State of California

DEPARTMENT OF INDUSTRIAL RELATIONS

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

Proposed General Industry Safety Order (GISO) §5189.1

Process Safety Management for Petroleum Refineries

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§5189.1 Process Safety Management for Petroleum Refineries

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§ 5189.1. Process Safety Management for Petroleum Refineries

(a) Scope and Purpose

This Section contains requirements for petroleum refineries to reduce risks by preventing major incidents and eliminating or minimizing process safety hazards to which employees may be exposed.

(b) Application

This Section shall apply to processes within petroleum refineries.

For petroleum refineries, this regulation supersedes California Code of Regulations (CCR) Title 8, §5189.

(c) Definitions

Change. Any alteration in process chemicals, technology, procedures, process equipment, facilities or organization that could affect a process. A change does not include replacement-in-kind.

Damage Mechanism. The mechanical, chemical, physical or other process that results in equipment or material degradation.

Employee Representative. A union representative, where a union exists, or an employee-designated representative in the absence of a union. The term is to be construed broadly, and may include the local union, the international union, or an individual designated by these parties, such as the safety and health committee representative at the site.

Facility. The plants, units, buildings, containers or equipment that contain(s) or include(s) a process.

Feasible. Capable of being accomplished in a successful manner within a reasonable period of time, taking into account health, safety, economic, environmental, legal, social and technological factors.

Flammable gas. As defined in California Code of Regulations (CCR) Title 8, §5194, Appendix B.

Flammable liquid. As defined in CCR Title 8, §5194, Appendix B.

Highly Hazardous Material. A flammable liquid or flammable gas, or a toxic or reactive substance. This definition also includes water, steam and asphyxiants, such as nitrogen and carbon dioxide, when used as part of a process.

Hot Work. Electric or gas welding, cutting, brazing or any similar heat, flame or spark-producing procedure or operation.

Human Factors. The design of machines, operations and work environments such that they closely match human capabilities, limitations and needs. Human factors include environmental, organizational and job factors, as well as human and individual characteristics, such as fatigue, that can affect job performance, process safety, and health and safety.

Independent Protection Layers (IPL). Safeguards that reduce the likelihood or consequences of a major incident through the application of devices, systems or actions. IPLs are independent of an initiating cause and independent of other IPLs. Independence ensures that an initiating cause does not affect the function of an IPL and that failure in any one layer does not affect the function of any other layer.

Inherent Safety. An approach to safety that focuses on eliminating or reducing the hazards associated with a set of conditions. A process is inherently safer if it eliminates or reduces the hazards associated with materials or operations used in the process, and this elimination or reduction is permanent and inseparable from the material or operation. A process with eliminated or reduced hazards is described as inherently safer compared to a process with only passive, active and procedural safeguards. The process of identifying and implementing inherent safety in a specific context is known as inherently safer design.

- First Order Inherent Safety Measure. A measure that eliminates a hazard. Changes in the chemistry of a process that eliminate the hazards of a chemical are usually considered first order inherent safety measures; for example, by substituting a toxic chemical with an alternative chemical that can serve the same function but is non-toxic.

- Second Order Inherent Safety Measure. A measure that effectively reduces a risk by reducing the severity of a hazard or the likelihood of a release, without the use of add-on safety devices. Changes in process variables to minimize, moderate and simplify a process are usually considered second order inherent safety measures; for example, by redesigning a high-pressure, high-temperature system to operate at ambient temperatures and pressures.

Initiating Cause. An operational error, mechanical failure or other internal or external event that is the first event in an incident sequence, and which marks the transition from a normal situation to an abnormal situation.

Isolate. A procedure whereby equipment is removed from service and completely protected against the inadvertent release or introduction of material or energy by such means as blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; implementing a double block and bleed system; or blocking or disconnecting all mechanical linkages.

Major change. Any of the following:

- Introduction of a new process, new process equipment, or new highly hazardous material;
- Any change in safe operating limits; or,
- Any alteration in a process, in process equipment or in process chemistry that introduces a new process safety hazard or worsens an existing process safety hazard.

Major Incident. An event within or affecting a process that causes a fire, explosion or release of a highly hazardous material and which has the potential to result in death or serious physical harm.

Petroleum Refinery. Industrial site engaged in activities set forth in North American Industry Classification System (NAICS) Code 324110.

Process. Petroleum refinery activities involving a highly hazardous material, including use, storage, manufacturing, handling, piping or on-site movement. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that an incident in one vessel could affect any other vessel, shall be considered a single process. Utilities and safety-related process equipment shall be considered part of the process if in the event of an unmitigated failure or malfunction they could potentially contribute to a major incident.

Process Equipment. Any equipment, piping, instrumentation, control, safeguard or appurtenance related to a process.

Process Safety Culture. A combination of group values and behaviors that reflects whether there is a collective commitment by leaders and individuals to emphasize safety over competing goals, in order to ensure protection of people and the environment.

Process Safety Hazard. A chemical or physical property of a process that has the potential for causing death or serious physical harm or a major incident.

Process Safety Management (PSM). The application of management systems to ensure the safety of petroleum refinery processes.

Process Safety Performance Indicators. Measurements of the refinery's activities and events that are used to evaluate the performance of process safety systems.

Qualified Operator. A person designated by the employer who, by fulfilling the requirements of the training program defined in subsection (g), has demonstrated the ability to safely perform all assigned duties.

Reactive Substance. A self-reactive chemical, as defined in CCR Title 8, §5194, Appendix B.

RAGAGEP (Recognized and Generally Accepted Good Engineering Practices). Engineering, operation or maintenance activities established in codes, standards, technical reports or recommended practices, and published by the American Institute of Chemical Engineers (AIChE), American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), American Society of Mechanical Engineers (ASME), American Society of Testing and Materials (ASTM), Center for Chemical Process Safety (CCPS), National Fire Protection Association (NFPA), Instrument Society of America (ISA), or other standard setting organizations. RAGAGEP does not include standards, guidelines or practices developed for internal use by the employer.

Replacement-in-kind. A replacement that satisfies the design specifications.

Safeguard. A device, system or action designed to interrupt or mitigate the chain of events following an initiating cause, or to mitigate the impact(s) of an incident.

