2025 Risk Assessment Mitigation Phase

(Chapter SCG-Risk-5)

Employee Safety

May 15, 2025

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I. INTRODUCTION

The purpose of this chapter is to present Southern California Gas Company's (SoCalGas or Company) risk control and mitigation plan for the Employee Safety Risk. This chapter contains information and analysis for this risk that meet the requirements of the California Public Utilities Commission's (Commission or CPUC) Risk-Based Decision-Making Framework (RDF),[1] including the requirements adopted in Decision (D.) 22-12-027 (the Phase 2 Decision) and D.24-05-064 (the Phase 3 Decision). The Employee Safety Risk is included in the 2025 RAMP Report based on a safety risk assessment, further informed by its reliability and financial consequence attributes, consistent with RDF guidance. This risk chapter describes the basis for selection of the Employee Safety Risk, the controls and/or mitigations put forth to reduce the likelihood or consequence of this risk, a discussion of alternative mitigations considered but not selected, and a graphic to show historical progress. This chapter presents cost and unit forecasts for the risk mitigating activities, but it does not request funding. Any funding requests for this risk will be made through the Company's Test Year (TY) 2028 General Rate Case (GRC) application. Finally, this chapter describes the methods applied to estimate the risk's monetized, pre-mitigated risk, the estimated risk-reduction benefits of each included control and mitigation, and the calculation of Cost-Benefit Ratios (CBRs) for each control and mitigation, consistent with the method and process prescribed in the RDF.

A. Risk Definition and Overview

1. Risk Definition

For the purposes of this RAMP Report, SoCalGas's Employee Safety Risk is defined as "the risk of a condition, practice or event that threatens the safety of a SoCalGas employee." The risk definition encompasses risk events caused by the injured employees themselves and/or other employees or non-employees, including the processes and systems around employees that may contribute to an incident, and could also result in an impact to infrastructure, contractors, and/or the public.

[1] As discussed in Volume 1, Chapter RAMP-1, the RDF Framework broadly refers to the recent modifications to the Commission's Rate Case Plan adopted in Rulemaking (R.) 13-11-006, Safety Model Assessment Proceeding A.15-05-002 et al. (cons.), and R.20-07-013 (the Risk OIR), including D.24-05-064, Appendix A.

SoCalGas defines safety as the presence of controls for known hazards, actions to anticipate and guard against unknown hazards, and the commitment to continuously improve its ability to recognize and mitigate hazards. Safety requires strong, ongoing leadership commitment, and active engagement and ownership from all employees.

Certain controls and mitigations presented in this chapter are subject to compliance mandates beyond RDF requirements, such as those from state and federal Occupational Safety and Health Administrations (OSHA, Cal/OSHA),[2] the CPUC (including General Order 112-F), Pipeline and Hazardous Material Safety Administration (PHMSA) (including but not limited to subparts of Rule 49 Code of Federal Regulations), and American Petroleum Institute Recommended Practice (API RP)1173. A list of compliance requirements applicable to Employee Safety Risk is provided in Attachment A. Certain mitigation programs have value beyond the estimated risk reduction calculated under the RDF, such as enhancing operations, and promoting public trust and confidence in the communities SoCalGas serves.

2. Risk Overview

SoCalGas defines safety as the presence of controls for known hazards, actions to anticipate and guard against unknown hazards, and the commitment to continuously improve its ability to recognize and mitigate hazards. Safety requires strong, ongoing leadership commitment, and active engagement and ownership from all employees.

To promote these principles and safety values throughout, and to foster a culture of continuous safety improvement, SoCalGas strives for a work environment where employees at all levels can raise concerns about pipeline infrastructure safety,[3] public safety,[4] contractor safety,[5] and employee safety[6] and offer suggestions for improvement.

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2 Cal/OSHA is commonly used to describe the California Occupational Safety and Health Program and the agency that enforces it.

3 Safety systems and processes associated with the design, construction, operation, inspection, and maintenance of SoCalGas's infrastructure.

4 Safety systems and processes focused on protection of our customers and the public (i.e., Emergency Management, Environmental Safety, Customer Data Privacy, Accessibility, and protection of the public from harm caused by our operations or our assets, and the safety of vulnerable populations).

5 Safety systems and processes focused on the safety and protection of our contractors and subcontractors who provide services to support SoCalGas assets and operations

6 Safety systems and processes focused on the health and safety of our employees. This includes safety policies, programs, and training.

B. Risk Scope

SoCalGas's Employee Safety Risk analysis considers the risk of an employee safety incident that causes minor[7] or serious injury/illness[8] or fatality while on duty. This risk applies to the entire SoCalGas employee population, which was an annual average of 8,900 employees in 2024.

C. Data Sources Used to Quantify Risk Estimates[9]

SoCalGas utilized internal data sources to determine an Employee Safety Risk Pre-Mitigation Risk Value and calculate risk reduction estimates for mitigation activities (which enables estimation of Post Mitigation Monetized Risk Values and Cost Benefit Ratios). Where internal data is deemed insufficient, supplemental industry or national data is used, as appropriate, and adjusted to account for the risk characteristics associated with the Company's specific operating locations and service territory. For example, certain types of incident events have not occurred within the SoCalGas service territory. Expanding the quantitative data sources to include industry data where such incidents have been recorded is appropriate to establish a baseline of risk and risk addressed by mitigative activities. Attachment B provides additional information regarding these data resources.

II. RISK ASSESSMENT

In accordance with Commission guidance, this section provides a qualitative description of the Employee Safety Risk, including a risk Bow Tie, which delineates potential Drivers/Triggers and Potential Consequences, followed by a description of the Tranches determined for this risk.

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[7] Minor injury or illness is one that does not meet the criteria for a serious injury as defined by Cal/OSHA.

[8] Cal/OSHA defines a serious injury or illness as "any injury or illness occurring in a place of employment or in connection with any employment that requires inpatient hospitalization for other than medical observation or diagnostic testing, or in which an employee suffers an amputation, the loss of an eye, or any serious degree of permanent disfigurement, but does not include any injury or illness or death caused by an accident on a public street or highway, unless the accident occurred in a construction zone." 8 C.C.R. § 330(h).

[9] Copies and/or links to these data resources are provided in the workpapers served with this Report on May 15, 2025.

A. Risk Selection

Employee Safety Risk was included as a risk in SoCalGas's 2021 RAMP and was included in SoCalGas's 2022, 2023, and 2024 Enterprise Risk Registries (ERR).[10] SoCalGas's ERR evaluation and selection process is summarized in Chapter RAMP-2: Enterprise Risk Management Framework and in Chapter RAMP-3: Risk Quantification Framework.

SoCalGas selected this risk in accordance with RDF Row 9.[11] Specifically, SoCalGas assessed the top risks from the Company's 2024 ERR based on the Consequence of a Risk Event (CoRE) Safety attribute. Employee Safety Risk was among the risks presented in SoCalGas's list of Preliminary 2025 RAMP Risks on December 17, 2024 at a pre-filing workshop. Employee Safety Risk was selected based on the qualification of its Safety risk attribute, as required under the RDF. At the pre-filing workshop, no party expressed opposition to inclusion of this risk in SoCalGas's 2025 RAMP Report.

B. Risk Bow Tie

In accordance with Commission requirements, this section describes the risk Bow Tie, possible Drivers, Potential Consequences, and a mapping of the elements in the Bow Tie to the mitigations that addresses them.[12] As illustrated in the risk Bow Tie shown below in Figure 1, the Risk Event (center of the Bow Tie) is the Employee Safety Risk that leads to a safety-related event, the left side of the Bow Tie illustrates Drivers/Triggers that could lead to the Employee Safety Risk, and the right side shows the Potential Consequences of the Employee Safety Risk. SoCalGas applies this framework to identify and summarize the information provided in Figure 1. A mapping of each mitigation to the addressed elements of the risk Bow Tie is provided in Attachment C.

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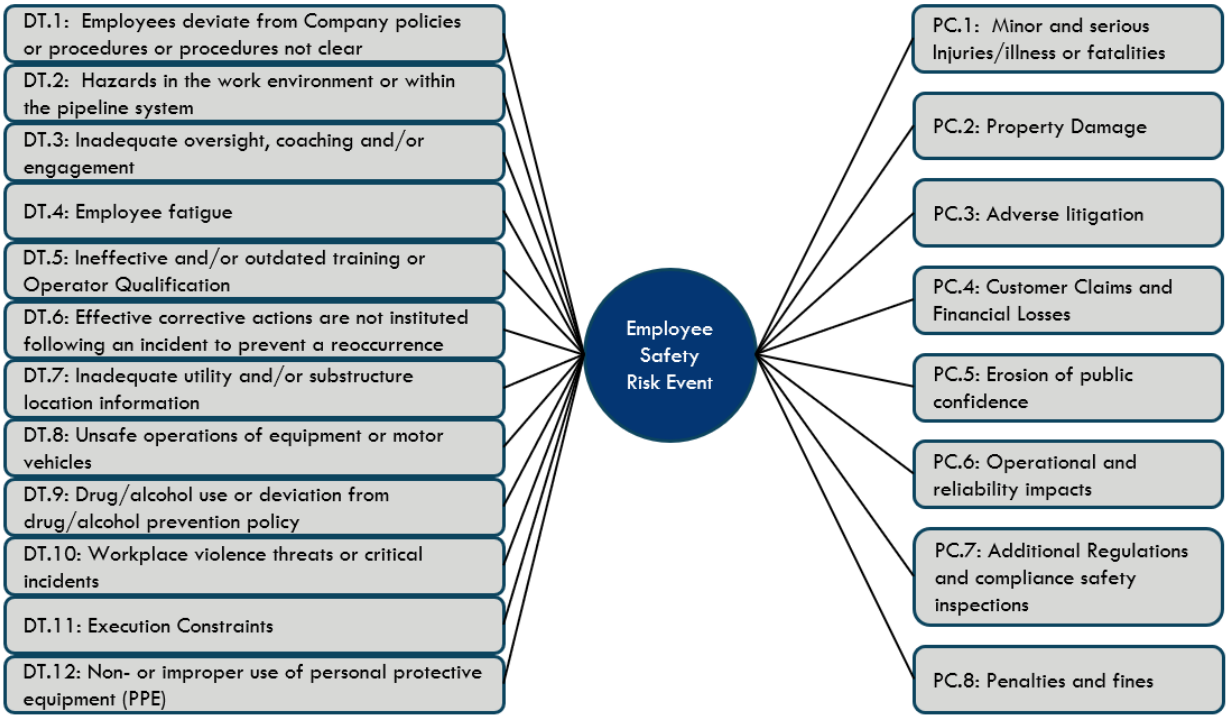
[10] In the 2021 RAMP Report, Chapter SCG-Risk-5, this risk was called Incident Involving an Employee (IIE). The risk definition for Employee Safety Risk in this RAMP was changed from the IIE risk in the 2021 RAMP Report to remove limiting, causal language regard "non-adherence to Company policies, procedures, and programs, or by external factors". The elements of Employee Safety Risk have been expanded to be more comprehensive and to align with the Contractor Safety risk chapter.

