



**Wildfire Safety Division
Draft Recommendations for Developing a Safety
Culture Assessment Process**

August 12, 2020

STAFF REPORT



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EXECUTIVE SUMMARY

Public Utilities Code Section 8389 (d)(4) directs the California Public Utilities Commission (CPUC), after consultation with the Wildfire Safety Division (WSD), by December 1, 2020, to “adopt and approve a process” for the WSD “to conduct annual safety culture assessments for each electrical corporation.” This annual assessment differs from the Safety Culture investigations that the Commission is required to conduct for all utilities on a five-year basis, but the principles applied in those proceedings are useful as overarching guidance to a WSD process that would rely on the foundational principles of safety culture when evaluating wildfire safety

This document presents the WSD’s proposed annual cultural safety assessment process. The WSD’s proposed annual assessment process relies on a three-part utility submission:

1. Response to specific guidelines, which would include demonstrations of compliance with certain Safety Governance requirements that have been established by the Commission and the Legislature,
2. Utility-provided self-assessments of Safety Culture practices and policies
3. A process, potentially a survey, to solicit feedback from relevant employees on their assessment of the electrical corporation’s Safety Culture

To supplement this submission, the WSD would conduct interviews and observational visits as needed. As part of its evaluation, the WSD would monitor certain safety performance metrics related to wildfire risk and mitigation.

Because the Safety Culture assessment is a component of the Safety Certificate process also required by Sec 8389, the WSD’s annual evaluation will be coordinated with the review of the Wildfire Mitigation Plans and other components related to an electrical corporation’s Safety Certificate application.

Through this staff proposal and accompanying presentations in the August 12, 2020 workshop, the WSD solicits feedback from stakeholders on the most prudent path forward to leverage the Safety Culture Assessment process to achieve the WSD’s mission. This proposal is organized into three parts:

1. **Background**, which covers the statutory mandates to guide WSD’s approach to Safety Culture Assessments and a history of proceedings and other CPUC input regarding Safety Culture for utilities
2. **Vision and scope**, which covers the WSD’s broad vision and objectives for its Safety Culture Assessments
3. **Proposed approach**, which covers the overarching components for the WSD’s Safety Culture Assessment process.

Background

Assembly Bill 1054 (Holden, Chapter 79, Statutes of 2019) establishes a set of requirements for electrical corporations to obtain a Safety Certificate as well as specific timeframes for the WSD and CPUC to enact associated policies. Further, AB 1054 requires the WSD to develop, and the CPUC to ratify, “a process for the division to conduct annual safety culture assessments for each electrical corporation.” In addition, the bill outlines several Safety Culture related requirements for an electrical corporation’s Board of Directors and corporate structure.

AB 1054 builds upon several CPUC decisions. In two separate Investigations into utility Safety Culture, for Pacific Gas & Electric¹ and for Southern California Gas Company² the Commission enunciated certain minimal expectations for utility safety culture:

“A public utility whose organizational culture and governance prioritize safety, makes safety the primary objective of the entire organization, encourages employees to report safety concerns with non-punitive outcomes, and that achieves a positive record of safe operation, can be described as possessing a high-functioning safety culture.

“Based on these expectations, a positive safety culture includes, among other things:

- A clearly articulated set of principles and values with a clear expectation of full compliance.
- Effective communication and continuous education and testing. “Employees will do it right sometimes if they know how. They’re more likely to do it right every time if they fully understand why.”
- Uniform compliance by every individual in the organization, with effective safety metrics, recognition, and compensation, and consequences or accountability for deviating or performing at, above, or below the standard of compliance.
- Continuous reassessment of hazards and reevaluation of norms and practices.”³

In addition, the NorthStar Consultant’s report in the PG&E Safety Culture Investigation (I.15-08-019) described a strong safety culture as follows:

“A strong safety culture requires commitment and accountability throughout an organization. A company’s leadership and executive management must display a positive commitment to safety that is recognized throughout the organization. This commitment must be evident in the actions of management and the support they provide to the workforce. The organization must provide its people with the tools, resources, training and oversight necessary to ensure safe operations. Rules and requirements must be clear and consistent. Management must take a thoughtful approach to incidents and the implementation of new rules and standards. Employees should feel accountable for their own safety and the safety of their co-workers. They should feel comfortable stopping work during unsafe conditions or stepping in if they see another employee placing themselves, others or the public at risk. Employees should feel

¹ OII 15-08-019, Order Instituting Investigation on the Commission’s Own Motion to Determine Whether Pacific Gas and Electric Company and PG&E Corporation’s Organizational Culture and Governance Prioritize Safety.