- Passive Safeguards. Process or equipment design features that minimize a hazard by reducing either its frequency or consequence, without the active functioning of any device; for example, a diked wall around a storage tank of flammable liquids.
- Active Safeguards. Controls, alarms, safety instrumented systems and mitigation systems that are used to detect and respond to deviations from normal process operations; for example, a pump that is shut off by a high-level switch.
- Procedural Safeguards. Policies, operating procedures, training, administrative checks, emergency response and other management approaches used to prevent incidents or to minimize the effects of an incident. Examples include hot work procedures and emergency response procedures.

Safety Instrumented Systems. Systems designed to achieve or maintain safe operation of a process in response to an unsafe process condition.

Serious Physical Harm. Defined by Labor Code §6432(e).

Toxic Substance. Acute toxicity, as defined in Title 8, §5194, Appendix A.

Turnaround. A planned total or partial shutdown of a petroleum refinery process unit or plant to perform maintenance, overhaul or repair of a process and process equipment, and to inspect, test and replace process materials and equipment.

Utility. A system that provides energy or related services to enable the safe operation of a refinery process. Examples include electrical power, fire water systems, steam, instrument power and instrument air.

(d) Process Safety Information

(1) The employer shall develop and maintain a compilation of written Process Safety Information (PSI) before conducting any Process Hazard Analysis (PHA), Hierarchy of Hazard Controls Analysis (HCA), Safeguard Protection Analysis (SPA) or Damage Mechanism Review (DMR), pursuant to this Section. The compilation of written PSI shall be sufficient to enable the employer and employees involved in operating or maintaining a process to identify and understand the hazards posed by the process.

(2) The PSI shall include information pertaining to the following:

(A) The hazards of highly hazardous materials used in or produced by the process;

(B) The technology of the process;

(C) Process equipment used in the process;

(D) Results of previous DMRs; and,

(E) Leak seal repairs.

(3) The employer shall provide for employee participation in the development and compilation of the PSI, pursuant to subsection (q). The PSI shall be made available to all employees and employees of contractors. Information pertaining to the hazards of the process shall be effectively communicated to all affected employees.

(4) Information pertaining to hazards of highly hazardous materials used in, present in or produced by the process shall include at least the following:

(A) Toxicity information, including acute and chronic health hazards;

(B) California Permissible Exposure Limits (PELs), as listed in CCR Title 8, §5155;

(C) Physical data;

(D) Corrosion data;

(E) Thermal and chemical stability data;

(F) Reactivity data; and,

(G) Hazardous effects of incompatible mixtures that could foreseeably occur.

NOTE: Safety Data Sheets meeting the requirements of CCR Title 8, §5194(g) may be used to comply with this requirement to the extent that they meet the information provisions.

(5) Information pertaining to the technology of the process shall include at least the following:

(A) A block flow diagram or simplified process flow diagram;

(B) Process chemistry;

(C) Maximum intended inventory;

(D) Safe upper and lower limits for process variables, such as temperatures, pressures, flows, levels and compositions; and,

(E) The consequences of deviations, including chemical mixing and reactions that may affect the safety and health of employees.

(6) Information pertaining to process equipment shall include at least the following:

(A) Materials of construction;

(B) Piping and instrument diagrams (P&IDs);

(C) Electrical classification;

(D) Relief system design and design basis;

(E) Ventilation system design;

(F) Design codes and standards employed, including design conditions and operating limits;

(G) Material and energy balances for processes built after September 1, 1992;

(H) Safety systems, such as interlocks and detection and suppression systems; and,

(I) Electrical supply and distribution systems.

(7) Information pertaining to leak seal repairs shall include at least the following:

(A) The identity, location and Management of Change (MOC) documentation, pursuant to subsection (n), of each leak seal repair installed on hydrocarbon and hazardous utility systems;

(B) The date each leak seal was installed;

(C) The date a permanent correction for each leak seal repair was implemented;

(D) The total number of days each leak seal repair was in service, from the date of installation to the date the permanent correction was implemented.

(8) The employer shall document that process equipment complies with RAGAGEP, where RAGAGEP has been established for that process equipment, or with other equally or more protective internal standards that ensure safe operation.

(9) If the employer installs new process equipment for which no RAGAGEP exists, the employer shall document that this equipment is designed, constructed, installed, maintained, inspected, tested and operated in a safe manner.

(10) If existing process equipment was designed and constructed in accordance with codes, standards or practices that are no longer in general use, the employer shall document that the process equipment is designed, installed, maintained, inspected, tested and operating in a safe manner for its intended purpose.

(e) Process Hazard Analysis

(1) The employer shall perform and document an effective Process Hazard Analysis (PHA) appropriate to the complexity of each process, in order to identify, evaluate and control hazards associated with each process. All initial PHAs for processes not previously covered by CCR Title 8, §5189 shall be completed within three years of the effective date of this Section, in accordance with this subsection. PHAs performed in accordance with the requirements of CCR Title 8, §5189 shall satisfy the initial PHA requirements of this Section. All modes of operations shall be covered by the PHA.

(2) The employer shall determine and document the priority order for conducting PHAs based on the extent of process hazards, the number of potentially affected employees, the age of the process and the process operating history. The employer shall use at least one of the following methodologies:

(A) What-If;

(B) Checklist;

(C) What-If/Checklist;

(D) Hazard and Operability Study (HAZOP);

(E) Failure Mode and Effects Analysis (FMEA);

(F) Fault-Tree Analysis; or,

(G) Other PHA methods recognized by engineering organizations or governmental agencies.

(3) The PHA shall address:

(A) The hazards of the process;

(B) Previous major incidents in the petroleum refinery and petrochemical industry sectors that are applicable to the process;

(C) All applicable Damage Mechanism Review (DMR) reports, pursuant to subsection (k);

(D) All Hierarchy of Hazard Controls Analysis (HCA) reports for the process, pursuant to subsection (l);

(E) Potential consequences of failures of process equipment;

(F) Facility siting, including the placement of processes, equipment, buildings, employee occupancies and work stations, in order to effectively protect employees from process safety hazards;

(G) Human Factors, pursuant to subsection (s);

(H) A qualitative evaluation of the types, severity and likelihood of possible incidents that could result from a failure of the process or of process equipment;

(I) The potential effects of external events, including seismic events, if applicable; and,

(J) The findings of incident investigations relevant to the process, pursuant to subsection (o).

