



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

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



December 4, 2017

The Honorable Dianne Feinstein
United States Senate
Washington, DC 20510-0504

Dear Senator Feinstein:

The California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) and the California Public Utilities Commission (CPUC) are jointly responding to your August 3, 2017, letter regarding the Aliso Canyon Storage Facility (Aliso Canyon or Facility). The California Energy Commission will be sending along a separate response. As the regulators charged with the responsibility of assessing and maintaining public safety at Aliso Canyon, we share your concern for the San Fernando Valley communities, and communities across Southern California. Our respective agencies are constantly working to ensure that the site is safely operated, energy reliability is maintained, and all statutory mandates are satisfied.

Detailed answers to your questions are included below, but first we would like to take this opportunity to apprise you of the current status of the Facility, investigations, and related proceedings.

Current Facility Status:

The Southern California Gas Company (SoCalGas) resumed injections on July 31, 2017. Currently, 52 wells have passed the rigorous battery of tests required by DOGGR and have been authorized for injection activities. Both DOGGR and CPUC inspectors and engineers are on site continually to witness testing, monitor operations, and conduct inspections of the wells and the Facility.

Pursuant to Senate Bill (SB) 380 (Pavley, Ch. 14 Statutes of 2015), after completing a comprehensive safety review and conducting two public hearings, the State Oil and Gas Supervisor, with concurrence from the Executive Director of the CPUC, lifted the moratorium on injections at the Facility on July 19, 2017.

The safety review included a rigorous mechanical integrity testing regime imposed on all of the gas storage wells at the Facility, and required that SoCalGas comply with a checklist of 23 specific safety assurance tasks before the resumption of injection would be allowed. The checklist of safety assurance tasks included requirements for work plans to upgrade the Facility, inspections of the systems at the Facility, and data reporting that addressed a wide range of issues to ensure the safe operation of Aliso Canyon. A team comprised of DOGGR, the CPUC, and the California Air Resources Board conducted a three-day, on-site technical safety compliance inspection and evaluated all aspects of the work completed under the checklist to ensure that each task was conducted thoroughly and to verify the outcomes. Following the

inspection, the State regulators were satisfied that the safety of Aliso Canyon's wells, internal pipelines, and compressor station had been demonstrated and verified.

Finally, the CPUC's Executive Director set a new operational working gas level for the Facility at a maximum of 23.6 billion cubic feet (Bcf), and required SoCalGas to maintain a reservoir storage level above 14.8 Bcf at all times. This requirement limits the Facility to a much lower operating pressure than previously allowed, and ensures both the safety and reliability of the Facility and just and reasonable utility rates in California.

Subsequent to the resumption of injection, a gradual buildup of pressure was detected in the production tubing and production casing annulus of 16 wells by the new monitoring systems. The annulus (the space between the inner tubing and the well casing) had been pressure tested to 3,625 pounds per square inch (psi), but when the pressure exceeded 700 psi on any annulus it was required to be reported to the Division. At no point was there an immediate risk of a leak from these wells. Following discovery of the issue, injection ceased on these wells and the pressure buildup stabilized in most cases. For the wells that did not stabilize, SoCalGas isolated the well from the reservoir and took remedial action.

The discovery of pressure build-up demonstrated that all safety and monitoring systems worked as designed. There was no methane released from these wells, and all gas was contained to the closed loop withdrawal system. To date, 12 of the wells experiencing a pressure build-up have been returned to service after repairs and modifications to the operation of the wells. For the remaining four wells, the State Oil and Gas Supervisor as well as a subject matter expert from the Lawrence Berkeley National Laboratory met with SoCalGas on October 11, 2017 to discuss this issue and a plan of action was approved to ensure that the causes of the gas build-up within the annulus will be resolved.

While the Facility has been permitted to resume limited operations, the CPUC and DOGGR continue to work with independent experts to study the Facility. These studies will provide the State a better understanding of the seismic risks at Aliso Canyon and will provide a better understanding of the Facility's place in the California's broader energy infrastructure. These studies include:

- A team of independent scientists from the California Council on Science and Technology is conducting a review of the long-term efficacy of Aliso Canyon and all underground gas storage (UGS) facilities in California.
- A seismic study of the facility is being conducted with a final report due June 1, 2018.
- The root cause analysis (RCA) is being conducted by an independent third-party expert with an estimated completion in the summer of 2018.
- The CPUC is reviewing the long-term feasibility of minimizing or eliminating the use of Aliso Canyon while still maintaining energy and electric reliability for the region.

