



Aliso Canyon Disaster **Health Research Study**

Scientific Oversight Committee

Follow Up Scoping Meeting

July 28, 2020

Meeting Summary

Table of Contents

Table of Contents	2
Agenda.....	2
Summary.....	2
Meeting Overview	4
Resources Referenced during the Meeting	6
Follow Up Q&A.....	6

Agenda

10:30 – 10:38 AM	Opening Remarks
10:38 – 11:08 AM	Community Advisory Group (CAG) Presentation ▪ Address Scientific Oversight Committee (SOC) questions
11:08 AM – 12:08 PM	Open Discussion ▪ SOC Q&A and response ▪ Health Study Priorities Discussion
12:08 – 12:23 PM	Open Q&A Session ▪ Solicit questions from the community members through chat function
12:23 – 12:28 PM	Public Comment
12:28 – 12:30 PM	Closing Remarks

Summary

Date	July 28, 2020	
Time	10:30 AM – 12:30 PM PDT	
Platform	WebEx Events	
Meeting Objectives	1. CAG provides SOC members with background information on the Aliso Canyon Disaster 2. Increase understanding of CAG goals and priorities for the Health Study	
ACDHRS Project Team	Kristina Vaculik, MPH Cristina Vega Katie Butler, MPH, DABT Muntu Davis, MD, MPH (DPH)	Susan Harden Ann Newton Sara Katz Karen Franco Winnie Chen



Public Officials	Rainbow Yeung (AQMD) Denny Shaw (AQMD)	
CAG Attendees	Andrew Krowne Brian Allen Bruce Hector, MD Chad Cheung Craig Galanti Jeff Hammond Patty Glueck	Lori Aivazian Mary Blair Melissa Messer Michael Benedetto Mike Keiser, PhD Mihran Kalaydjian
SOC Attendees	Christopher Sistrunk, PhD Jeffrey B. Nordella, MD Jill Johnston, PhD Joan A. Casey, PhD Lisa M. Brown, PhD, ABPP Lisa M. McKenzie, PhD, MPH Sarah Lowe, PhD Sophia S. Wang, PhD Tee Lamont Guidotti, MD, MPH, DABT	Andrea Polidori, PhD Daniel Dodgen, PhD John Budroe, PhD Jorn Herner, PhD Paul Simon, MD, MPH Tracy Barreau, REHS
Attendance Summary	Public Attendees: 16 Total Attendance: 59	
Key Meeting Takeaways	▪ The CAG and community members are concerned about incomplete exposure data related to the Aliso Canyon Blowout ▪ Questions that community members would like answered are: ○ What are the near and long-term human and pet health impacts and risks to the community surrounding Aliso Canyon? ○ What are the health impacts of the unprecedented exposure to a unique combination, duration, and quantities of known and unknown chemicals and substances and their potential synergistic toxicity? ○ What are the health impacts from the facility before, during, and after the blowout? ▪ The CAG's critical success factors for the ACDHRS include: ○ A study that examines current and future health concerns for children, the vulnerable, and pets ○ A study which considers the health impacts before, during, and after the blowout by examining chronic and acute exposures ○ A study that examines potential synergistic effects of concurrent exposure to multiple chemicals ○ A study that examines people, not just the environment ○ A study that incorporates a knowledge translation plan such that study findings inform regulatory policy for oil and gas facilities near communities	
Meeting Action Items	▪ Provide answers to questions that were not addressed during the meeting	



Meeting Overview

The Aliso Canyon Disaster Health Research Study (ACDHRS) team welcomed the Scientific Oversight Committee (SOC), the Community Advisory Group (CAG), and public attendees to the ACDHRS SOC Follow Up Scoping Meeting and stated the meeting's objectives.

A CAG member gave a presentation, developed by the CAG, which provided: background information about the Aliso Canyon disaster and the CAG, questions that residents of the impacted communities would like answered, reasons for mistrust, the CAG's critical success factors for the ACDHRS, and CAG requests for the SOC.

The presentation was opened by providing the SOC with questions that residents of impacted communities would like the Health Research Study to answer. These included:

- What are the near and long-term human and pet health impacts and risks to the community surrounding Aliso Canyon?
- What are the health impacts of the unprecedented exposure to a unique combination, duration, and quantities of known and unknown chemicals and substances and their potential synergistic toxicity?
- What are the health impacts from the facility before, during, and after the blowout?

The three pillars of the CAG Charter were shared: 1) Community-centric; 2) Science-based; and 3) Absent of political agendas or influence.

The CAG presentation then explained reasons for mistrust. These included messaging in a Los Angeles County Health Alert Network letter to medical providers confirming that the Aliso Canyon Well had been sealed and actions requested of providers when following up with patients; sampling performed in an investigation by Leighton Consulting to investigate indoor environments of residences in the Porter Ranch community; sampling and test results of the Southern California Gas Company's investigation of oily residue within the impacted community; Public Health's technical report on Air Quality Monitoring and Modeling; an unconfirmed source of a ground fire at the Aliso Canyon gas storage facility which occurred shortly after the October 2019 Saddle Ridge fire; the exposure mapping and data consolidation focus of a Health Study (for which \$1 million in funding was secured from a legal Settlement between SoCal Gas and SCAQMD) which was being planned by a working group of agency representatives and university faculty members; the current air monitoring systems in place at and surround the Aliso Canyon gas storage facility and the amount of time that has passed since the Settlement to the planning of a \$3 million Enhanced Air Monitoring and Environmental Reporting system which is anticipated to be implemented by several regulatory agencies (not including Public Health) as mandated by the Consent Decree; and incomplete environmental data related to the Aliso Canyon blowout.