(4) The PHA shall be performed by a team with expertise in engineering and process operations, and shall include at least one refinery operating employee who currently works in or provides training in the unit, and who has experience and knowledge specific to the process being evaluated. The team shall also include one member with expertise in the specific PHA methodology being used. The employer shall provide for employee participation in this process, pursuant to subsection (q). As necessary, the team shall consult with individuals with expertise in damage mechanisms, process chemistry, Safeguard Protection Analysis (SPA) and control systems.

(5) For each scenario in the PHA that identifies the potential for a major incident, the employer shall perform an effective written SPA to determine the effectiveness of existing individual safeguards, the combined effectiveness of all existing safeguards for each failure scenario in the PHA, the individual and combined effectiveness of safeguards recommended in the PHA, and the individual and combined effectiveness of additional or alternative safeguards that may be needed.

(A) All safeguards for each failure scenario shall be independent of each other and independent of initiating causes.

(B) The SPA shall utilize a quantitative or semi-quantitative method, such as Layer of Protection Analysis (LOPA), or an equally effective method to identify the most protective safeguards. The risk reduction

obtainable by each safeguard shall be based on site-specific failure rate data, or in the absence of such data, industry failure rate data for each device, system or human factor.

(C) The SPA shall be conducted by at least one individual with expertise in the specific SPA methodology being used. The SPA may be performed as part of the PHA or as a stand-alone analysis. The employer shall allow for employee participation in the performance of all SPAs, pursuant to subsection (q).

(D) The SPA shall document the likelihood and severity of all potential initiating events, including equipment failures, human errors, loss of flow control, loss of pressure control, loss of temperature control, loss of level control, excess reaction, external events, and other conditions that may lead to a loss of containment. The SPA shall document the risk reduction achieved by each safeguard for all potential initiating events.

(E) The employer shall complete all SPAs within six (6) months of initiating the PHA.

(6) For each scenario in the PHA that identifies the potential for a major incident, the employer shall perform a Hierarchy of Hazard Controls Analysis (HCA), pursuant to subsection (l), for all recommendations made by the PHA team. The employer shall complete the HCA within six (6) months of completion of the PHA recommendations and shall append the HCA report to the PHA report.

(7) The team shall document its findings and recommendations in a PHA report, which shall be available in the respective work area for review by any person working in that area.

(8) The PHA report shall include:

(A) The methodologies, analyses and factors considered by the PHA team;

(B) The findings of the PHA team; and,

(C) The team's recommendations, including additional safeguards to address any deficiencies identified by the SPA.

(9) The employer shall make the report available to operating, maintenance and other persons whose work assignments are in the petroleum refinery and who may be affected by the findings and recommendations.

(10) Except as required in (e)(6), the employer shall implement all PHA recommendations in accordance with subsection (x).

(11) At least every five (5) years, the written PHA shall be updated and revalidated in accordance with the requirements of this subsection to ensure that the PHA is consistent with the current process.

(12) The employer shall retain all PHAs and SPAs for the life of the process, including updates and revalidations. This information shall include the documented resolution of all recommendations developed pursuant to this subsection.

(f) Operating Procedures

(1) The employer shall develop and implement effective written Operating Procedures. The Operating Procedures shall provide clear instructions for safely conducting activities involved in each process. The Operating Procedures shall be consistent with the Process Safety Information (PSI) and, at a minimum, shall address the following:

(A) Steps for each operating phase or mode of operation.

1. Start-up;

2. Normal operation;

3. Temporary operations as the need arises;

4. Emergency shutdown, including the conditions under which emergency shutdown is required; provisions granting the authority of the qualified operator to partially or completely shut down the operation or process; and the assignment of responsibilities to qualified operators in order to ensure that emergency shutdown is executed in a safe and timely manner;

5. Emergency operations, including any response to the over-pressurizing or overheating of equipment or piping, and the handling of leaks, spills, releases and discharges of highly hazardous materials. These procedures shall provide that only qualified operators may initiate these operations, and that prior to allowing employees in the vicinity of a leak, release or discharge, the employer shall, at a minimum, do one of the following:

a. Shutdown and depressurize all process operations where a leak, release or discharge is occurring;

b. Isolate any vessel, piping and equipment where a leak, spill or discharge is occurring; or,

c. Alternatively, the employer may define conditions under which procedures for handling leaks, spills or discharges can be implemented if the employer can demonstrate that the procedures provide a level of protection that is functionally equivalent to, or safer than, shutting down or isolating the process.

6. Normal shutdown; and,

7. Start-up following a turnaround, or planned or unplanned shutdown, or after an emergency shutdown.

(B) Operating limits.

1. Consequences of deviations; and,

2. Steps required to avoid or correct deviations.

(C) Safety and health considerations.

1. Properties of, and hazards presented by, the chemicals used in the process;

2. Precautions necessary to prevent exposure, including passive, active and procedural safeguards, and personal protective equipment;

3. Protective measures to be taken if physical contact or inhalation exposure occurs;

4. Safety procedures for opening process equipment;

5. Verification of the composition and properties of raw materials and control of hazardous chemical inventory levels; and,

6. Any special or unique hazards.

(D) Safety systems and their functions.

(2) A copy of the Operating Procedures shall be readily accessible to employees who work in or near the process area and to any other person who works in or near the process area or who maintains a process.

(3) The Operating Procedures shall be reviewed and updated as often as necessary to ensure that they reflect current, safe operating practices. The Operating Procedures shall include any changes that result from alterations in process chemicals, technology, personnel, process equipment or other changes to the facility. Changes to Operating Procedures shall be managed in accordance with the requirements of subsection (n).

(4) The employer shall certify annually that Operating Procedures are current and accurate.

(5) The employer shall develop, implement and maintain safe work practices to prevent or control hazards during specific operations, such as: opening process equipment or piping; tasks requiring lock-out/tag-out procedures; confined space entry; handling, controlling and stopping leaks, spills, releases and discharges; and control over entry into hazardous work areas by maintenance, contractor, laboratory or other support personnel. Safe work practices shall apply to employees and employees of contractors.

(g) Training

(1) Initial training.

(A) Each employee involved in the operation or maintenance of a process, and each employee prior to working in a newly assigned process, shall be trained in an overview of the process and in the Operating Procedures, pursuant to subsection (f).

(B) The training shall include material on specific safety and health hazards; procedures, including emergency operations and shut-down; and safe practices applicable to the employee's job tasks.

(2) Refresher and supplemental training.

