

# Technical Working Group Meeting #1: Safety Culture Definitions and Frameworks

R.21-10-001: ORDER INSTITUTING RULEMAKING TO DEVELOP  
SAFETY CULTURE ASSESSMENTS FOR ELECTRIC AND NATURAL GAS  
UTILITIES

Thursday, June 16, 9:00am-3:00pm



California Public  
Utilities Commission

# Welcome and Introduction

9:00am-9:25am

# Rulemaking 21-10-001 Background

**October 13, 2021:**

Commission opens  
R.21-10-001

**November 29,  
2022:**

Opening  
Comments filed to  
the OIR

**December 29,  
2021:**

Reply Comments  
filed to the OIR

**March 11, 2022:**

Initial kickoff  
workshop for the  
proceeding

**Summer 2022:**

Additional  
technical working  
group meetings  
and workshops

**Goal of proceeding:** To develop and adopt a safety culture assessment framework and process for regulated investor-owned electric and natural gas utilities and gas storage operators, in fulfillment of SB 901 and other Commissions oversight responsibilities

# Summer 2022 Technical Working Group Meetings

<b>Thursday June 16, 9am-3pm</b>	<b>Technical Working Group Meeting #1</b>	<b>Safety culture definitions and framework</b>
Friday June 24, 1pm-4pm	Technical Working Group Meeting #2	Collaborative approaches to safety culture
Friday July 22, 1pm-4pm	Technical Working Group Meeting #3	Safety culture assessment schedule and process
Thursday July 28, 9am-3pm	Technical Working Group Meeting #4	Safety culture maturity model, indicators, and metrics

# Meeting Objective

*Establish a shared understanding of:*

- What the utilities are currently doing related to safety culture assessment.
- Best practices for safety culture assessment frameworks.
- The anticipated value of safety culture assessments.

# Meeting Agenda

Time	Topic
9:00am-9:25am	Welcome and introduction (25 mins)
9:25am-10:15am	What safety culture assessments efforts are underway within the large IOUs? (50 mins)
10:15am-11:00am	Safety culture perceptions – Dr. Mark Fleming (45 mins)
11:00am-11:10am	Break (10 mins)
11:10am-12:00pm	Safety culture frameworks overview (50 mins)
12:00pm-1:00pm	Lunch break (60 mins)
1:00pm-1:45pm	CPUC preliminary definition and framework (45 mins)
1:45pm-2:50pm	Facilitated discussion on expectations and goals (65 mins)
2:50-3:00pm	Next steps, as needed (10 mins)

# Virtual Housekeeping

- **Recording; Slides**

- Please note that this meeting is being recorded
- Workshop recording and slides will be sent to the service list and posted on the CPUC website after the meeting

- **Questions**

- Please state your name and type questions into chat, use Q&A feature, or raise hand
- Staff will try to resolve clarifying questions as they are received
- Q&A sessions throughout presentations + longer discussion at the end of workshop
- Staff will follow to respond to any unanswered (or additional) questions after the workshop

- **Timing**

- To be respectful of everyone's time, we will maintain scheduled starting times for each presentation outlined in the agenda
- Additional topics will also be covered in subsequent technical working group meetings or workshops

- **IT Support**

- Jorge De Ocampo

# Virtual Housekeeping, Continued

The image shows a virtual meeting interface. The main area is a grey rectangle labeled "(Your screen)" containing a simple smiley face icon. Below this is a control bar with several icons: a microphone icon, a video camera icon, a share icon, a record icon, a hand icon, a smiley face icon, and a close icon. A tooltip above the hand icon reads "Raise hand (Ctrl + Shift + R)". To the right of the control bar is a chat window with a text input field and "Send" and "Send Privately" buttons. Below the control bar, four callouts are shown: an orange box around the "Unmute" button points to a red circle with a white microphone icon labeled "Mute/ unmute"; an orange box around the hand icon points to a black hand icon labeled "Raise/ lower hand"; an orange box around the chat icon points to a black circle with a white speech bubble icon labeled "Chat"; and an orange box around the three-dot menu icon points to a black circle with three white dots labeled "Q&A".

(Your screen)

Unmute

Start video

Share

Record

Raise hand (Ctrl + Shift + R)

Send

Send Privately

Apps

Chat

Q&A

Mute/ unmute

Raise/ lower hand

Chat

Q&A



# Commissioner Opening Remarks

# Questions?

Please raise hand, use chat, or use Q&A feature



# What Safety Culture Assessment Efforts are Underway within the Large IOUs?

PG&E, SCE, SDG&E, and SoCalGas

9:25am-10:15am

**PG&E**

Diane Thurman

# SCE

Melvin Brown & Sarah Lee

# SDG&E

Elizabeth Peters

# SoCalGas

Harish Shukla

# Questions?

Please raise hand, use chat, or use Q&A feature





# Safety Culture Perceptions

**Dr. Mark Fleming**

**10:15am-11:00am**

# SAFETY CULTURE PERCEPTIONS

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DR. MARK FLEMING

SAINT MARY'S UNIVERSITY

MARK.FLEMING@SMU.CA

# OUTLINE

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- Nature of Safety Culture
- Safety Culture Perceptions
- Understanding culture