² OII 19-06-014, Order Instituting Investigation on the Commission’s Own Motion to Determine Whether Southern California Gas Company’s and Sempra Energy’s Organizational Culture and Governance Prioritize Safety

³ I.19-06-014, pgs 3-4.

comfortable reporting potential hazards and incidents without fear of retribution as these can provide valuable lessons learned to improve safety practices. Disciplinary procedures should be consistently applied, recognizing the difference between human error, process defects, insufficient controls and a wanton disregard for safety rules. . .

“The success of a safety culture depends upon leadership committed to making safety its first priority. This is particularly true in company such as utilities where there are many layers of employees. The commitment to safety must extend to every employee and contractor in the organization, with consistent execution of principles, values and norms to foster a strong safety culture.”⁴

⁴ docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M235/K399/235399881.pdf, pp. I-3 and I-4.

Scope and Vision

The WSD thinks of culture as “how work gets done in an organization” and recognizes that culture influences outcomes throughout the organization, from executives down to the frontline. Frontline behavior is crucial for safety outcomes – for example, whether employees feel comfortable raising concerns, perform reliably without mistakes, or follow procedures affects the effectiveness of wildfire mitigation activities and resulting risk reduction profoundly. However, this does not exist in a vacuum. Leadership at all levels influences frontline behavior, for example by advocating for employees, setting safety as a number one priority in an organization, and “walking the talk”. To create and sustain an effective culture, an organization must have the appropriate foundation in place, including both sustaining systems and structure. Sustaining systems include selection and development, rewards and recognition, safety strategy, and performance management – setting and enforcing expectations. Structure and governance up through senior leadership and the Board of Directors is also essential.

Given the broad scope of elements which influence Safety Culture, the WSD proposes a focused scope for its Safety Culture Assessment process that assesses elements related to wildfire safety. The WSD intends to work with the Commission to ensure that its focused Safety Culture Assessment dovetails with the Commission’s broader Safety Culture evaluations recognizing that wildfire safety cannot be viewed in a vacuum. How a utility operates in relation to elements of wildfire safety is indicative of its broader Safety Culture and vice versa. To assess culture, the WSD proposes to only address elements of culture which are relevant for safety outcomes broadly (not limited to wildfire) and limit its assessment to employees who conduct activities related to wildfire safety as defined by WMP initiatives.

The WSD has an ambitious vision for its Safety Culture Assessment. Specifically, the WSD aspires to do the following:

1. Assess a baseline for culture against which improvement can be measured over time, rather than a point-in-time, static assessment
2. Set the foundation for data-driven insight informed by known outcome metrics as well as culture metrics
3. Ground its Safety Culture Assessment in cultural drivers of wildfire risk, and improve its understanding of how culture influences wildfire outcomes year over year
4. Focus on wildfire safety, but consider cultural elements which are relevant to broader safety outcomes
5. Foster continuous and collaborative improvement and learning

Proposed Approach to Assessing Safety Culture

The WSD's proposed annual assessment process is considering reliance on four elements, of which (a), (b), and (c) would be captured within a corresponding three-part utility submission:

- a) Guideline Response: Utility demonstrations of compliance with certain Safety Governance requirements that have been established by the Commission and the Legislature,
- b) Management Self-Assessment: Evaluation of utility-provided self-assessments of Safety Culture practices and policies,
- c) Use of employee feedback and observations through a survey or another tool to measure behaviors (and motivations) throughout the organization,
- d) Interviews and observational visits, as needed, and
- e) Monitoring of certain safety performance metrics related to wildfire risk and mitigation.

The following sections of this proposal provide further thought from the WSD about the approach to achieve the intent of the identified four elements. Each section is accompanied with associated recommendations and specific questions for stakeholders to consider when providing comments.