[11] D.24-05-064, RDF Row 9 states that risks to be included in the RAMP Report, at minimum, are those identified in the Company's ERR comprising "the top 40% of ERR risks with a Safety Risk Value greater than zero dollars".

[12] D.24-05-064, RDF Row 15.

Figure 1
Employee Safety Risk: Risk Bow Tie



C. Potential Risk Event Drivers/Triggers[13]

When performing a risk assessment for the Employee Safety Risk, SoCalGas identifies potential leading indicators, referred to as Drivers or Triggers, that reflect current and/or forecasted conditions and may include both external actions as well as characteristics inherent to the asset.[14] These Bow Tie Drivers/Triggers inform the Likelihood of a Risk Event (LoRE) component of the risk value. These include:

- **DT.1 – Deviation from Company standards, policies or procedures or procedures not clear:** SoCalGas maintains standards, policies and procedures, including but not limited to Gas Standard procedures, general safety rules in a Safety Manual for Employees, and an Illness and Injury Prevention Program (IIPP) standard. Failure to adhere to SoCalGas safety standards, policies or procedures or an unclear procedure could result in a safety-related event.

[13] An indication that a risk could occur. It does not reflect actual or threatened conditions.

[14] D.24-05-064, RDF Rows 10-11.

- **DT.2 – Hazards in the work environment or within the pipeline system:** Unsafe work environments, including work locations, roadways and parking places, customer premises, gas equipment condition, lead from paint, asbestos, or fumigation chemicals, for example, can lead to a safety event. Also, factors such as heat, night work, high-risk work locations (*e.g.*, busy roadways), may make working conditions more difficult and could increase the likelihood of a safety-related event.
- **DT.3 – Inadequate oversight, coaching and/or engagement**: Inadequate oversight, coaching, and/or engagement can lead to departures from safe work practices that could result in a safety-related event.
- **DT.4 – Employee fatigue:** Employees working excessive hours can create unsafe work environments by reducing their level of awareness to hazards or ability to perform work effectively which could lead to a safety-related event.
- **DT.5 – Ineffective and/or outdated training or Operator Qualification:** Ineffective and or outdated training or Operator Qualifications ("Op-qual"), or inexperienced employees could result in an employee performing work without appropriate knowledge, competency, training, and or qualification, which could result in a safety-related event.
- **DT.6 – Effective corrective actions are not instituted following an incident to prevent a reoccurrence:** Lessons learned, and the appropriate follow-up actions or training, can help prevent future safety events from occurring. The failure to report near misses or share lessons learned and implement corrective actions following a safety-related event could lead to the recurrence of safety-related events.
- **DT.7 – Inadequate utility and/or substructure location information:** Proper information about the assets, systems, or infrastructure that are part of the SoCalGas facilities and the auxiliary substructures in the vicinity of work activities is an important component of performing work safely. Inadequate or inaccurate utility and/or substructure information could result in an employee safety-related event.

- **DT.8 – Unsafe operations of equipment or motor vehicles:** Non-adherence to motor vehicle laws or not utilizing equipment according to safety standards could lead to a safety-related event.
- **DT.9 – Drug/alcohol use or deviation from drug/alcohol prevention policy:** Medication/drug/alcohol use while on the job may impede the ability to perform work safely, which could lead to a safety-related event.
- **DT.10 – Workplace violence threats or incidents:** Workplace violence incidents (*e.g.*., an active shooters, hostile customers) could increase the likelihood of a safety-related event.
- **DT.11 – Execution constraints:** Events (excluding those covered by outside force damages) that negatively impact SoCalGas's ability to perform as anticipated, such as ineffective materials, permitting constraints, or operational oversight, delays in response and awareness, resource constraints, and/or inefficiencies or reallocation of (human and material) resources, or unexpected maintenance needs could increase the likelihood of a safety-related event.
- **DT.12 – Non- or improper use of personal protective equipment (PPE):** Safety equipment serves to protect employees from avoidable injuries. Failure to wear personal protection and safety equipment could lead to a safety-related event

D. Potential Consequences of Risk Event (CoRE)

Potential Consequences are listed to the right side of the risk Bow Tie. SoCalGas identifies the Potential Consequences of this risk by analyzing internal data sources, where available, industry data,[15] and subject matter expertise (SME).[16] These Bow Tie Consequences inform the CoRE component of the risk score. If one or more of the Drivers listed above were to result in an incident, the Potential Consequences, in a plausible worst-case scenario, could include:

[15] Industry data includes data found in SoCalGas's annual Safety Performance Metrics Report (SPMR) and Centers for Disease Control and Prevention (CDC), *Web-based Injury Statistics Query and Reporting System (WISQARS) Cost of Injury*, *available at:* https://wisqars.cdc.gov/cost/?y=2023&o=MORT&i=0&m=20810&g=00&s=0&u=TOTAL&u=AVG.

[16] D.24-05-064, RDF Row 10.

- **PC.1 – Minor or serious injuries/illness[17] or fatalities**
- **PC.2 – Property damage**
- **PC.3 – Adverse litigation**
- **PC.4 – Customer claims and financial losses**
- **PC.5 – Erosion of public confidence**
- **PC.6 – Operational and reliability impacts**
- **PC.7 – Additional regulations and compliance safety inspections**
- **PC.8 – Penalties and fines**

These Potential Consequences were used by SoCalGas in the scoring of the Employee Safety Risk during the development of its 2024 ERR.

E. Evolution of Risk Drivers and Consequences

As specified in the Phase 3 Decision,[18] the following changes to the previous ERR and/or the 2021 RAMP include:

1. Changes to Drivers/Triggers of the Risk Bow Tie

SoCalGas implemented several changes to the possible Drivers and Triggers to promote clarity and alignment. These changes include efforts to promote consistency and advance an aligned and integrated approach to personnel and occupational safety issues for SoCalGas employees and contractors by aligning the possible Drivers and Triggers within the Contractor and Employee Safety Risks. In addition, SoCalGas clarified and added language to the Triggers, Drivers, and associated definitions to more clearly identify and explain the possible Driver/Trigger.

2. Changes to Potential Consequences of the Risk Bow Tie

- PC.1 – Minor and serious Injuries/illness or fatalities: Renamed to include minor injuries and illnesses.

[17] Cal. Code Regs. Tit. 8, 330(h).

[18] D.24-05-064, RDF Row 8.

F. Summary of Tranches

To determine groups of assets or systems with similar risk profiles, or Tranches, and in accordance with Row 14 of the RDF, SoCalGas applied the Homogeneous Tranching Methodology (HTM) as outlined in Chapter RAMP-3: Risk Quantification Framework. As a result, the following classes, LoRE-CoRE pairs, and resulting number of Tranches were determined:[19]

Table 1: Employee Safety Risk
Tranche Identification

Class	Number of LoRE-CoRE Pairs	Number of Resulting Tranches
OSHA Recordable	2	2
Vehicle Incident	3	2
Workplace Violence	2	2
TOTAL	**7**	**6**

Attachment D illustrates the derivation of the Tranches, as shown in Table 1 above, in accordance with the HTM. The classes were identified by SoCalGas as logical groups of events that can lead to the Employee Safety Risk. These classes also align risk treatments with event risk profiles reflective of SoCalGas's operations. More detailed Tranche information, including risk quantification by LoRE-CoRE pair, Tranche names, and mitigation associations (*i.e.*, cost mapping and risk reduction) to Tranches, is provided in workpapers.

III. PRE-MITIGATION RISK VALUE

In accordance with the RDF Row 19, the table below provides the pre-mitigation risk values for the Employee Safety Risk. Further details, including pre-mitigation risk values by Tranche, are provided in workpapers. Explanations of the risk quantification methodology and other higher-level assumptions are provided in Chapter RAMP-3: Risk Quantification Framework.

[19] Note that the Employee Safety Risk, as a human-based safety risk, does not feature the natural segmentation characteristics that asset-based risks do, which limits the number of viable Tranches.