(A) At least every three years, and more often if necessary, the employer shall provide effective refresher and supplemental training to each operating or maintenance employee to ensure that each employee understands and adheres to current operating and maintenance procedures.

(B) The employer, in consultation with the employees involved in operating or maintaining a process, shall determine the appropriate frequency and content of refresher training.

(3) Training certification.

(A) The employer shall ensure that each employee involved in the operation or maintenance of a process has received, understood and successfully completed training as specified by this subsection.

(B) The employer, after the initial or refresher training, shall prepare a certification record containing the identity of the employee, the date(s) of training, the means used to verify that the employee understood the training, and the signature(s) of the person(s) administering the training.

(4) The employer shall develop and implement an effective written program that includes the following:

(A) The requirements that an employee must meet in order to be designated as qualified; and,

(B) Employee testing procedures to verify understanding and to ensure competency in job skill levels and work practices that protect employee safety and health.

(5) Within eighteen (18) months of the effective date of this Section, the employer shall develop and implement an effective training program to ensure that all affected employees are aware of and understand all Process Safety Management (PSM) elements described in this Section. Employees and employee representatives participating in a team pursuant to this Section shall be trained in the PSM elements relevant to that team.

(6) The employer shall provide for employee participation in developing and implementing the training program, pursuant to subsection (q).

(h) Contractors

(1) This Section applies to contractors performing maintenance or repair, supply services, turnaround, major renovation or specialty work on or adjacent to a process. It does not apply to contractors providing incidental services that do not influence process safety, such as janitorial work, food and drink services, laundry, delivery or other supply services.

(2) Refinery employer responsibilities.

(A) When selecting a contractor, the refinery employer shall obtain and evaluate information regarding the contractor's safety performance, including programs used to prevent employee injuries and illnesses.

(B) The refinery employer shall inform the contractor, and shall ensure that the contractor has informed each of its employees, of the following:

1. Potential process safety hazards associated with the contractor's work;

2. Applicable refinery safety rules; and,

3. Applicable provisions of this Section, including the provisions of the Emergency Action Plan, pursuant to subsection (p).

(C) The refinery employer shall develop and implement effective written procedures in order to ensure the safe entry, presence and exit of the contractor and employees of the contractor in process areas.

(D) The refinery employer shall periodically evaluate the performance of contractors in fulfilling their obligations, as specified in this subsection. The refinery employer shall ensure and document that the requirements of this subsection are performed and completed by the contractor.

(E) The refinery employer shall obtain and make available to the Division upon request a copy of the contractor's injury and illness log related to the contractor's work in the process areas.

(3) Contractor responsibilities.

(A) The contractor shall ensure that all of its employees are effectively trained, pursuant to subsection (g), in the work practices necessary to safely perform their jobs.

(B) The contractor shall ensure that all of its employees are instructed in the following:

1. Potential process safety hazards related to their jobs;

2. Applicable refinery safety rules; and,

3. Applicable provisions of this Section, including the provisions of the Emergency Action Plan, pursuant to subsection (p).

(C) The contractor shall document that each of its employees has successfully completed the training required by this subsection by maintaining a record identifying:

1. Each employee who has received training;

2. The date(s) and subject(s) of training each employee has received; and,

3. The means used to verify that the employee understood the training received.

(D) The contractor shall ensure that each of its employees understands and follows the safety and health procedures of the refinery employer and the contractor.

(E) The contractor shall advise the refinery employer of specific hazards presented by the contractor's work, as well as any hazards identified by the contractor while performing work for the refinery.

(i) Pre Start-Up Safety Review

(1) The employer shall perform a Pre Start-up Safety Review (PSSR) for new processes and for modified processes if the modification necessitates a change in the Process Safety Information (PSI), pursuant to subsection (d). The employer shall also conduct a PSSR for all turnaround work performed on a process.

(2) The PSSR shall confirm all of the following prior to the introduction of highly hazardous materials to a process:

(A) Construction, maintenance and repair work has been performed in accordance with design specifications;

(B) Process equipment has been maintained and is operable in accordance with design specifications;

(C) Effective safety, operating, maintenance and emergency procedures are in place;

(D) For new processes, a Process Hazard Analysis (PHA), Hierarchy of Hazard Controls Analysis (HCA), Damage Mechanism Review (DMR), and Safeguard Protection Analysis (SPA) have each been performed, as applicable pursuant to this Section, and recommendations have been implemented or resolved before start-up. For new or modified processes, all changes have been implemented pursuant to the requirements of subsection (n); and,

(E) Training of each operating employee and maintenance employee has been completed.

(3) The employer shall involve operating or maintenance employees in the PSSR who have expertise and experience in the operations and engineering of the process being started. An operating employee who currently works in the unit and who has expertise and experience in the process being started shall be designated as the employee representative, pursuant to subsection (q).

(j) Mechanical Integrity

(1) Written procedures.

(A) The employer shall develop, implement and maintain effective written procedures to ensure the ongoing integrity of process equipment.

(B) The procedures shall provide clear instructions for safely conducting maintenance activities on process equipment, consistent with the Process Safety Information.

(C) The procedures and inspection documents developed under this subsection shall be readily accessible to employees and employee representatives, pursuant to subsection (q).

(2) Inspection and testing.

(A) Inspections and tests shall be performed on process equipment using procedures that meet or exceed RAGAGEP.

(B) The frequency of inspections and tests shall be consistent with the applicable manufacturer's recommendations, or RAGAGEP, or other equally or more protective internal standards, whichever is more frequent. Inspections and tests shall be conducted more frequently if necessary, based on the operating experience with the process equipment.

(C) The employer shall retain a certification record to document that each inspection and test has been performed in accordance with this subsection. The certification record shall identify the date of the inspection, the name of the person who performed the inspection or test, a description of the inspection or test performed, the results of the inspection or test, and the serial number or other identifier of the process equipment.

(3) Equipment deficiencies.

(A) The employer shall correct deficiencies to ensure safe operation of process equipment, consistent with RAGAGEP or other equally or more protective internal standards, in order to ensure safe operation.

(4) Quality assurance.

(A) The employer shall ensure that all process equipment at a minimum complies with the criteria established by the Process Safety Information, pursuant to subsection (d). The employer shall ensure that all process equipment is:

1. Suitable for the process application for which it is or will be used;

2. Fabricated from the proper materials of construction; and,

3. Designed, constructed, installed, maintained, inspected, tested, operated and replaced in compliance with manufacturer's and other design specifications and all applicable codes and standards.

