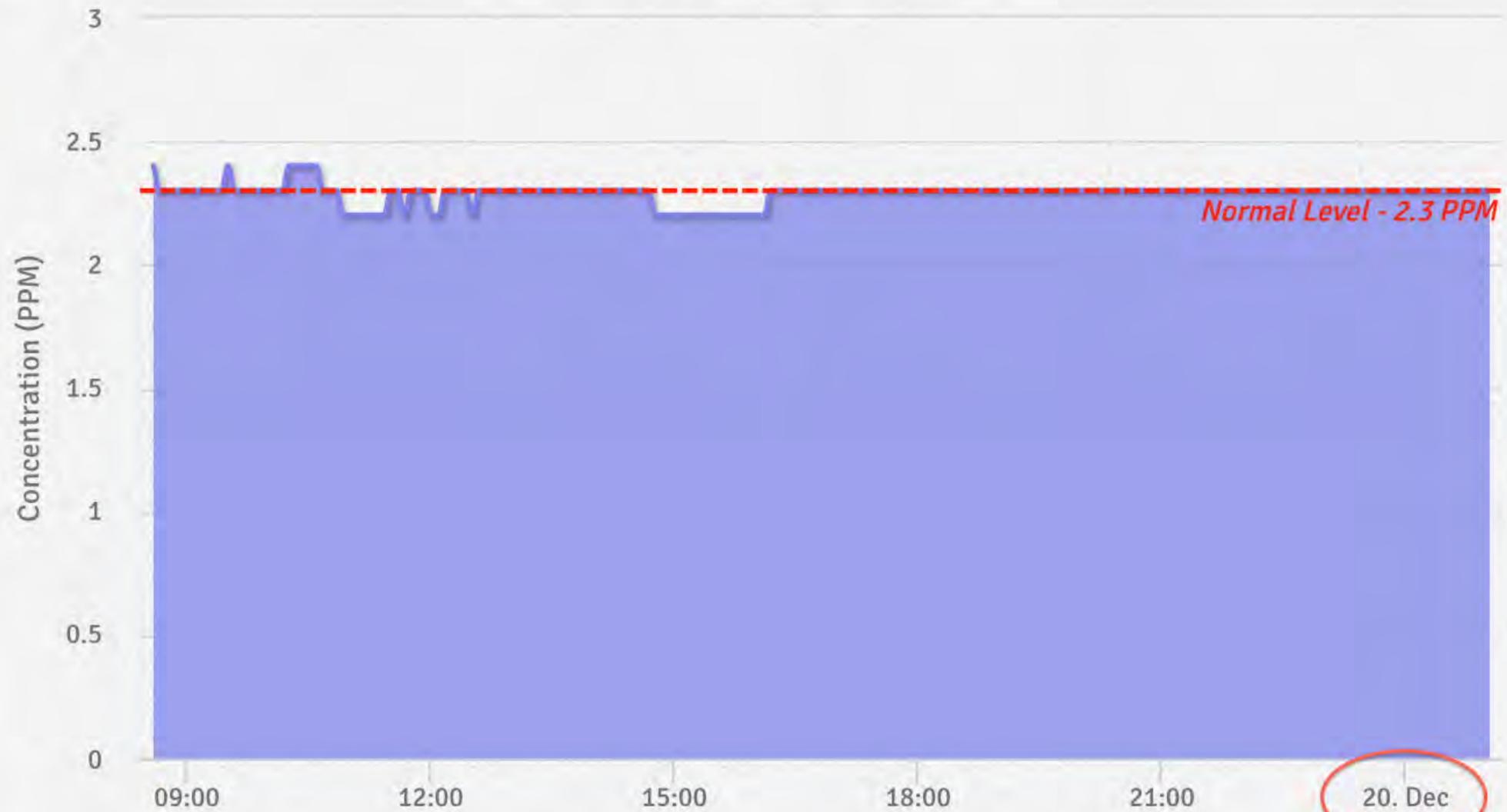
Subscribe to Alert Notification List

First Name:

Last Name:

Email:

24-Hour Plot for Methane



[Redacted]

Real-Time Air Monitoring Data

Methane	2.5 PPM
Benzene Air District Site #5	Offline
Benzene Air District Site #7	Offline

Weather Conditions

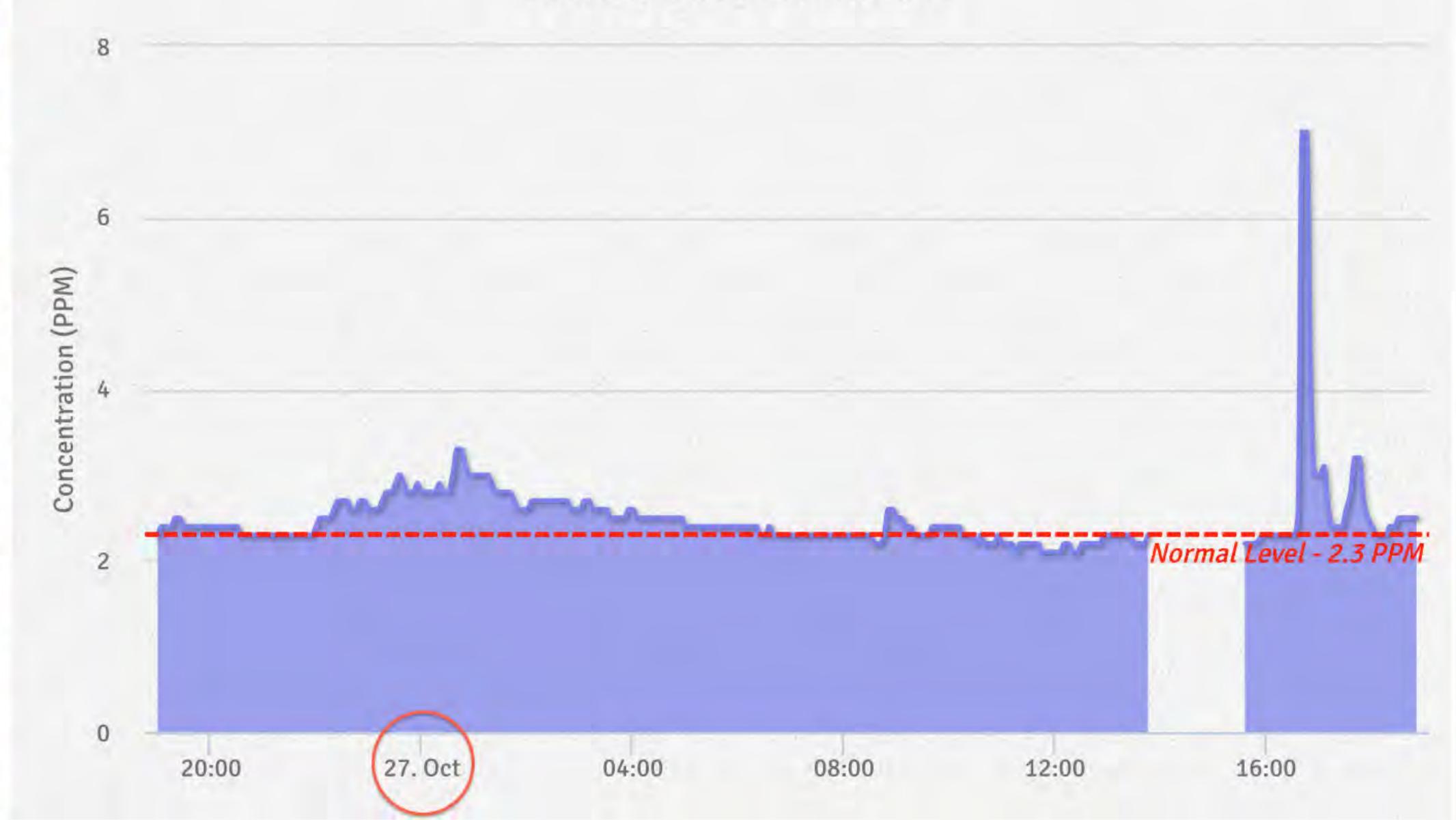
[Redacted]