Table 2: Employee Safety Risk
Monetized Risk Values
(Direct, in 2024 $millions)

LoRE	CoRE [Risk-Adjusted Attribute Values]			Total CoRE	Total Risk [LoRE x Total CoRE]
	Safety	Reliability	Financial		
581.9	$0.036	$0.00	$0.0084	$0.045	$26.01

A. Risk Value Methodology

SoCalGas's risk modeling for the Employee Safety Risk follows RDF guidance[20] for implementing a Cost Benefit Approach, as described below:

1. **Cost Benefit Approach Principle 1 – Attribute Hierarchy (RDF Row 2):** The Employee Safety Risk is quantified in a combined attribute hierarchy as shown in Table 2 above, such that Safety, Reliability, and Financial are presented based on available, observable, and measurable data.
2. **Cost Benefit Approach Principle 2 – Measured Observations (RDF Row 3):** The Employee Safety risk used observable and measurable data in the estimation of CoRE values. SoCalGas utilized internal incident data to represent natural units for employee injuries. These injuries were classified as either Minor, Serious, or Unsurvivable and assigned the corresponding FAA fractional VSL value.
3. **Cost Benefit Approach Principle 3 - Comparison (RDF Row 4):** The Employee Safety Risk utilized proxy data as provided by various sources including, but not limited to, the Federal Bureau of Investigation (for workplace violence), the United States Bureau of Labor Statistics (to determine a proration of SoCalGas employee base versus the national working population), the Centers for Disease Control and Prevention (to determine financial impacts associated with injuries), and National Safety Council (to estimate costs associated with vehicle incidents).
4. **Cost Benefit Approach Principle 4-Risk Assessment (RDF Row 5):** Data distributions were not applicable for the risk events modeled for the OSHA,

[20] D.24-05-064, RDF Rows 2-7.

Workplace Violence, and Vehicular Incident components of this risk. For those components, probabilities of future events were derived based on internal recorded data from past years or supplemented with national data where applicable (to estimate likelihood of workplace violence incident). Please refer to Attachment B for specific details regarding these sources.

5. **Cost Benefit Approach Principle 5-Monetized Levels of Attributes (RDF Row 6):** In accordance with D.22-12-027 and D.24-05-064, RDF Row 6, SoCalGas used a California-adjusted Department of Transportation monetized equivalent to calculate the Safety CoRE attribute at a monetized equivalent of $16.2 million per fatality, $49 thousand per minor injury, and $4.1 million per serious injury;[21] and the Financial CoRE attribute is valued at $1 per dollar.[22] Reliability is quantified at $0 due to the lack of empirical and proxy data supporting reliability consequences occurring from employee safety incidents.

Further information regarding SoCalGas's quantitative risk analyses, including raw data, calculations, and technical references, are provided in workpapers.

6. **Cost Benefit Approach Principle 6-Risk Adjusted Attribute Level (RDF Row 7):**

Table 3: Employee Safety Risk
Risk Scaled vs Unscaled Value by CoRE Attributes
(Direct, in 2024 $ millions)

	Safety	Reliability	Financial	Total
Unscaled Risk Value	$18.73	$0	$4.89	$23.61
Scaled Risk Value	$21.12	$0	$4.90	$26.01

The values in the table above are the result of SoCalGas applying the risk scaling methodology described in Chapter RAMP-3 to the CoRE attributes for the Employee Safety Risk. The Employee Safety Risk does not feature a significant risk aversion scaling impact because a relatively small proportion of the observed events rise to the level at which scaling is

[21] *See* D.22-12-027 at 35 ("We adopt Staff's recommendation to require a dollar valuation of the Safety Attribute in the Cost-Benefit Approach in the RDF using the DOT VSL as the standard value.").

[22] S*ee* Chapter RAMP-3: Risk Quantification Framework, Section II.

applicable, and the magnitudes of the consequences are not as high (*e.g.*, multiple-fatality event) as can occur with other risks.

Further information regarding the risk scaling function, including the risk scaling factor and the loss threshold at which the risk scaling factor begins to apply, is provided in Chapter-RAMP-3.

IV. 2024-2031 CONTROL & MITIGATION PLAN

This section identifies and describes the controls and mitigations included in this RAMP Report for the Employee Safety Risk and reflects changes expected to occur from the last year of recorded costs at the time of filing this RAMP Report (2024) through the 2028 GRC cycle (2031). For clarity, a current activity that is included in the plan may be referred to as either a control and/or a mitigation. Table 4 below shows which control activities are in place in 2024 and which are expected to be on-going, completed, or new during the 2025-2031 time periods. Because the TY 2024 GRC proceeding established rates through 2027,[23] information through 2027 is calculated as part of the baseline risk, in accordance with D.21-11-009.[24] For the TY 2028 GRC, SoCalGas calculated CBRs beginning with TY 2028 and for each Post-Test year (PTY) (2029, 2030, and 2031).[25]

Table 4: Employee Safety Risk
2024-2031 Control and Mitigation Plan Summary

ID	Control/Mitigation Description	2024 Control	2025-2031 Plan
C343	**Employee Safety Strategy**	X	Ongoing
C345	**Safety & Health – Operations**	X	Ongoing
C346	**Safety & Health – Programs**	X	Ongoing
C347	**Event Learning & Continuous Improvement**	X	Ongoing
C342	**Safety Technology & Analytics**	X	Ongoing
C312	**Drug and Alcohol Testing Programs**	X	Ongoing

[23] *See* D.24-12-074.

[24] *See* D.21-11-009 at 136 (Conclusion of Law (COL) 7) (providing a definition for "baselines" and "baseline risk").

[25] In the TY 2028 GRC, the last year of recorded costs, or base year, will be 2025. SoCalGas and SDG&E will forecast information for 2026 through 2031, in accordance with the Rate Case Plan.

C326	**Workplace Violence Prevention Programs[26] (Facilities Hardening)**	X	Ongoing

Bold *indicates this control/mitigation includes mandated programs/activities.*

A. Control Programs

In accordance with Commission guidance, this section "[d]escribe[s] the controls or mitigations currently in place"[27] *(i.e.*, activities in this section were in place as of December 31, 2024). Controls that will continue as part of the risk mitigation plan are identified in Table 4 above.

1. C343: Employee Safety Strategy

The Employee Safety Strategy team at SoCalGas is part of the safety organization and dedicated to promoting safety excellence and achieving an incident-free environment. The Employee Safety Strategy team is a trusted business partner that provides health and safety guidance and expertise to meet or exceed business objectives. This is achieved through a passion for safety, teamwork, and client service. Key responsibilities include providing strategic direction and oversight over the following:

- Safety Manual for Employees
- Injury & Illness Prevention Program (IIPP)
- Environmental and Safety Compliance Management Program (ESCMP)[28]
- Safety strategy in support of emergency response and preparedness activities.
- Safety leadership training and support to frontline supervisors
- Safety Information Management System (SIMS)
- Benchmarking safety practices against other companies and recommending improvements
- Additional health & safety programs to comply with local, state, and federal rules and regulations (*e.g.*, California Division of Occupational Safety and Health Administration (Cal/OSHA) and other risk management practices.

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[26] This control may be listed as C326 Workplace Violence Prevention Programs or C326 Workplace Violence Prevention Programs (Facilities Hardening).

[27] D.18-12-014 at 33.

[28] SoCalGas's ESCMP tracks and documents completion of the safety training courses, as well as compliance requirements, goals, monitoring, and verification related to applicable environmental, health and safety laws, rules and regulations, and Company standards.

The Employee Safety Strategy team provides directional guidance to the other two branches of the safety organization, which ultimately impacts the entire organization. The other two branches are: (a) Safety & Health – Operations (C345), which includes a team of Field Safety Advisors and Occupational Health Nurses; and (b) Safety & Health – Programs (C346), which includes a team of Industrial Hygienists and Ergonomists.

2. C345: Safety & Health – Operations

The Safety & Health – Operations branch of the safety organization, which includes SoCalGas's Field Safety Advisors and Occupational Health Nurses, plays a crucial role in maintaining safety at SoCalGas. SoCalGas's Field Safety Advisors review incidents, share lessons learned, and participate in incident analysis, reporting, and facility inspections. They also manage and lead various aspects of the Company's occupational health and safety programs. Some of the safety programs that Field Safety Advisors manage include lockout/tagout,[29] Fall Protection Program,[30] hot work,[31] incident evaluation, job safety observation and coaching, personal protective equipment, safe driving, Serious Injury or Fatality Prevention (SIF), and a seven-step injury prevention program referred to as The Winning 7.[32]

SoCalGas Occupational Health Nurses respond to employee reports of discomfort, injuries, and illnesses, aiming to provide early intervention and treatment under first aid care and administrative control measures. Occupational Health Nurses also provide industrial hygiene program support for the Respirator and Hearing Conservation Program. In addition to these responsibilities, the Safety & Health – Operations team also executes on the following activities:

- Field Safety Advisors' rollout of the Injury & Illness Prevention Program (IIPP) and other health & safety programs to comply with local, state and federal rules and regulations (*e.g.*, Cal/OSHA).
- Administering ESCMP.

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[29] A lockout/tagout procedure is a safety protocol to check for the safety of workers during maintenance or repair.

[30] SoCalGas's Fall Protection Plan seeks to prevent employee injuries due to falls from hazardous walking and working surfaces and working aloft.

[31] Hot work consists of work that generates flames, sparks, or slag (i.e. welding, soldering/brazing, grinding).

[32] SoCalGas's The Winning 7 program launched in 2023 by communicating seven safety habits is aimed at preventing employee injuries while working.

- Supporting emergency response and preparedness activities in the field.
- Educating and training SoCalGas personnel on safety topics, safety best practices, and how to maintain an incident-free workplace.
- Monitoring health and safety trends and providing technical support and regulatory guidance.
- Performing management of change activities to include communication and training for new safety programs focused on safety-related risk reduction for employees.
- Providing safety leadership training and support to frontline supervisors.
- Utilizing and training on the Company's Safety Information Management System (SIMS).

