System Operations and Aliso Canyon SS-25 Incident

Overview of SoCalGas
SoCalGas - Company Overview

- Nation's largest natural gas distribution utility; fifth largest in the world
- In business for 140+ years
- 12 counties and 500+ communities served
- 21.3 million consumers; 5.9 million gas meters
- 20,000+ square miles of service territory
- Gas system operator for San Diego Gas & Electric (SDG&E)
- Over 3,500 miles of transmission pipeline\(^{(1)}\)
- Nearly 100,000 miles of distribution pipeline\(^{(1)}\)
- 137 Bcf billion cubic feet of gas storage capacity (3% of national storage capacity)
- 8,300+ full-time and part-time employees

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\(^{(1)}\) DOT defined as of year-end 2013
\(^{(2)}\) 2014 weighted average
Our Customer Sectors
(% of deliveries and number of customers)

Residential
24% (5.5 million)

Commercial/Industrial
25% (209K)

Electric Generation
27.0% (52)

Refrineries
7% (34)

Wholesale
16% (5)

Natural Gas Stations
1% (312)

Marketers (Backbone Transmission)
(312)

Unbundled Storage
(100)
Sources of Natural Gas Supplies to Southern California

Over 90% of gas used in southern California comes from out of state sources in the Southwest, Rockies, and Canada.

Out of state gas supplies are delivered to California through a network of interstate pipelines.

There are no California production sources in the SDG&E service territory.

Western Canada Sedimentary Basin

Rocky Mtn Basin

San Juan Basin (NM)

California production

Permian Basin (TX & NM)
<table>
<thead>
<tr>
<th></th>
<th>Playa del Rey</th>
<th>La Goleta</th>
<th>Honor Rancho</th>
<th>Aliso Canyon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>137.1</td>
<td>2.4</td>
<td>21.5</td>
<td>27.0</td>
</tr>
<tr>
<td><strong>850</strong></td>
<td>75</td>
<td>127</td>
<td>235</td>
<td>413</td>
</tr>
<tr>
<td><strong>3,680</strong></td>
<td>400</td>
<td>420</td>
<td>1,000</td>
<td>1,860</td>
</tr>
</tbody>
</table>

**SoCalGas Storage Facilities**

<table>
<thead>
<tr>
<th>Inventory (Bcf)</th>
<th>Injection (MMcfd)</th>
<th>Withdrawal (MMcfd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>86.2</td>
<td>413</td>
<td>1,860</td>
</tr>
</tbody>
</table>

Glue to be of service.
Aliso Canyon Storage Field

- SoCalGas acquired the field in 1972. Approximately 3,600 acres of land.
- Depleted oil reservoir, by far the most common type of gas storage field in the U.S.
- Fifth largest capacity in the U.S.
- 115 wells provide injection and withdrawal capability.
- Critical element of SoCalGas' gas delivery system for electric grid reliability and service to millions of homes and businesses.
- Supports expanded use of renewable energy resources in California.
Well SS-25

» Storage well regulated by DOGGR

» Regular maintenance and inspection
  ▪ Daily observations of equipment and conditions.
  ▪ Weekly surface pressures measured and recorded.
  ▪ Monthly wellhead inspections and average pressures submitted to DOGGR.

» Annual well inspections for indications of leaks.
  ▪ October 2014 – Passed most recent annual inspection.

» Indications are natural gas is leaking from the well pipe casing into the ground near the well.

Glad to be of service.
Relief Well Process

Phase 1 – Set Foundation
Install initial segment of relief well

Phase 2 – Approach
Drill close enough to locate leaking well with technology

Phase 3 – Locate
Positively identify leaking well

Phase 4 – Follow
Drill close enough to intercept leaking well

Phase 5 – Intercept and Kill
Drill through leaking well. Pump mud and fluids to stop flow of gas

Southern California Gas Company
Sempra Energy utility

12/28 - 7th successful attempt for relief well
Mitigation Measures

» Continuing to reduce reservoir pressure by withdrawing gas to serve customers.

- Operating overall SoCalGas system to support Aliso Canyon operations:
  - *Transmission Zone capacities have been adjusted as needed and posted as a maintenance notice on ENVOY in order to accommodate operations at the Aliso Storage Field.* (Posted on SoCalGas Envoy System)
  - Northern and Southern Zone capacity “windows” reduced and posted on Envoy to support Aliso Canyon operations.

- Measured Aliso Canyon storage inventory reduced from 77 BCF (Oct 23, 2015) to 49.5 BCF (Dec 27, 2015)

» Engineering capture system solution for gas leaking to surface.
Green indicates where samples are being consistently collected twice daily. Blue indicates where additional samples have been collected.
Leak poses no immediate danger or long-term health threat; however, odor is causing symptoms and discomfort

Why it’s safe

- LA County Public Health has confirmed these levels “do not constitute an immediate danger to life, and permanent or long-term health effects are not expected.”
- LA County Health states: “short-term symptoms are expected to continue, as long as the odors remain”
- 1+ mi. from and ~1,200 feet above the nearest home
- Natural gas is lighter than air, so it quickly rises and dissipates
- Community air sampling results have read below any level of concern
Air filtration and sealing, and temporary relocation for those affected

» SoCalGas is also providing temporary housing accommodations to alleviate symptoms some are experiencing.

» SoCalGas is offering air filtration and air purification for homes and school classrooms using activated carbon filters to reduce or eliminate odors and alleviate symptoms.

» As much as possible, SoCalGas is accommodating alternative housing arrangements that are generally comparable to the core offer.
Dedicated Community Outreach and Assistance Resources

» Community Resource Center
   located in Porter Ranch Town Center

» Dedicated website for Aliso updates:
   www.AlisoUpdates.com

» Weekly customer bulletins by mail and email

» Outbound calls and text notifications for significant events

» Porter Ranch Community Advisory Committee
Questions and Discussion