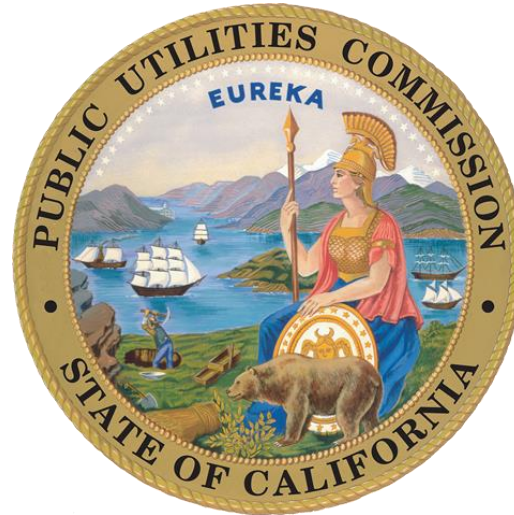




California Public Utilities Commission

Commissioner Committee on Finance and Administration



CPUC Strategic Directive SD02: Safety

Office of the Safety Advocates (OSA)

Chris Parkes, Director

May 29 2019





Strategic Directive 02: Safety

The CPUC will focus on an organization-wide systematic approach to safety that:

1. Continuously improves the safety culture within the entities the CPUC regulates through:

(The Four SD-02-1 Pillars)

- Risk Management
 - Safety Quality Improvement
 - Safety Assurance
 - Safety Promotion
2. Ensures that CPUC employees and contractors work safely by developing an effective safety management system.





SB 62/PUC 309.8: OSA Mandates

1. Advocate, as a party to CPUC proceedings and on behalf of the interests of public utility customers, for effective public utility safety management and infrastructure improvements.
2. Recommend improvements to the CPUC's safety management policy and procedures and its safety culture.
3. Inform the official record on safety-related risks in applicable CPUC proceedings and assist the CPUC in its efforts to hold public utilities accountable for their safe operation.





1. Utility Safety Management/Safety Culture Improvements

- A. CPUC Proceedings (16 Proceedings in 2018, 10 active in 2019)
Wildfire Mitigation / Electric Safety, De-Energization, Grid Safety and Reliability, Gas Transmission, Distribution, and Storage





2018 Proceedings

- | | |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) R.18-10-007 | ○ CPUC SB 901 Wildfire Utility Mitigation Plans Rulemaking |
| 2) R.18-12-005 | ○ CPUC Electric Utility De-Energization Rulemaking |
| 3) A.18-12-009 | ○ PG&E 2020 General Rate Case (GRC) |
| 4) A.17-10-007/008 | ○ Sempra Utilities 2019 SDG&E and SoCalGas GRCs |
| 5) A.17-11-009 | ○ PG&E 2019 Gas Transmission & Storage (GT&S) Rate Case |
| 6) A.18-09-002 | ○ Southern California Edison (SCE) Grid Safety and Reliability Application (including Wildfire Mitigations) |
| 7) I.18-12-007 | ○ CPUC PG&E Locate and Mark Investigation (OSA is in initial settlement discussions) |
| 8) I.15-08-019 | ○ CPUC PG&E Safety Culture Investigation |
| 9) A.18-07-019 | ○ Gill Ranch Gas Storage – Ownership Transfer |
| 10) A.17-02-003
& D.18-05-010 | ○ Gill Ranch Gas Storage – Reorganization: Commission adopted OSA/Gill Ranch Safety Management/Safety Culture Requirements Settlement |
| 11) A.18-02-013
& D.18-10-029 | ○ Wild Goose & Lodi Gas Storage Asset Encumbrance: Commission required a safety culture plan and recommended consideration for a safety management/culture OIR. |
| 12) I.18-11-006 | ○ SCE 2018 Risk Assessment Mitigation Phase (RAMP) |
| 13) I.17-11-003 | ○ PG&E 2017 Risk Assessment Mitigation Phase (RAMP) |
| 14) A.15-05-002,
et al | ○ CPUC Safety Model Assessment Proceeding (SMAP) <ul style="list-style-type: none">▪ SMAP Metrics Technical Working Group |
| 15) R.14-05-013 | ○ CPUC Safety Citation Programs Rulemaking |
| 16) R.17-07-007 | ○ CPUC Distributed Energy Resources (DER) Rulemaking |





1. Utility Safety Management/Safety Culture Improvements (continued)

- B. Safety Management System En Banc (March 2018)
- C. OSA Staff Proposal: Adopt Utility Safety Management System Standards, Requirements, and Assessments (Rulemaking) (Target: June 2019)
- D. OSA Staff Proposal: Establish Non-Punitive Safety Reporting Systems (Rulemaking) (Target: 2020)
 - 1. Independent Third Party Model (Example: FAA Aviation Safety Reporting System (ASRS))
 - 2. Utility Management/Labor/Regulator Model (Example: FAA: Aviation Safety Action Program (ASAP))
- E. Commission wide Utility Safety Management System Training (Scheduled: 3 Full Days: June 11-13, 2019)