Subscribe to Alert Notification List

First Name:	<input type="text"/>
Last Name:	<input type="text"/>
Email:	<input type="text"/>

Submit

24-Hour Plot for Methane



This website presents real-time air monitoring data at the fence line between the Aliso Canyon gas storage facility and the community of Porter Ranch. The systems are currently setup to monitor for

Message Board

11/19/2016 21:22 - The community air monitoring system that detects methane gas is back on-line. We would like to thank the Parris law firm for making this possible by sponsoring this website.

Real-Time Air Monitoring Data

Methane **2.4 PPM**

Weather Conditions

Wind Direction	
Wind Speed	
Temperature	
Humidity	

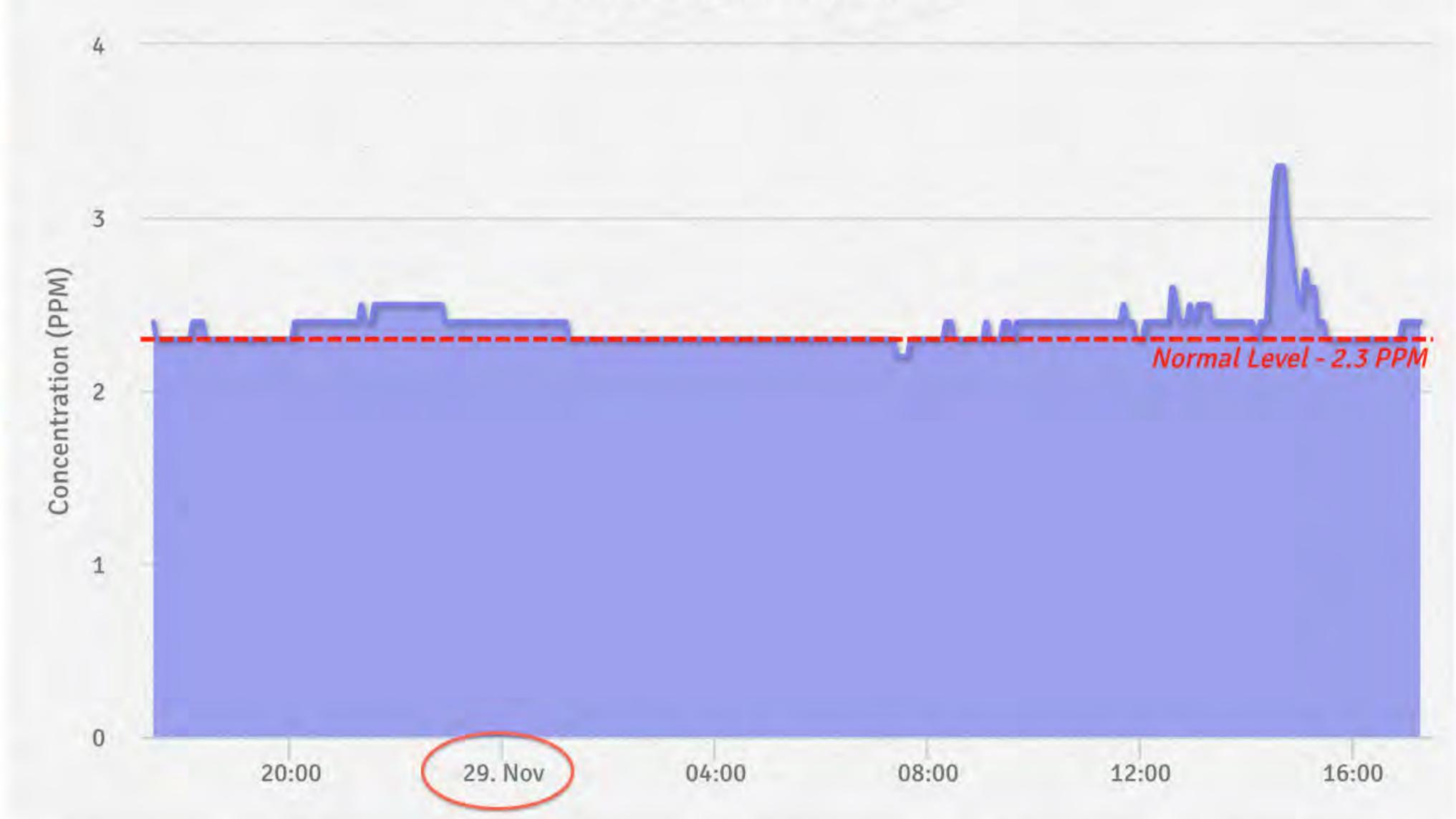
Subscribe to Alert Notification List

First Name:

Last Name:

Email:

24-Hour Plot for Methane



Message Board

11/19/2016 21:22 - The community air monitoring system that detects methane gas is back on-line. We would like to thank the Parris law firm for making this possible by sponsoring this website.

