

19 CCR § 2735.3

§ 2735.3. Definitions.

For the purposes of this chapter only:

(a) "Accidental release" means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

(b) "Administrative controls" means written procedural mechanisms used for hazard control.

(c) "Administrator" means the administrator of the USEPA.

(d) "AIChE/CCPS" means the American Institute of Chemical Engineers/Center for Chemical Process Safety.

(e) "API" means the American Petroleum Institute.

(f) "Article" means a manufactured item, as defined under Section 5189 of Title 8 of the California Code of Regulations (CCR), that is formed to a specific shape or design during manufacture, that has end use functions dependent in whole or in part upon the shape or design during end use, and that does not release or otherwise result in exposure to a regulated substance under normal conditions of processing and use.

(g) "ASME" means the American Society of Mechanical Engineers.

(h) "Cal OES" means the California Governor's Office of Emergency Services.

(i) "Cal OSHA" means the California Occupational Safety and Health Administration.

(j) "CAS" means the Chemical Abstracts Service.

(k) "CFR" means the Code of Federal Regulations.

(l) "Catastrophic release" means a major uncontrolled emission, fire, or explosion, involving one or more regulated substances that presents an imminent and substantial endangerment to public health and the environment.

(m) "Change" means any alteration in process chemicals, technology, procedures, equipment, facilities or organization that could affect a process. A change does not include replacement-in-kind.

(n) "Classified information," as defined in the Classified Information Procedures Act, Appendix 3 of Section 1(a) of Title 18 of the United States Code, means "any information or material that has been determined by the United States Government pursuant to an executive order, statute, or regulation, to require protection against unauthorized disclosure for reasons of national security."

(o) "Condensate" means hydrocarbon liquid separated from natural gas that condenses due to changes in temperature, pressure, or both, and remains liquid at standard conditions.

(p) "Covered process" means a process that has a regulated substance present in more than a threshold quantity as determined under Section 2770.2 of this chapter.

(q) "Crude oil" means any naturally occurring, unrefined petroleum liquid.

(r) "Damage mechanism" means the mechanical, chemical, physical, or other process that results in equipment or material degradation.

(s) "DOT" means the United States Department of Transportation.

(t) "Employee representative" means ~~a union representative, where a union exists, or an employee designated representative in the absence of a union~~ **an individual, who** that is on-site and qualified for the task, **designated by an authorized collective bargaining agent or by the employees, in the absence of a collective bargaining agent.** ~~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.~~

(u) "Environmental receptor" means natural areas such as national or state parks, forests, or monuments; officially designated wildlife sanctuaries, preserves, refuges, or areas; and Federal wilderness areas, that could be exposed at any time to toxic concentrations, radiant heat, or overpressure greater than or equal to the endpoints provided in Section 2750.2(a), as a result of an accidental release and that can be identified on local United States Geological Survey maps.

(v) "Feasible" means 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.

(w) "Field gas" means gas extracted from a production well before the gas enters a natural gas processing plant.

(x) "Hierarchy of Hazard Control" means prevention and control measures, in priority order, to eliminate or minimize a hazard. Hazard prevention and control measures ranked from most effective to least effective are: First Order Inherent Safety, Second Order Inherent Safety, and passive, active and procedural protection layers.

~~(y) "Highly hazardous material" means a flammable liquid, flammable gas, toxic or reactive substance as those terms are defined: (1) flammable gas, as defined in California Code of Regulation (CCR) Title 8, §5194, Appendix B, (2) flammable liquid, as defined in CCR Title 8, §5194, Appendix B, (3) toxic substances as acute toxicity is defined in CCR Title 8, §5194, Appendix A, and (4) reactive substance as self-reactive chemical, as defined in CCR Title 8, §5194, Appendix B. Highly hazardous material includes all regulated substances listed in Tables 1, 2, and 3 of this Chapter.~~

**(y)** ~~(z)~~ “Hot work” means work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.

**(z)** ~~(aa)~~ “Human factor” means a discipline concerned with designing machines, operations, and work environments so that they match human capabilities, limitations, and needs. Human factors include environmental, organizational, and job factors, and human and individual characteristics, such as fatigue, that can affect job performance, process safety, and health and safety.

**(aa)** ~~(bb)~~ “Independent Protection Layer (IPL)” means a safeguard that reduces the likelihood or consequences of a major incident through the application of devices, systems, or actions and is (1) independent of an initiating cause and (2) independent of other IPLs. Independence ensures that an initiating event does not affect the function of an IPL and that failure in any one layer does not affect the function of any other layer.

**(bb)** ~~(cc)~~ “Inherent safety” means 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 reduces or eliminates the hazards associated with materials or operations used in the process, and this reduction or elimination is permanent and inseparable from the material or operation. A process with 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.