(B) If the employer installs new process equipment or has existing equipment for which no RAGAGEP exists, the employer shall document and ensure that this equipment is designed, constructed, installed, maintained, inspected, tested and operated in a safe manner.

(C) The employer shall conduct regularly scheduled checks and inspections as necessary to ensure that the requirements of (j)(4)(A) are met.

(D) The employer shall ensure that maintenance materials, spare parts and equipment meet design specifications and applicable codes.

(E) The employer shall establish a process for evaluating new or updated codes and standards and implementing changes as appropriate to ensure safe operation.

(k) Damage Mechanism Review

(1) The employer shall complete a Damage Mechanism Review (DMR) for each process for which a damage mechanism exists**.** Where no DMR is performed, the employer shall document the rationale for the determination that no damage mechanisms exist. The employer shall determine and document the priority order for conducting DMRs based on the process operating history, the PHA schedule and inspection records.

(2) The employer shall complete no less than fifty (50) percent of initial DMRs within 3 years and all remaining DMRs within five (5) years of the effective date of this Section. If the employer has conducted and documented a DMR for a process unit up to five (5) years prior to the effective date of this Section, and that DMR includes the elements identified in (k)(8), that DMR may be used to satisfy the employer's obligation to complete an initial DMR under this subsection.

(3) A DMR shall be revalidated at least once every five years following its initiation.

(4) Where a damage mechanism exists, a DMR shall also be conducted on new processes and as part of a major change, prior to approval of the change.

(5) Where a damage mechanism is identified as a contributing factor in an incident investigation, pursuant to subsection (o), the employer shall review the most recent DMRs that are relevant to the

investigation. If a DMR has not been performed on the processes that are relevant to the investigation, a DMR shall be completed as part of the incident investigation.

(6) The DMR for a process unit shall be available to the team performing a PHA for that process unit.

(7) The DMR shall be performed by a team with expertise in engineering, equipment and pipe inspection, damage and failure mechanisms, and the operation of the process or processes under review. The team shall include one member knowledgeable in the specific DMR methodology being used. The employer shall provide for employee participation in this process, pursuant to subsection (q).

(8) The DMR for each process shall include:

(A) Assessment of Process Flow Diagrams (PFDs);

(B) Identification of all potential damage mechanisms, pursuant to (k)(9);

(C) Determination that the materials of construction are appropriate for their application and are resistant to potential damage mechanisms;

(D) Methods to prevent or mitigate damage; and,

(E) Review of operating parameters to identify operating conditions that could accelerate or otherwise worsen damage, or that could minimize or eliminate damage.

(9) For purposes of this subsection, damage mechanisms include, but are not limited to:

(A) Mechanical loading failures, such as ductile fracture, brittle fracture, mechanical fatigue and buckling;

(B) Erosion, such as abrasive wear, adhesive wear and fretting;

(C) Corrosion, such as uniform corrosion, localized corrosion and pitting;

(D) Thermal-related failures, such as creep, metallurgical transformation and thermal fatigue;

(E) Cracking, such as stress-corrosion cracking; and,

(F) Embrittlement, such as high-temperature hydrogen attack.

(10) DMRs shall include an assessment of previous experience with the process, including the inspection history and all damage mechanism data; a review of industry-wide experience with the process; and all applicable standards, codes and practices.

(11) At the conclusion of the analysis, the team shall prepare a written DMR report, which shall include the following:

(A) The process unit and damage mechanisms analyzed;

(B) Results of all analyses conducted, pursuant to (k)(8);

(C) Recommendations for temporarily mitigating damage; and,

(D) Recommendations for preventing damage.

(12) The report shall be provided to and, upon request, reviewed with employees whose work assignments are within the process unit described in the DMR.

(13) The employer shall implement all recommendations in accordance with subsection (x).

(14) DMR reports shall be retained for the life of the process unit.

(l) Hierarchy of Hazard Controls Analysis

(1) The employer shall conduct a Hierarchy of Hazard Controls Analysis (HCA) as a standalone analysis for all existing processes. The HCA for existing processes shall be performed in accordance with the following schedule, and may be performed in conjunction with the PHA schedule:

(A) 50% of existing processes within three (3) years of the effective date of this Section.

(B) Remaining processes within five (5) years of the effective date of this Section.

(C) All HCAs for existing processes shall be updated and revalidated as standalone analyses at least every five (5) years, and may be performed in conjunction with the PHA schedule.

(2) The employer shall also conduct an HCA as follows:

(A) For all recommendations made by a PHA team for each scenario that identifies the potential for a major incident, pursuant to subsection (e);

(B) For all recommendations that result from the investigation of a major incident, pursuant to subsection (o);

(C) As part of a Management of Change review, whenever a major change is proposed, pursuant to subsection (n); and,

(D) During the design and review of new processes, process units and facilities, and their related process equipment.

(3) HCAs shall be documented, performed, updated and revalidated by a team with expertise in engineering and process operations. The team shall include one member knowledgeable in the HCA methodology being used and at least one operating employee who currently works on the process and has expertise and experience specific to the process being evaluated. The employer shall provide for employee participation in this process, pursuant to subsection (q). As necessary, the team shall consult with individuals with expertise in damage mechanisms, process chemistry and control systems.

(4) The HCA team shall:

(A) Compile or develop all risk-relevant data for each process or recommendation;

(B) Identify, characterize and prioritize risks posed by each process safety hazard;

(C) Identify, analyze and document all inherent safety measures and safeguards for each process safety hazard in the following sequence and priority order, from most preferred to least preferred: first order

inherent safety measures; second order inherent safety measures; passive safeguards; active safeguards; and procedural safeguards. For purposes of this Section, first order inherent safety measures are considered to be most effective and procedural safeguards are considered to be least effective. The team's analysis and documentation shall include the following:

1. All relevant publically available inherent safety measures and safeguards that have been achieved in practice for the petroleum refining industry and related industrial sectors; and,

2. All relevant inherent safety measures and safeguards that have been required or recommended for the petroleum refining industry, and where applicable, related industrial sectors, by a federal or state agency, or local California agency, in a regulation or report.