Real-Time Air Monitoring Data

Methane **2.6 PPM**

Weather Conditions

~~Wind Direction~~ ~~157° (SE)~~

~~Wind Speed~~ ~~8 MPH~~

~~Temperature~~ ~~66°~~

~~Humidity~~ ~~30%~~

Subscribe to Alert Notification List

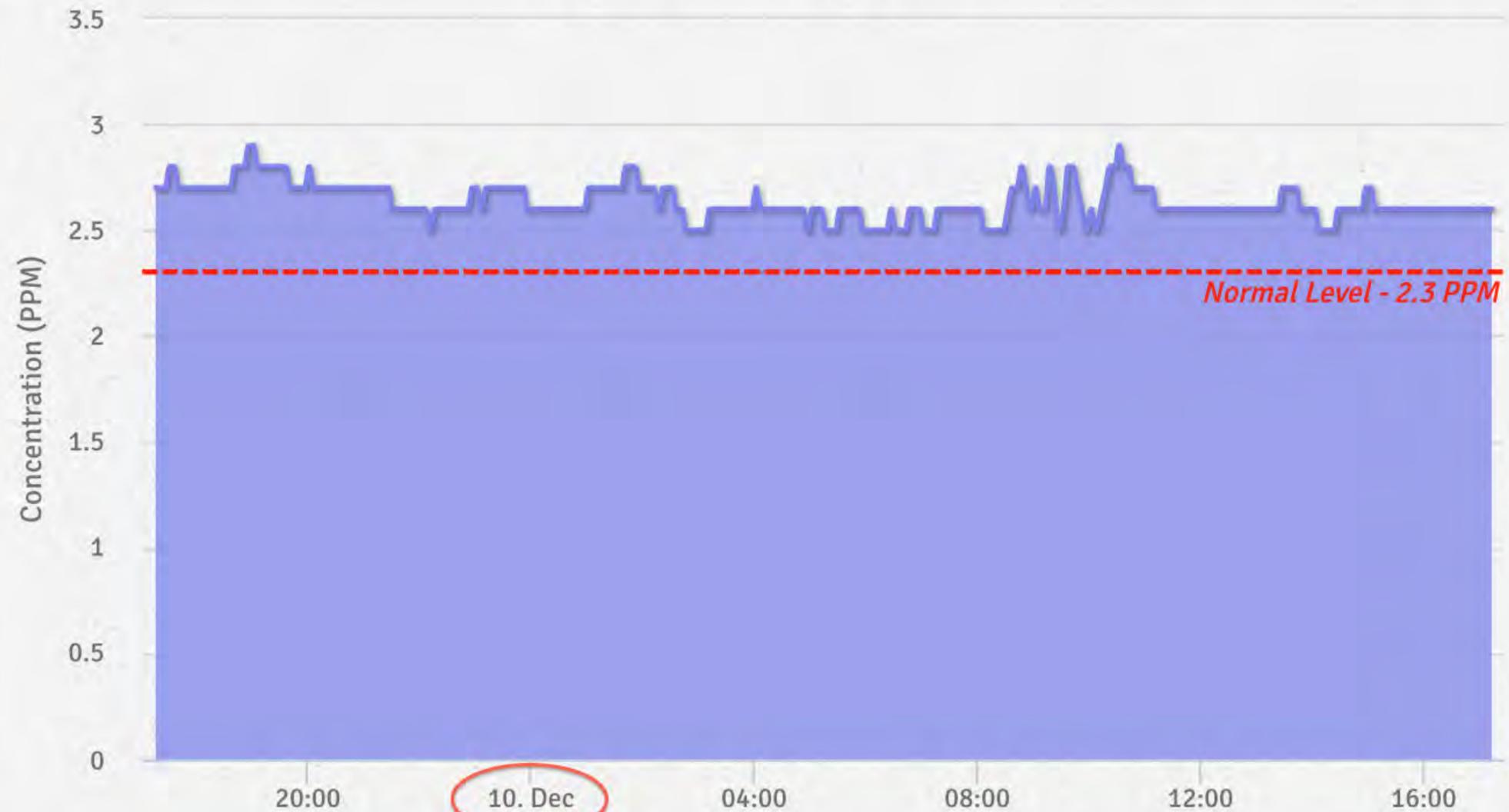
First Name:

Last Name:

Email:

Submit

24-Hour Plot for Methane





fenceline.org/porter/data.php

34



Real-Time Air Monitoring Data

Methane 2.7 PPM

Weather Conditions

Wind Direction 112° (ESE)

Wind Speed 4.2 MPH

Temperature 55°F

Humidity 55%

Subscribe to Alert Notification List

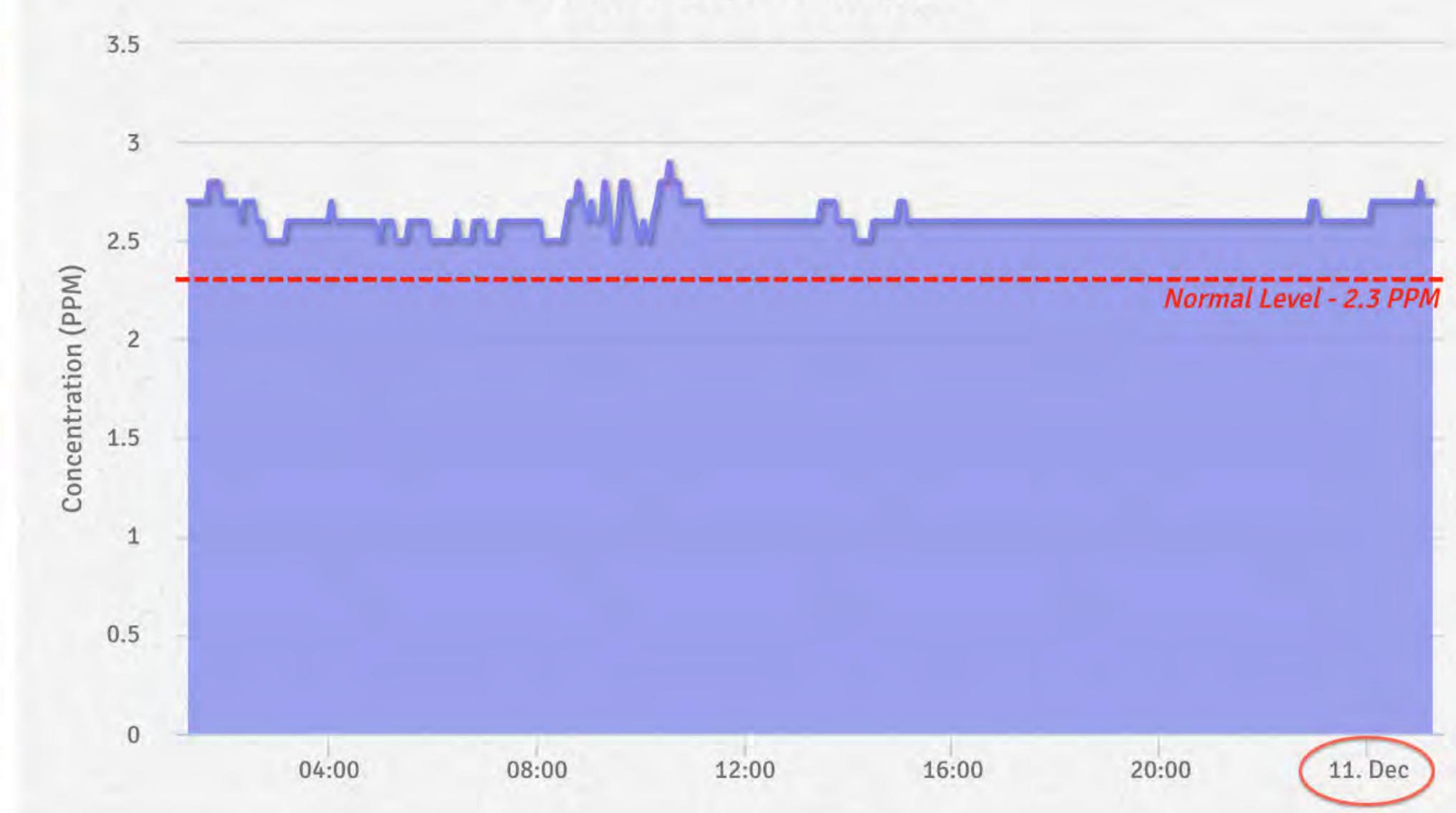
First Name:

Last Name:

Email:

Submit

24-Hour Plot for Methane



SPONSORED BY:



fenceline.org/porter/data.php

35



like to thank the Parris law firm for making this possible by sponsoring this website.