SAFETY CULTURE IS:

***the shared***

***values attitudes behaviour***

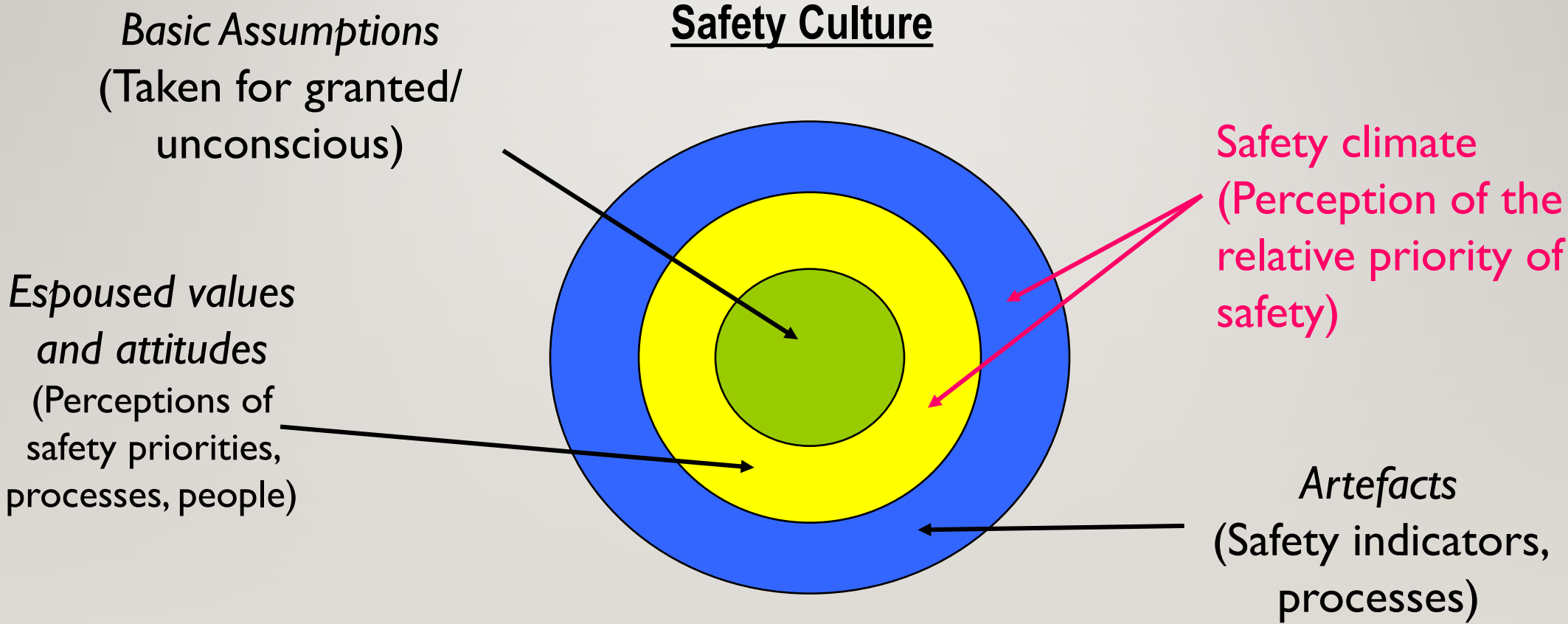
***that determines the  
effectiveness of***

***safety management***

***“As applied by safety researchers, the culture concept is deprived of much of its depth and subtlety, and is morphed into a grab bag of behavioral and other visible characteristics, without reference to the meaning these characteristics might actually have, and often infused with normative overtones.”***

(Guldenmund, 2010)

# SAFETY CULTURE MODEL





# SAFETY CULTURE IS REFLECTED

- Processes
  - Policies, procedures and systems designed to promote a specific aspect of safety culture. For example, safety leadership training or manager worksite visit program.
- Perceptions
  - Organizational members experience of the safety culture. For example, the extent to which they perceive there is a just culture.
- Practices and beliefs
  - Evidence of the safety culture dimension in practice. For example, how people who are involved in an incident are treated.



# SAFETY CULTURE ASSESSMENT / EVALUATION

## API 1173- 10.2.4

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- A comprehensive evaluation involves multiple methods
  - Surveys
  - Interviews and focus groups
  - Document analysis of policies, procedures, risk assessments, reporting and learning processes
  - Observation



Perceptions

Processes

Practices



# SAFETY CULTURE PERCEPTIONS

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## SURVEY RESULTS

- Provide information about employee perceptions, not reality
  - Ballpark estimate (a lot of error)
  - Perceptions are influenced by many factors
- Important to understand why employees have these perceptions
  - Are employee perceptions reflected in practice

# CANNOT BE ACCEPTED AT FACE VALUE

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Items	Agree	Neither	Disagree	Questions
All scheduled maintenance on our equipment is current	70%	20%	10%	Is this consistent with maintenance audits
We correctly store all personal protective equipment	88%	8%	4%	How does this fit with worksite observations
Places a high priority on safety training	82%	10%	8%	Is this reflected in training completion records
We freely discuss any errors/mistakes/near accidents so we can learn from each other.	87%	8%	5%	What is near miss reporting like

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# LIMITS OF PERCEPTIONS

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- Capture only the surface layer of culture
- Can provide a false sense of security (especially in pipelines)
- Not reality, can be biased in a range of ways
- Our basic assumptions frame our thinking and influence our perceptions
  - Response to the statement “Managers are concerned about safety”, depends on what safety means and what our expectations are of managers in terms of their concern.