With that, here are the responses to your seven questions. Your questions are reprinted in italics.

[Question 1] What is the current state of knowledge about the seismic risks at the Aliso Canyon facility, and how fault slippage at the site would likely damage the natural gas wells?

The existing knowledge base regarding the impact of seismic events on the surface (i.e., structures and roadways) is quite robust within the scientific and engineering community. However, while we have seen examples of seismic events damaging oil fields, few significant impacts from seismic events in natural gas fields have ever been recorded, witnessed, or studied.

The California Geological Survey (CGS), like DOGGR, is within the Department of Conservation. DOGGR, in addition to ongoing consultation and study with the Lawrence Berkeley National Laboratory, Lawrence Livermore National Laboratory, and Sandia National Laboratory (jointly, National Labs or Labs), consulted extensively with CGS in order to assess the earthquake risks at Aliso Canyon. As you know, the Santa Susana Fault underlies the Facility. This fault forms a thrust fault plane dipping to the north. Portions of the Santa Susana Fault are considered Holocene “active” and have been placed into an Alquist-Priolo Earthquake Fault Zone by CGS. The Santa Susana Fault was modeled as a seismic source in the Third Uniform California Earthquake Rupture Forecast, with a 30-year probability of a magnitude 6.7 of about 4%. CGS also noted that several other active faults are present in close proximity to Aliso Canyon including the San Fernando, Chatsworth, and Northridge Faults.

The last notable seismic event in the region, the 6.7 magnitude Northridge Earthquake in 1994, impacted Aliso Canyon. Damage from the 1994 Northridge Earthquake included deformation of pipe supports, displaced gas injection and withdrawal lines, structural damage to a large compressor fan unit, a buckled and split high-pressure pipeline, and damage to oil and water tanks. According to a post-earthquake report prepared by CGS, the underground storage reservoir itself was undamaged. Only one well, Standard Sesnon 4-0, experienced a collapsed casing in a section above the gas storage zone. The damaged well was repaired by a work-over rig, and SoCalGas placed abandonment cement below the collapse and into the storage zone. Upon recovery of the casing, it was determined that the collapsed casing had sealed the well. The well was later permanently plugged. Due to the damage sustained at the facility, it was out of operation for a total of five days. In the response to Question 2, the numerous safety precautions and risk mitigations required by DOGGR to improve the safety and resiliency of the Facility are discussed. These safety measures were not in place, and not required by DOGGR, during the Northridge Earthquake.

Because there are relatively few instances where impacts on gas storage wells have been specifically studied, in order to better understand risks, the impacts of earthquakes on oil fields and oil wells that have occurred in the past century were also studied. The events examined included the 1933 Long Beach Earthquake on the Newport-Inglewood fault, the 1952 Arvin – Tehachapi Earthquake, the 1971 San Fernando - Sylmar Earthquake, the 1984 Coalinga Earthquake, and the 1994 Northridge Earthquake. Unfortunately, the full catalog of impacts due to ground motion and fault displacement to oil wells and associated facilities was not generally detailed in the historical record. DOGGR did, however, conduct a detailed review of ground motion impacts in the Wilmington Oil Field between 1947 and 1951.

In the Wilmington study, earth movement was noted in 1947, 1949, and 1951. Damage to wells attributable to earth movement was found along two fault planes at 1,550 feet and 1,700 feet. In each of the instances evaluated, earth movement damaged a significant number of wells many of

which had severe casing damage. While it is important to evaluate past experiences and incidents, the wells at Aliso Canyon are now required to have at least two containment barriers everywhere in a well, so that two components of well integrity would need to fail simultaneously to allow a leak to occur. Additionally, as described in greater detail in a subsequent answer, the Facility now has numerous risk mitigations that reduce the likelihood of an uncontrolled release. For these reasons, comparisons to previous events provide limited benefit.

Finally, due to the identified risks, DOGGR determined that additional research would be beneficial to the regulatory and scientific community and should be conducted expeditiously. To assist in this effort, DOGGR requested assistance from the National Labs. The Labs are overseeing research to determine what kind of seismic hazard mitigation measures might be necessary at Aliso Canyon and other UGS facilities across California. In the meantime, new precautionary safety procedures and enhanced well construction standards designed to provide redundant safety systems in the event of any emergency are in place at Aliso Canyon.