SoCalGas currently has 11 Field Safety Advisors to support a workforce of approximately 8,700 employees, with over 5,000 employees in front-line positions performing construction, operations, and maintenance resulting in a ratio of 1 Field Safety Advisor for every 800 employees or 1 Field Safety Advisor for every 450 field employees. The National Association of Safety Professionals and the Health and Safety Institute publish staffing models to help determine adequate occupational safety staffing levels based on the risks present in the organization, including the nature of the workplace, number of employees, exposure to hazards, and the overall safety culture of the organization. Based upon these models, SoCalGas believes it could reinforce and increase the effectiveness of its safety operations, by adding additional Field Safety Advisors to focus on employee work groups that are most prone to injury.

While employees with the Safety & Health - Operations control implement and execute regulatory changes, employees within Safety & Health – Programs are responsible for monitoring regulatory changes and verifying compliance, as discussed below.

3. C346: Safety & Health – Programs

The Safety & Health – Programs branch of the safety organization at SoCalGas manages comprehensive industrial hygiene and ergonomics programs in compliance with Cal/OSHA regulations[33] and industry best practices. The department confirms that safety standards are in place to promote safe work activities and processes and conducts regular reviews to maintain

[33] *See, e.g.,* Cal. Code Regs. Tit. 8, §§ 5097, 5110-5120, 5144, 5132, 5157, 5191, 5194.

compliance and improve safety practices. The Safety & Health – Programs team is responsible for the execution of the following:

- Monitoring Regulatory Changes: Industrial Hygienists track updates in safety and health regulations. This includes the IIPP and other health & safety programs to comply with local, state, and federal rules and regulations (*e.g.*, Cal/OSHA, U.S. Department of Transportation (DOT), PHMSA) and other risk management practices.
- Developing Safety Programs: Industrial Hygienists create and administer safety programs to guide employees in working safely and preventing injuries.
- Implementing Safety Programs: Industrial Hygienists and Ergonomists oversee companywide implementation of programs such as hazard communications, Respirator and Hearing Conservation Program, field and office ergonomics and management of mold, asbestos, and lead exposure.
- Monitoring adherence to and changes to ESCMP.
- Educating and training SoCalGas personnel on industrial hygiene and ergonomic topics, safety best practices, and how to maintain an incident-free workplace.
- Supporting emergency response and preparedness activities focused on industrial hygiene and ergonomics perspective.
- Developing internal policies to promote compliance, perform management of change activities such as training and communicating new regulations and requirements.

In 2024, Cal OSHA issued new extensive regulations. These new regulations are Workplace Violence Prevention Program;[34] Heat Illness Prevention;[35] and Lead in Construction.[36] To comply with these mandated programs, SoCalGas plans to expand its Industrial Hygiene program. Expansion of this program will improve development, implementation, training of employees, and compliance monitoring of these program guidelines.

[34] Senate Bill (SB) 553 (Cortese, 2023), codified at CCP § 527.8 and Cal. Lab. Code § 6401.7 and § 6401.9.

[35] Cal. Code Regs. Tit. 8, §§ 3395-3396.

[36] Cal. Code Regs. Tit. 8, § 1532.1.

4. C347: Event Learning & Continuous Improvement

The Event Learning & Continuous Improvement processes include evaluation of incidents, facilitation of learning teams, and tracking of corrective actions in compliance with federal and state pipeline safety regulations. The core activities of Event Learning & Continuous Improvement are the Event Learning Process, the Learning Team Program, and the Continuous Improvement Process.

The Event Learning & Continuous Improvement program is responsible for performing root cause analysis on events impacting the safety, integrity, or reliability of the natural gas pipeline system, aiming to identify corrective actions that may lead to enterprise-wide process improvements. The Event Learning Process includes evaluation of pipeline accidents and failures to identify causes and mitigations to prevent recurrence, per Code of Federal Regulation § 192.617. SoCalGas also monitors the National Transportation Safety Board (NTSB) for pipeline safety actions and circulates materials to enhance Company pipeline safety operations. This includes conducting gap analyses from NTSB investigations lessons learned to prevent similar incidents, in line with the American Petroleum Institute Recommended Practice (API RP) 1173 Pipeline Safety Management System.

Additionally, SoCalGas has instituted a Learning Team Program, which promotes deeper organizational learning through broad stakeholder participation and exploration of complex human and organizational factors. The Learning Team Program identifies potential system deficiencies or unknown underlying conditions, shifting from a "who failed" to a "what failed" perspective to improve safety, and aims to enhance the safety of the Company's operations. The Learning Team Program focuses on continuous improvement and stakeholder participation in helping to identify potential system deficiencies and implement improvements.

SoCalGas conducted six pilot Learning Teams, which spanned topics including employee safety, infrastructure safety, public safety, and contractor safety. The purpose of the pilot was to gather feedback, seek information from, and provide a forum for front-line employees to improve safety practices in the field. The findings from the pilot Learning Teams demonstrated the effectiveness of the Learning Team Program in identifying and addressing safety concerns, such as heat illness prevention, vehicle safety, and mental health awareness. As a result, the Learning Team Program was expanded companywide.

Furthermore, the Event Learning & Continuous Improvement process applies controls to mitigate risks through SoCalGas's Continuous Improvement Process which is integral to the Safety Management System. The Continuous Improvement Process includes tracking of incident-related feedback from employees, contractors, and regulatory agencies. Additionally, this activity includes identifying areas for improvement by using data analysis, trends, and benchmarking to measure performance. Information is tracked and received from various sources, including the Advisory Safety Council[37], Executive Safety Council[38], Emergency Management After-Action-Reports, Gas Safety Observation Reporting, and an Online Safety Suggestion Box. These activities help identify safety improvement opportunities to act on as part of SoCalGas's efforts to maintain a high level of safety performance and culture.

In addition, the Continuous Improvement Process includes tracking corrective actions related to inspection reports issued by the CPUC Safety Enforcement Division (SED). These reports include audit findings such as notices of violation, notices of probable violations, concerns and recommendations. The Continuous Improvement Process includes following up and working with stakeholders on corrective actions stemming from SED compliance audits, incident investigations, field constructions, self-reported instances of non-compliance, and directives until these actions are completed. The Continuous Improvement Process also includes effectiveness reviews on completed corrective actions to confirm they are executed as planned, verified, complete, and effective, and identify other opportunities for continuous improvement. Finally, there is necessary collaboration with the operational departments to learn from safety related events and use those learnings to continuously improve.

SoCalGas continues to experience an increase in the number of both Learning Teams and Event Learnings Processes. Since its inception, SoCalGas has completed 30 Learning Teams and as of April 2025 it has approved another 10 Learning Teams for the remainder of the year. In addition, SoCalGas conducts 8 to 10 Event Learning Processes a year. Given the rise in the

[37] SoCalGas's Advisory Safety Council is comprised of independent members with safety expertise and experience. They include former senior leaders from various industries and leading thinkers in academia.

[38] SoCalGas's Executive Safety Council is a roundtable with Company leaders to advance the Company's safety culture, address enterprise-wide safety strategy, and give employees an opportunity to share their safety experiences with Company leadership.

number of both these efforts, and the realized benefit, SoCalGas plans to grow the Continuous Improvement Process team to support the Learning Teams and the Event Learning Process.

5. C342: Safety Technology & Analytics:

The Technology & Analytics Group plays a crucial role in supporting the safety organization by leveraging data and technology to enhance safety measures. Their primary focus is to identify key performance indicators and associated risk factors from various data sources to maintain, promote, and enhance the efficiency and effectiveness of safety programs and initiatives. This function oversees or contributes to numerous safety-related reports and programs, including SoCalGas's Annual ESCMP Year-End Certification activities, the Safety Performance Metrics Report, Board of Director Reports, the Corporate Responsibility Report, and the AGA Peer Review Benchmarking Analysis. They also administer the Safety Information Management System (SIMS), Safety Training Courses (defensive driving and workplace violence), Management of Change System, and the Emergency Management System used to generate emergency message reports. This includes, but is not limited to, vendor management, access controls, contract management, system training, reports, and analytics for all of the above-mentioned systems. Additionally, the team facilitates the Records & Information Management Program for OSHA and related compliance reporting.

Furthermore, the Technology and Analytics team develops and maintains dashboards and analytics tools that support decision-making in training and safety strategy. By leveraging these tools and approaches, the Technology & Analytics Group enables data and risk informed activity that can minimize safety risks and enhance overall safety performance. The team is dedicated to using data-driven approaches to proactively address safety concerns and improve safety outcomes within the organization. SoCalGas plans to expand its capacity on this team to better facilitate data analytics and enhance the safety of the Company.

6. C312: Drug & Alcohol Testing Programs

SoCalGas has implemented an employee drug and alcohol testing program in accordance with state and federal regulations. SoCalGas's Drug & Alcohol-Free Workplace Policy (DAFWP) prohibits the use and/or possession of illegal drugs and/or alcohol during

working hours or reporting to work with alcohol, illegal drugs,[39] or impairing prescribed controlled substances in the system. All employees are responsible for knowing and complying with this policy. Violations are cause for disciplinary action up to and including termination of employment.

Because alcohol and drug abuse pose a threat to the health and safety of SoCalGas employees, the public, and to the security of SoCalGas's equipment and facilities, SoCalGas is committed to providing a drug and alcohol-free workplace. Employees in non-safety-sensitive and safety-sensitive positions are subject to SoCalGas's DAFWP. Testing under this policy is limited to pre-employment and reasonable cause, return-to-duty, and follow-up testing (when applicable). Under DAFWP, SoCalGas tests for additional (*e.g.* generally prescribed) impairing drugs not tested for under the DOT testing program. The policy also requires employees to disclose their use of impairing medications that may affect their ability to safely perform safety-sensitive duties.