Other concerns brought forth during the presentation included fear of potential exposure to elevated levels of benzene and limitations of epidemiologic study designs for investigating health impacts of the Aliso Canyon blowout



The CAG's critical success factors for the Health Research Study include:

- Examination of current and future health concerns for children, the vulnerable and pets
- A study which considers the health impacts before, during, and after the blowout by examining chronic and acute exposures
- A study informed by complete exposure data that examines potential synergistic effects of concurrent exposure to multiple chemicals
- A study that examines people (not just the environment)
- A study that incorporates a knowledge translation plan such that study findings inform regulatory policy for oil and gas facilities near communities

The CAG concluded with several requests for the SOC including: acknowledging that victims of the disaster are still impacted today; helping identify current and future physical and emotional health issues of concern; challenging the status quo by overseeing a Health Research Study that examines concurrent chemical exposures and possible synergistic effects on health; overseeing a Health Research Study that examines people who were impacted; and helping obtain complete exposure information.

The SOC members responded to the presentation with comments and questions during an open discussion session. The SOC asked the CAG about their confidence in the SOC and public agencies and discussed the applications of epidemiological study designs and other potentially suitable study designs. The RAND Research Report on the Deepwater Horizon Oil Spill was shared as a reference which could help lay the foundation for the ACDHRS. Several Health Study challenges were also discussed including: the amount of time that has passed since the exposure event; determining the mechanism and route of exposure; limitations of biomarkers; proprietary ingredients of process chemical used in well-control operations; determining a way forward if complete information on the chemicals and substances related to the Well SS-25 blowout and well-kill operations cannot be obtained; and the possibility that obtaining complete exposure information may be a lengthy process. A SOC member also provided additional information on SCAQMD's role in the \$3 million Air Monitoring Program: SCAQMD is operating in an advisory capacity on how to advance the monitoring and has developed a proposal for additional monitoring. Meetings will be held to solicit community input.

The rest of the meeting time was devoted to public comment and Q&A during which the issue of inadequate air monitoring was raised.



Meeting Resources

- [VICE News video clip](#)
- [Los Angeles County Health Alert Network letter to medical providers](#)
- [Leighton Consulting Summary Report on Time Critical Residential Indoor Environmental Sampling](#)
- [California Council on Science and Technology report on Long-Term Viability of Underground Natural Gas storage in California](#)
- [Public Health Technical Report on Air Quality Monitoring and Modeling](#)
- [Abc7 news report on the Ground Fire at Aliso Canyon](#)
- [Video clip of the Deputy Director of California Department of Conservation during a Committee Hearing](#)
- [The People of the State of California v. Southern California Gas Company's Consent Decree](#)
- [SCAQMD Storage Reservoir Gas Sample Laboratory Results](#)
- [Public Health report on Public Health and Safety Risks of Oil and Gas Facilities in Los Angeles County](#)
- [RAND's Research Report on the Deepwater Horizon Oil Spill](#)

Follow Up Q&A

Regarding the October 2019 Saddle Ridge fire, is the soil being tested for signs of oil, either seepage or previous drilling?

ACDHRS Team: There is currently a 5-agency taskforce that is overseeing an investigation by SoCalGas regarding a 2019 spot fire in an area of the storage field called Catch Basin 3 to determine whether the fire was fueled by stored gas emissions. Tests are being conducted to determine the fuel source.

Do we have air modelling for the Aliso Canyon blowout?

ACDHRS Team: Please refer to DPH's [Air Quality Monitoring and Modeling technical report](#) which was developed to accomplish the following three objectives:

1. Develop an air dispersion model to support future study of exposures and related health impacts that occurred during the blowout at Well SS-25;
2. Collect data for future comparative analysis on ambient background levels of airborne particulates and organic compounds when the gas storage field was not in operation; and
3. Identify whether the nearby community may be impacted by hazardous airborne exposures from the oil and gas industry that are not attributable to normal operations (e.g., residual off-gassing, abandoned wells).

Can the SCAQMD's assay be used as a proxy for the chemicals that were released during the Aliso Canyon blowout?

ACDHRS Team: SCAQMD's assay of the underground storage reservoir gas prior to treatment from the Aliso Canyon gas storage facility Fernando Fee Well [view [test results](#)] provides laboratory results of comprehensive testing for Volatile Organic Compounds (VOCs) and Total Reduced Sulfur (TRS). These results can be supplemented by natural gas analyses performed by Texas Oil Tech Laboratories, Inc. for



Blade Energy Partners, Ltd. [view [analysis report](#)] which tested samples taken from three wells on the SoCalGas Aliso Canyon site. The analyses included natural gas composition, sulfur compounds, VOCs, polychlorinated biphenyls (PCBs), siloxanes, and trace metals.

In addition to the above-mentioned analyses, recently collected samples of waste materials from the Aliso Canyon blowout and well-control operations are being tested for a wide-array of chemicals and compounds including but not limited to: VOCs; Semi-volatile Organic Compounds (SVOCs); TPH C4-C12; TPH C13-C40; Polynuclear Aromatic Hydrocarbons (PAHs); PCBs, and metals. Laboratory results will be publicly available.

Proxy measures for exposure and/or health outcomes may be used by Health Study researchers. The Health Study research will be guided by the expertise of the Scientific Oversight Committee.

Is there a timeframe for the release of the RFP?

ACDHRS Team: The aim is to release solicitations for research proposals in the late Spring of 2021.