# UNDERSTANDING SAFETY CULTURE

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- Involves digging into the basic assumptions or drivers
- Need to understand the why of perceptions, processes and practices
- This involves building a rich picture from different data sources to identify shared meanings, beliefs and basic assumptions

# **BREAK**

**11:00am-11:10am**

# **Safety Culture Frameworks Overview**

**11:10am-12:00pm**

# Lessons Learned from Other Regulators

11:10-11:20am

## Summary of lessons learned from other regulators

1. We need to start with a shared understanding of safety culture.
2. Each organization is the owner of its safety culture.
3. Safety culture definitions have an impact.



# 1. To avoid misunderstanding, it is foundational to start with a shared understanding of safety culture.

- Regulators “should adopt a safety culture definition and conceptual framework” to avoid misinterpretation (Fleming & Scott, 2018).
- Regulators can create policy statements or regulatory documents to clarify what they mean by safety culture:
  - Examples: [Canada Nuclear Energy Regulator](#); [Canada Nuclear Safety Commission](#); [Bureau of Safety and Environmental Enforcement](#)
  - These regulators specify the framework that they use while allowing companies to adapt the framework to suit their needs.
- These documents are often reflective of robust initial and ongoing engagement between the regulator and regulated industry.

## 2. Each organization is the owner of its safety culture.

- The International Atomic Energy Agency's first fundamental safety principle is that the prime responsibility for safety rests with the licensee (IAEA, 2013).
  - Therefore, **licensees** are expected to foster a strong safety culture in their organizations.
  - The regulator's oversight role is to proactively work with the licensee to consider and address latent conditions that could lead to potential safety performance degradation (Antonsen, Nilsen, & Almklovb, 2017).

### 3. Safety culture definitions have had an impact on how regulators and regulated industries understand the scope and boundaries of safety culture efforts.

- “The concept of culture always invokes some boundary, i.e. it draws some kind of line between the members of a group and the ones that are considered not members of the group” (Antonsen, Nilsen, & Almklovb, 2017).
- The Norwegian Petroleum Safety Authority’s (PSA) 2002 safety culture regulations stated:  
*“[t]he party responsible shall encourage and promote a sound health, environment and safety culture comprising all activity areas and which contributes to achieving that **everyone** who takes part in petroleum activities takes on responsibility in relation to health, environment and safety” (PSA, 2002).*
- PSA later removed the word “everyone” because the industry directed most efforts towards the attitudes and behaviour of front-end workers, instead of systemic/ holistic properties of safety as PSA intended (Antonsen, Nilsen, & Almklovb, 2017).

# **Background on Safety Culture Assessments and Frameworks**

**11:20am-12:00pm**

# Safety culture assessments can expose precursors to significant safety events.

- Studies of major safety incidents show safety culture as a causal factor.
- In a review of inquiry reports for 15 major incidents in the offshore oil and gas industry, 12 identified causal factors that were cultural (Fleming and Scott, 2012)

• Example:

Name, Location, & Date	Type of Accident	# of Fatalities	Direct Reference to Safety Culture	Inquiry Conclusions (Contributing Factors to the Accident)	Underlying cultural cause
Deepwater – Gulf of Mexico (2010)	Installation	13	Yes	Systematic failures in risk management, missed warning signals, poor communication, general lack of appreciation for the risks involved, failures of management	<ul style="list-style-type: none"> <li>• Tolerance of inadequate systems</li> <li>• Complacency</li> <li>• Normalization of deviance</li> <li>• Work pressure</li> </ul>

- San Bruno, Aliso Canyon, Paradise:
  - Major IOU incidents in California offer examples of complex failures with multiple causes and contributing factors.

“Organizations that want to learn from previous disasters should systemically cultivate a positive safety culture by developing leadership skills, promoting desired values, and **assessing safety culture on an ongoing basis**” (Fleming and Scott, 2012).