SoCalGas also complies with the DOT drug and alcohol program requirements,[40] including requirements for PHMSA[41] and FMCSA,[42] and has implemented a Drug & Alcohol Misuse Prevention Plan (DAMPP) for employees in safety-sensitive positions subject to these regulations and testing requirements. The purpose of the DAMPP is to reduce accidents and injuries that may result from the use of illegal drugs, impairing prescribed controlled substances, and misuse of alcohol, thereby reducing fatalities, injuries, and property damage, and to comply with federal and state regulations.

SoCalGas's current drug and alcohol testing software must be replaced, as its existing software is in the process of being phased out by the company supporting the software, and

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[39] Please note, although marijuana is legal for recreational use in California, it remains illegal at the federal level. The SoCalGas Drug and Alcohol-Free Workplace policy prohibits the possession of marijuana on company premises and in company vehicles. The policy also prohibits impairment while working.

[40] *See generally* 49 C.F.R. Part 40, 199, and 382.

[41] PHMSA-covered employees are those employees who perform operations, maintenance, or emergency response functions associated with gas pipeline or liquified natural gas facilities and are regulated by 49 C.F.R Part 192, 193, and 195, while PHMSA-ER-covered employees only perform emergency response functions.

[42] FMCSA-covered employees are commercial motor vehicle drivers required to hold a commercial Class A, Class B, or commercial C driver's license. See DOT, *Random Testing Rates, available at:* https://www.transportation.gov/odapc/random-testing-rates.

expert customer support for the software is largely unavailable. Further, in 2025, PHMSA increased annual random testing rate requirements due to the rise in the national positive rate.[43] As a result, SoCalGas will need to conduct 25% more federally-mandated drug and alcohol tests in 2025 than in 2024, and there is the potential for this increase to continue beyond 2025. Accordingly, additional resources are necessary to account for the increased testing requirements for compliance with 49 CFR Part 40 and Part 199.

All the above-described activities help mitigate safety risk to the Company's employees, as well as reduce the risk of non-compliance with applicable state and federal regulatory requirements.

7. C326: Workplace Violence Prevention Programs (Facilities Hardening)

SoCalGas defines workplace violence as a violent incident related to the workplace, resulting in emotional or physical harm to an employee or third party. SoCalGas's workplace violence prevention program addresses physical security through training, inspections, emergency response, physical security guards, and security measures at facilities (*e.g.*, facilities hardening). As part of this RAMP chapter, SoCalGas solely includes discrete costs related to facilities hardening.

i Facilities Hardening[44]

For the purposes of this Employee Safety Risk, SoCalGas identifies facility hardening measures, such as surveillance systems, physical barriers, and controlled access to facilities. These measures act to reduce the likelihood of a workplace violence event by increasing protective measures at SoCalGas facilities with employees. In addition to protecting employees while at work, these security measures also enhance the security of SoCalGas facilities by protecting assets and infrastructure from damage and promoting infrastructure and public

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[43] PHMSA, *Pipeline Safety: Random Drug Testing Rate; Multi-Factor Authentication; and Operator and Contractor Management Information System Reporting* (November 20, 2024), *available at:* https://www.federalregister.gov/documents/2024/11/20/2024-26737/pipeline-safety-random-drug-testing-rate-multi-factor-authentication-and-operator-and-contractor.

[44] This control may be referred to as C326 Workplace Violence Prevention Programs or C326 Workplace Violence Prevention Programs (Facilities Hardening).

safety.[45]

Security surveillance systems include hardware and software designed to deter, delay, detect, assess, communicate, and respond to potential physical threats. Types of technology and equipment include Closed Circuit Television (CCTV) systems, video analytics, perimeter intrusion detection systems and bi-directional speakers. CCTV is a self-contained surveillance system comprising of cameras, recorders, control equipment, and displays for monitoring activities in real time. The function of the CCTV system is intended to be an overt deterrent, used to assess real time security events, and as forensic tool for investigations following an incident.

Access control systems limit or detect access to facilities and are commonly integrated across all security layers. They provide separation between common areas and higher security areas or critical assets. Access controls are typically found in the form of electronic control systems (proximity card readers or electronic keys) and mechanical locks/keys.

Physical barriers are structures that physically and psychologically deter and delay adversaries, and channel traffic through specified entry/exit points. Types of barriers include berms, fences, walls, gates, vehicle anti-ramming measures (bollards, engineered planters and benches, landscaping boulders, etc.) window barriers, ravines, drainage ditches, security doors, etc.

Other workplace violence prevention measures include contract security guards at critical facilities and other work locations, as well as Corporate Security planning, awareness, risk management, and incident management to prevent, mitigate, or respond to security incidents. The services provided by Corporate Security include proactive inspections of all facilities so that they meet minimum workplace violence standards (OSHA Workplace Violence Inspections). Inspections were first conducted when the Workplace Violence Prevention Program was established in 2024 and are conducted when new hazards are identified. Additionally, SoCalGas employees receive annual training on workplace violence risks and prevention measures. Prevention of workplace violence has many benefits including the advancement of a culture of

[45] While facilities hardening provides valuable benefits in protecting assets and infrastructure from damage and promoting infrastructure and public safety, this chapter only considers the employee safety benefits, consistent with the focus of this chapter.

workplace safety for employees, deterrence of criminal activity, and enhanced security reputation.

B. Changes from 2024 Controls

SoCalGas plans to continue each of the existing controls discussed above and reflected in Table 4 through the 2025-2031 period without any significant changes.

C. Mitigation Programs

SoCalGas does not currently foresee implementing new mitigations not described above for the Employee Safety Risk during the 2025-2031 period.

D. Climate Change Adaptation

Pursuant to Commission decisions[46] in the Climate Adaptation OIR (R.18-04-019), SoCalGas performed a Climate Adaptation Vulnerability Assessment (CAVA) focused on years 2030, 2050, and 2070, with the aim of identifying asset and operational vulnerabilities to climate hazards across the SoCalGas system. SoCalGas recognizes the need to address climate vulnerabilities to promote safety and reliability of its services and mitigate the increasing climate-related hazards through innovative and community-centric approaches. Some of the climate hazards that will have short- and long-term ramifications in the Southern California region include extreme temperatures, wildfire, inland flooding, coastal flooding and erosion, and landslides. Climate change is recognized as a factor that can drive, trigger, or exacerbate multiple RAMP risks. Implementing climate change adaptation measures and integrating climate vulnerability considerations into RAMP controls and mitigations can enhance system infrastructure longevity and reduce the severity of long-term negative climate impacts. The controls and mitigations described in further detail in this chapter, as shown below, align with the goal of increasing SoCalGas's physical and operational resilience to the increasing frequency and intensity of climate hazards. Additional information on the CAVA and a list of climate-relevant controls and mitigations included in RAMP are provided in Chapter RAMP-5: Climate Change Adaptation.

[46] D.19-10-054; D.20-08-046.

Table 5: Employee Safety Risk
Controls and Mitigations that Align with Increasing Resilience to Climate Hazards

Relevant ID	Relevant Control/Mitigation	Potential Climate Hazard(s)
C343	Employee Safety Strategy	Extreme Temperatures
C345	Safety & Health - Operations	Extreme Temperatures
C346	Safety & Health - Programs	Extreme Temperatures

E. Foundational Programs

Foundational Programs are "[i]initiatives that support or enable two or more Mitigation programs or two or more Risks but do not directly reduce the Consequences or reduce the Likelihood of safety Risk Events."[47] There are no Foundational Programs applicable to the Employee Safety Risk and the associated control and mitigation programs.

F. Estimates of Costs, Units, and Cost-Benefit Ratios (CBRs)

The tables in this section provide a quantitative summary of the risk control and mitigation plan for the Employee Safety Risk, including the associated costs, units, and CBRs. Additional information by Tranche is provided in workpapers. The costs shown are estimated using assumptions provided by SMEs and available data. In compliance with the Phase 3 Decision,[48] for each enterprise risk, SoCalGas uses actual results and industry data, and when that is not available, supplements the data with SME input. Additional details regarding the data and expertise relied upon in developing these estimates are provided in Attachment B.

[47] D.24-05-064, Appendix A at A-4.

[48] D.24-05-064, RDF Row 10.

Table 6: Employee Safety Risk
Control and Mitigation Plan – Recorded and Forecast Costs Summary
(Direct, in 2024 $ thousands)

Control/Mitigation		Adjusted Recorded		Forecast			
ID	**Name**	**2024 Capital**	**2024 O&M**	**2028 O&M**	**2025-2028 Capital**	**PTY Capital**	**PTY O&M**
C312	**Drug and Alcohol Testing Programs**	0	410	536	0	0	1,611
C326	**Workplace Violence Prevention Programs (Facilities Hardening)**	12,240	0	0	47,631	36,552	0
C342	**Safety Technology & Analytics**	0	1,316	1,436	0	0	4,308
C343	**Safety Strategy**	0	357	357	0	0	1,071
C345	**Safety & Health - Operations**	0	2,534	3,121	0	0	9,363
C346	**Safety & Health - Programs**	0	945	1,196	0	0	3,588
C347	**Event Learning & Continuous Improvement**	0	854	1,081	0	0	3,243
Total		**12,240**	**6,416**	**7,727**	**47,631**	**36,552**	**23,184**

Bold *indicates this control/mitigation includes mandated programs/activities.*

Table 7: Employee Safety Risk
Control & Mitigation Plan – Units Summary

Control/Mitigation		Recorded Units			Forecast Units			
ID	**Name**	**Unit of Measure**	**2024 Capital**	**2024 O&M**	**2028 O&M**	**2025-2028 Capital**	**PTY Capital**	**PTY O&M**
C312	**Drug and Alcohol Testing Programs**	Tests Administered	0	2,127	4,254	0	0	12,762
C326	**Workplace Violence Prevention Programs (Facilities Hardening)**	Projects	26	0	0	60	41	0
C342	**Safety Technology & Analytics**	FTEs	0	6	7	0	0	21
C343	**Safety Strategy**	FTEs	0	2	2	0	0	6
C345	**Safety & Health - Operations**	FTEs	0	11	16	0	0	48
C346	**Safety & Health - Programs**	FTEs	0	3	5	0	0	15
C347	**Event Learning & Continuous Improvement**	FTEs	0	5	7	0	0	21

Bold *indicates this control/mitigation includes mandated programs/activities.*

In Table 8 below, CBRs are presented in summary at the mitigation or control level for the TY 2028 GRC cycle. CBRs are calculated based on scaled, expected values, unless otherwise noted, and are calculated for each of the three required discount rates[49] in each year of the GRC cycle and for the post-test years in aggregate (2029-2031). Costs and CBRs for each year of the GRC cycle and the aggregated years are provided in workpapers.