(D) For each process safety hazard identified in (l)(4), develop written recommendations in the following sequence and priority order:

1. Eliminate hazards to the greatest extent feasible using first order inherent safety measures;

2. Reduce any remaining hazards to the greatest extent feasible using second order inherent safety measures;

3. Effectively reduce remaining risks using passive safeguards;

4. Effectively reduce remaining risks using active safeguards; and,

5. Effectively reduce remaining risks using procedural safeguards.

(5) The HCA team shall complete an HCA report within 90 days of completing the recommendations. The report shall include:

(A) A description of the composition, experience and expertise of the team;

(B) A description of the HCA methodology used by the team;

(C) A description of each process safety hazard analyzed by the team, pursuant to (l)(4)(B);

(D) A description of the inherent safety measures and safeguards analyzed by the team, pursuant to (l)(4)(C); and,

(E) The rationale for the inherent safety measures and safeguards recommended by the team for each process safety hazard, pursuant to (l)(4)(D).

(6) The employer shall implement all recommendations in accordance with subsection (x).

(7) The employer shall retain all HCA reports for the life of each process.

(m) Hot Work

(1) The employer shall develop, implement and maintain an effective written procedure for the issuance of hot work permits.

(2) The permit shall:

(A) Certify that the applicable portions of the fire prevention and protection requirements contained in CCR Title 8, §4848 and CCR Title 8, §6777 have been implemented prior to the initiation of hot work;

(B) Indicate the date(s) and time(s) during which hot work is to be performed;

(C) Identify the equipment or process on which hot work is to be performed; and,

(D) Identify the name and employer of the party performing the hot work.

(3) All hot work permits shall be kept on file for one (1) year.

(n) Management of Change

(1) The employer shall develop, implement and maintain effective written Management of Change (MOC) procedures to manage changes (except for replacements-in-kind) in process chemicals, technology, procedures, process equipment or facilities.

(2) The MOC procedures shall ensure that the following are addressed and documented prior to any change:

(A) The technical basis for the proposed change;

(B) Potential process safety impacts of the change;

(C) Modifications to operating procedures;

(D) The time period required for the change; and,

(E) Authorization requirements for the proposed change.

(3) Prior to implementing a major change, the employer shall perform an HCA pursuant to subsection (l), and the findings and recommendations of the HCA shall be included in the MOC documentation.

(4) The employer shall use qualified personnel and appropriate methods for all MOCs, based upon hazard, complexity and type of change.

(5) The employer shall provide for employee participation throughout the MOC process, pursuant to subsection (q).

(6) Employees involved in the process, as well as maintenance workers and employees of contractors whose job tasks will be affected by a change, shall be informed of, and effectively trained in, the change in a timely manner, prior to implementation of the change.

(7) If a change covered by this subsection results in a change to the Process Safety Information, such information shall be amended and updated in a timely manner, in accordance with subsection (d).

(8) If a change covered by this subsection results in a change to the Operating Procedures, the procedures shall be amended and updated in a timely manner, in accordance with subsection (f).

(o) Incident Investigation – Root Cause Analysis

(1) The employer shall develop, implement and maintain effective written procedures for promptly investigating and reporting any incident that results in, or could reasonably have resulted in, a major incident.

(2) The written procedures shall include an effective method for conducting a thorough Root Cause Analysis. The Root Cause Analysis shall provide information sufficient for the employer to prevent a recurrence of the incident or a similar incident.

(3) The employer shall initiate the incident investigation as promptly as possible, but no later than 48 hours following an incident. As part of the incident investigation, the employer shall conduct a Root Cause Analysis.

(4) The employer shall establish an Incident Investigation Team, which at a minimum shall consist of a person with expertise and experience in the process involved; a person with expertise in the employer's Root Cause Analysis method; and a person with expertise in overseeing the investigation and analysis. The employer shall provide for employee participation in this process, pursuant to subsection (q). If the incident involved the work of a contractor, a representative of the contractor's employees shall be included on the investigation team.

(5) The Incident Investigation Team shall implement the employer's Root Cause Analysis method to determine the underlying management system causes of the incident, including organizational and safety culture causes. The team shall review any related DMR(s) that were performed pursuant to subsection (k) and shall incorporate the applicable findings from the DMR(s) into the incident investigation.

(6) The Incident Investigation Team shall develop recommendations to address the findings of the Root Cause Analysis. The recommendations shall include interim measures that will prevent a recurrence or similar incident until final corrective actions can be implemented.

(7) The team shall prepare a written investigation report within ninety (90) calendar days of the incident. If the team demonstrates in writing that additional time is needed due to the complexity of the investigation, the team shall prepare a status report within ninety (90) calendar days of the incident and every thirty (30) calendar days thereafter until the investigation is complete. The team shall prepare a final investigation report within five (5) months of the incident.

(8) Investigation reports shall include:

(A) The date and time of the incident;

(B) The date and time the investigation began;

(C) A detailed description of the incident;

(D) The factors that caused or contributed to the incident, including direct causes, indirect causes and root causes, determined through the Root Cause Analysis;

(E) A list of any DMR(s), PHA(s), SPA(s), and HCA(s) that were reviewed as part of the investigation;

(F) Results of any revalidated PHA(s), SPA(s), HCA(s), and DMR(s) conducted;

(G) The Incident Investigation Team's recommendations; and,

(H) Interim measures implemented by the employer.

(9) The employer shall implement all recommendations in accordance with subsection (x).

(10) The employer shall complete an HCA in a timely manner for all recommendations that result from the investigation of a major incident. The employer shall append the HCA report to the investigation report.

(11) Investigation reports shall be provided to and, upon request, reviewed with all operating, maintenance and other personnel, including employees of contractors where applicable, whose work assignments are within the facility where the incident occurred or whose job tasks are relevant to the incident findings. The report shall be provided to employee representatives and, where applicable, contractor employee representatives.

(12) Incident investigation reports shall be retained for the life of the process unit.

(p) Emergency Planning and Response

(A) The employer shall develop, implement and maintain an effective Emergency Action Plan pursuant to CCR Title 8, §3220.

(q) Employee Participation

(1) In consultation with employees and employee representatives, the employer shall develop, implement and maintain a written plan to effectively provide for employee participation in all PSM elements, pursuant to this Section. The plan shall include provisions that provide for the following:

(A) Effective participation by affected operating and maintenance employees and employee representatives, at the earliest possible point, in performing all PHAs, DMRs, HCAs, MOCs, MOOCs, PSCAs, Incident Investigations, SPAs and PSSRs;

(B) Effective participation by affected operating and maintenance employees and employee representatives, at the earliest possible point, throughout all phases of the development, training, implementation and maintenance of the PSM elements required by this Section; and,

(C) Access by employees and employee representatives to all documents or information developed or collected by the employer pursuant to this Section, including information that might be subject to protection as a trade secret.

