

Massive methane gas leak imperils Los Angeles neighborhood

Evan Blake
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Earlier this month, California governor Jerry Brown belatedly declared a state of emergency in the Porter Ranch neighborhood of Los Angeles, in response to the ongoing natural gas leak from a well at the nearby Aliso Canyon underground storage facility, which is owned and operated by Southern California Gas Company (SoCalGas). At present, more than 4,500 Porter Ranch families in the relatively affluent suburban enclave, roughly a third of the local population, have fled.

An average of 1.6 million pounds of methane have been released by the well daily, according to recent estimates. This rate has begun to slow slightly as pressure in the well decreases. Since methane is roughly 84 times more potent at trapping energy than carbon dioxide, this amount is equivalent to the daily emissions of 4.5 million cars or six coal-fired power plants.

The leak, likely the largest methane gas leak in US history, is attributable to the dilapidated character of infrastructure in America and the subservience of social needs to private profit. A substantial cause of the leak was the absence of a subsurface safety valve, which was removed by SoCalGas in 1979 and never replaced. At that time, the existing safety valve was old and leaking, and because the company was not legally obligated to replace it, the company apparently chose to save money instead.

The well was drilled in 1953, before wells were designed to have two cement casings line the entire length of the well to prevent leakage. On October 23, a breach occurred in the single casing of the well at 470 feet deep, causing natural gas to seep through the surrounding environment to the surface. The absence of a safety valve at the base of the well, which would have cut off access to the underground aquifer, the largest west of the Mississippi, has led to the continual outpouring of natural gas.

After first reporting the leak to state authorities, but concealing its existence from the public, SoCalGas made

seven “kill attempts” in which they injected slurry into the well to try to stop the flow of gas. It is believed that one of the initial slurry injections, performed on November 13, substantially widened the area through which gas is leaking.

Each “kill attempt failed” to stop the flow of gas, and the attempts have cumulatively created a gaping hole 25 feet deep, 80 feet long and 30 feet wide, upon which the well head is now dangerously suspended by wires, according to California Department of Conservation officials who spoke with the *Los Angeles Times*.

The state regulators told the *Times* that a well-head blowout is now a “significant concern.” In the event of a blowout, “highly flammable gas would vent directly up through the well...rather than dissipating as it does now via the subsurface leak and underground channels,” according to the *Times*.

Gene Nelson, a physical sciences professor at Cuesta College, told the *Times*, “If the wellhead fails, the thing is just going to be full blast. It will be a horrible, horrible problem. The leak rates would go way up.”

SoCalGas has declined to speak with media about the current state of the well, and has not made available any pictures of the well site.

The company did not begin drilling a relief well until December 4, six weeks after the leak began. Greg McCormack, an expert in petroleum engineering, told *LA Weekly*, “They really should have started drilling that well as soon as they found out it was leaking. They would be well on their way to being able to control the well.”

Barring the event of a blowout, the relief well is expected to halt the methane leakage by late February or early March. Speedup of the drilling process for the relief well, which also poses the risk of explosion, is likely as the company seeks to mitigate public outrage. Since news coverage of the leak first began, stock for Sempra Energy—the holding company responsible for

SoCalGas—has fallen by nearly 15 percent.

Beginning in October, nearby residents immediately reported smelling a foul odor, stemming from methyl mercaptan, a chemical added to odorless gas to make it detectable. By December, hundreds of residents were reporting headaches, nosebleeds, nausea and other symptoms, attributable to the methane, methyl mercaptan and other volatile organic compounds, including the carcinogen benzene.

Last week, the Associated Press revealed that SoCalGas has been misrepresenting the levels of benzene observed since monitoring began in November. While SoCalGas had been claiming that only two air samples over the past three months showed elevated concentrations of the compound, AP discovered 14 such instances in the company's data, which SoCalGas spokeswoman Kristine Lloyd attributed to "an oversight." Benzene has long been known to cause leukemia and other cancers, with the World Health Organization cautioning, "No safe level of exposure can be recommended."

Children, the elderly and those with preexisting conditions are most vulnerable to these pollutants, whose long-term consequences remain unknown. For a time, an average of roughly 50 children per day saw Porter Ranch school nurses for severe nose-bleeding, while some babies have been rushed to the emergency room with shortness of breath. Two schools in the city are scheduled for relocation this month.

Nearby residents have borne the immediate brunt of the disaster. Brandon Ly told *LA Weekly*, "I feel like I'm trapped. I'm stuck in a poisonous house."

Neighbor Arlene Stein said, "You can smell it really bad on our cul de sac. When it's bad, it's nauseating. I've had headaches almost continuously for the last couple of months."

The full scale of the crisis was not made public until an aerial survey was conducted by the state Air Resources Board. The survey found that over the first three weeks of November, when SoCalGas conducted its slurry injections, the amount of methane released increased from 44,000 kilograms per hour to 58,000.

In late December, the Environmental Defense Fund released aerial footage showing a bird's-eye, infrared view of the gas leak. Others have uploaded similar infrared videos from the ground, demonstrating the pervasive flooding of methane into Porter Ranch.

Nearly three months after the leak began, Brown finally declared a state of emergency on January 6. Brown's reputation as a supposed "progressive" on environmental

issues, dating back to his first term as governor in the 1970s, is increasingly recognized as fraudulent by many Californians.

Brown's sister and fellow Democrat, Kathleen Brown, is a paid board member of Sempra Energy. Since 2010, Brown himself has received over \$100,000 in campaign contributions from Sempra Energy.

Brown's emergency measures are cosmetic only, designed for the newspapers and not to address the problem. The emergency regulations only apply to a dozen natural gas storage fields located in nine counties, and commit no public funds to address the leak or recompense local residents suffering health problems. They also do nothing to address the root cause of the crisis—the continued reliance upon dilapidated infrastructure across the oil and gas industry, which would rather pocket profits in the short term.

The absence of a safety valve is not at all uncommon for natural gas wells, many of which are as old or older than the Aliso Canyon well. SoCalGas itself reported to the Public Utilities Commission in 2014 that 229 of its wells were at least 57 years old, while 52 of them were at least 70 years old. They have admitted that many of their wells are similarly ill-prepared for a breach, posing the risk that the ongoing environmental disaster could become a commonplace event in the near future.

The Aliso Canyon gas leak recalls the 2010 BP oil spill, with many labeling it the worst environmental catastrophe since that event. A more recent environmental crisis involving a comparable amount of corporate criminality and government collusion is the ongoing water crisis in Flint, Michigan. Each of these environmental and social catastrophes lays bare the essential relations of capitalism, in which the needs of society are trampled to serve the interests of the financial aristocracy.



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