DOGGR has taken the following additional steps to reduce seismic hazards:

- Proposed revisions to California's UGS regulations include a requirement for all gas storage operators to identify and mitigate risks associated with seismic activity.
- The State Oil and Gas Supervisor issued Order No. 1109 to SoCalGas, which included a requirement to identify and evaluate the risks associated with seismic activity.
- The State Oil and Gas Supervisor issued Order No. 1118 to SoCalGas, which included a requirement to provide DOGGR with a detailed work plan for completing a seismic risk study of Aliso Canyon. SoCalGas has provided that work plan to DOGGR. The work plan includes a petrophysical model, a probabilistic seismic hazard analysis, a probabilistic fault displacement hazard analysis, a landslide analysis, and a mitigation evaluation. More detail regarding the specifics of the work plan and associated studies can be found in the answer to Question 3.

[Question 2] *In the event of an earthquake, what safety mechanisms are in place to prevent or contain multiple well failures at the Aliso Canyon storage facility?*

In the wake of the 2015 leak at Aliso Canyon, DOGGR imposed a strict new mechanical integrity testing regime, real time pressure monitoring, and new well construction requirements at the Facility. Specific details of these new requirements are discussed below. These new measures, combined with other safety improvements employed by SoCalGas have significantly improved the safety of the facility over what it was when it was damaged by the Northridge Earthquake in 1994. Should further measures be identified in seismic study described in the answer to Question 1, those measures may also be deployed at the Facility.

Unlike prior well operations at Aliso Canyon, the practice of injecting gas through both the inner steel pipe (production tubing) and the steel pipe encasing the tubing (production casing) will no longer be allowed. The injection and withdrawal system has been redesigned and overhauled to include a primary containment system consisting of a tubing and packer assembly with the production casing serving as a secondary containment system for all wells that will be used for injection and withdrawal of reservoir gas. Prior regulations did not require overlapping containment systems. In the event of an earthquake, these built-in redundancies lessen the risk of a leak.

The primary containment system is the production tubing, which is a newly installed steel pipe that was inspected to ensure integrity before installation. The secondary containment system is the production casing, a steel pipe cemented in place in the well. After the tubing is installed, the casing, tubing, and packer are all pressure tested with fluid in the well to ensure the primary and secondary containment systems are isolated. Pressure testing also verifies all down-hole devices are closed and will withstand operating pressure. All down-hole devices are functionally tested every six months.

The entire Facility is now continuously monitored in the operations center by telemetry that reports real-time pressure levels for all wells. In the event of a leak or change in pressure, surface safety valves and block valves are installed on all operating gas storage wellhead assemblies at Aliso Canyon that are automatically triggered by high or low pressure pilot actuators. The wellheads each have primary and secondary valve assemblies to provide redundancy and control in the event of a wellhead failure. Finally, all wells at Aliso Canyon now contain well control lines that permit staff at the Facility's operation center to inject control fluid into the well to prevent gas from flowing to the surface should it become necessary for any safety reason, including a leak or change in pressure.

In addition to these safety measures, DOGGR approved maximum bottom-hole reservoir pressure at the top of the reservoir structure of 2,926 pounds per square inch absolute. This pressure limit corresponds to about 67 BcF of gas storage capacity. The prior capacity of the facility had been 86 BcF. The CPUC further limited overall storage capacity by requiring SoCalGas to maintain their reservoir volume for purposes of reliability between 14.8 BcF and a maximum capacity 23.6 BcF. This means that the volume of gas and, consequently, the pressure allowed in the reservoir is substantially lower than had previously been allowed at Aliso Canyon.

The Facility's redundancies, safety controls, and operational limitation provide an added layer of safety for Aliso Canyon. Combined with DOGGR's proposed regulations for all UGS facilities statewide, technical experts from DOGGR and the independent scientific experts from the National Labs believe these additional safety measures have reduced the potential impact of a seismic event, should one occur, and have lessened the possibility that any single system failure would result in a loss of well control.

