



ALISO CANYON GAS LEAK: FREQUENTLY ASKED QUESTIONS

QUESTIONS ABOUT THE WELL LEAK

What is causing the leak?

Based on currently available information, experts believe that gas is leaking from the well 500 feet below the surface and is rising up through the ground around the well. However, the exact cause of the leak is still unknown. Until the leak is stopped, technical experts cannot conduct the forensic analysis needed to identify its cause. The report detailing the cause of the leak will be made public when the analysis is completed.

Is there a risk of the leaking well exploding or catching fire?

There is a fire risk at the site of the leaking well, but no risk to the nearby community over a mile away. Since methane is a flammable gas, the Southern California Gas Company (the Gas Company) has been ordered to take several precautions to reduce the risk of fire at the well site, such as avoiding any activity that could create sparks. State agencies are monitoring the Gas Company's compliance with this order.

Recent news reports suggest that the leaking well could suffer a "blow-out." What is a blow-out and is this a risk to nearby neighborhoods?

A well blow-out happens when a large amount of gas flows uncontrolled out the top of a well. The top of the leaking well has been secured to ensure that this does not happen. If a blow-out were to happen, the amount of methane escaping upward into the atmosphere would increase and more odorants would likely travel into nearby communities. Since methane is flammable, caution is already being taken to avoid igniting methane at the leak site. A blow-out would not introduce risk of fire or explosion in the nearby community, which is located over a mile away.

Is the gas leak slowing down at all? If so, why?

Yes. The rate of the gas leak has been reduced by close to 70 percent from the peak leak rate in November. This reduction is due to the fact that working gas at the facility has been reduced from 81.5 billion cubic feet to a current level of less than 20 billion cubic feet. This reduction in gas has decreased the gas pressure within the underground facility, which has slowed the gas leak. This reduced leak rate has been verified by several data readings, which are available on the California Air Resources Board's (ARB) [website](#).

Can the leaking gas simply be flared (burned) as it exits the area around the leak to dispose of the leaking methane and odorants?



No. Since the gas is leaking through a dispersed area of ground—rather than simply a pipeline—the ignited gas would be difficult to control and flaring it would create a safety hazard.

Why didn't the leaking well have a safety shut-off valve? Would such a valve have prevented the leak?

State rules require an emergency shut-off valve for wells located within 300 feet of a residential home or within 100 feet of areas including wildlife preserves, recreation areas, bodies of water, or roads that have enough underground pressure to bring gas to the surface without mechanical compression. An emergency shut-off valve was not required on the leaking well due to its location outside of these areas. The California Division of Oil Gas and Geothermal Resources (DOGGR) is assessing whether all wells in storage facilities should be fitted with emergency shut-off valves in its permanent rule making.

The well used to have a valve—known as a sliding sleeve valve—that directed the flow of gas to the well's internal pipe. It was not a "shut-off valve" or a "safety valve." The purpose of that valve was to concentrate the flow of gas into the internal pipe within a well casing, but not to prevent gas from flowing up the well. This valve stopped functioning in 1979 according to DOGGR records and was not replaced. Sliding sleeve valves are not currently required for new or existing wells.

Until a forensic analysis indicates the cause of the current well leak, which can only take place once the leak is stopped, it is not known if the sliding sleeve valve or a shut-off valve would have prevented this gas leak.

QUESTIONS ABOUT OTHER WELLS IN ALISO CANYON

How many other wells are in use at Aliso Canyon?

115.

Are any of these wells leaking?

Daily observations of each well and additional monitoring across the entire facility indicate that no other wells are leaking at the site. State agencies have ordered the Gas Company to conduct daily observations of all of the wells in the field and to take weekly pressure surveys, and to provide this information for independent verification by oversight agencies. In addition, oversight agencies are conducting additional monitoring to ensure there are not any leaks at the facility. In early December, the South Coast Air Quality Management District (Air District) identified 15 minor methane leaks and directed the Gas Company to fix them. Later that month, the Air District verified that these leaks were repaired.