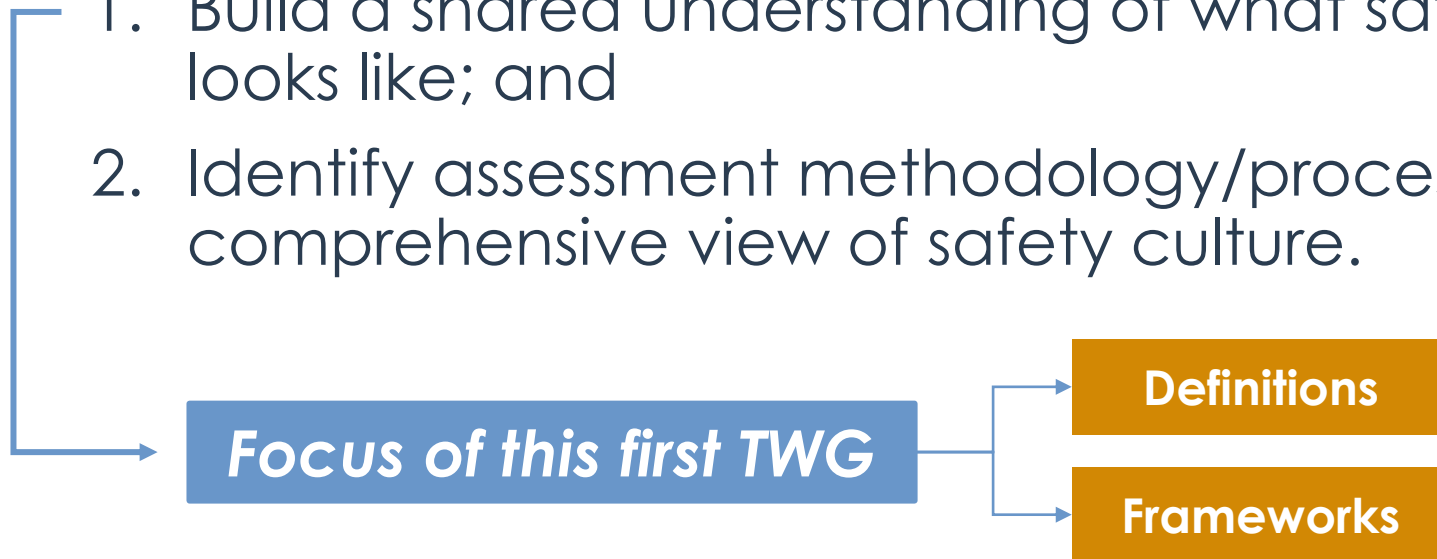
# The four large electric and gas IOUs have some safety culture assessment efforts in place, but they vary in scope and scale.

Current/ Previous Safety Culture Assessment Efforts		Method	PG&E	SCE	SDG&E	SoCalGas
Required	Commission-ordered assessment conducted by a third party	Multi-method	X			X
	Energy Safety's Safety Culture Assessment	Primary: Survey; self-assessment, (2022)	X	X	X	
Utility-initiated	National Safety Council Safety Barometer Survey	Survey	X		X	X
	Other employee surveys	Survey	X	X	X	X
	Other organization-wide safety culture assessments	Multi-method		X		

# Having a standard safety culture assessment framework facilitates consistent assessments across an industry over time.

To do so, we need to:

1. Build a shared understanding of what safety culture is and what it looks like; and
2. Identify assessment methodology/process that leads to a comprehensive view of safety culture.



# Building a shared understanding: the scope of safety culture reflects intent.

**TO PROTECT THE SAFETY OF?**

- People (Workers, contractors, public)
- Assets/property
- Environment

↕

**FROM?**

- High Consequence/Low Probability Events (i.e., San Bruno, Aliso Canyon, Paradise etc.)
- Low Consequence/High Probability Events? (i.e., slips/trips/falls)





# The scope and boundary of what and who is included in safety culture is key to its application.

## Organization's safety culture

### **Safety Culture: Core Elements**

- Values
- Norms
- Assumptions
- Attitudes
- Behaviors
- Perceptions

### **Safety Culture: Functions**

- Operations: Planning & Execution
- Infrastructure Management
- Strategy: Planning & Execution
- Learning

### **Safety Culture: People**

- C-Suite
- Senior management
- Middle management
- Frontline workers
- Contractors

## Outside influences

**Public**  
**Environment**  
**Regulator**

# Parties offered modifications to the definition of safety culture to clarify the boundary of the definition and its scope.

- PG&E's Safety Culture Investigation (I.15-08-019) defines an **organization's culture as the set of values, principles, beliefs, and norms shared by individuals within the organization, manifested through their planning, behaviors, and actions.**
  - This definition is also used in SoCalGas's Safety Culture Investigation.
  - I.15-08-019 goes on to describe an organization with a mature safety culture as one with an organizational culture and governance that prioritizes safety and achieves a positive record of safe operation.
  - *Note, this is a definition of organizational culture, but does not explicitly define safety culture – rather, these proceedings describe what a mature safety culture can look like.*
- Parties commented that the definition should also include or clarify:
  - The **boundaries** of safety and utilities' responsibility towards the **public and the environment** (Public Advocates)
  - Emphasis on **continuous learning** (Public Advocates, SCE, SDG&E)
  - Meeting and **exceeding compliance** (SCE, SDG&E, SoCalGas)

# Energy industry and regulators have adopted a standard definitions for safety culture.

- **American Petroleum Institute (API) 1173:** “The collective set of attitudes, values, norms, and beliefs that the operator’s employees and contractor personnel share with respect to risk and safety” (API, 2015).
- **Canada Energy Regulator (CER):** “The attitudes, values, norms and beliefs, which a particular group of people shares with respect to risk and safety” [of people and the environment] [*“Safety encompasses the safety of workers and members of the public, operational/process safety facility or asset integrity, security and environmental protection.”*](CER, 2021).
- **International Atomic Energy Agency (IAEA):** “The assembly of characteristics and attitudes in organizations and individuals which establishes that, as an overriding priority, protection and safety issues receive the attention warranted by their significance” (IAEA, 2013).
- **Bureau of Safety and Environmental Enforcement (BSEE):** “The core values and behaviors of all members of an organization that reflect a commitment to conducting business in a safe and environmentally responsible manner” (BSEE, 2013).