2. CPUC Safety Management/Safety Culture Improvements

- A. OSA and the Commission Safety Ombudsperson annually co-lead 2-3 training office onboarding sessions devoted to safety. Several Commission directors attend to discuss how safety impacts their own divisions.
- B. OSA submitted Commission Safety Flags in 2017/2018 and worked with the Safety Ombudsperson and Safety Enforcement Division over concerns and potential gaps in specific utility programs.
 - 1) Large oil filled transformer risk mitigation in high-rise buildings.
 - 2) Pole Failure Root Cause Analysis Program.
 - 3) Adequacy of metrics to assess safety impacts of Operational Excellence and workforce reduction program.
 - 4) Mitigation response to pipeline pigging data uncertainty in a gas transmission pipeline integrity program.





2. CPUC Safety Management/Safety Culture Improvements

Northstar defined culture as:

“An organization’s culture is the collective set of that organization’s values, principles, beliefs, and norms,

which are manifested in the planning, behaviors, and actions of all individuals leading and associated with the organization,

and where the effectiveness of the culture is judged and measured by the organization’s performance and results.”





2. CPUC Safety Management/Safety Culture Improvements

Dr Claudine Bradley from the Canadian National Energy Board conducted a 2017 study of regulator safety culture in high hazard industries.

This study found that the safety oversight culture of the regulator impacted the safety outcomes of the operator.





SD-02: Zero Accidents and Injuries through systematic approach to safety.

- Regulatory Safety Culture and Systematic Approach to Safety
 - Fukushima -> highlights regulatory safety culture impact on regulated entities.
 - Regulators are evaluating their own safety culture.
 - March 2019: Inspector General Initiated a Safety Culture Assessment of PHMSA
 - Strengthening safety culture is critical for effective SMS required by SD-02 part 2 for the CPUC.





2. CPUC Safety Management/Safety Culture Improvements

Implementation of SD 02 Item 2 (CPUC Safety Management) and SB 62/PUC 309.8 prompts these questions:

1. How do we define Commission safety culture at the Commission?
2. How do we assess and trend Commission safety culture over time and across divisions?
3. How do we implement, assess, trend, and improve Commission safety management system policies and procedures across divisions?
4. How do we assess Commission safety management programs and effectiveness compared to traditional elements of an organizational safety management system including: leadership, stakeholder engagement, risk management, root cause analysis, continuous improvement, training, internal audits, quality assurance, records management, and more.





2. CPUC Safety Management/Safety Culture Improvements

OSA believes there are opportunities to assess and improve CPUC safety management and safety culture:

Request and dedicate staff and resources to:

1. Develop and document answers to the previous questions.
2. Assess and trend Commission safety culture over time and across divisions.
3. Implement, assess, trend, and improve Commission safety management policies and procedures across divisions.
4. Assess Commission safety management programs and effectiveness compared to traditional elements of an organizational safety management system including: leadership, management commitment, documented policies and procedures, stakeholder engagement, risk management, root cause analysis, continuous improvement, training, internal audits, quality assurance, records management, dissemination of lessons learned, and more.





Conferences/Training

OSA recognizes adequate training and engagement with regulators, plus industry and academic experts, is an important element in CPUC Safety Management.

OSA's 2018 training-related activities include topics of wildfires/ electric, gas, SMS, safety culture, and proceeding processes:

- Research Needs on Wildfire: Ensuring Grid Resilience and Public Safety Workshop
- Wildfire: Assessing and Preparing for Risks under Climate Change Webinar
- Impacts from De-Energization Workshop
- Gas & Electric Safety 101 Training
- Natural Gas Storage Fields in California Workshop
- Safety Management System (SMS) Training – American Gas Association
- Utilities Disaster Preparedness & Emergency Response Workshop
- CPUC Safety Culture Sessions (Onboarding)
- Expert Witness Training
- Ex Parte and Bagley Keene Training





SD-02 Metrics (Page 1 of 2)

Gas

1. Number of leaks
2. Percentage of lines inspected
3. Number of dig ins [or % of dig-ins per underground service alert tags?]
4. Significant injuries & fatalities – for contractors, employees, public
5. Reportable incidents
6. Backlog: Percentage of inspections & preventative maintenance work orders completed to according to schedule

Electricity

1. Line drops
2. Reportable incidents
3. Significant injuries & fatalities—contractors, employees, public
4. Backlog: Percentage of inspections & preventative maintenance work orders completed according to schedule
5. Percentage of trees removed/trimmed & other vegetation management actions carried out as part of vegetation management program [can be improved]
6. Fire ignitions