Is the gas company's pipeline infrastructure that travels underground from Aliso Canyon below local communities safe?

The California Public Utilities Commission (CPUC) gas safety program reviews the safety of gas pipelines through audits, investigations and technical risk assessments. Based on information that the CPUC has



collected on these pipelines, no immediate safety threats are apparent. As an additional precaution, on January 4, CPUC directed the Gas Company through a written [order](#) to perform special leak surveys in communities impacted by the Aliso Canyon gas leak. If the CPUC staff encounters unsafe conditions of pipelines, it requires utilities to address those conditions immediately.

QUESTIONS ABOUT THE REMAINING GAS IN ALISO CANYON

Is any gas being left in Aliso Canyon during this leak? If so, why?

Yes. A minimum amount of working gas is required to remain in Aliso Canyon to avoid energy black-outs or brown-outs in greater Los Angeles. The CPUC issued an order to the Gas Company on January 21 to reduce pressure to 15 billion cubic feet in order to reduce the gas leak as much as possible while maintaining gas and electricity for residents in the region.

Aliso Canyon is currently an essential part of Southern California's natural gas system, serving over 11 million people in the Los Angeles Basin. Gas withdrawals from the facility are necessary to meet peak gas demand in the winter for home heating and cooking and to avoid widespread service disruptions in the event of unusual cold snaps or heavy rain events. Any widespread disruption in gas service would require technicians to visit each building and relight pilot lights in furnaces and water heaters before service is restored, a process that would take many days.

Aliso Canyon is also currently necessary in the summer months since major electric generating facilities in the region depend on gas from Aliso Canyon their fuel source. These facilities are needed to provide electricity during peaks of electrical demand due to high summer temperatures when air conditioning usage spikes across Southern California.

Does maintaining any working gas in Aliso Canyon interfere with the ability to successfully stop the leak?

No. The current method being pursued to stop the leak will utilize a relief well, which intercepts the leaking well far below the current leak. The pressure in the underground storage field will not make a difference to this effort.

Are there other gas storage facilities or pipelines that can be used to keep the system reliable without Aliso Canyon?

No. Existing pipelines into the LA Basin lack the capacity to make up all of the shortfall from Aliso Canyon. Other storage facilities in Southern California are too small or located too far away to provide gas quickly enough when needed.

QUESTIONS ABOUT PUBLIC HEALTH CONCERNS

Is it safe for nearby residents to stay in the community?



Yes. Air quality monitoring indicates that the low levels of air toxics, including benzene, detected in Porter Ranch outdoor air are below levels that pose significant health risks. Complaints by residents suggest that mercaptans, which are odorants required to be added to natural gas, have been present in Porter Ranch at varying levels since the gas leak started. Based on available information, mercaptans do not show an impact to long term health, especially at the levels present in Porter Ranch. However, some individuals may experience adverse effects to the strong odors of mercaptans such as nausea and headaches. State-approved air filters that remove mercaptans lessen the presence of these odors indoors.

How is air quality being measured near the gas leak and the nearby community?

The ARB and the Air District are operating six methane air quality monitoring stations throughout the Porter Ranch community, one of which also measures benzene. An additional benzene monitor is being installed by ARB. Real-time measurements from all of these monitoring stations are posted every hour to ARB's [website](#). In addition to this information, the Gas Company collects daily samples at the Aliso Canyon site and in the nearby community and posts the results [online](#).

Additionally, the Gas Company has two infrared cameras that provide a visual measure of any methane emissions and the ARB is working to review and verify this data and make it publicly available. The Air District also mandated an additional infrared camera to monitor for any leaks from other wells.

Finally, the Air District is collecting samples to measure long-term exposure levels every three days. All samples are sent to a laboratory where they are analyzed for volatile organic compounds, including benzene, and the laboratory results are publicly available on the Air District's [website](#).

What air monitoring is happening in communities outside of Porter Ranch?

