

# ALISO CANYON GAS LEAK

## Health Fact Sheet



### Overview

This fact sheet provides information about the natural gas leak at the Aliso Canyon Storage Facility and its related health impacts to Porter Ranch residents. The natural gas leak began on October 23. The Department of Public Health (Public Health) determined that the emissions from this facility are causing health effects in some individuals in the Porter Ranch community. Exposures to these chemicals are generally not expected to lead to permanent or long-term health problems. However, short-term, recurrent symptoms may occur with these exposures as long as the odors persist, and some individuals may be more sensitive than others. Outdoor air is being monitored and, Public Health will continue to assess air quality until the gas leak is resolved.

### Natural Gas

Natural gas in California is primarily composed of methane. Because natural gas is odorless by itself, trace amounts of odorants called Mercaptans are added so that a gas leak is easy to detect. Southern California Gas Company uses an odorant called Scentinel<sup>®</sup> T-50, which contains two ingredients, tetrahydrothiophene (THT) and t-butyl mercaptan. These gases have strong odors, even at very low air concentrations.

### Health Effects

**Methane:** Methane is an odorless gas, and the primary health hazard associated with methane is its flammability. Methane inhalation in this setting generally does not lead to health effects. Methane level readings in Porter Ranch are substantially lower than flammable limits, and do not pose a health concern to residents in the area.

**Mercaptans:** At this time, the natural gas leak is releasing very low levels of mercaptans into the air. Mercaptans have a strong "rotten-egg," "garlicky," or "skunk-like" odor and can be irritating to the eyes, skin, and respiratory system at low levels. In this incident, the levels are so low they can escape detection by most monitoring equipment, however individuals are capable of detecting these odors. These low level exposures may cause eye, nose and throat irritation, coughing and nasal congestion, shortness of breath, nausea, stomach discomfort, dizziness, and headaches. Symptoms vary depending on the frequency and duration of the odor and will generally go away once the odor exposure has stopped. Odors are not associated with long-term health effects, but they may cause recurrent symptoms on a daily basis in some individuals as long as the odors remain.

### Public Health Directive to Southern California Gas Company

If you are experiencing odors and symptoms AND you wish to be temporarily relocated from your home, Southern California Gas Company is offering free temporary relocation for any individuals, families, and pets.

**Relocation is not mandatory.** To learn more about relocation assistance, call 404-497-6808.

If you or your health care provider have health-related questions, please call Dr. Cyrus Rangan, Director of the Bureau of Toxicology and Environmental Assessment, at 213-738-3220.

### For More Information

Los Angeles County Department of Public Health, 888-700-9995

South Coast Air Quality Management District, 800-CUT-SMOG

Los Angeles County Fire Department, 323-881-2411

Southern California Gas Company, 800-427-2000



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**PRELIMINARY ENVIRONMENTAL HEALTH ASSESSMENT  
Natural Gas Leak from Aliso Canyon Storage Field, Southern California Gas Company**

**11-19-15**

*Note: On October 28, 2015, Los Angeles County Department of Public Health (DPH) was asked by the Office of Emergency Management to assess whether conditions at the subject site could be adversely affecting the health of nearby residents. Based on review of available environmental and health data, DPH has prepared this Preliminary Environmental Health Assessment.*

**Background:** On October 23, 2015, a natural gas leak was discovered by Southern California Gas Company (SoCal Gas) at the Aliso Canyon Storage Field. The Los Angeles County Department of Public Health (LADPH) was notified on 10.28.2015. Odors have been affecting residents in the Porter Ranch area. LADPH attended a community meeting hosted by SoCal Gas. LA County Fire Department was also in attendance. The community meeting focused on exposure to methane gas, and mercaptans which are odorants added to natural gas. LADPH advised that methane gas itself poses little direct health threat upon inhalation in an outdoor space. Mercaptans, however, do pose a health threat to the community, including short-term neurological, gastrointestinal, and respiratory symptoms that may result from inhalation.

**Problem Identification:** Daily complaints are being received by LADPH from neighboring Porter Ranch residents regarding strong odors from the Aliso Canyon site. Over 200 odor complaints have also been logged by the South Coast Air Quality Management District. Common health complaints include nausea, dizziness, vomiting, shortness of breath, and headaches. Complaints are associated with the detection of sulfur-type odors. These health complaints are consistent with inhalational exposure to mercaptans. It should be understood that odors alone can be directly responsible for health effects, and that these health effects currently reported by area residents are consistent with exposure to mercaptans at the odor threshold. Correspondence from SoCal Gas on 11.18.15 indicates that the process to cap and repair this leak may take several months.

**Potential Other Sources of Exposure:** None.

**Potentially Affected Population:** The site is adjacent to residential properties in the Porter Ranch neighborhood. These exposures do not constitute an immediate danger to life, and permanent or long-term health effects are not expected. Daily, short-term symptoms are expected to continue, as long as the odors remain.

**Assessment:** SoCal Gas has been addressing the problem from a technological standpoint since its inception. SoCal Gas has indicated that the problem is very complex, and requires a complex solution.

SoCal Gas is not able to provide a timeline for the amelioration of odors in the residential areas. Odors are causing significant symptoms in some area residents. These symptoms are expected to persist as long as the odors persist. Solutions to protect the public's health include eliminating the odorous emissions, or offering temporary relocation assistance to affected persons in the area.

**Recommendations:**

- (1) SoCal Gas should continue the abatement process to repair the leak. Odor elimination and public protection should be the highest priorities in the development of all mitigation plans.
- (2) LADPH will issue a directive to SoCal Gas to continue the abatement of odorous emissions in the area on an expedited basis, and, in the interim, to offer free, temporary relocation to any area residents affected by odors from the Aliso Canyon site.
- (3) The regulatory agencies should continue to explore appropriate interventions to expedite the characterization and repair the leak.

*Cyrus Rangan MD FAAP ACHC*

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