(2) Authorized collective bargaining agents may select one or more representatives to participate in overall PSM program development and implementation planning and one or more employees to participate in PSM teams and other activities, pursuant to this Section.

(3) Where employees are not represented by an authorized collective bargaining agent, the employer shall establish effective procedures in consultation with employees for the selection of employee representatives.

(4) Nothing in this subsection shall preclude the employer from requiring an employee or employee representative to whom information is made available under (q)(1)(C) to enter into a confidentiality agreement prohibiting him or her from disclosing such information, as set forth in CCR Title 8, §5194(i).

(5) The employer, in consultation with employees and employee representatives, shall develop, implement and maintain effective Stop Work procedures that ensure:

(A) The authority of all employees, including employees of contractors, to refuse to perform a task where doing so could reasonably result in death or serious physical harm;

(B) The authority of all employees, including employees of contractors, to recommend to the operator in charge of a unit that an operation or process be partially or completely shut down, based on a process safety hazard; and,

(C) The authority of the qualified operator in charge of a unit to partially or completely shut down an operation or process, based on a process safety hazard.

(6) The employer, in consultation with employee and employee representatives, shall develop, implement and maintain effective procedures to ensure the right of all employees, including employees of contractors, to anonymously report hazards. The employer shall respond in writing within thirty (30) calendar days to written hazard reports submitted by employees, employee representatives, contractors, employees of contractors and contractor employee representatives. The employer shall respond immediately to reports of hazards that present the potential for death or serious physical harm.

(7) Within ninety (90) calendar days of the effective date of this Section, the employer shall develop a system to effectively document the following:

(A) Work refusals, pursuant to (q)(5)(A);

(B) Recommendations to partially or completely shut-down an operation or process, pursuant to (q)(5)(B);

(C) The actual partial or complete shut-down of an operation or process, pursuant to (q)(5)(C); and,

(D) Written reports of hazards submitted by employees, and the employer's response, pursuant to (q)(6).

(r) Process Safety Culture Assessment

(1) The employer shall develop, implement and maintain an effective Process Safety Culture Assessment (PSCA) program.

(2) The employer shall conduct an effective PSCA and produce a written report within eighteen (18) months following the effective date of this Section, and at least every five (5) years thereafter.

(3) The PSCA shall be developed and implemented by a team that shall include at least one member knowledgeable in refinery operations and at least one employee representative. The employer shall provide for employee participation in this process, pursuant to subsection (q). The team shall consult with individuals with expertise in assessing process safety culture in the petroleum refining industry.

(4) The PSCA shall include an evaluation of the effectiveness of the following elements of process safety leadership:

(A) The employer's hazard reporting program;

(B) The employer's response to reports of hazards;

(C) The employer's procedures to ensure that incentive programs do not discourage reporting of hazards; and,

(D) The employer's procedures to ensure that process safety is prioritized during upset or emergency conditions.

(5) The team shall develop a written report within ninety (90) calendar days of completion of the PSCA, which shall include:

(A) The method(s) used to conduct the PSCA;

(B) The findings and conclusions of the PSCA; and,

(C) The team's recommendations to address the findings of the PSCA.

(6) The employer shall implement all recommendations in accordance with subsection (x).

(7) The PSCA team shall conduct a written Interim Assessment of the implementation and effectiveness of each PSCA corrective action within three (3) years following the completion of a PSCA report. If a corrective action is found to be ineffective, the employer shall implement changes necessary to ensure effectiveness.

(8) The refinery manager or designee shall serve as signatory to all PSCA reports, corrective action plans and Interim Assessments.

(9) PSCA reports, corrective action plans and Interim Assessments shall be communicated and made available to employees, their representatives and participating contractors within thirty (30) days of completion.

(10) Participating contractors shall provide PSCA reports, corrective action plans and Interim Assessments to their employees and employee representatives within fourteen (14) days of receipt.

(s) Human Factors

(1) The employer shall develop, implement and maintain an effective written Human Factors program. The program shall include a description of the selected methodologies and criteria for their use.

(2) The employer shall include a written analysis of human factors in the design phase of major changes and in all incident investigations, PHAs, MOOCs and HCAs.

(3) The Human Factors analysis shall apply an effective method in evaluating the following: staffing levels; the complexity of tasks; the length of time needed to complete tasks; the level of training, experience and expertise of employees; the human-machine and human-system interface; the physical challenges of the work environment in which the task is performed; employee fatigue and other effects of shiftwork and overtime; communication systems; and the understandability and clarity of operating and maintenance procedures.

(4) The Human Factors analysis of process controls shall include:

(A) Error-proof mechanisms;

(B) Automatic alerts; and,

(C) Automatic system shutdowns.

(5) The employer shall include an assessment of Human Factors in new operating and maintenance procedures.

(6) The employer shall assess Human Factors in existing operating and maintenance procedures and shall revise these procedures accordingly. The employer shall complete fifty (50) percent of assessments and revisions within two (2) years following the effective date of this Section and one hundred (100) percent within three (3) years.

(7) The employer shall train operating and maintenance employees in the written Human Factors program.

(8) The employer shall provide for employee participation in the Human Factors program, pursuant to subsection (q).

(9) The employer shall make available and provide on request a copy of the written Human Factors program to employees and their representatives and to affected contractors, employees of contractors, and contractor employee representatives, pursuant to subsection (q).

(t) Management of Organizational Change

(1) The employer shall develop, implement and maintain effective written procedures to manage organizational changes.

(2) The employer shall designate a team to conduct a Management of Organizational Change (MOOC) assessment prior to reducing staffing levels, reducing experience levels of employees, changing shift duration, or increasing employee responsibilities. The employer shall provide for employee participation in this process, pursuant to subsection (q). The MOOC assessment is required for changes affecting operations, engineering, maintenance, health and safety, and emergency response. This requirement shall also apply to employers using employees of contractors in permanent positions.

(3) The MOOC assessment shall be in writing and shall include a description of the change being proposed, the make-up of the team responsible for assessing the proposed change, the factors evaluated by the team, the rationale for the team's decision to implement or not implement the change, and the team's recommendations.