- a) Guideline response: Assessment of Safety Governance Requirements Derived from Statute and Commission Proceedings

In Public Utilities Code (PUC) section in Sec 8389 (e), the California Legislature proscribed two elements related to Safety Culture, among other elements, for an electrical corporation to apply for a Safety Certificate:

- (3) The electrical corporation has established a safety committee of its board of directors composed of members with relevant safety experience.
- (5) The electrical corporation has established board-of-director-level reporting to the commission on safety issues.

These, therefore, represent minimum criteria for a Safety Culture assessment related to the electrical corporation's governance.

In addition, PG&E Chapter 11 Reorganization Plan decision (D.20-05-053) established certain requirements in the area of Safety Governance, both at the Board of Directors and Senior Management levels. The WSD proposes generalizing these requirements to all electric utilities, as described below.

Board of Directors Safety Committee

The PG&E decision specifically assigned responsibility of these areas to the Safety Committee:

- Wildfire Mitigation Plan,
- Public Safety Power Shutoff (PSPS) program,
- Compliance with Safety & Operational Metrics,
- Periodic reporting to boards of directors and commission staff.

- Selection of individual members of the committee would incorporate consultation with, or approval of, the State and Commission staff.

While the PG&E Reorganization Plan decision allowed the utility/corporation to maintain its Safety and Nuclear Oversight Committee as the required broad committee, the WSD is proposing that other utilities will be required to demonstrate establishment of a board, with the responsibilities listed above.

Potential validation of this Governance element could take the form of WSD review of a) the Safety Committee Charter, b) information presented to the Board by the Safety Committee, c) details of items requiring Safety Committee approval, versus items requiring full Board Approval.

The Board of Directors Safety Expertise Criteria

Directors who meet one or more of the safety expertise criteria would serve on the Safety subcommittees. Safety Expertise criteria should include the following:

- Specific substantial expertise related to wildfire safety, wildfire prevention, and/or wildfire mitigation.
- Gas safety expertise (outside of scope of WSD safety culture review)
- Specific substantial expertise related to enterprise risk management, including cyber security and/or experience with nuclear safety.

For the purposes of Safety Culture/Certification, the WSD recommends that each utility be required to recruit and appoint directors who meet the above criteria for wildfire safety, and those members should also be appointed to the Safety Committee.

Chief Safety Officer

The PG&E decision also required separate (but equal) executive positions Chief Safety Officer (CSO) and Chief Risk Officer (CRO). CSO duties include both public and workplace safety.

Both CRO and CSO get “direct reporting from safety officers in the field... both CRO and CSO should have regular contact with PG&E employees and contractors working in the field, and both CRO and CSO should be empowered to report directly to the [Safety] Committee and CEOs of PG&E and PG&E Corp.

The WSD proposes that utilities should be required to establish a position for Chief Safety Officer (or equivalent) empowered to obtain direct reports from field personnel and in turn report directly to the safety Committee.

The WSD recommends that the CSO should be the utility executive who holds overall accountability for the annual Wildfire Mitigation Plan described in Sec 8386 (c) (1).

Question for Workshop: What educational experience, skills, training, knowledge, and expertise should a Chief Safety Officer possess to qualify them as been knowledgeable about the diverse elements of a Safety Culture?

Question for Workshop: Are these requirements, taken from the Commission’s decision approving PG&E’s Chapter 11 Bankruptcy Plan and related documents, appropriate for other utilities? If not, why not? Are they adequate to demonstrate a Safety Culture at the top levels of Utility management?

b) Management Self-Assessment of Utility Safety Culture

As described previously, the Commission has listed several elements of a positive Safety Culture, including: a clearly articulated set of principles and values with a clear expectation of full compliance; effective communication and continuous education and testing; effective safety metrics, and continuous reassessment of hazards and reevaluation of norms and practices.

While WSD could require a set of principles and goals, proving adherence to it is more difficult. One way to do so would adopt the **Maturity Model** construct, in which the WSD establishes criteria and elements of meeting the criteria, with expectation that the utility’s processes will evolve and mature over time.

The Maturity Model was introduced in the 2020 WMP evaluation process to look beyond utility proposals for wildfire mitigations to assess how each company is progressing toward a higher level of performance in 52 categories of capabilities. Each category has several sub-elements that are used to assess how advanced the company is. The utility provides a self-assessment, which is scored based on a WSD approved algorithm, as well as a projection of improvement over a three-year time frame.

