

A runaway natural gas leak from a storage facility in the hills above Los Angeles is shaping up as a significant ecological disaster, state officials and experts say, with more than 150 million pounds of methane pouring into the atmosphere so far and no immediate end in sight.

The rupture within a massive underground containment system — first detected more than two months ago — is venting gas at a rate of up to 110,000 pounds per hour, California officials confirm. The leak already has forced evacuations of nearby neighborhoods, and officials say pollutants released in the accident could have long-term consequences far beyond the region.

Newly obtained infrared video captures a plume of gas — invisible to the naked eye — spouting from a hilltop in the Aliso Canyon area above Burbank, like smoke billowing from a volcano. Besides being an explosive hazard, the methane being released is a powerful greenhouse gas, more potent than carbon dioxide in trapping heat in the lower atmosphere.

Scientists and environmental experts say the Aliso Canyon leak instantly became the biggest single source of methane emissions in all of California when it began two

months ago. The impact of greenhouse gases released since then, measured over a 20-year time frame, is the equivalent of emissions from six coal-fired power plants or 7 million automobiles, environmentalists say.

"It is one of the biggest leaks we've ever seen reported," said Tim O'Connor, California climate director for the Environmental Defense Fund, a nonprofit group that obtained the video. "It is coming out with force, in incredible volumes. And it is absolutely uncontained."

The gas is pouring from an underground storage field owned by the Southern California Gas Co. The facility, the largest of its kind on the West Coast, contains billions of cubic feet of natural gas, stored under pressure to supply the company's 20 million customers. While the exact cause of the leak is unknown, company officials believe the problem began when an underground well casing failed, allowing the pressurized gas to push through geological cracks to the surface near the community of Porter Ranch.

About 1,700 homes and two schools were evacuated because of the leak, as noxious odors settled over Porter Ranch, about 20 miles from downtown Los Angeles. California officials have aided the company in a series of efforts to stop the leak, but the state officials say it could be weeks or months before the gas flow is halted.

The gas company has pledged in statements to "execute all possible efforts" to plug the leak.

"SoCalGas recognized the impact this incident is having on the environment," company president Dennis V. Arriola said in a letter last week to Gov. Jerry Brown (D).). The company has drilled a relief well while also pouring a brine solution and other materials into the damaged well in an attempt to seal it, so far without significant results.

The company's losses in natural gas alone are estimated in the tens of millions of dollars, with total damages likely to exceed that figure many times over. A number of neighbors already have filed lawsuits, part of a growing outcry that includes calls for the company to close the facility altogether.

The leak is a setback to California's efforts to reduce emissions blamed for climate

change. The Brown administration is seeking to implement the country's toughest standards on greenhouse-gas emissions by promoting renewable energy and strengthening measures to prevent methane from escaping from refineries, pipelines and storage facilities.

"We've been working to terminate leaks," Dave Clegern, a spokesman for the California Air Resources Board, said in an interview. "This has been distressing to watch."

While the leak is unusually large, scientists and environmental groups have long sought to call attention to the problem of methane emissions from oil and gas operations.

The Obama administration announced proposed regulations over the summer to cut down on methane leaks from drilling and storage, citing concerns about the climatic impact of the approximately 7 million tons of methane lost to the atmosphere from industrial sources in the United States each year. Pound for pound, methane is about 25 times more potent as a greenhouse gas than carbon dioxide as a greenhouse gas.

Adam Brandt, an assistant professor at Stanford University's Institute for the Environment, said substantial leaks can sometimes go completely undetected.

"Even large leaks can be hard to find if they occur away from populated areas,"
Brandt said. "One important step forward for sustainability will be to design ways to
quickly detect and fix these large leaks soon after they happen."

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