(4) Prior to conducting the assessment, the employer shall ensure that the job function descriptions are current and accurate for all positions potentially affected by the change.

(5) The refinery manager or designee shall certify that the assessment is accurate and that the proposed organizational change meets the requirements of this subsection.

(6) All MOOC analyses shall include an analysis of Human Factors, pursuant to subsection (s).

(7) Prior to implementing a change, the employer shall inform all employees potentially affected by the change.

(u) Compliance Audits

(1) Every three (3) years, the employer shall conduct an effective Compliance Audit. The employer shall certify in the Compliance Audit that the employer is in compliance with all provisions of this Section, and that all policies and procedures developed thereunder are up-to-date and in effect.

(2) The Compliance Audit shall be conducted by at least one person with expertise and experience in the requirements of the subsection under review. As part of the Compliance Audit, the employer shall consult with operators with expertise and experience in each process audited and shall document the content of these consultations in the written report.

(3) The employer shall prepare a written report of the findings of the Compliance Audit, including documentation of all deficiencies identified, and the recommendations and corrective actions taken to correct those deficiencies. The report shall identify and state the qualifications of the persons performing the Compliance Audit.

(4) The employer shall make the report available to employees and employee representatives, pursuant to subsection (q). The employer shall respond in writing within sixty (60) days to any written comments submitted by an employee or employee representative regarding the report. .

(5) The employer shall implement all recommendations in accordance with subsection (x).

(6) The employer shall retain the three (3) most recent compliance audit reports.

(7) The compliance audit report shall fulfill the inspection requirements related to process safety under CCR Title 8, §3203 but shall not relieve the employer of other obligations thereunder, including inspection for other hazards.

(v) Process Safety Management Program

(1) The refinery manager shall be responsible for compliance with this Section.

(2) The employer shall develop and implement an effective written Process Safety Management (PSM) Program, which shall be reviewed and updated at least every three (3) years.

(3) The employer shall develop and maintain an organizational chart that identifies all personnel responsible for implementing the PSM Program elements required by this Section.

(4) The employer shall develop, implement and maintain an effective program to track and document process safety performance indicators.

(w) Division Access to Documents and Information

(1) The employer shall provide all documents and information developed or collected pursuant to this Section to the Division of Occupational Safety and Health (DOSH) upon request.

(x) Implementation

(1) The employer shall develop and maintain an effective written corrective action program to prioritize and implement the recommendations of a PHA, SPA, DMR, HCA, Incident Investigation, PSCA, Human Factors Analysis, and Compliance Audit, pursuant to this Section.

(2) All findings and associated recommendations must be provided to the employer by the team performing the review or analysis in a timely manner.

(3) The employer may reject a team recommendation if the employer can demonstrate in writing that the recommendation meets one of the following criteria:

(A) The analysis upon which the recommendation is based contains material factual errors;

(B) The recommendation is not relevant to process safety; or,

(C) The recommendation is infeasible; however, a determination of infeasibility shall not be based solely on cost.

(4) The employer may change a team recommendation if the employer can demonstrate in writing that an alternative measure would provide an equivalent or more effective level of protection. The employer shall not apply safeguards as an alternative to first or second order inherent safety measures**,** or second order inherent safety measures as an alternative to first order inherent safety measures.

(5) The employer shall document all instances where any one of the criteria in (x)(3) or (x)(4) is used for the purpose of rejecting or changing a team recommendation.

(6) Each recommendation that is changed or rejected by the employer shall be communicated to all team members for comment. For each changed or rejected recommendation, the employer shall document all comments received from team members. The employer shall document a final decision for each recommendation and shall report the decision to all team members.

(7) The employer shall develop and document corrective actions to implement each accepted recommendation. The employer shall assign a completion date for each corrective action and a person responsible for completing the corrective action.

(8) For each corrective action, the employer shall evaluate and document whether revalidation of any applicable PHA, SPA, HCA or DMR is needed. If the employer determines that any revalidations are needed, these revalidations shall be subject to the corrective action requirements of this subsection. The employer shall promptly append the corrective actions and their scheduled completion dates to the applicable report for each PHA, SPA, DMR, HCA, Incident Investigation, PSCA, Human Factors Analysis and Compliance Audit.

(9) The employer shall promptly complete all corrective actions and shall comply with all completion dates required by this subsection. The employer shall conduct an MOC, pursuant to subsection (n), for any proposed change to a completion date. The employer shall make all completion dates available, upon request, to all affected operation and maintenance employees and employee representatives.

(10) Except as required in paragraphs (x)(11) and (x)(13), each corrective action that does not require a process shutdown shall be completed within thirty (30) months after the completion of the analysis or review, unless the employer demonstrates in writing that it is infeasible to do so.

(11) Each corrective action from a Compliance Audit or PSCA shall be completed within eighteen (18) months after completion of the audit or assessment, unless the employer demonstrates in writing that it is infeasible to do so. Each corrective action from an incident investigation shall be completed within eighteen (18) months after completion of the investigation, or within two (2) years after the date of the incident, whichever is earlier.

(12) Each corrective action requiring a process shutdown shall be completed during the first regularly scheduled turnaround of the applicable process, following completion of the PHA, SPA, DMR, HCA, MOC, Compliance Audit or Incident Investigation, unless the employer demonstrates in writing that it is infeasible to do so.

(13) Notwithstanding (x)(10), (x)(11) and (x)(12), corrective actions addressing process safety hazards shall be corrected immediately, either through permanent corrections or interim safeguards sufficient to ensure employee safety and health, pending permanent corrections.

(14) Where a corrective action cannot be implemented within the time limits required in (x)(10), (x)(11) or (x)(12), the employer shall ensure that interim safeguards are sufficient to ensure employee safety and health, pending permanent corrections. The employer shall document the decision and rationale for any delay and shall implement the corrective action as soon as possible. The documentation shall include:

(A) The rationale for deferring the corrective action;

(B) All MOC requirements, pursuant to subsection (n);

(C) A revised timeline describing when the corrective action will be implemented; and,

(D) A plan for effectively communicating the rationale and revised timeline to all affected employees and their representatives.

(15) The employer shall track and document the completion of each corrective action and shall append the documentation to the applicable PHA, SPA, DMR, HCA, Incident Investigation, PSCA, Human Factors Analysis or Compliance Audit.

Note: Authority cited: Section 142.3 and 7856, Labor Code. Reference: Sections 142.3 and 7855-7868, Labor Code.