

To: PRNC
From: Teresa Schilling

Here is an update on the testing at the Aliso Canyon Storage Field and the Division of Oil and Gas' regulatory actions for the Porter Ranch Community Association's upcoming meeting this week. For starters, here are some developments of interest:

- Southern California Gas is expected to submit its first testing report of wells in the field as early as next week. The Division of Oil and Gas is creating a special web feature that will provide a straightforward accounting of the testing reports and keep a visual tally on how many wells have been tested. We will send you that URL when it is completed.
- To make public research easier, the Division has also established a chronological history of its actions and orders involving SS25. It also has links to other agencies' pages. Many of those pages have ongoing testing data and information.
<http://www.conservation.ca.gov/dog/Pages/aliso-canyon.aspx>

As you know, the Division has begun rulemaking to make significant revisions natural gas regulations. This rulemaking effort will build upon the requirements adopted by emergency rulemaking to update regulations governing the Gas Storage Program.

Note that the document the group is reviewing and commenting on (with the March 18th due date) is a discussion draft designed to collect initial feedback before the regulations are formally drafted. There will be additional opportunity to continue involvement with drafts as the process unfolds and the Division will schedule public meetings to gather feedback and input. Discussion about issues such as injection through casings, distances requirements and safety valves will be addressed in that process.

I can understand the Association's desire to understand more about well construction and operations in order to participate in the regulatory process. As we discussed, it may be helpful to invite a third party to an upcoming meeting give an overview about well construction and operations. Professors and experts are likely to have a visual tutorial, which would be of help in understanding the complexities of wells. To that end, I have been researching online resources in that area to help with our public outreach in the future. As a result, I've collected a list of experts, including potential professors at Cal State Northridge, and sent them to you in a separate email. I'd be happy to work with you on finding someone.

In addition, here is a link I've found helpful when talking with experts about well construction and processes: https://cogcc.state.co.us/COGIS_Help/glossary.htm

I spoke with engineers in the field to help answer your questions, as follows. Some of the answers may address multiple questions. For other questions we may need more information.

- **Is the casing always made out of cement or is it some other material?** Casings are made out of steel pipe. Cement is pumped around the outside of the steel pipe to add an additional layer of safety between the well's steel casing and the surrounding rock.

- **Do all Aliso Canyon wells have casing the length of the well?** All wells generally have at least two casing strings – surface and production. Those lengths vary, in part dependent on the depth of the well. The surface casing starts at the ground surface and, in the Aliso Canyon Field, generally extends to a depth of about 900’-1,000’ feet deep. The production casing runs inside the surface casing down into the gas storage formation.
- **You asked for public input on safety valves, but the public has no idea where the valve is located in the well, how it works, what its failure rate is and what other options exist.** The depth of subsurface safety valves can vary. Operators report that the failure rates of subsurface safety valve can be as frequent as every other year. The Division needs further information which will developed in its public rulemaking process to determine what mechanical shut-off options are out there.
- **What is the likely distance requirement on new regulations in place of the old 300’ regulation?** This will be a topic of discussion in the rulemaking. The current rule does not draw a distinction between a pressured gas storage facility and an oil or gas well that requires pumping for production. Such distinction may be appropriate in forthcoming regulations.
- **Are you identifying a new set of safety standards for well construction and operation and will all wells in California be required to comply?** The Department of Conservation’s [Renewal Plan](#) identifies well construction standards as a subject for regulatory revision.
- **Is there a maximum well age?** No. But each well in the Aliso Field must pass the comprehensive well-by-well tests and it is not unreasonable to assume that older wells may not be able to pass those tests. If they cannot pass or be remediated, they will have to be permanently closed. Again, the Department will post the results of each test on its website.
- **How many wells in Aliso Canyon not meeting integrity standards do you estimate would need to be capped and how many operative wells would that leave?** To answer that question, we need to complete the comprehensive well review.
- **Are there risks of further leaks around the ss25 crater?** The well was permanently sealed. There may be residual seepage of gas that was in the ground during the time the well was leaking, but it that is diminishing quickly. CARB and SCAQMD are monitoring for that.
- **It sounded like the new regulation was going to require injection and production only through the tubing, no longer through the casing?** After the well-by-well review is complete injection and withdrawal at the Aliso Canyon Storage Field injection will only take place through tubing. The temperature and sound survey will be conducted with production tubing in place. Information about that process can be found on the Department’s [Aliso Canyon web page](#).
- **Does the casing just become an insurance policy for the tubing? What is the role of the casing?** Casing and cement isolates the well after it has been drilled. The casing and cement prevents fluid from moving from one geologic rock interval to another interval. The production tubing will be set inside the casing and isolated with a packer. This will control fluid flow from the reservoir formation to the wellhead. However, the casing is also an “insurance policy,” as you put it, in that if the tubing were to fail while under the pressures of injection or production, the casing would be the back-

up containment to prevent gas from escaping into the surrounding geology and to the surface outside the well.

- **Why are there still spikes in methane on the fenceline monitoring site** (screen shot in document)? Absent this screen shot, we can't speculate but we're happy to confer with CARB and SCAQMD.
- **Who will be creating a contingency plan for the potential future failure of Aliso Canyon to ensure gas reliability in the absence of this facility?** California Public Utilities Commission and California Energy Commission can answer questions about reliability and contingency planning.