[49] *See* Chapter RAMP-3 for definitions of discount rates, as ordered in the Phase 3 Decision.

Table 8: Employee Safety Risk
Cost Benefit Ratio Results Summary (2028-2031)
(Direct, in 2024 $ millions)

ID	Control/Mitigation Name	Capital (2028 – 2031)	O&M (2028 – 2031)	CBR (Societal)	CBR (Hybrid)	CBR (WACC)
C343	**Employee Safety Strategy**	$0	$1.4	0.95	1.01	0.95
C345	**Safety & Health – Operations**	$0	$12.5	1.05	1.11	1.05
C346	**Safety & Health – Programs**	$0	$4.8	0.79	0.83	0.79
C347	**Event Learning & Continuous Improvement**	$0	$4.3	0.97	1.03	0.97
C342	**Safety Technology & Analytics**	$0	$5.7	0.99	1.05	0.99
C312	**Drug & Alcohol Testing Programs**	$0	$2.1	0.43	0.46	0.43
C326	**Workplace Violence Prevention Programs (Facilities Hardening)**	$48.8	$0	0.04	0.03	0.03

Bold *indicates this control/mitigation includes mandated programs/activities.*

Tranche-level CBRs by year and in aggregate for each mitigation are provided in workpapers.

V. ALTERNATIVE MITIGATIONS

Pursuant to D.14-12-025, D.16-08-018, and D.18-12-014,[50] SoCalGas considered two alternatives to the Risk Mitigation Plan for the Employee Safety Risk. The alternatives analysis for this plan considered changes in risk reduction, cost, reasonableness, current conditions, modifications to the plan, and constraints, such as budget and resources.

[50] *See, e.g.,* D.18-12-014 at 33-35.

Table 9: Employee Safety Risk
Alternative Mitigation Plan – Forecast Costs Summary
(Direct, in 2024 $ thousands)

Alternative Mitigation		Forecast Costs			
ID	**Name**	**2025-2028 Capital**	**PTY Capital**	**2025-2028 O&M**	**PTY O&M**
A392	Enhanced Safety Validation Program	0	0	2,140	1,596
A393	Industrial Athlete Program (A)	0	0	3,280	2,460
Total		**0**	**0**	**5,420**	**4,056**

Table 10: Employee Safety Risk
Alternative Mitigation Cost Benefit Ratio Results Summary
(Direct, in 2024 $ thousands)

ID	Alternative Mitigation Name	Capital TY 2028	O&M TY 2028	CBR (Societal)	CBR (Hybrid)	CBR (WACC)
A392	Enhanced Safety Validation Program	$0	$532	0.06	0.06	0.06
A393	Industrial Athlete Program	$0	$820	3.89	4.14	3.90

A. A392: Enhanced Safety Validation Program Mitigation

This alternative mitigation includes expanded and revised assessment, training, and verification processes beyond the current compliance and regulatory requirements covered by SoCalGas's ESCMP, which addresses compliance requirements, awareness, goals, monitoring and verification related to environmental, health and safety laws, rules and regulations, and Company standards (*see* C343). Currently, SoCalGas leverages ESCMP to verify compliance with necessary safety requirements. As part of this process, SoCalGas has an annual ESCMP Certification process, which involves submittal of information into the Safety Information Management System (SIMS), the system of record database used to collect and record employee and facility safety compliance. In January of each year, ESCMP information is submitted for year-end approval and certification for the prior calendar year. ESCMP has been refined, improved and matured over the years and is still in place at SoCalGas.

SoCalGas is considering investing in expanded ESCMP capabilities and hiring additional personnel to support new safety validation activities. These activities include verifying that

corrective actions from ESCMP safety inspections, self-assessments, and incidents evaluations have been completed by reviewing a select percentage of corrective actions for validation. Based on the CBR analysis, SoCalGas plans to continue monitoring the effectiveness of the ESCMP process to see if expansion is superior to the existing program at a reasonable cost.

B. A393: Industrial Athlete Program Mitigation

SoCalGas considered strengthening its approach to safety by providing internal client organizations with enhanced ergonomic assessments and safety observations supported by a trained Industrial Athlete trainer. Specifically, an Industrial Athletes Program would support employee physical and mental well-being as well as injury reduction efforts by providing one-on-one on-site trainers to encourage the workforce to follow proper body positioning, warm-up, and stretching techniques. This activity would be incremental to the current occupational safety mitigation activities and would complement SoCalGas's existing Employee Safety controls, which are integral to maintaining the safety of its employees.

SoCalGas data indicates that approximately 60% of the employee injuries and lost time events are due to sprains and strains. An Industrial Athlete Program would help identify potential musculoskeletal injury trends and early intervention through professional ergonomics Athlete Trainers. The Program would help promote participant physical activity to boost energy levels, improve concentration, and enhance overall work performance and alertness to environmental conditions. Additionally, the Program aims to foster teamwork and camaraderie among employees by encouraging them to address physical conditioning as a team, leading to better collaboration about physical job requirements and communication about physical requirements in the workplace, thereby enhancing psychological safety.

SoCalGas is not including this activity as part of Employee Safety Risk's mitigation plan because SoCalGas plans to first monitor the effectiveness of its Winning 7 Program. The Winning 7 Program is part of the Health & Safety—Operations (C2) control and is a seven-step injury prevention program. SoCalGas plans to later reassess pursuing additional and/or alternative approaches to injury prevention.

VI. HISTORICAL GRAPHICS

As directed by the Commission in the Phase 2 Decision, this section illustrates the accomplishments in safety work and the progress in mitigating safety risks over the two immediately preceding RAMP cycles. A bar chart graphic is employed to depict historical

progress. This graphic uses a key metric that aligns with Company safety goals to illustrate trends in historical progress and identify remaining tasks necessary to continue mitigating risks.

Figure 2
Employee Safety: Safety Progress 2016-2024

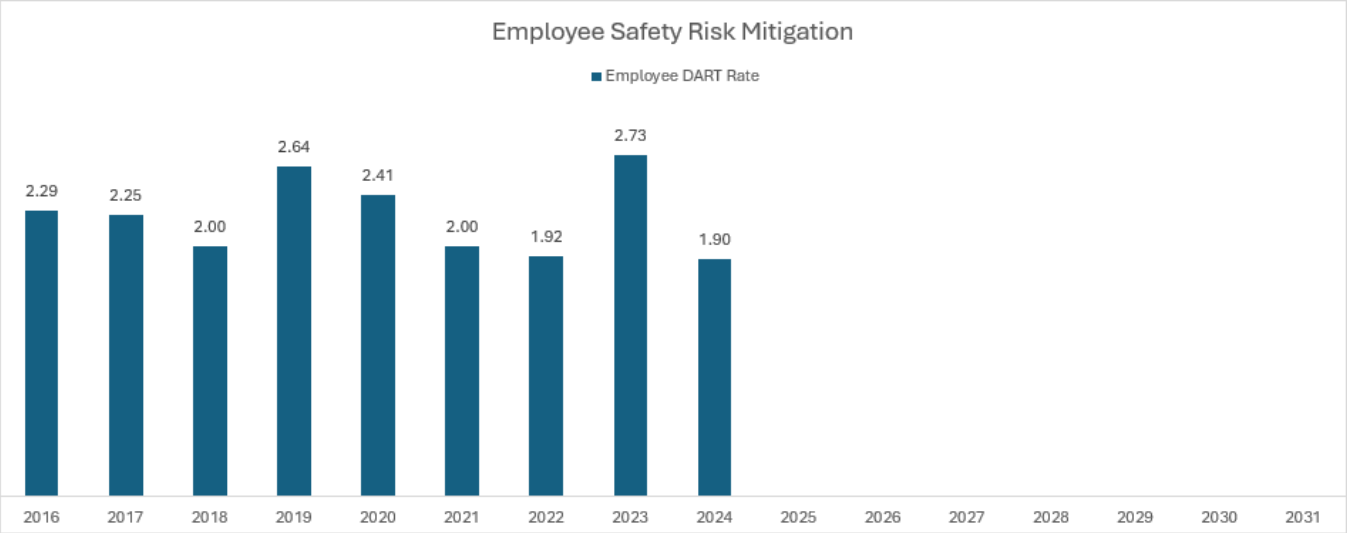


Figure 2 above shows the Employee Days Away, Restricted and Transfer (DART) Rate[51] from 2016-2024. DART Rate is calculated based on the number of OSHA-recordable injuries resulting in Days Away from work and/or Days on Restricted Duty or Job Transfer, and hours worked. (DART Rate = DART Cases times 200,000 divided by employee hours worked.) The historical safety work activities completed using the DART Rate from 2016-2024 include:

- 2016: Updates to Hazard Communication Program;
- 2016 – 2019: Safety Loan Worker Pilot;
- 2016 – 2025: Updates to Lead in Construction Compliance Program;
- 2016, 2018, 2021: National Safety Council (NSC) Safety Culture Barometer Survey;
- 2018: Transitioned from its previous defensive driving program to a new, modern online training platform to enhance driver safety training effectiveness;
- 2019: Upgraded Nomex Coveralls and Fresh Air Equipment, and implemented new regulations for Protection from Wildfire Smoke;

[51] Employee DART Rate is Metric No. 14 in SoCalGas's 2024 Safety Performance Metrics Report, filed on April 1, 2025.