[Question 3] *DOGGR has required all underground storage facilities in the state to undertake better risk management planning, including analysis of seismic risks. What timetable and level of detail do you expect for the Aliso Canyon risk management plan?*

In accordance with Order No. 1109, on August 5, 2016, SoCalGas submitted a Facility-wide response plan, and incorporated effective geologic and geotechnical hazard mitigation protocols in the risk management plan (RMP). DOGGR's technical review team carefully considered all data submitted by SoCalGas and followed up with SoCalGas to collect additional data to ensure that the RMP would be complete according to the mandates of California Code of Regulations, title 14, section 1724.9, subdivision (g).

The Aliso Canyon RMP includes several risk mitigation measures. These measures include data collection and management, continual threat identification and analyses, ongoing verification of mechanical integrity of each well, and other plans. They also identify measures that will

specifically reduce impacts that could be associated with seismic events. Additional surface safety systems include fail-close pneumatic operated valves located on the wellheads designed to shut in a well if a break in piping causes wellhead pressure to drop below a threshold value, shut in a well if pressure in the withdrawal line exceeds a threshold value, shut in a well in the event of excessive erosive sand production, shut in a well if a fire occurs in the well cellar, and shut in wells manually from a safe distance from a wellhead. Also, as discussed in the response to Question 2, all of the wells are now designed with auxiliary piping connected to the wellhead that provides a means of pumping fluid into the wellbore from a remote location in the event of a breach in the downhole tubing, casing, or surface piping even if access to the well is compromised.

In order to reduce the risk of landslides associated with a seismic event, SoCalGas indicated in the RMP that wells located in areas prone to falling rocks and boulders are equipped with rock guards to protect wellheads and well site piping. They have also located critical infrastructure such as metering controls, and compressors in sheds and buildings that are less likely to be destroyed by a landslide.

For additional subsurface safety, SoCalGas has installed a series of methane monitoring systems that will test for the presence of ambient methane at Aliso Canyon, including after seismic events. SoCalGas has also indicated in their RMP that they will safely suspend operations at Aliso Canyon within a reasonable time following a major event, such as a seismic incident impacting Aliso Canyon, and conduct additional leak patrols of the Facility prior to resuming operations.

As part of the required risk management efforts, SoCalGas has also analyzed the thickness, porosity, permeability, and other properties of the caprock, the rock separating the reservoir from the surface, at Aliso Canyon. SoCalGas will undertake further study of the geologic and geotechnical hazards in the area to determine if further mitigation measures are warranted, and to determine if there are ways to better understand the probability of these events.

Risk of seismic induced failures that lead to casing deformation and tectonically induced failure can be mitigated by well design and monitoring in new wells. Heavy walls, higher strength pipe, and robust casing cement jobs add strength to resist tectonic forces. The use of liners in existing wells can add resistive strength. Furthermore, the improved well integrity testing program helps determine if casing deformation begins to pose a significant threat to well integrity, and enables SoCalGas to undertake remediation work before an incident occurs.

Finally, as mentioned above, DOGGR consulted with the National Labs regarding potential geologic and geotechnical hazards that may affect Aliso Canyon. During that consultation, the Labs recommended that two studies be conducted to provide a more detailed understanding of the seismic hazards at the Facility. In addition, the National Labs, in a correspondence to DOGGR, concluded that they “do not believe that the recommended detailed seismic studies require immediate action, but they should be planned and executed in a deliberate manner.” As a result, DOGGR conditioned approval of the RMP on a commitment to conduct an additional study to evaluate seismic risk mitigation measures beginning this year.

The first stage of the seismic study will be a refinement of a three-dimensional petrophysical model to further identify traps, cap rock, faults, unconformities, and other geologic features. The next stage will investigate potential leak rates in the reservoir and the reservoir’s cap rock pressure limits. This stage will also investigate geologic units above the reservoir for leakage and sealing

potential. The next stage will define parameters for the modeling efforts and conduct probabilistic seismic hazard and probabilistic fault displacement analyses. The final stage will analyze potential fault displacement, the likelihood of a seismic event, and the impact of the seismic event. This final stage will also investigate, develop, and recommend mitigation steps.

The results of the seismic risk studies will inform future updates to the RMP, including potential mitigation measures to reduce risks to the gas storage project from potential seismic activity. The studies will strengthen the understanding of the risk and impact of seismic hazards at Aliso Canyon. The final report on seismic risk is due June 1, 2018.