Real-Time Air Monitoring Data

Methane 2.5 PPM

Weather Conditions

Wind Direction 157° (SSE)

Wind Speed 2.1 MPH

Temperature 57°

Humidity 88%

Subscribe to Alert Notification List

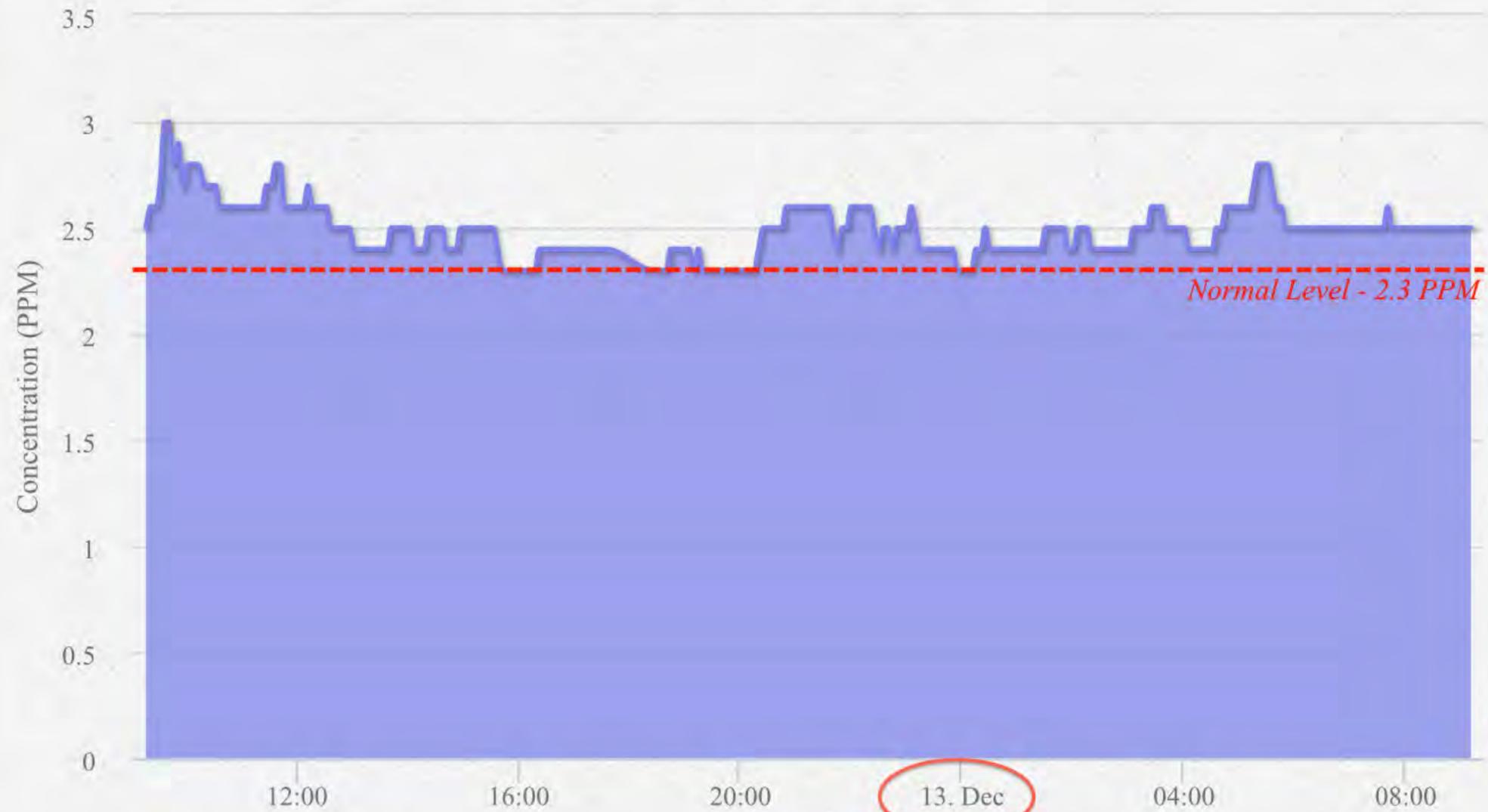
First Name:

Last Name:

Email:

Submit

24-Hour Plot for Methane



COMMUNITY AIR MONITORING DATA

Message Board

11/19/2016 21:22 - The community air monitoring system that detects methane gas is back on-line. We would like to thank the Parris law firm for making this possible by sponsoring this website.

