



## ALISO CANYON FREQUENTLY ASKED QUESTIONS

### What is the status of the root cause analysis of the natural gas well leak at SS25?

SoCalGas continues to work in support of the CPUC Safety and Enforcement Division and DOGGR in their ongoing investigation of the root cause of the leak at Aliso Canyon. The investigation is now expected to be completed during the first half of 2017, but the timing is under the control of the CPUC Safety and Enforcement Division and DOGGR.

### Is the Aliso Canyon storage facility safe to operate before the results of the root cause analysis are known?

Consistent with new state laws and regulations and with many of the recommendations made by the Department of Energy (DOE) and Pipeline and Hazardous Materials Safety Administration (PHMSA), SoCalGas® has made wide-ranging infrastructure, technology, and safety enhancements at Aliso Canyon. The company has requested regulatory approval to resume injection operations through approved wells at its Aliso Canyon storage facility and replenish the supply of natural gas at the facility to support the heating, cooking, and electricity needs of residents and businesses across Southern California.

Over the last year the company has made extensive physical upgrades and deployed advanced technologies to enhance safety at Aliso Canyon. These enhancements strengthened the facility's infrastructure, introduced real-time pressure monitoring, and enabled improved communications with stakeholders. As we move forward, we remain committed to a continuous improvement process.

SoCalGas completed a comprehensive fitness for service analysis of the storage facility, including an assessment of the design, construction, operation and maintenance of the surface facilities, underground storage wells and reservoir. Fitness for service has been validated through compliance with applicable federal and state regulations and the completion of the Comprehensive Safety Review under the direction and oversight of the Division of Oil, Gas, and Geothermal Resources (DOGGR). More detail on the assessment and validation is available in the [fitness for service](#) analysis submitted to DOGGR and the California Public Utilities Commission (CPUC). This fitness for service analysis demonstrates that appropriate measures have been undertaken to provide comprehensive ongoing validation of the safety and integrity of each well at the field and that it is safe to resume injection prior to the completion of the root cause analysis.

DOGGR and CPUC are responsible for confirming that the conditions to resume injection operations at Aliso Canyon have been met. DOGGR must hold a public hearing before any determination is made.

#### REFERENCES

**Letter from SoCalGas to DOGGR and CPUC**  
[www.conservation.ca.gov/dog/Documents/Aliso/11-01-16\\_SoCalGas\\_letter\\_to\\_DOGGR\\_and\\_CPUC.pdf](http://www.conservation.ca.gov/dog/Documents/Aliso/11-01-16_SoCalGas_letter_to_DOGGR_and_CPUC.pdf)

**DOGGR Acknowledgement of Receipt of Letter from SoCalGas**  
[www.conservation.ca.gov/dog/Documents/Aliso/11-01-16\\_DOGGR\\_Acknowledgment\\_of\\_Receipt\\_letter\\_to\\_SoCalGas.pdf](http://www.conservation.ca.gov/dog/Documents/Aliso/11-01-16_DOGGR_Acknowledgment_of_Receipt_letter_to_SoCalGas.pdf)



## **What safety measures are in place at the storage facility?**

Beyond any new or existing requirements, SoCalGas invested in system upgrades that enhance operations, technology, and safety at Aliso Canyon. SoCalGas has strengthened the infrastructure, creating multiple layers of safety.

- The inner metal tubing of every well approved for injection has been replaced. In total, more than 40 miles of new steel piping has been installed.
- A physical barrier, or casing around the new inner metal tubing – tested to ensure integrity under pressure – will provide a secondary barrier of protection against potential leaks.
- Withdrawal and injection of natural gas now will occur only through newly installed inner metal tubing of wells that have passed all tests and have been approved for use by DOGGR.

SoCalGas has implemented a suite of advanced monitoring technologies and practices that will allow for early detection of leaks and help quickly identify anomalies, such as changes in well pressure. This will support detection and mitigation efforts. We also recently submitted a risk management plan to DOGGR for review that includes ongoing physical assessments and monitoring of each well to enhance the safety of the facility. In addition, a number of technology and safety enhancements and practices to improve monitoring have been introduced, including:

- An infrared fence-line methane detection system with eight pairs of infrared methane monitors;
- Around-the-clock pressure monitoring of all wells in a 24-hour operations center;
- Daily patrols to examine every well are conducted four times each day;
- Daily scanning of each well using sensitive infrared thermal imaging cameras that can detect leaks;
- Enhanced training for our employees and contractors.

In addition, at DOGGR's direction, SoCalGas will operate wells at a reduced pressure, increasing the margin of safety.

## **Will subsurface safety valves be installed on the wells?**

For the past 30 years, SoCalGas has been installing, and continues deploying, a surface safety valve on every operating storage well at Aliso Canyon.

Over many years, SoCalGas has attempted to install and safely operate deep set subsurface safety valves at many underground storage wells, including wells at Aliso Canyon. The deep set subsurface safety valves (SSSVs) often did not function as designed, creating additional safety problems by not closing as intended, becoming dislodged and potentially blocking access within the well, and impeding the ability to kill the well.

- Just two weeks ago, the Federal Interagency Task Force issued a final report on Ensuring Safe and Reliable Underground Gas Storage. In that report, the Interagency Task Force notes concerns with the “reliability and impact on production capacity” of deep set SSSVs.

In fact, the report recommends that further research be conducted on downhole, or deep set subsurface SSSVs because “it remains unclear whether [SSSVs] should be more widely deployed in U.S. storage facilities.”

- SB 887 does not require the installation of SSSVs, but instead directs the State agency with regulatory oversight over underground storage safety, the DOGGR, to consider whether deep set SSSVs would promote well integrity in developing new regulations.
- This is consistent with our own experience over many years and SoCalGas supports the recommendation for further study. SoCalGas is committed to working with the appropriate state and federal regulators to determine whether deep set SSSVs can be safely and reliably used at underground storage facilities and to evaluate potential improvements in this technology.

### **What plans does SoCalGas have to mitigate the greenhouse gas emissions from the leak?**

We are evaluating greenhouse gas emissions mitigation from multiple sources, such as dairies and landfills in California. We have signed letters of intent with several California dairies to manage emissions and will finalize our mitigation plan in the coming months.

### **What will happen with the Community Resource Center? How will Porter Ranch residents be notified of future developments related to Aliso Canyon?**

Since its opening in December 2015, the Community Resource Center (CRC) has facilitated more than 38,000 visits from residents. The CRC will close on Friday, November 18, 2016. SoCalGas will continue to provide regular Aliso Canyon updates to the community via email.

Also, to strengthen outreach to the Porter Ranch community, we have formed a new Aliso Canyon Community Advisory Council that consists of residents, business owners, and community leaders from various constituencies throughout the Porter Ranch area, as well as representatives from faith-based organizations, the Los Angeles Police Department, the Los Angeles Fire Department, and other stakeholders.

An air quality notification system that provides residents the opportunity to receive prompt information via phone call, text message and/or email, in the event of a reportable release of natural gas, is now operational. Community members can register for notifications by visiting [socialgas.com/airqualitynotifications](http://socialgas.com/airqualitynotifications) or by calling 1-877-238-0092.

For more information, please visit [socialgas.com/alisoupdates](http://socialgas.com/alisoupdates)