[Question 4] Why did DOGGR and the CPUC decide not to require a complete seismic risk analysis of Aliso Canyon before certifying the operating safety of the overall facility?

As mentioned above, DOGGR and the CPUC understand and agree that earthquake risks should be studied, evaluated, and mitigated to protect public safety and public health. As described in the answers to Question 2, evidence shows that Aliso Canyon withstood the last notable seismic event in the region, the 1994 Northridge Earthquake, without substantial damage, despite the absence of the safety measures DOGGR is now imposing on the Facility. The response to Question 3 further describes the mitigation measures undertaken to reduce risks associated with possible seismic events.

Also, as noted in prior answers, DOGGR has requested assistance from the National Labs to oversee seismic risk studies and an evaluation of seismic mitigation measures. The proposed studies will go beyond the Los Angeles County Fire Department's recommendations, which were primarily focused on surface facilities, with new research into the potential for structural seismic damage to subsurface wells and mitigation measures associated with these risks. This research will be conducted by a third-party contractor recognized by the National Labs as having the subject matter expertise to complete the research. DOGGR will consult with the National Labs to evaluate both the seismic risk study as well as proposed mitigation measures.

[Question 5] How has DOGGR responded to concerns raised by the California State University at Northridge professor, the former Southern California Gas employee, and others?

As noted in the previous answers, DOGGR has already required substantial risk mitigation measures at the Facility, but believes that earthquake risks should be studied, evaluated, and mitigated to protect public health and safety.

Early in the Aliso Canyon safety review, DOGGR convened a panel of technical experts from the National Labs to provide independent expertise to assist DOGGR in evaluating the seismic risk analysis at Aliso Canyon. The group of scientists – with expertise in numerous geological and petrophysical specialties including rock mechanics, well completion, cementing, fluid dynamics, materials, and corrosion – have reviewed both historical data and more recent data associated with Aliso Canyon. As noted in the response to Question 3, the team informed DOGGR that they do not think the additional seismic studies “require immediate action, but they should be planned and executed in a deliberate manner.” After carefully reviewing their recommendation as well as public comments received throughout the safety review process, DOGGR concurred with the National Labs' findings. The seismic studies are in progress, and will be subject to peer review.

In a July 2017 follow-up statement provided to DOGGR, the former SoCalGas employee, James Mansdorfer, PE, although echoing DOGGR's decision that additional seismic study is necessary, clarified his original statement by noting that he, "believe[s] that the work done at Aliso Canyon since the SS-25 incident makes it safe to return to service, but that the risk of the Santa Susana Fault needs to be addressed...The most important recommendation I have to the State is to quickly get an organization in place to manage the geologic risk analysis." (Supplement to Comments of James Mansdorfer Regarding Aliso Canyon Gas Storage Field, July 2017). This effort to manage the geologic risk is currently under way using subject matter experts from CGS, academia, industry, and the National Labs. The final report will be peer reviewed with the goal of releasing the report in the summer of 2018.

(Question 6) *What is the status of the root cause analysis of the well failure at Aliso Canyon?*

The root cause analysis (RCA) is being conducted by independent third-party experts and may provide information relevant to the CPUC's consideration of the long-term future of the Facility and the CPUC's independent duty to investigate the well failure. The independent experts conducting the RCA currently anticipate concluding their work in the summer of 2018. The estimate is subject to change based on conditions encountered during the excavation process. Safety considerations are paramount, and excavation and extraction of the tubing and casing will proceed on a schedule that prioritizes the safety of the workers conducting the study and the safety of the surrounding community. Below, is the current estimate for the time required to complete the remaining phases of the RCA:

Major Milestone	Estimated Duration (calendar days)	CALENDAR DATES
Phase 3A: Tubing Extraction and Logging		Completed
Log analyses, Plugging up to 4650' and Plan for Phase 3B		Completed
Phase 3-A Contingency: Recover 7" and Logging		Ongoing – To be completed by mid-December
Phase 3-A: 7" Log analyses and Identification of need for anymore 7"	30	February 15, 2018
Phase 3: Logging 11 ¾ and Data collection on 11 ¾" .	45	March 31, 2018
Phase 4: NDE inspection, Metallurgical analyses	100	April 30, 2018
Phase 5: Integration & Interpretation – Final Report	90	July 30, 2018

(Question 7) What, if any, studies have been conducted to understand the long-term health effects of living near a massive natural gas facility that is prone to leaks? Have any studies investigated the health challenges of Porter Ranch and other San Fernando Valley residents as a result of the natural gas leak?