# Sometimes it is easier to describe what safety culture is *not* than what it is.

What safety culture is not (*from Fleming & Scott, 2018*)

## Box 1: What safety culture is not

It is often easier to explain the concept of safety culture by explaining what it is not rather than trying to explain what it is.

### *Safety culture is not...*

- the solution to all health and safety problems
- the same as safety climate
- the sum of employee questionnaire responses
- only concerned with employee safety behaviour or behavioural safety programs
- easy to change
- one-dimensional
- an excuse for doing nothing to improve safety
- an alternative to sound engineering controls and safety management practices

Safety culture also should not be confused or conflated with safety management

- Safety management is focused on an organization's policies, processes, and procedures in place to address risk and safety (what an organization says).
- Safety culture is focused on actual behaviors – e.g., how those processes are implemented – and the underlying attitudes and beliefs for those behaviors (what an organization does).
- The development and advancement of one happens in conjunction with and reinforces the development and advancement of the other.

*“The term safety culture was developed to explain why safety management arrangements designed to manage hazards were not in place or were not used as intended” (Fleming and Scott, 2018)*

# A (conceptual) framework of safety culture would help promote coordination utilizing a common and consistent language and standards.

- Frameworks can “simplify and communicate a complex concept into distinct dimensions to support clarity and understanding” (Canada Energy Regulator, 2022).
- Safety culture frameworks are **multi-dimensional**, and usually have some **positive** and some **negative** traits or domains.
- Traits or characteristics describe broad safety culture themes, such as:
  - Leadership commitment to safety culture (positive)
  - Normalization of deviance (negative)

# Other regulators have adopted safety culture frameworks to describe and build a shared understanding of safety culture.

## EXAMPLE FRAMEWORK

### IAEA's Harmonized 2020 Framework

Individual Responsibility

Questioning Attitude

Communication

Leader Responsibility

Decision-Making

Work Environment

Continuous Learning

Problem Identification and Resolution

Raising Concerns

Work Planning

### 10 DOMAINS

- These are the types of characteristics you would find in various safety culture frameworks
- Each domain represents an overarching principle
- Within each domain, there is a description of the traits and attributes that are present in organizations with an effective culture for safety

# These frameworks are generally more similar than different.

Table adapted from Canada Energy Regulator "[Comparison of Safety Culture Frameworks](#)" (CER, 2021)

IAEA (2020)	JAMES REASON	HIGH RELIABILITY ORGANIZATIONS	BSEE	PHMSA	CER/ CNLOPB/ CNSOPB
- Leadership Responsibility			- Leadership Safety Values and Actions	- Leadership is clearly committed to safety	- Committed Safety Leadership - Production Pressure
- Continuous Learning	- Learning	- Preoccupation with failure	- Continuous Learning	- Organization practices continuous learning	- Vigilance
- Decision-Making - Leadership Responsibility		- Preoccupation with failure	- Leadership Safety Values and Actions	- Decisions demonstrate safety is prioritized over competing demands	- Committed Safety Leadership - Production Pressure
- Problem Identification and Resolution	- Informed - Reporting - Complacency - Normalization of deviance	- Reluctance to simplify interpretations - Sensitivity to operations	- Problem Identification and Resolution	- Reporting systems and accountability are clearly defined	- Vigilance - Complacency - Normalization of deviance
- Work Environment - Questioning Attitude - Raising Concerns	- Informed - Just - Complacency - Normalization of deviance	- Preoccupation with failure	- Environment for Raising Concerns - Inquiring Attitude	- There is a safety conscious work environment	- Vigilance - Complacency - Normalization of deviance
- Individual Responsibility	- Just	- Deference to expertise	- Personal Accountability	- Employees feel personally responsible for safety	- Empowerment and Accountability - Vigilance
- Communication	- Informed	- Deference to expertise	- Effective Safety Communication	- Open and effective communication across the organization	- Vigilance
- Work Environment	- Just	- Deference to expertise	- Respectful Work Environment	- Mutual trust is fostered between employees and the organization	- Vigilance
- Raising Concerns	- Just	- Preoccupation with failure	- Environment for raising concerns without fear of retaliation, intimidation, harassment, or discrimination	- Organization is fair and consistent in responding to safety concerns	- Vigilance
- Work Planning	- Informed - Flexible - Tolerance of Inadequate Systems and Resources	- Commitment to resilience	- Work Processes	- Training and resources are available to support safety	- Vigilance - Resiliency - Tolerance of Inadequate Systems and Resources - Production Pressure