(1) “First Order Inherent Safety measure” is a measure that eliminates a hazard. Changes in the chemistry of a process that eliminate the hazard(s) of the chemicals used or produced are usually considered First Order Inherent Safety measures; for example, by substituting a flammable chemical with an alternative chemical that can serve the same function but with lower vapor pressure and narrower flammable range.

(2) “Second Order Inherent Safety measure” is a measure that reduces 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, redesigning a high-pressure, high-volume, and high-temperature system to operate at lower temperatures, volumes, and pressures.

**(cc)** ~~(dd)~~ “Initiating cause” means an operational error, mechanical failure, or other internal or external event that is the first event in an incident sequence and marks the transition from a normal situation to an abnormal situation.

**(dd)** ~~(ee)~~ “Injury” means any effect on a human that results either from direct exposure to toxic concentrations; radiant heat; or overpressures from accidental releases or from the direct consequences of a vapor cloud explosion (such as flying glass, debris, and other projectiles) from an accidental release and that requires medical treatment or

hospitalization.

**(ee)** ~~(ff)~~ “Interested parties” means those residents, workers, students and others who would be potentially affected by an accidental or catastrophic release.

**(ff)** ~~(gg)~~ “Isolate” means to cause equipment to be 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.

**(gg)** ~~(hh)~~ “Major change” means: (1) introduction of a new process, or (2) **introduction of** a new process equipment, or new regulated substance that results in any operational change outside of established safe operating limits; or (3) any alteration in a process, process equipment, or process chemistry that introduces a new **process safety** hazard or **worsens** ~~increases~~ an existing **process safety** hazard.

**(hh)** ~~(ii)~~ “Major incident” means an event within or affecting a process that causes a fire, explosion or release of a highly hazardous material **regulated substance**, and has the potential to result in death or serious physical harm (as defined in Labor Code Section 6432(e)), or results in an officially declared public shelter-in-place, or evacuation order.

**(ii)** ~~(jj)~~ “Mechanical integrity” means the process of ensuring that process equipment is fabricated from the proper materials of construction and is properly installed, maintained, and replaced to prevent failures and accidental releases.

**(jj)** ~~(kk)~~ “Medical treatment” means treatment, other than first aid, administered by a physician or registered professional personnel under standing orders from a physician.

**(kk)** ~~(ll)~~ “Mitigation or mitigation system” means specific activities, technologies, or equipment designed or deployed to capture or control substances upon loss of containment to minimize exposure of the public or the environment. Passive mitigation means equipment, devices, or technologies that function without human, mechanical, or other energy input. Active mitigation means equipment, devices, or technologies that need human, mechanical, or other energy input to function.

**(ll)** ~~(mm)~~ “Modified stationary source” means a stationary source which has undergone an addition or change which qualifies as a “major change” as defined in (hh) of this section.

**(mm)** ~~(nn)~~ “NAICS” means the North American Industry Classification System.

**(nn)** ~~(oo)~~ “NFPA” means the National Fire Protection Association.

**(oo)** ~~(pp)~~ “Natural gas processing plant” (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both, classified as North American Industrial Classification System (NAICS) code 21112 (previously Standard Industrial Classification (SIC) code 1321).

**(pp)** ~~(qq)~~ "New stationary source" means a stationary source that now has a covered process that is not currently in the CalARP program.

**(qq)** ~~(rr)~~ "Offsite" means areas beyond the property boundary of the stationary source, and areas within the property boundary to which the public has routine and unrestricted access during or outside business hours.

**(rr)** ~~(ss)~~ "OSHA" means the Occupational Safety and Health Administration.

**(ss)** ~~(tt)~~ "Owner or operator" means any person who owns, leases, operates, controls, or supervises a stationary source.

**(tt)** ~~(uu)~~ "Part 68" means Part 68 of Subpart A of Subchapter C of Chapter I of Title 40 of CFR.

**(uu)** ~~(vv)~~ "Petroleum refinery" means a stationary source engaged in activities set forth in North American Industry Classification System (NAICS) code 324110.

**(vv)** ~~(ww)~~ "Population" means the public.

**(ww)** ~~(xx)~~ "Process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities. For the purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process. This definition shall not apply to Article 6.5.

**(xx)** ~~(yy)~~ "Process" for purposes of Article 6.5, means petroleum refining activities involving a ~~highly hazardous material~~ **regulated substance**, including use, storage, manufacturing, handling, piping, or on-site movement. For the 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 devices 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. This definition includes processes under partial or unplanned shutdowns. Ancillary administrative and support functions, including office buildings, laboratories, warehouses, maintenance shops, and change rooms are not considered processes under this definition.