The ARB is installing two additional methane monitors south of the 118 Freeway. Hourly data from these sites will be added to ARB's website.

Benzene has been discussed as a public health concern. What is it?

Benzene is a chemical that is a colorless or light yellow liquid at room temperature. Benzene evaporates into the air very quickly. Natural sources of benzene include volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, vehicle emissions and cigarette smoke. Although benzene can be dangerous because it is a carcinogen and affects the blood system, it has been measured below levels that would pose a significant health risk to people in Porter Ranch.

Is this gas leak dangerously increasing benzene levels in the community?

No. Twenty-four-hour benzene measurements made by the Air District in Porter Ranch ranged from 0.1 to 0.2 parts per billion, which is well below thresholds of concern for both long-term and short-term exposure to benzene.



What about reports that Southern California Gas Company reported incorrect measurements of benzene?

The Gas Company misidentified the normal background levels of benzene that were present before the leak. The Gas Company has since retracted its statements made in the Associated Press article. The air quality monitoring being performed by the Air District and the ARB continues to show that benzene levels are below the threshold for significant public health risk.

Is the methane itself a health concern?

No. According to health experts, methane does not pose a public health concern at the levels being measured in the community.

What are the benefits of the air filters recommended by state agencies?

Many commercially available residential air cleaners are not designed to remove odorous mercaptans and other sulfur-containing components. There are, however, several specialized models designed to effectively reduce indoor levels of those substances. The most effective filters are those with large quantities of activated charcoal combined with other substances that are able to remove most of the mercaptans/sulfur compounds. Recommended air cleaner models, filter replacement and maintenance frequency, and other practical information are available on the ARB [website](#).

To request air filtration devices or file a claim with the Gas Company, please contact 818-435-7707 or email AlisoCanyon@SoCalGas.com.

Are there historic reports of mercaptans or odors being present in Porter Ranch?

There have been anecdotal reports of odors in the Porter Ranch community in the past. The ARB is working with the Air District to compile available information on all odor and other complaints in the Porter Ranch and nearby communities, dating back as many years as possible. This information will be made public upon receipt.

Can public notices be placed on hiking trails in the mountains near the Aliso Canyon facility and in parks that provide information about air quality?

Yes. State officials will work with local officials to provide these notices upon their request.

QUESTIONS ABOUT THE FUTURE OF ALISO CANYON

What is being done to ensure this doesn't happen again?

In response to the Governor's emergency proclamation, state regulators have issued emergency regulations that require extensive testing and monitoring of all gas storage facilities in California. These regulations require daily monitoring of every well in Aliso Canyon and all other storage facilities, and



further require continuous testing to ensure proper operation of any gas storage wells. These emergency regulations are being expedited by state regulators and will be effective starting in February.

The Governor has also directed DOGGR to develop updated permanent regulations for gas storage facilities. These regulations will likely require increased well monitoring, updated well construction standards and more stringent operational and safety rules. These regulations will be informed by a comprehensive safety review of Aliso Canyon involving independent scientific experts from the Lawrence Livermore, Lawrence Berkeley, and Sandia National Laboratories.

Is the Aliso Canyon Underground Storage Facility applying for a 20-year extension to operate? Does their current permit to operate expire soon?

No. The Aliso Canyon Underground Storage Facility is not under a 20-year permit with the CPUC. The facility is allowed to operate, as long as it is “used and useful.”

The Governor’s emergency proclamation directs several state agencies to submit to the Governor’s Office a report that assesses the long-term viability of natural gas storage facilities in California, including Aliso Canyon.

Do any laws limit how far homes can be built from a gas storage facility?

Land use decisions and requirements are made at the local level. There are no state or federal guidelines or laws setting a minimum distance between homes and storage facilities nor any laws preventing developers from building houses near gas storage facilities such as Aliso Canyon. DOGGR and other state regulators are available to provide information to local officials in making these determinations.

QUESTIONS ABOUT ASSISTANCE FOR IMPACTED RESIDENTS

Can the government halt property taxes for impacted residents?