# Questions?

Please raise hand, use chat, or use Q&A feature





# Facilitated Discussion Questions *(please raise hand or use chat)*

1. What do you see as the purpose of the assessments? What do you expect to get out of them?
2. How should the Commission revise its working definition of safety culture, if at all? What and who do you think should be included in the concept of safety used in this OIR: employees, contractors, the public, process/operational safety, assets, environmental protection, etc.? Should the boundaries of safety include all people and processes that can impact the safety culture of an organization, and if not, who or what should be excluded?
3. Is there value in having a consistent and coordinated safety culture assessment framework that is used across electric and gas utility organizations? What do you expect the safety culture assessment framework to produce? What would make that framework most useful?
4. Do the categories (domains) in the proposed CPUC framework adequately describe safety culture within electric and gas utility organizations? Are they complete and comprehensive? If not, what should be added or removed?
5. How should the Commission consider or leverage current safety culture assessment practices underway within electric and natural gas utilities?

# LUNCH

12:00pm-1:00pm

# CPUC Proposed Draft Framework

1:00pm-1:45pm



California Public  
Utilities Commission

# The CA legislature mandates conducting third-party safety culture assessments (of electric utilities) at least every 5 years.

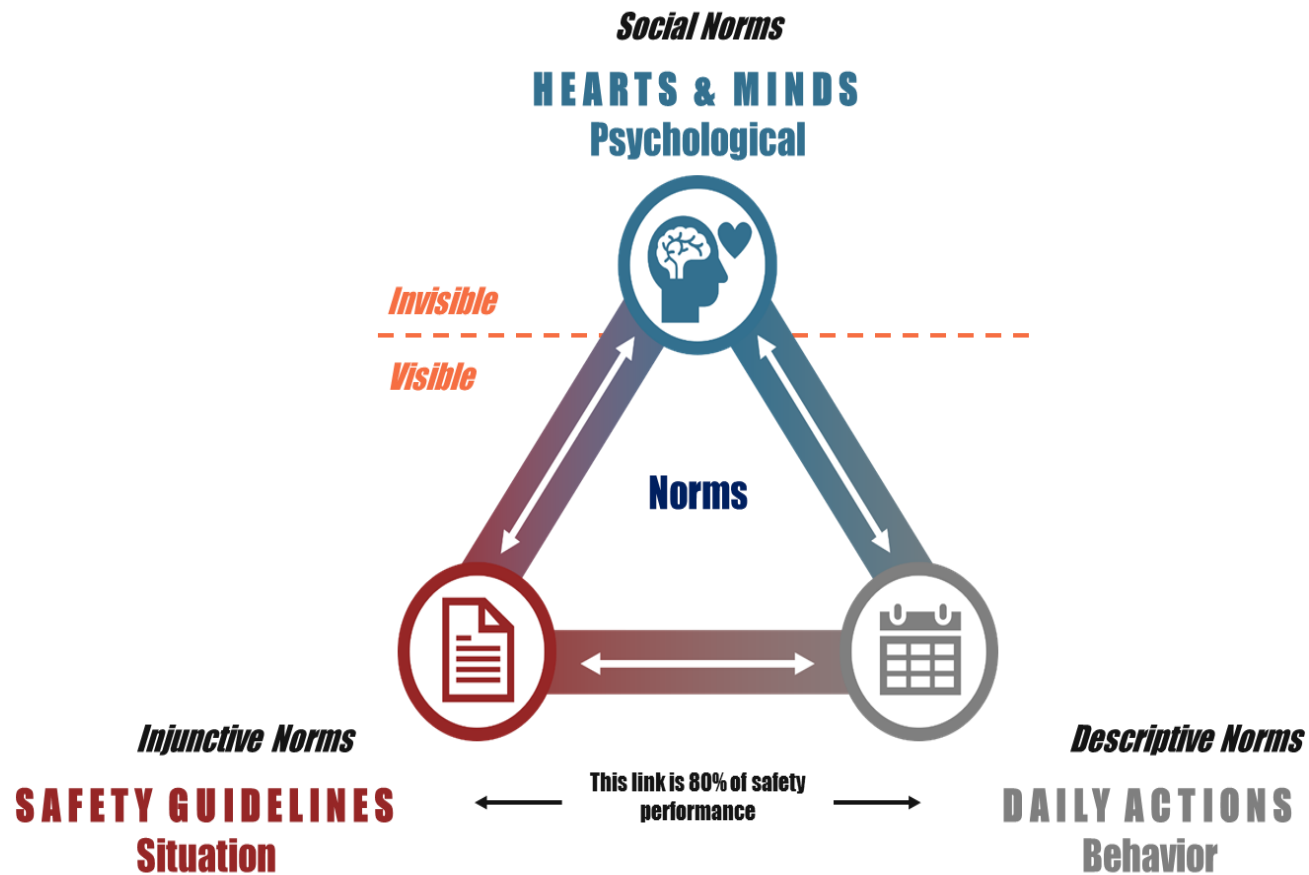
8386.2. The commission shall require a safety culture assessment of each electrical corporation to be conducted by an independent third-party evaluator. The commission shall set the schedule for each assessment, including updates to the assessment at least every five years. The electrical corporation shall not seek reimbursement for the costs of the assessment from ratepayers.