Real-Time Air Monitoring Data

Methane **2.3 PPM**

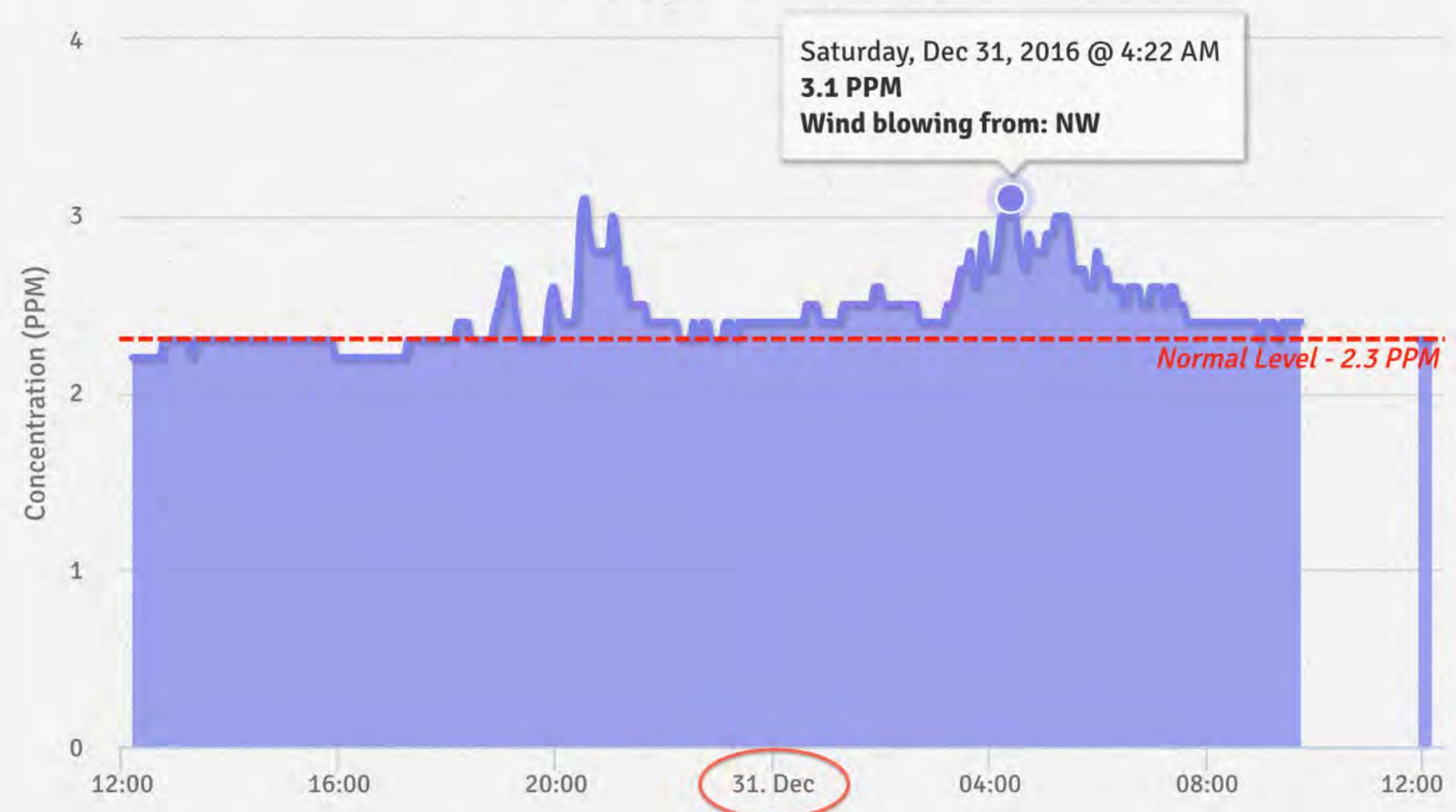
Weather Conditions

Wind Direction	202° (SSW)
Wind Speed	0 MPH
Temperature	51°F
Humidity	94%

Subscribe to Alert Notification List

First Name:	<input type="text"/>
Last Name:	<input type="text"/>
Email:	<input type="text"/>
<input type="submit" value="Submit"/>	

24-Hour Plot for Methane





fenceline.org/porter/data.php

36



Message Board

11/19/2016 21:22 - The community air monitoring system that detects methane gas is back on-line. We would like to thank the Parris law firm for making this possible by sponsoring this website.

Real-Time Air Monitoring Data

Methane 2.4 PPM

Weather Conditions

Wind Direction 112° (ESE)

Wind Speed 2 MPH

Temperature 50°F

Humidity 97%

Subscribe to Alert Notification List

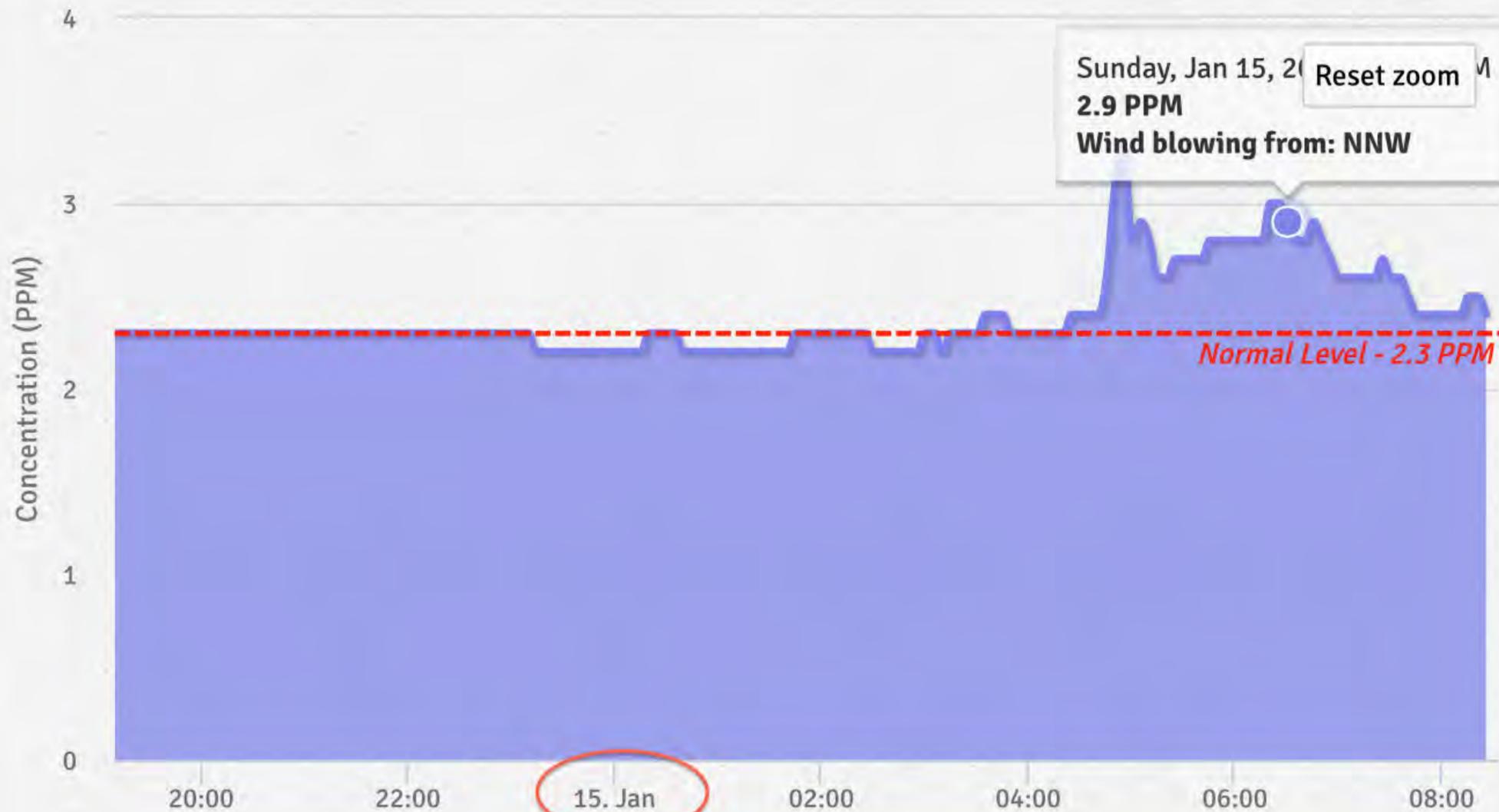
First Name:

Last Name:

Email:

Submit

24-Hour Plot for Methane



From: SoCalGas <[REDACTED]>
Subject: SoCalGas Courtesy Notification
Date: September 12, 2016 9:29:21 PM PDT
To: [REDACTED]
Reply-To: [REDACTED]

This message contains graphics. If you do not see the graphics, [click here to view](#).

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Aliso Canyon Update

SoCalGas® News

Dear Community Member,

This afternoon at approximately 4:50PM, SoCalGas discovered a small natural gas leak in an above ground pipe at the Aliso Canyon storage facility. The leak was quickly isolated and stopped.

The leak was not in a well, but a pipe used to withdraw natural gas from the reservoir.

The cause of the leak has not yet been determined. However, our initial findings indicate the leak began only a short period of time before its discovery and that the release of natural gas was small.

We do not anticipate that the released gas will be noticeable in the surrounding community. At no point was there a threat to public safety.

SoCalGas has notified the relevant agencies and is in the process of making permanent repairs.

If you have additional questions, please contact us at 1-800-427-2200

If you received this email from a friend or a colleague subscribe below.

[Aliso Canyon Updates](#)

Make sure you receive our emails by adding [REDACTED] to your address book. Please do not reply to this email. Email sent to this address cannot be answered. For assistance, please visit our [Help Center](#). Southern California Gas Company values your privacy. For more information, view our [Privacy Policy](#) and [Privacy Notice](#).