If your property has been damaged or destroyed due to the gas leak, you may be eligible for property tax relief. That could include situations where the value of property has been reduced as a result of restricted access to the property caused by the major misfortune or calamity. In such cases, the county assessor may reappraise the property to reflect its current condition. More information can be found on this [website](#).

Is any funding available to cover mortgage payments for homeowners who have been relocated due to the leak?

State and federal governments do not have authority to pay private mortgage payments for homeowners who have been relocated. However, some lenders may offer disaster assistance or waive late fees for borrowers who may become delinquent on their loans as a result of a disaster. Homeowners may also want to review any insurance policies for potential coverage.



The City Attorney issued an order requiring specific timeframes for communication with residents about relocations. How can I report a violation of this order?

The Los Angeles City Attorney's Office recommends the following:

- Call the SoCal Gas Temporary Relocation Mediation line at 818-700-3600 and speak with a claims specialist (between 8 a.m. and 5 p.m.) or leave a message; or
- Complete the online form that can be found on this [link](#).

A claims specialist will respond to you within 48 hours. If the claims specialist does not contact you within 48 hours, call the L.A. City Attorney's Office at 213-978-8340.

Is the Gas Company providing filters to families that choose to relocate?

Air cleaners are being made available by the Gas Company to all residents impacted by the gas leak including those who have chosen to temporarily relocate.

Is there any state or federal programs available to help someone unable to work because of a health consequence potentially attributable to the gas leak?

Californians who are unable to work because of a health condition or disability can file for benefits through the Employment Development Department. For more information on filing a claim see this [website](#).

QUESTIONS ABOUT STATE AGENCY RESPONSE

What is the role of state agencies in responding to the leak?

Seven state agencies have worked under the direction of the Governor's Office of Emergency Services to oversee efforts to stop the leak, protect public health and safety, ensure accountability and strengthen long-term oversight. These agencies are coordinating with each other several times a day on response actions. These agencies and their actions are listed below.

- Following the leak the **California Governor's Office of Emergency Services (Cal OES)** immediately notified all relevant agencies and departments, including assisting local agencies in establishing a physical post on-site at Aliso Canyon to better coordinate the local, state and federal response and information sharing. Cal OES is also maintaining a public [webpage](#) to provide real-time information regarding the state's multi-agency response and air quality monitoring.
- The **Division of Oil, Gas and Geothermal Resources (DOGGR)** is investigating the leak and overseeing Southern California Gas Company's efforts to stop it, including issuing emergency orders in [November](#) and [December](#) directing the Gas Company to halt gas injections into the storage facility, immediately work on alternatives to stop the leak and provide testing results, data, daily briefings and a written plan and schedule for sealing the well. DOGGR also



established a [panel of experts](#) from the Lawrence Berkeley National Laboratory, Lawrence Livermore National Laboratory and the Sandia National Laboratory to provide independent monitoring and technical expertise and review the Gas Company's data and information reported to the Division.

- The **Office of Environmental Health Hazard Assessment (OEHHA)** is reviewing air quality [measurements](#), evaluating public health concerns from the gas leak and assisting other state agencies in determining whether additional actions are needed beyond those already required by local public health agencies.
- The **California Public Utilities Commission (CPUC)** is [investigating](#) the gas leak to determine its cause and any possible violations and is collecting [information](#) about the costs of responding to and fixing the leak. DOGGR also directed the Gas Company to retain and pay for an independent, third party to perform a technical [analysis](#) of the well failure and its cause and share the results with regulators and the public.
- The **California Air Resources Board (ARB)** is [measuring](#) the leak rate and estimating total methane emissions over the duration of the leak and is using ground-level monitoring, specially-equipped airplanes, and satellite information to provide [updates](#) of emissions.
- The **Division of Occupational Safety and Health (CalOSHA)** is ensuring on-site worker safety at Aliso Canyon.
- The **California Energy Commission (CEC)** is coordinating with the CPUC to maintain energy reliability during this incident.