- The legislature does not mandate any other actions from the IOUs (how to conduct assessments, what to do with the results).
- *The nature and timing of the assessments (and related activities) is left to the CPUC to determine.*

# Safety Culture frameworks can help provide a structure for identifying areas of improvement.

- While each IOU is the owner of its safety culture, introducing safety culture into regulatory language can be a “driving force” towards continuous improvement (Antonsen, Nilsen, & Almklovb, 2017).
- Regulators should adopt a safety culture definition and conceptual framework and develop guidance on safety culture assessments since “a consistent approach to safety culture is likely to be more effective” (Fleming & Scott, 2018).

# The Reciprocal model is used as the basis for the BSMS model.



- How people feel.
- What people do.
- What an organization has.

# BSMS has developed a draft framework for CPUC that is comparable to other safety culture frameworks.

IAEA (2020)	JAMES REASON	BSEE	PHMSA	NEB/ CNLOPB/ CNSOPB	BSMS
- Leadership Responsibility		- Leadership Safety Values and Actions	- Leadership is clearly committed to safety	- Committed Safety Leadership - Production Pressure	- Safety Leadership - Managerial Compliance
- Continuous Learning	- Learning	- Continuous Learning	- Organization practices continuous learning	- Vigilance	- Lessons Learned - Corrective and Preventative Actions
- Decision-Making - Leadership Responsibility		- Leadership Safety Values and Actions	- Decisions demonstrate safety is prioritized over competing demands	- Committed Safety Leadership - Production Pressure	- Safety Leadership
- Problem Identification and Resolution	- Informed - Reporting - Complacency - Normalization of deviance	- Problem Identification and Resolution	- Reporting systems and accountability are clearly defined	- Vigilance - Complacency - Normalization of deviance	- Corrective and Preventative Actions - Managerial Compliance
- Work Environment - Questioning Attitude - Raising Concerns	- Informed - Just - Complacency - Normalization of deviance	- Environment for Raising Concerns - Inquiring Attitude	- There is a safety conscious work environment	- Vigilance - Complacency - Normalization of deviance	- Managerial Compliance
- Individual Responsibility	- Just	- Personal Accountability	- Employees feel personally responsible for safety	- Empowerment and Accountability - Vigilance	- Safety Leadership
- Communication	- Informed	- Effective Safety Communication	- Open and effective communication across the organization	- Vigilance	- Safety Communication
- Work Environment	- Just	- Respectful Work Environment	- Mutual trust is fostered between employees and the organization	- Vigilance	- Just Culture - Safety Competence
- Raising Concerns	- Just	- Environment for raising concerns without fear of retaliation, intimidation, harassment, or discrimination	- Organization is fair and consistent in responding to safety concerns	- Vigilance	- Managerial compliance
- Work Planning	- Informed - Flexible - Tolerance of Inadequate Systems and Resources	- Work Processes	- Training and resources are available to support safety	- Vigilance - Resiliency - Tolerance of Inadequate Systems and Resources - Production Pressure	- Strategy - Profit before safety

# BSMS has proposed 10 functional domains that describe safety culture.

Three functional domains (in blue) are identified as actionable domains that can influence the state safety culture.

## Strategy

There is a strategic safety culture process in place that is being used by all stakeholders in the organization to advance safety culture.

## Risk Assessment

There is a formal risk assessment system, and that system and its outputs are being used by the organization.

## Profit Before Safety

Instances where productivity comes before safety, as safety is viewed as a cost, not an investment. Ideally, an organization would adopt the philosophy that 'safe-production' is the number one priority, and configure all their processes, resources, and actions accordingly.

## Just Culture

Without a just culture, serious problems remaining hidden and being driven underground by those trying to avoid sanctions or reprimands from their leaders, coworkers, or the public. A just culture eliminates the presence of a blame culture and builds trust within the organization.

## Safety Leadership

Leaders take responsibility for safety, are held accountable, are empowered to take safety actions, and have the necessary knowledge of safety rules and procedures within their authority.

## Managerial Compliance

Understanding that most process safety incidents stem from lack of managerial compliance, the organization focuses on ensuring safety actions follow standards, rules, and procedures.

## Safety Communications

The organization works to ensure that communications are received, understood, and acted upon.

## Safety Competence

The organization ensures that enabling competencies are defined and mapped for safety critical jobs, and that those in safety critical jobs have the required cognitive and functional competencies to perform their jobs.

## Lessons Learned

The organization has a system to report adverse events; adverse events are always reported; there are systematic methods to investigate adverse incidents and conduct root cause analysis, and these are used; and there are processes in place to extract and communicate the lessons learned.