**(yy)** ~~(zz)~~ "Process equipment" for purposes of Article 6.5, means equipment, including but not limited to: pressure vessels, rotating equipment, piping, instrumentation, process control, safeguard, except procedural safeguards, or appurtenance related to a process.

**(zz)** ~~(aaa)~~ "Process safety hazard" means a characteristic of a process that, if unmitigated, has the potential to cause a fire, explosion, or release of a ~~highly hazardous material~~ **regulated substance** which could result in death or serious physical harm or a major incident.

**(aaa)** ~~(bbb)~~ “Process safety culture” means a combination of group values and behaviors that reflect whether there is a collective commitment by leaders and individuals to emphasize process safety over competing goals in order to ensure protection of people and the environment.

**(bbb)** ~~(ccc)~~ “Process safety performance indicators” means measurements of the facility’s activities and events that are used to evaluate the performance of process safety systems.

**(ccc)** ~~(ddd)~~ “Produced water” means water extracted from the earth from an oil or natural gas production well, or that is separated from oil or natural gas after extraction.

**(ddd)** ~~(eee)~~ “Public” means any person except employees or contractors at the stationary source.

**(eee)** ~~(fff)~~ “Public receptor” means offsite residences, institutions (e.g., schools, hospitals), industrial, commercial, and office buildings, parks, or recreational areas inhabited or occupied by the public at any time without restriction by the stationary source where members of the public could be exposed to toxic concentrations, radiant heat, or overpressure, as a result of an accidental release.

**(fff)** ~~(ggg)~~ “Qualified operator” for the purposes of Article 6.5 means a person designated by the owner or operator, who by fulfilling the requirements of the training program defined in Section 2762.4, has demonstrated the ability to safely perform all assigned duties.

**(ggg)** ~~(hhh)~~ “Qualified person” means a person who is qualified to attest, at a minimum to: (1) the validity and appropriateness of the process hazard analyses (PHA) performed pursuant to Section 2760.2; (2) the completeness of a risk management plan; and (3) the relationship between the corrective steps taken by the owner or operator following the PHAs and those hazards which were identified in the analyses.

**(hhh)** ~~(iii)~~ “Qualified position” means a person occupying a position who is qualified to attest, at a minimum to: (1) the validity and appropriateness of the PHA performed pursuant to Section 2760.2; (2) the completeness of a risk management plan; and (3) the relationship between the corrective steps taken by the owner or operator following the PHAs and those hazards which were identified in the analyses.

**(iii)** ~~(jjj)~~ “Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)” for purposes of Article 6.5 means engineering, operation, or maintenance activities based on codes, standards, technical reports or recommended practices published by the 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), National Fire Protection Association (NFPA), Instrument Society of America (ISA), or other standard-setting organizations. RAGAGEP does not include standards or guidelines developed for internal use by the owner or operator.

**(iii)** ~~(kkk)~~ "Regulated substance" means any substance, unless otherwise indicated, listed in Section 2770.5 of this chapter.

**(kkk)** ~~(lll)~~ "Replacement in kind" means a replacement that satisfies the design specifications.

**(lll)** ~~(mmm)~~ "Retail facility" means a stationary source at which more than one-half of the income is obtained from direct sales to end users or at which more than one-half of the fuel sold, by volume, is sold through a cylinder exchange program.

**(mmm)** ~~(nnn)~~ "Revalidation" means a critical review of a hazard review or a process hazard analysis (PHA) with qualified team members of the most recent hazard review or PHA studies to verify that past studies remain valid and that changes made to the covered process are properly assessed. This critical review is to ensure that hazards are well understood, and existing safeguards are properly identified, past recommendations have been addressed, the overall risk ranking of each scenario is accurate, and relevant incidents and near misses at the stationary source and industry are evaluated. For situations when past studies cannot be readily revalidated, a new complete hazard review or PHA may be warranted.

**(nnn)** ~~(ooo)~~ "RMP" means the risk management plan as described by the component elements identified in Article 3 of this chapter.

**(ooo)** ~~(ppp)~~ "Safeguard" means a device, system, or action designed and maintained to interrupt the chain of events or mitigate the consequences following an initiating cause.

(1) "Passive Safeguards" means minimizing the hazard through process and equipment design features that reduce either the frequency or consequence of the hazard without the active functioning of any device; for example, by providing a diked wall around a storage tank of flammable liquids.

(2) "Active Safeguards" means using controls, alarms, safety instrumented systems, and mitigation systems to detect and respond to deviations from normal process operations; for example, by using a pump that is shut off by a high-level switch in the downstream tank when the tank is 90% full.