This email has been sent to [REDACTED] as a promotional communication. If you'd rather not receive emails like this, you can [unsubscribe](#). Sender's business address is 555 West Fifth Street, GT20B2, Los Angeles, CA 90013.

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[PrevDoc](#) [NextDoc](#)

**Governor's Office of Emergency Services
Hazardous Material Spill Update**

CONTROL#: 16-7070 NRC#

NOTIFY DATE/TIME: 11/21/2016 / 1601	RECEIVED BY: OCCURENCE DATE/TIME: 11/21/2016/1415	CITY/OP. AREA: Northridge/Los Angeles County SOUTH COAST AQMD
---	---	--

1.a. PERSON NOTIFYING Cal OES:

AGENCY: Southern California Gas Company	
--	--

1.b. PERSON REPORTING SPILL (If different from above):

AGENCY:	
----------------	--

SUBSTANCE TYPE:

a. SUBSTANCE:	b. QTY: <i>Measure</i> <i>Amount</i>	c. TYPE:	d. OTHER:	e. PIPELINE	f. VESSEL >= 300 Tons
1. Bromide Trichloride	Less than 1 Cu.Ft. cubic feet	VAPOR		No	No
2.				No	No
3.				No	No

Original Description:RP States: Less than 1 cubic feet of Bromide Trichloride used on a well was released onto a well pad. It was an uncontrolled release due to workover activity. The release is contained. The release is unrecoverable. Clean up was completed by a contractor. No waterways were impacted. The release is not a reportable quantity. Evacuations were made from the well pad at 1415 hours. A total of six contractors were evacuated form the site. Evacuations were lifted at 1545.

PERSON NOTIFYING Cal OES OF SPILL UPDATE:

NAME:	AGENCY: Southern California Gas Company	PHONE#:	Ext:	PAG/CELL:
--------------	---	----------------	-------------	------------------

UPDATE QUANTITY
Measure
Amount

1.	Cu.Ft.
2.	
3.	
4.	

UPDATE KNOWN IMPACT:	
UPDATE CAUSE:	

SITUATION UPDATE:

RP states that the chemical is **Bromine** Trifluoride, not Bromide Tricholoride.

FAX NOTIFICATION LIST:

AA/CUPA, DFG-OSPR, DTSC, RWQCB, US EPA, USFWS, AIR RESOURCES BD, Co/Hlth, Co/E-Hlth

ADMINISTERING AGENCY: Los Angeles City Fire Department

SECONDARY AGENCY: LACoFD Health Haz-Mat

ADDITIONAL COUNTIES:

ADDITIONAL ADMIN.

AGENCY:

OTHER NOTIFIED:

RWQCB Unit: 4

CONFIRMATION REQUEST:

FAX NOTIFICATION

LIST:

ADMINISTERING

AGENCY:

ADDITIONAL ADMIN.

AGENCY:

SECONDARY AGENCY:

ADDITIONAL

COUNTIES:

DOG Unit:

RWQCB Unit:

Created by: Warning Center on: 11/21/2016 05:15:16 PM Last Modified by: Warning Center on: 11/21/2016 05:18:13 PM

***** End of Form *****

3.

4.

UPDATE KNOWN IMPACT:	
UPDATE CAUSE:	

SITUATION UPDATE:

SoCalGas is continuing to monitor conditions at the site. Slight off-gassing continues, with no change in conditions and no other anomalies identified. There are no detectable odors and there is no indication of a present or potential hazard to human health, safety or the environment.

FAX NOTIFICATION LIST:

AA/CUPA, DFG-OSPR, DTSC, RWQCB, US EPA, USFWS, AIR RESOURCES BD, CDPH-D O , DOG, Cal OES HAZMATUNIT, Cal OES PLANS UNIT, Cal OES REG, PUC, Co/WP, Co/Hlth, Co/E-Hlth

ADMINISTERING AGENCY: Los Angeles City Fire Department

SECONDARY AGENCY: LACoFD Health Haz-Mat

ADDITIONAL COUNTIES:

ADDITIONAL ADMIN.

AGENCY:

OTHER NOTIFIED: DOGGR; PUC

RWQCB Unit: 4

CONFIRMATION REQUEST:

FAX NOTIFICATION

LIST:

ADMINISTERING

AGENCY:

ADDITIONAL ADMIN.

AGENCY:

SECONDARY AGENCY:

ADDITIONAL

COUNTIES:

DOG Unit:

RWQCB Unit:

Created by: Warning Center on: 12/26/2016 10:30:15 AM Last Modified by: Warning Center on: 12/26/2016 10:35:59 AM

***** End of Form *****

From: SoCalGas <[REDACTED]@com>
Subject: Community Notification - Aliso Canyon
Date: January 5, 2017 1:01:52 PM PST
To: [REDACTED]
Reply-To: [REDACTED]@com

This message contains graphics. If you do not see the graphics, [click here to view](#).

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Community Notification - Aliso Canyon

Dear Neighbor,

Earlier today the following was reported by a third party construction contractor at the Aliso Canyon Turbine Replacement (ACTR) site to the California Office of Emergency Services (OES):

“At approximately 8:00 AM, approximately 2 gallons of diesel fuel was released from a construction contractor’s fuel storage tank at the Aliso Canyon Turbine Replacement (ACTR) Project construction site while the tank was being filled by a fuel distributor. Due to considerable rainfall that has occurred onsite, a portion of the diesel fuel escaped a secondary spill containment area surrounding the tank and entered a storm drain which leads to Limekiln creek. The release was reported to Cal-OES by the construction contractor. The Los Angeles County Department of Public Works and the Los Angeles City Sanitation District responded to the site.”

This notification is consistent with our commitment to open and transparent communication with our neighbors.

To opt out of these notifications in the future or for more information about this release, please visit SoCalGas.com.

Make sure you receive our emails by adding [REDACTED] [com](#) to your address book. Please do not reply to this email. Email sent to this address cannot be answered. For assistance, please visit our [Help Center](#). Southern California Gas Company values your privacy. For more information, view our [Privacy Policy](#) and [Privacy Notice](#).

Sender's business address is 555 West Fifth Street, GT20B2, Los Angeles, CA 90013.

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Community Notification - January 05, 2017

HAV & Associates
1424 Ebb Court
Oxnard California 93035
(805) [REDACTED]
[REDACTED]

RE: Aliso Canyon Comprehensive Safety Review

After careful review of the project I believe the Southern California Gas Company has installed adequate precautionary measures to ensure safe operation of the facility and minimize any environmental impacts. I strongly request approval of the facility.

As a small business owner and former elected Oxnard City Council Member, I fully understand how the slightest increase in utility costs can be devastating to the low-income family and unfortunately, we all suffer.

Approval of the measures submitted by the Southern California Gas Company will abate and mitigate negative impacts to our low-income wage earners in our community.

Thank you for the opportunity to comment on this project.

Andres Herrera

Andres Herrera, Owner
HAV & Associates



Bob Huff

California State Senator, Retired

STATE ASSEMBLY 2004 – 2008

STATE SENATE 2008 – 2016

SENATE MINORITY LEADER 2012 - 2015

February 6, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation

Via email: alisocomments@conservation.ca.gov

To Whom It May Concern:

SB 380 was introduced as urgency legislation in the state senate last year to address the public safety issues surrounding the unchecked discharge of methane from well number SS-25 in the Aliso Canyon Storage field, and to assess the risk of similar failures in the other wells used for injection and withdrawal of methane from the field.