## Corrective and Preventative Actions

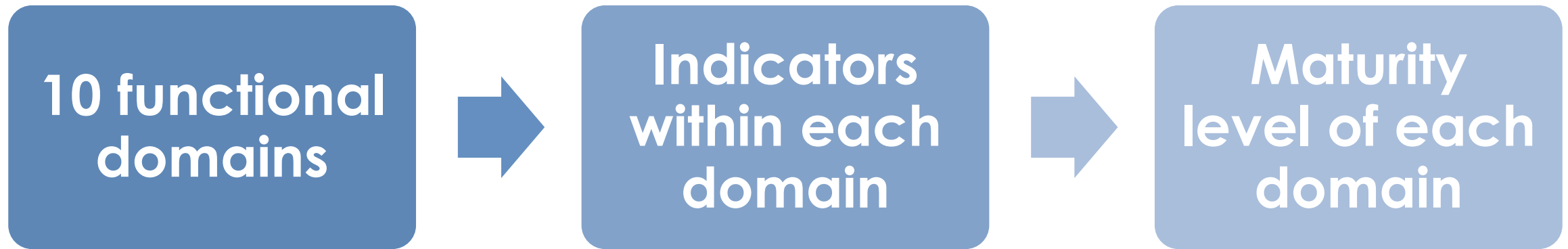
Corrective actions are aimed at an adverse event that has already occurred. Preventative actions are aimed at reducing the potential for an adverse event to occur. The organization implements action(s) required to rectify and/or eliminate future potential adverse events.



# Within each functional domain, BSMS proposes five levels of maturity.

- 1. Commencing** refers to *'beginning something.'* In other words, this level of an entity's safety culture maturity reflects that current safety processes are rudimentary, ad-hoc and chaotic. They lack structure, with safety success largely depending upon the knowledge, skills, and abilities of those doing the work.
- 2. Coasting** refers to *'putting very little effort into something.'* This level of maturity reflects where entities are making minimal effort to develop the necessary safety strategies and processes and are just going through the motions, in the belief they can deal with whatever they confront. There is no clear direction, or systematic attempt, to improve safety.
- 3. Complying** is defined as *'meeting the minimum standards.'* This level of maturity indicates the goal of an organization is to just meet the minimum requirements which satisfy the regulators, auditors, customers, and stakeholders that things are being done to protect people, assets, and the environment.
- 4. Committing** is defined as *'putting a lot of effort into something.'* This level of maturity reflects where an organization has pledged itself to going beyond minimal compliance in safety and is striving to achieve its safety culture mission and goals to greatly reduce the potential for harm in the workplace and the community.
- 5. Commanding** refers to an organization being *'in a commanding position.'* This level of maturity reflects that continual safety culture improvement is in the organization's DNA at all levels. All work is conducted with safe-production being a matter of course, with horizon scanning for potential safety issues a routine part of everyday activities. Ensuring everyone's safety is as natural and unconscious as breathing.

**We can use indicators to help understand the maturity level of an organization's safety culture.**



# Questions?

Please raise hand, use chat, or use Q&A feature



# References for CPUC Safety Policy Division presentations

- American Petroleum Institute (2015). ANSI/API Recommended Practice 1173: Pipeline Safety Management Systems.
- Antonsen, S., Nilsen, M., & Almklov, P. G. (2017). Regulating the intangible. Searching for safety culture in the Norwegian petroleum industry. *Safety Science*, 92, 232-240.
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# Facilitated Discussion

1:45pm-2:50pm



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# Facilitated Discussion Questions *(please raise hand or use chat)*

1. What do you see as the purpose of the assessments? What do you expect to get out of them?
2. How should the Commission revise its working definition of safety culture, if at all? What and who do you think should be included in the concept of safety used in this OIR: employees, contractors, the public, process/operational safety, assets, environmental protection, etc.? Should the boundaries of safety include all people and processes that can impact the safety culture of an organization, and if not, who or what should be excluded?
3. Is there value in having a consistent and coordinated safety culture assessment framework that is used across electric and gas utility organizations? What do you expect the safety culture assessment framework to produce? What would make that framework most useful?
4. Do the categories (domains) in the proposed CPUC framework adequately describe safety culture within electric and gas utility organizations? Are they complete and comprehensive? If not, what should be added or removed?
5. How should the Commission consider or leverage current safety culture assessment practices underway within electric and natural gas utilities?

# Facilitated Discussion Questions *(please raise hand or use chat)*

4. Do the categories (domains) in the proposed CPUC framework adequately describe safety culture within electric and gas utility organizations? Are they complete and comprehensive? If not, what should be added or removed?

**Strategy**

**Risk Assessment**

**Profit Before Safety**

**Just Culture**

**Safety Leadership**

**Managerial Compliance**

**Safety Communications**

**Safety Competence**

**Lessons Learned**

**Corrective and Preventative Actions**

# Questions?

Please raise hand, use chat, or use Q&A feature





# Next Steps

2:55pm-3:00pm



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# Additional technical working group meetings and written feedback

- Upcoming TWGs:

Friday June 24, 1pm-4pm	Technical Working Group Meeting #2	Collaborative approaches to safety culture
Friday July 22, 1pm-4pm	Technical Working Group Meeting #3	Safety culture assessment schedule and process
Thursday July 28, 9am-3pm	Technical Working Group Meeting #4	Safety culture maturity model, indicators, and metrics

- Written feedback:

- For topics discussed in TWG #1 and TWG #2, instructions will be sent after the June 24 meeting
- For topics discussed in TWG #3 and TWG #4, instructions will be sent after the July 28 meeting

# Questions?

Please raise hand, use chat, or use Q&A feature



**THANK YOU**