As part of a settlement agreement with the South Coast Air Quality Management District (AQMD), SoCalGas has agreed to provide \$1 million for a study on the health impacts associated with the leak. The AQMD has convened a Working Group to advise on the health study. The Working Group includes scientists from LA County Department of Public Health, the California Department of Public Health, California Environmental Protection Agency, the Office of Environmental Health Hazard Assessment (OEHHA), the California Air Resources Board, and two local universities. The Working Group is now drafting the study scope, and the AQMD will then organize a public meeting inviting comments from the community. The Working Group will then incorporate the public's input into the final study scope. A community member will be invited to serve on the Working Group to provide periodic review of the progress of the health study, technical guidance if needed, and updates to the community. If additional funding is needed, the AQMD and other agencies will seek to identify potential sources of funding to complete the study.

To date, analyses of extensive air monitoring during and following the leak have not found significant levels of airborne contaminants that would pose a health threat in Porter Ranch or other nearby communities. These analyses include:

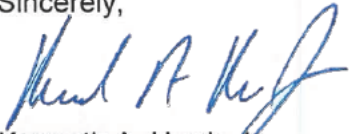
- A panel of eight scientific experts from the University of California system concluded that the measurements of exposures in the Porter Ranch area to volatile organic compounds (VOCs), such as benzene, toluene, ethyl benzene, xylenes, and hexane, during the leak were largely below Reference Exposure Levels (RELs) set by OEHHA. RELs are the levels of airborne contaminants at which adverse, non-cancer health effects are not anticipated. The advisors noted that the measured exposures that were being experienced at the time of the panel's evaluation were not different than routine human exposures to these compounds that are found in ambient air both indoors and outdoors. Although there were a few instances where benzene levels were mildly elevated for brief periods of time, the expert advisors expressed little concern for the levels of exposure to the air contaminants from the gas leak. OEHHA convened the panel in response to an Emergency Proclamation issued by the Governor.
- OEHHA's analysis of health effects related to air sample data collected at multiple locations in the Porter Ranch area prior to and following the sealing of the leaking well reached similar conclusions. OEHHA also found that any increase in cancer risk to people in the area due to benzene emissions from the natural gas leak is likely very small. Nearly all measured benzene concentrations in the Porter Ranch community during the leak were similar to background levels generally found in the Los Angeles area, including at the nearest long-term monitoring station in Burbank.
- Prior to the February 2016 well sealing, the Los Angeles County Department of Public Health received numerous reports from Porter Ranch residents, located downwind from Aliso Canyon, describing recurring symptoms such as headaches, nausea, abdominal discomfort, dizziness, and respiratory irritation. The natural gas stored in Aliso Canyon, like all natural gas provided for domestic use, contains added chemicals, or odorants, to

enable detection of leaks by smell. The odorants in the Aliso Canyon natural gas are primarily tert-butyl mercaptan and tetrahydrothiophene, which are added to the natural gas in small amounts. These additives have strong odors that can be perceived by humans at concentrations below the levels that can be measured in air samples. These odors can evoke responses such as nausea and headaches at levels much lower than those that would cause other health effects such as irritation to the eyes or the respiratory system. The Los Angeles County Department of Public Health indicated that the symptoms reported by many Porter Ranch residents were likely consistent with low-level exposure to the odorants. OEHHA and the expert panel made similar findings.

We are aware that many people in the Porter Ranch community continue to have health concerns and that some people are still experiencing symptoms that they believe are related to the event. OEHHA, the LA County Department of Public Health, and other authorities are uncertain as to the cause(s) of those symptoms. We look forward to the AQMD study and hope it will answer continuing questions about the possible ongoing health effects from the leak.

We hope that you find these answers helpful in your efforts to address the concerns of your constituents. DOGGR and the CPUC remain committed to a safe and reliable energy system in California. If you have any additional questions or need additional information, please contact us.

Sincerely,



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



Timothy J. Sullivan,
Executive Director
California Public Utilities Commission

Enclosure 1: State Oil and Gas Supervisor Order 1118
Enclosure 2: SoCalGas's Aliso Canyon Gas Storage Field Geologic, Seismologic, and Geomechanical Studies: Scope of Work