I am a principal co-author of SB 380. I have monitored the progress over the past year on the many steps taken to ensure of the safety of the residents and the integrity of the storage field. I believe those involved in this process have done an exemplary job.

Natural gas has become an important component of our mandated greener energy grid. When the sun doesn't shine or the wind doesn't blow, it is natural gas turbines that spin up or down to adjust to our electrical grid's needs. Additionally, virtually all of our public transit buses in the region now run on clean natural gas. The Aliso Canyon storage field is necessary to meet the region's natural gas, electricity and transit needs. The ability to store natural gas is critical to system stability as well as to keep the costs down for customers.

With the implementation of new safety inspections and measures created to address the lessons learned from SS-25, I believe the intent of SB 380 has been achieved and Aliso Canyon should be reopened.

Sincerely,

Bob Huff
Senator (retired)



Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA 95814
Via email: [REDACTED]

February 2, 2017

To Whom It May Concern:

My name is Stefanie Karp and I have been a resident of Porter Ranch since June 2005. I reside at 19716 Crystal Hills Drive, which is just a couple blocks south of Sesnon and is very close to the Aliso Canyon well fields. I live with my 12 year old son (Andrew) and my 8 year old daughter (Natalie).

During the gas blowout, we were forced to be relocated as we were experiencing headaches, nauseousness, and rashes. Further, Natalie's bedroom, which faces the well field, tested positive for Benzene by UCLA. Benzene is known to cause cancer.

When we would return home to get mail or check on the house, Natalie would break out in a rash immediately. Prior to the blowout, Natalie did not experience these types of rashes. After our home was cleaned by the Gas Company's contractor, she continued to break out in rashes when we would visit the home. At our own expense and per our pediatrician's recommendation, we removed and/or replaced all soft surfaces in our home, including bedding, mattresses, carpet, and stuffed animals. Following this, we independently had our home thoroughly cleaned. When we finally returned home in July 2016 (nearly 8 months after we left), Natalie was not having any symptoms.

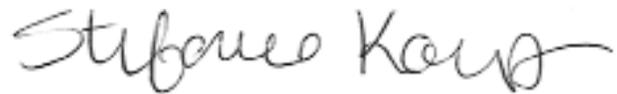
The week of December 20, 2016 Natalie inexplicably began to break out in rashes. On Friday, December 23, 2016 Natalie's rash was severe and she could not get any relief through our usual measures, including prescription cream prescribed by her dermatologist. On Saturday December 24, 2017 I was informed that a "small leak " was detected and repaired. Suddenly, Natalie's rash was explained.

During the week of January 23, 2017 Natalie began having more rash breakouts. On January 29, 2017 at approximately 7pm, Natalie had an outbreak that was extremely severe. Shortly after this outbreak began, our air filters turned to red, indicating there were foreign particles in the air. At approximately 8:30 p.m. the air filters were still red, we had not been able to get the rash and severe itching under control; therefore, we were forced to leave our home for the night. Since this time, Natalie continues to be plagued with an itchy and painful rash. Notably, when she stays at her dad's house in Sherman Oaks, the rash lessens, only to worsen again upon her return to Porter Ranch.

I am extremely concerned with the possibility of the Aliso Canyon facility reopening, as my daughter continues to experience negative health effects, even while the facility is non-operational. This is especially concerning as she does not experience these issues while at her dad's house in Sherman Oaks. Further, I am concerned that reopening the Aliso Canyon facility subjects my children and I to the possibility of additional Benzene exposure, a known cancer-causing agent, as we have previously experienced.

I urge you to consider the health of our family and the Porter Ranch community and not allow the reopening of the Aliso Canyon facility.

Sincerely,

A handwritten signature in black ink that reads "Stefanie Karp". The signature is written in a cursive style with a long, sweeping tail on the letter "p".

Stefanie Karp
Porter Ranch resident

Aliso Canyon Storage Facility Petition : Entry # 13633

Message to Mayor Garcetti and LA City Council

Mayor Garcetti and LA City Council:

I urge you to stand with Angelenos and support the immediate reopening of SoCalGas' Aliso Canyon Storage Facility.

State officials have confirmed that Angelenos are at risk of higher energy prices and power outages without Aliso Canyon. However, Food and Water Watch—a special interest group based in Washington, D.C.—is jeopardizing our energy needs and our quality of life by pressuring you and other local elected officials into calling for its permanent closure, only to advance their own agenda.

It has been more than one year since Aliso Canyon was temporarily taken offline because of a gas leak that occurred in one well. Since then, SoCalGas has permanently sealed that well and state officials have put in place new stringent laws and regulations to ensure that a similar leak never occurs again.

SoCalGas recently announced that they have implemented all of the state's new regulations and that they are ready to safely reopen the facility, which we need. However, Food and Water Watch has launched a misinformation and fear-based campaign in LA in order to scare Angelenos into calling for its permanent closure.

Food and Water Watch is a special interest group from Washington, D.C. that does not represent the best interest of the people of LA. They are exploiting this situation to eliminate the use of natural gas, which we need to heat and power our homes and businesses. In the absence of Aliso Canyon, the entire LA region has been at risk of power outages and we have had to rely on dirty sources of energy from out of state to meet our energy needs. This is undermining our climate and air quality goals.

We urge you to stand up against Food and Water Watch and call on Governor Brown to reopen Aliso Canyon. We cannot afford to have one special interest group hold LA's energy needs hostage.

***Mayor Garcetti requires the contact information below in order to receive your message.**

Donald Szerlip

Email Address

[REDACTED]

Address

[REDACTED]
Redondo Beach 90278

[Map It](#)



Los Angeles • CA 90022

www.TELACU.com

February 3, 2017

Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street, MS 24-02
Sacramento, CA 95814

Re: Aliso Canyon Comprehensive Safety Review

To Whom it May Concern:

On behalf of TELACU ("The East Los Angeles Community Union"), I respectfully request you to reauthorize the resumption of injection operations at Aliso Canyon.

TELACU was established in 1968 to serve and empower people living in low-income communities with the basic tools that all Americans need, including jobs, educational opportunities and affordable housing. I represent the voices of tens of thousands of low-income people across SoCalGas' service territory, including people TELACU serves in the communities surrounding the Aliso Canyon facility.

TELACU is grateful for the significant coordinated efforts undertaken by SoCalGas, DOGGR, the CPUC, and community stakeholders to ensure public safety in the wake of the unfortunate circumstances surrounding the leak at Aliso Canyon. We greatly appreciate you for listening to our previous concerns on behalf of low income residents we serve about decreasing the possibility of interrupted service during these winter months.

TELACU rises again to encourage the full restoration of service and use of Aliso Canyon. We firmly believe that this vital facility – a facility that has undergone significant physical improvements and comprehensive testing – is safe to resume injection operations. Additionally, while the Root Cause Analysis may provide past information of interest to some, it will not change the fact that the storage facility AS IMPROVED is safe and ready for full use.

On behalf of low income residents who greatly rely on full, uninterrupted utility service, TELACU urges you to authorize the resumption of injection operations at Aliso Canyon.