- 2020: Confined Space Air Monitoring System Upgrade;
- 2021: OSHA 10- and 30- Hour Construction Training; and Expand "Situation City" and Skills Training;
- 2021-ongoing: Proactive Monitoring of Indoor Air Quality (IAQ) and Chemicals of Concern; and Industrial Hygiene Program Refresh & Expansion;
- 2023: Telematics System In Vehicles;
- 2023 – 2025 Occupational Health Nurse Service Expansion;
- 2024: Workplace Violence Prevention Program and Indoor Heat Illness Prevention Program;
- 2025: Employee Fatigue Alerts; and
- 2025-2031: Industrial Hygiene and Field Safety Team Expansion,

The safety work that remains to be done is described above in Section IV. 2024-2031 Control and Mitigation Plan.

ATTACHMENTS

ATTACHMENT A

CONTROLS AND MITIGATIONS WITH REQUIRED COMPLIANCE DRIVERS

The table below indicates the compliance drivers that underpin identified controls and mitigations.

ID	Control/Mitigation Name	Compliance Driver
C343	Employee Safety Strategy	Cal/OSHA Title 8, DOT, PHMSA, CPUC, LA County Department of Public Health (LACDPH), Certified Unified Program Agency (CUPA)
C345	Safety & Health – Operations	Cal/OSHA Title 8, DOT, PHMSA, CPUC, LA County LACDPH, CUPA
C346	Safety & Health – Programs	Cal/OSHA Title 8, DOT, PHMSA, CPUC, LA County Department of Public Health (LACDPH), Certified Unified Program Agency (CUPA)
C347	Event Learning & Continuous Improvement	PHMSA 49 CFR Parts 191 and 192, CPUC GO 112-F
C342	Safety Technology & Analytics	Cal/OSHA Title 8, OSHA, Cal-OES, CPUC reporting including but not limited to Safety Performance Metrics Report and Safety Enforcement Division (SED) Quarterly Report, Underground Safety Board (USB), Chemical Safety Board (CSB), LACDPH, CUPA
C312	Drug and Alcohol Testing Programs	PHMSA 49 CFR Part 40 and 199

ATTACHMENT B

EMPLOYEE SAFETY - REFERENCE MATERIAL FOR QUANTITATIVE ANALYSES

The Phase 3 Decision at RDF Row 10 and Row 29 directs each utility to identify Potential Consequences of a Risk Event using available and appropriate data.[52] Appropriate data may include Company specific data or industry data supplemented by the judgment of subject matter experts. Provided below is a listing of the inputs utilized as part of this assessment and a description of the data.

Risk Data	Source Type	Source Information
SoCalGas Employee SIFs and non-SIFs	Internal Data	Source: Internal SAP systems Description: Internal data used to determine likelihood of OSHA SIF and non-SIF event
SoCalGas CMVIs	Internal Data	Source: Internal SAP systems Description: Internal data used to determine likelihood of a controllable vehicle incident
Active Shooter Incidents in the United States 2023	External Data	Agency: Federal Bureau of Investigation (FBI) Link: https://www.fbi.gov/file-repository/2023-active-shooter-report-062124.pdf/view Description: FBI national data is used to provide a larger sample size of workplace violence incidents to determine the likelihood of an incident

[52] D.24-05-064, RDF Row 10 and Row 29.

Injury and Illness Prevention Programs White Paper	External Data	Agency: Occupational Safety and Health Administration (OSHA) Link: https://www.osha.gov/sites/default/files/OSHAwhite-paper-january2012sm.pdf Description: OSHA study was used to estimate effectiveness of implementing an injury and illness prevention program, noting a 15%-35% reduction in injuries compared to employers without a safety and health program.
SoCalGas Employee OSHA Rate	Internal Data	Source: Internal SAP systems Description: Internal data used to estimate reduction in OSHA non-SIF rate year over year
SoCalGas Employee CMVI Rate	Internal Data	Source: Internal SAP systems Description: Internal data used to estimate reduction in vehicle incident rate year over year
Treatment of the Values of Life and Injury in Economic Analysis	External Data	Agency: Federal Aviation Administration (FAA) Link: https://www.faa.gov/sites/faa.gov/files/regulations_policies/policy_guidance/benefit_cost/econ-value-section-2-tx-values.pdf Description: Abbreviated Injury Scale (AIS) used to determine magnitude of Serious Injuries and Minor Injuries compared to Value of a Statistical Life (VSL)
Work Injury Costs and Time Lost	External Data	Agency: National Safety Council (NSC) Link: https://injuryfacts.nsc.org/work/costs/work-injury-costs/ Description: National data used estimate the financial impact of a potential work-related fatality

Number of Injuries and Associated Costs	External Data	Agency: Centers for Disease Control and Prevention (CDC) Link: https://wisqars.cdc.gov/cost/ Description: National data used to estimate the financial impact of serious injuries and minor injuries
Statistics on Drug-Related Accidents, Injuries and Deaths	External Data	Agency: National Council on Alcoholism and Drug Dependence (via Black Bear Lodge) Link: https://blackbearrehab.com/drug-addiction-dangers/statistics/ Description: National data used to estimate the effect of drug and alcohol impairment, as related to increased OSHA injuries
How just a couple drinks make your odds of a car crash skyrocket	External Data	Agency: National Health Traffic Safety Administration (via Washington Post) Link: https://www.washingtonpost.com/news/wonk/wp/2015/02/09/how-just-a-couple-drinks-make-your-odds-of-a-car-crash-skyrocket/ Description: National data used to estimate the effect of drug and alcohol impairment, as related to increased vehicle incident injuries
Workplace Violence Risk and Mitigation Effectiveness	SME Input	Sempra Corporate Security forecasts the rise of potential Workplace Violence events based on national trends, as well as the expected effectiveness of selected risk mitigation activities in reducing the likelihood of these events.

ATTACHMENT C

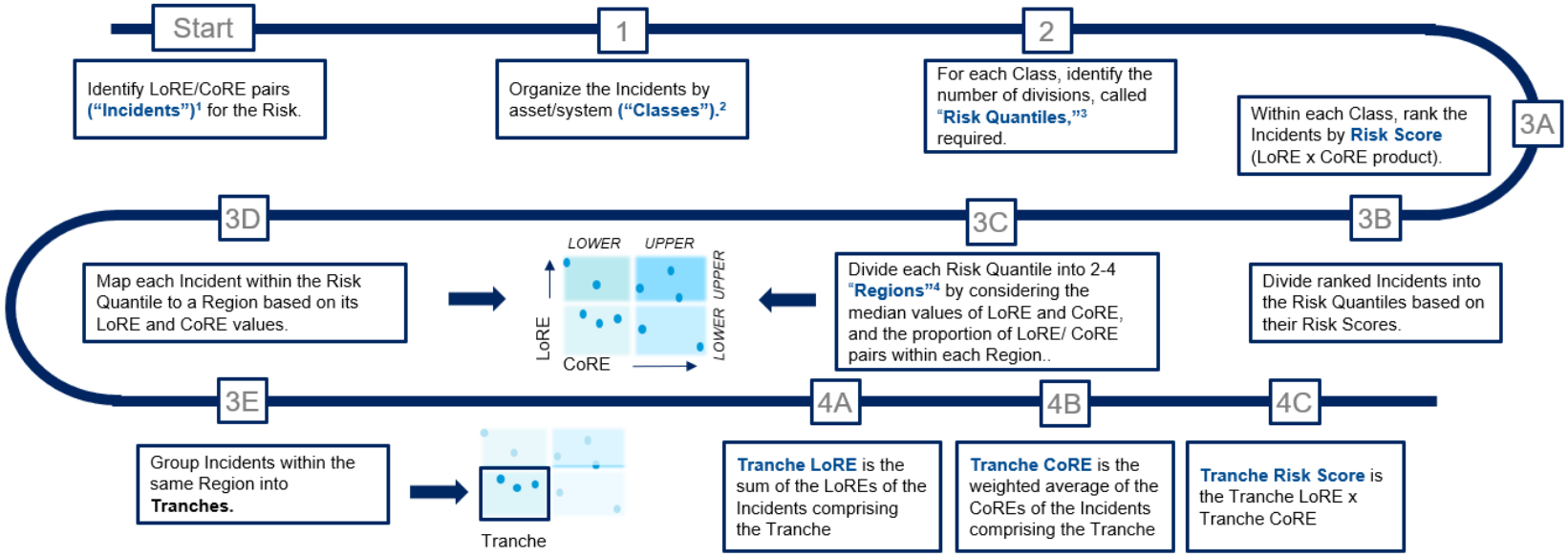
EMPLOYEE SAFETY - SUMMARY OF ELEMENTS OF BOW TIE