In the 2020 WMP, this model was employed to provide a sense of each utility’s perceived strengths and goals in the capabilities. The entire model is quite complex and detailed for the purposes of a Safety Culture assessment, but there are relevant components.

For example, capabilities associated within Organizational Learning and Emergency Planning may have direct applicability to Wildfire Safety Culture. The WSD proposes that a greatly streamlined maturity model may be adopted for the Safety Culture assessment, using a targeted set of fewer criteria for evaluation.

Question for Workshop: Which elements of “organizational foundation” are most important for the WSD to measure?

Question for Workshop: How should the organization demonstrate that it is directing adequate resources and planning appropriately to promote accountability and achieve safety performance?

c) Tools such as surveys to measure employee behavior

Employee surveys are a frequently used tool for assessing whether and how corporate policies are being viewed and acted upon throughout the organization. For example, San Diego Gas & Electric reports that it conducted a biannual employee survey related to safety.

For the purposes of the WSD's Safety Culture assessment, any employee survey should be focused on wildfire safety policies and practices and targeted to those parts of the utility that are directly involved in wildfire mitigation and emergency planning.

Potential areas of questions might include but would not be limited to:

- Do employees feel management and the broader organization values safety?
- Do employees follow procedures related to safety?
- Do employees feel comfortable raising safety concerns?
- Do employees believe they know how to react in an emergency?
- Do employees believe that their teams know how to work together effectively?
- Do employees believe that they can anticipate issues, and that their management effectively seeks out weak signals or anomalies?

However, even surveys that are limited in scope and scale require extensive resources and staff time to properly conduct and evaluate responses.

Question for Workshop: What elements of safety culture (both leadership influence and true frontline behavior) are most important to measure as part of this assessment?

Question for Workshop: How can the WSD most efficiently and effectively collect reliable information about how wildfire mitigation work gets done by employees throughout a utility organization (beyond just a narrative from senior leadership)?

d) Interviews and observational visits

The WSD proposes to supplement the information collected in utility submissions described above with interviews and/or observational visits. These would add nuance and depth to the WSD's understanding of each utility's context and goals, helping the WSD to conduct a more holistic and accurate evaluation.

The WSD proposes to conduct these in a targeted and focused way in 2021. The WSD might adjust scale and scope in future years as the safety culture assessment process evolves.

e) Performance metrics

The Commission's evaluation of safety-related performance metrics is an ongoing process in several proceedings, including Risk Assessment and Mitigation Phase (RAMP) and Safety Model Assessment Proceeding (S-MAP) portions of utility General Rate Cases. For the purposes of Safety Culture Assessment, the WSD will evaluate both **outcome metrics** and **culture-specific performance metrics**.

Outcome metrics: The WSD already requires collection of a wide array of data and outcome metrics as part of the Wildfire Mitigation Plans. As an effective Safety Culture is important to improve wildfire-related outcomes, the WSD proposes to integrate these metrics into its Safety Culture Assessment process.

The use of these metrics should be directed as a measure of how well the utility is driving down the aggregate risk from wildfires and Public Safety Power Shutoffs, and to reduce or eliminate risks of deaths and serious injuries to employees, contractors and the public.

Below are some of the wildfire safety metrics already being collected that could be used for WSD's assessment:

- Ignitions and Trends of Ignition Drivers
- Wires Down incidents
- Faults
- Near Misses
- Inspection Findings
- Customer Outages from Public Safety Power Shutoff events (duration and extent)
- Injuries/fatalities related to wildfires, wildfire mitigation initiatives and PSPS
- Acres burned by utility involved wildfires

Question for workshop: Aside from these metrics, what other metrics would be useful and appropriate to assess utility wildfire safety outcomes which are influenced by Safety Culture?

Culture metrics: The WSD also proposes to assess specific elements of culture and organizational foundation directly through the submissions described above (Guidelines, Management Self-Assessment, Employee Survey, and Interviews). Doing so would allow the WSD to track improvement across various elements of culture and organizational foundation directly, and in turn drive better understanding of how these affect the outcome metrics described above.

Question for workshop: Which specific culture measures or metrics are most tightly linked to wildfire safety outcomes? How should the WSD approach assessing these in a uniform way across utilities through the submissions described?