Telecommunications

1. 911 outages
2. Failures due to power outages
3. Failures during declared emergencies – number of failures & number of customers affected





SD-02 Metrics (Page 2 of 2)

Rail

- 1. Number of injuries & fatalities – heavy rail, light rail
- 2. Number of derailments
- 3. Number of rail violations
- 4. Number of crossing violations
- 5. Corrective actions --% of corrective actions that were effectively implemented

Passenger Carriers

- 1. Fatalities & injuries
- 2. Reported accidents
- 3. Number of permit & license violations

Added at August 8th Finance and Administration Committee Meeting

- 1. Safety flags (external and internal)
- 2. Indicators from forthcoming CPUC safety management system





OSA Safety Data Initiative

OSA continues to work with SED to develop and mine safety data to help develop and better understand the effectiveness of rate case proposed mitigation programs.

Critical to Safety: Safety data reporting should not discourage reporting.

Example of PHMSA data and performance of California utilities

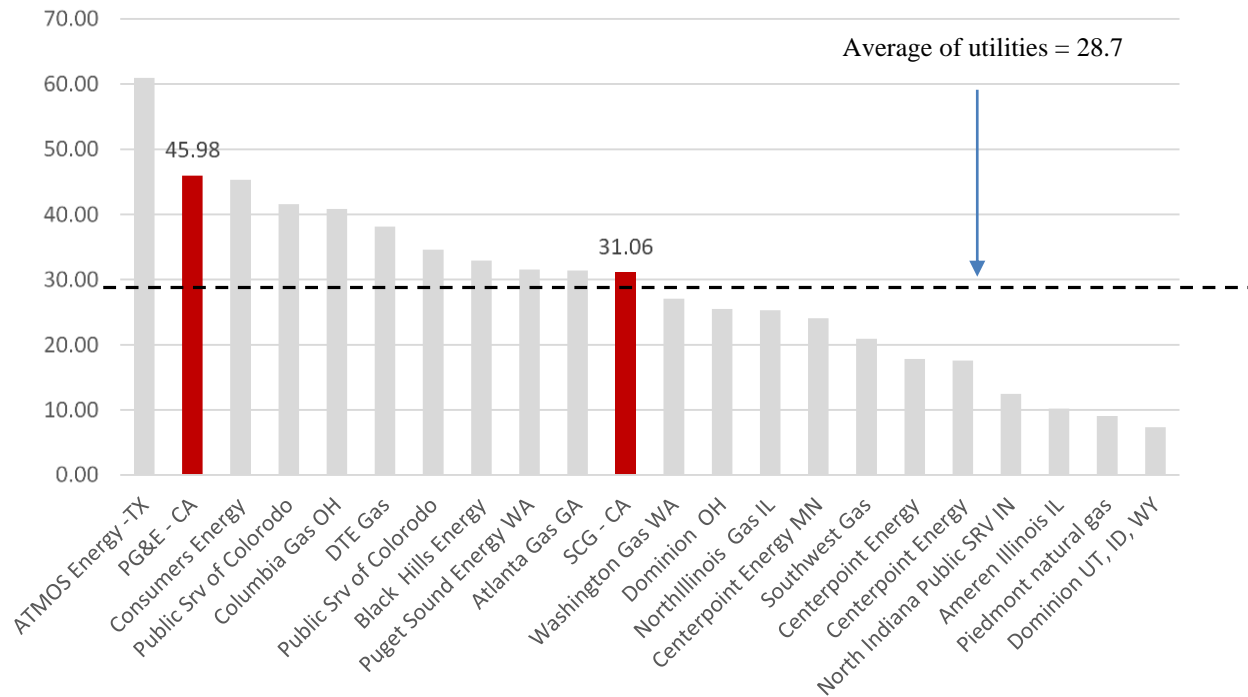


Figure 1 Gas Distribution system significant incident rates for utilities with 25000 + miles of pipeline. 10 Year average incident rate per 1 million miles. California utilities in red. Source PHMSA. Data downloaded on April 10th 2019.





Future Opportunities as OSA grows

1. Assess utility implementation of safety management system program standards and work with utilities to identify best practices, gaps, and corrective actions.
2. Procure ongoing training/expert-witness contracts in specialized utility programs.
3. Facilitate development of Safety Reporting Systems for California Energy Utilities.
4. Expand and deepen OSA participation in proceedings that encompass significant safety risks.
5. Support procurement of a contract for ongoing safety culture assessment at the Commission.





Future Opportunities as OSA grows

6. Increase staffing to carry out SB 901 Wildfire and Safety Culture mandates.
7. Expand OSA efforts to support expanded safety leadership and safety culture training for Commission staff.
8. Facilitate development of Commission safety culture, organizational, and safety performance metrics for utilities to help identify trends and gaps.
9. Track resolution of deficiencies identified in Commission proceedings





Questions?