SUMMARY OF ELEMENTS OF BOW TIE			
ID	**Control/Mitigation Name**	**Drivers Addressed**	**Consequences Addressed**
C343	Employee Safety Strategy	DT.1 – DT.12	PC.1 – PC.8
C345	Safety & Health – Operations	DT.1 – DT.12	PC.1 – PC.8
C346	Safety & Health – Programs	DT.1 – DT.12	PC.1 – PC.8
C347	Event Learning & Continuous Improvement	DT.1 – DT.12	PC.1 – PC.8
C342	Safety Technology & Analytics	DT.1 – DT.12	PC.1 – PC.8
C312	Drug and Alcohol Testing Programs	DT.9	PC.1 – PC.8
C326	Workplace Violence Prevention Programs (Facilities Hardening)	DT.10	PC.1 – PC.8

ATTACHMENT D

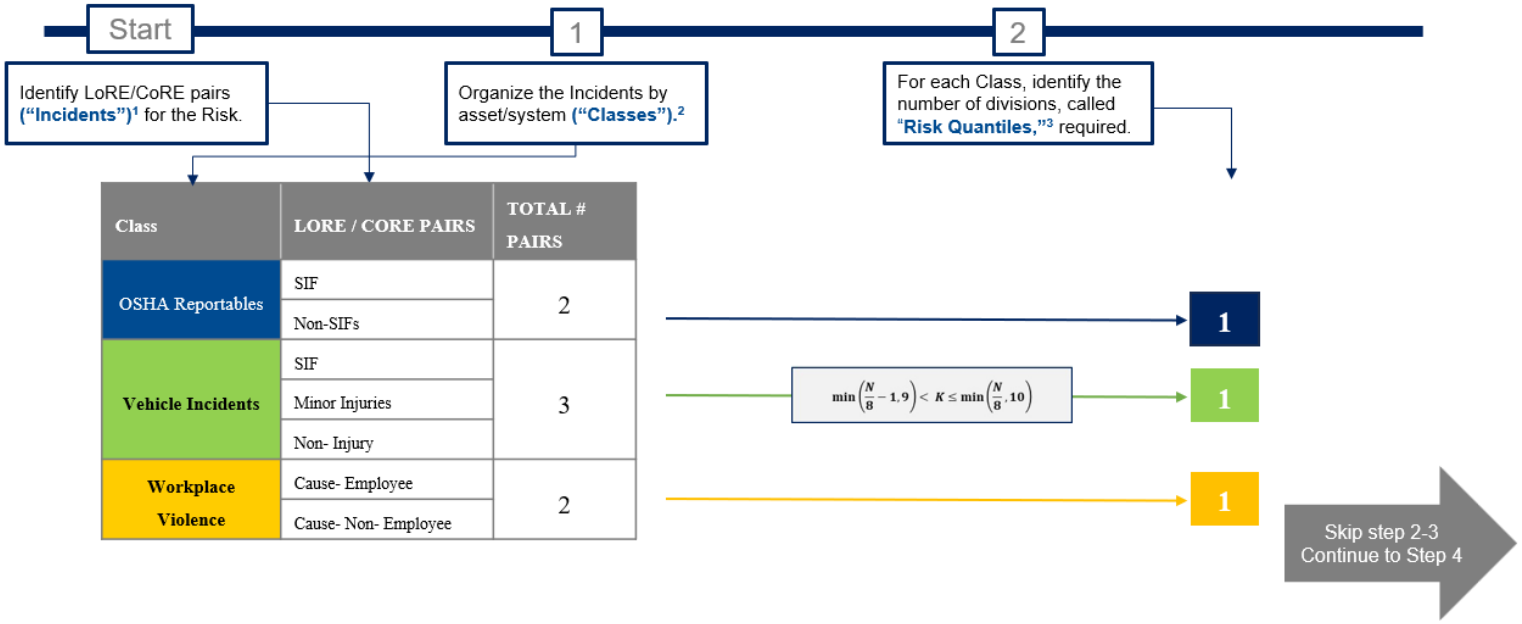
APPLICATION OF TRANCHING METHODOLOGY

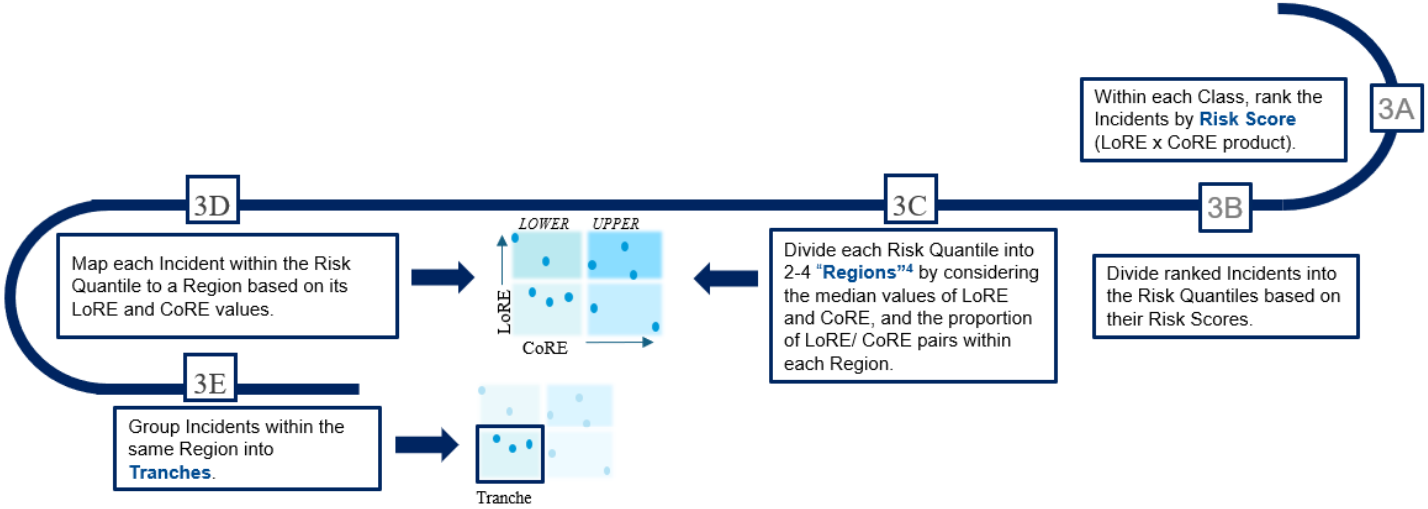
A sample walkthrough of the Homogeneous Tranching Methodology (HTM) as outlined in Volume 1, Chapter RAMP - 3: Risk Quantification Framework is provided.



NOTES

[1]*For example, **Incidents (or "Risk Incidents")** for Employee Safety refer to incidents which threaten an employee's safety.*
[2]*For example, **Classes (or "Asset Classes")** for Employee Safety include OSHA Reportables, Vehicle Incidents, and Workplace Violence.*
[3]***Quantiles** are divisions of equal numbers of incidents (quartiles have 4 divisions, quintiles have 5, etc.) The number of incidents dictates the number of quantiles needed.*
[4]*The four **Regions** are: 1. Lower LoRE-Lower CoRE (LL-LC), 2. Lower LoRE-Upper CoRE (LL-UC), 3. Upper LoRE-Lower CoRE (UL-LC), and 4. Upper LoRE-Upper CoRE (UL-UC).*


Start
1
2
Identify LoRE/CoRE pairs ("Incidents")[1] for the Risk.
Organize the Incidents by asset/system ("Classes").[2]
For each Class, identify the number of divisions, called "Risk Quantiles,"[3] required.
Class
LORE / CORE PAIRS
TOTAL # PAIRS
OSHA Reportables
SIF
Non-SIFs
2
Vehicle Incidents
SIF
Minor Injuries
Non- Injury
3
Workplace Violence
Cause- Employee
Cause- Non- Employee
2
1
$\min\left(\frac{N}{8}-1,9\right) < K \leq \min\left(\frac{N}{8},10\right)$
1
1
Skip step 2-3
Continue to Step 4


3A
Within each Class, rank the Incidents by Risk Score (LoRE x CoRE product).
3B
Divide ranked Incidents into the Risk Quantiles based on their Risk Scores.
3C
Divide each Risk Quantile into 2-4 "Regions"[4] by considering the median values of LoRE and CoRE, and the proportion of LoRE/ CoRE pairs within each Region.
LOWER
UPPER
LoRE
CoRE
3D
Map each Incident within the Risk Quantile to a Region based on its LoRE and CoRE values.
3E
Group Incidents within the same Region into Tranches.
Tranche

4A

Tranche LoRE is the sum of the LoREs of the Incidents comprising the Tranche

4B

Tranche CoRE is the weighted average of the CoREs of the Incidents comprising the Tranche

4C

Tranche Risk Score is the Tranche LoRE x Tranche CoRE

					4A	4B	4C
Class	**Risk Quantile**	**Incident (LoRE/CoRE) Pair**	**Risk Quantile Region**	**Tranche**	**Tranche LoRE**	**Tranche CoRE**	**Tranche Risk Score**
OSHA Reportables	1	Non-SIFs	UL / UC	OSHA Reportables-1	229.5	49,296	11,313,086
		SIF	LL / UC	OSHA Reportables-2	1.33	5,012,747	6,690,726
Vehicle Incidents	1	Minor Injuries / Non - Injury	UL / LC	Vehicle-1	350.9	9,753	3.422.407
		SIF	UL / UC	Vehicle-2	0.1	5,057,898	445,031
Workplace Violence	1	Cause- Non- Employee	UL / UC	WPV-1	0.015	140,915,841	2,133,744
		Cause- Employee	LL / UC	WPV-2	0.014	140,915,841	2,009,477