Respectfully,

A handwritten signature in black ink that reads "Michael Lizárraga". The signature is written in a cursive, flowing style.

Michael Lizárraga
President & CEO

ML/lis



██████████ Temple City, CA 91780

62 ██████████ 1

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street MS 24-02
Sacramento, CA. 95814
██

Feb. 1st, 2017

To whom it may concern,

I am writing to express the Temple City Chamber of Commerce's support for the re-opening of the Aliso Canyon Natural Gas Storage facility.

While we appreciate the concerns of the Porter Ranch community, we understand that 34 wells have received final inspection by DOGGR (Dept. of Oil, Gas & Geothermal Resources). We are concerned that the extended closure of the Aliso Canyon storage facility could create shortages of natural gas vital to heating homes and businesses as well as the local generation of electricity.

We are also concerned that shortages, especially in the event of lengthy cold spells, could be a public safety and personal safety concern should there not be enough natural gas available to heat all our homes and businesses. Again, the Chamber is very concerned about energy reliability, especially the availability of natural gas during these cold winter months.

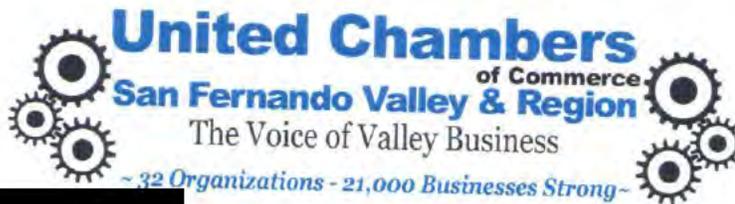
We urge that those that have been certified "safe" be returned to providing natural gas as soon possible.

Thank you for your time.

Sincerely yours,

A handwritten signature in black ink that reads "Peter Choi". The signature is written in a cursive style and is placed on a light-colored rectangular background.

Peter Choi
President/C.E.O.
Temple City Chamber of Commerce



[Redacted] Sherman Oaks, CA 91403 * Tel: (813) [Redacted] * Fax: (813) [Redacted]
www.unitedchambers.org * E-mail: [Redacted]

Dale Surowitz
Chairman of the Board
Marian E. Jocz
Executive Director

Member Chambers

- Burbank
- Calabasas
- Canoga Park- West Hills
- Chatsworth - Porter Ranch
- Encino
- Filipino American of Greater LA
- Granada Hills
- Northridge
- Pacoima
- Panorama City
- Regional Black
- Sherman Oaks
- Studio City
- Sun Valley
- Sunland Tujunga
- Toluca Lake
- Universal City - North Hollywood
- Winnetka
- West Valley - Warner Center

Strategic Partners

- California Chamber of Commerce
- Economic Alliance of SFV
- Los Angeles Area Chamber
- Los Angeles County Business Federation
- Valley Economic Development Center
- Valley Industry & Commerce Association
- U. S. Chamber of Commerce

Chairman's Circle

- C & M Printing
- Commercial Bank of California
- Dilbeck Estates
- Empower Group of Companies
- Gelb Group, a Family of Companies
- Horace Heidt Magnolia Estates
- Law Office of Mark Levinson
- Law Office of Savin Bursk
- Lewitt Hackman
- Pam Corradi
- Parker Brown, Inc.
- Universal City-No Hollywood Chamber

February 6, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street, MS 24-02
Sacramento, Ca 95814

Re: Aliso Canyon Comprehensive Safety Review

Dear Sir / Madam:

United Chambers of Commerce is a voice here in the San Fernando Valley by working with our 19 Member Chambers who are supported by many large and small businesses.

We must **reopen** the Aliso Canyon field as it has been deemed safe, reliable and operable to avoid uninterrupted service. From the comprehensive battery of testing that has been completed it appears these wells have met the requirements and is ready for operation. We can no longer delay this process.

This storage facility is **imperative** to the San Fernando Valley and regions for our source of natural gas.

This could have a **huge** impact on our business community and our residents with service being interrupted and also if costs were too increase.

Sempra Energy / SoCalGas has been **diligent** in keeping the community updated on the progress they have been working on.

Please contact our office if you have any questions.

We look forward to your support.

Sincerely,


Marian E. Jocz
Executive Director

Platinum Investor: Wells Fargo
Gold Investors - Metropolitan Water District * Providence Tarzana Medical Center * Providence Holy Cross Medical Center
Providence Saint Joseph's Medical Center
Silver Investors - Alperstein, Simon, Farkas, Gillin & Scott * SoCalGas
Bronze Investors - California Lutheran University * Valley Presbyterian Hospital
Copper Investor - Van Nuys Los Angeles World Airports



February 6, 2017

Aliso Canyon Comprehensive Safety Review
Department of Conservation
801 K Street, MS 24-02
Sacramento, CA 95814

RE: Aliso Canyon Working Gas Inventory, Production Capacity, Injection Capacity, and Well Availability For Reliability – Updated Report – Section 715 of the Public Utilities Code

The Ventura Chamber of Commerce supports the use of a broad range of reliable energy sources that are produced and delivered safely. This includes the production, storage, and delivery of natural gas. Maintaining a reliable supply of natural gas allows prices to remain affordable and consistent for residential and commercial users. Without a reliable, safe, and cost-effective fuel sources, our economy suffers.

We are confident that with the Department of Oil, Gas and Geothermal Resources (DOGGR) providing continued oversight and strict regulation of safety and environmental standards, these standards will be met and/or exceeded, consumers will be protected, and public safety will be maintained at a high level.

With current and contemplated future safety and environmental measures, and the continued oversight of DOGGR, we believe that the Aliso Canyon facility will make an important contribution to our future energy security.

Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read "Stephanie Caldwell".

Stephanie Caldwell
President & CEO



Visalia Emergency Aid Council

Family Assistance Center

██████████
██████████
Visalia, CA 93279
(559) ██████████
FAX (559) ██████████

Website: veac.org

Thrift Store

██████████ Ave.
Visalia, CA 93291
(559) ██████████

TIN: 94-1294955

January 30, 2017

RE: Aliso Canyon Comprehensive Safety Review

On behalf of Visalia Emergency Aid Council (VEAC) I am presenting this letter of support for the Aliso Canyon Storage Facility.

VEAC operates Tulare County's largest food pantry, serving over 8,000 unique families living in homes each year. All of our clients are low-income and struggle to make ends meet each month. Our organization provides supplemental groceries, clothing and household items to families, seniors and individuals living in our community.

The operation of the Aliso Canyon Storage Facility is of great importance to the low-income community of Tulare County whom we serve. We work diligently to assist our families to keep a roof over their heads and a stable source of food for their children. Most of these families are hard-working, minimum wage earners just trying to better themselves. Unfortunately the financial status of our clients is usually very fragile. The slightest increase in utility costs can be devastating to the low-income family and unfortunately, it is usually the children who suffer.

After careful review of the project I believe the Southern California Gas Company has installed adequate precautionary measures to ensure safe operation of the facility and minimize any environmental impacts. I strongly request approval of the facility.

Thank you for the opportunity to comment on this project.

Sincerely,

Liz Wynn, A.I.C.P.
Executive Director