(3) "Procedural Safeguards" means using policies, operating procedures, training, emergency response and other administrative approaches to prevent incidents or to minimize the effects of an incident. Examples include hot work procedures and permits and emergency response procedures implemented by employees.

**(ppp)** ~~(qqq)~~ "Safety instrumented systems" means systems designed to achieve or maintain safe operation of a process in response to an unsafe process condition.

**(qqq)** ~~(rrr)~~ "Stationary source" means any buildings, structures, equipment, installations, or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental

release may occur. The term stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this chapter. A stationary source includes transportation containers used for storage not incident to transportation and transportation containers connected to equipment at a stationary source for loading or unloading. Transportation includes, but is not limited to, transportation subject to oversight or regulations under Part 192, 193, or 195 of Title 49 of CFR, or a state natural gas or hazardous liquid program for which the state has in effect a certification to DOT under Section 60105 of Title 49 of USC. A stationary source does not include naturally occurring hydrocarbon reservoirs. Properties shall not be considered contiguous solely because of a railroad or pipeline right-of-way.

**(rrr)** ~~(sss)~~ "Temporary pipe or equipment repair" means a repair of an active or potential leak from process piping or equipment. This definition includes active or potential leaks in utility piping or utility equipment that could affect a process and that could result in a major incident.

**(sss)** ~~(ttt)~~ "Threshold quantity" means the quantity specified for a regulated substance pursuant to Section 2770.5 and determined to be present at a stationary source as specified in Section 2770.2 of this chapter.

**(ttt)** ~~(uuu)~~ "Trade secret" means trade secrets as defined in Section 6254.7 of Subdivision (d) of the Government Code and Section 1060 of the Evidence Code and includes information submitted to a Unified Program Agency which has been designated by the stationary source as trade secret and which shall not be released by the UPA except to authorized officers and employees of other governmental agencies, and only in connection with the official duties of that officer or employee pursuant to any law for the protection of health and safety. Trade secret information is to be handled pursuant to Section 25538 of HSC.

**(uuu)** ~~(vvv)~~ "Turnaround" means a planned process shutdown for the purpose of repair, maintenance, process modification, equipment upgrade or other significant process activity. This definition does not apply to Article 6.5.

**(vvv)** ~~(www)~~ "Turnaround" for purposes of Article 6.5 means 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. Turnaround does not include unplanned shutdowns that occur due to emergencies or other unexpected maintenance matters in a process unit or plant. Turnaround also does not include routine maintenance, where routine maintenance consists of regular, periodic maintenance on one or more pieces of equipment at a refinery process unit or plant that may require shutdown of such equipment.

**(www)** ~~(xxx)~~ "Typical meteorological conditions" means the temperature, wind speed, cloud cover, and atmospheric stability class, prevailing at the site based on data gathered at or near the site or from a local meteorological station.

**(xxx)** ~~(yyy)~~ "Unified Program Agency (UPA)" means the local agency, pursuant to HSC Section 25501, responsible to implement the CalARP Program.

**(yyy)** ~~(zzz)~~ "Utility" for purposes of Article 6.5, means a system that provides energy or other process-related services to enable the safe operation of a petroleum refinery process. This definition includes electrical power, fire water systems, steam, instrument power, instrument air, nitrogen, and carbon dioxide.

**(zzz)** ~~(aaaa)~~ "Vessel" means any reactor, tank, drum, barrel, cylinder, vat, kettle, boiler, pipe, hose, or other container.

**(aaaa)** ~~(bbb)~~ "Worst-case release" means the release of the largest quantity of a regulated substance from a vessel or process line failure that results in the greatest distance to an endpoint defined in Section 2750.2(a) of this chapter.

19 CCR § 2745.7.5

§ 2745.7.5. RMP Program 4 Component.

(a) For each Program 4 stationary source the owner or operator shall provide the information indicated in sections (b) through (t). If the same information applies to more than one Program 4 process, the owner or operator may provide the information only once, but shall indicate to which processes the information applies.

(b) The five- or six-digit NAICS code that most closely corresponds to the stationary source.

(c) The name(s) of the ~~highly hazardous material~~ **regulated substance**(s) covered.

(d) The date on which the safety information was last reviewed or revised.

(e) The date of completion of the most recent PHA or PHA revalidation and the technique used.

(1) The expected date of completion of any changes resulting from the PHA;

(2) Major hazards identified;

(3) Process controls in use;

(4) Mitigation systems in use;

(5) Monitoring and detection systems in use; and,

(6) Changes since the last PHA.

(f) The date of the most recent review or revision of management of change procedures.

(g) The date of the most recent pre-startup safety review.

(h) The date of the most recent compliance audit and the expected date of completion of any changes resulting from the compliance audit.

(i) The date of the most recent major incident investigation and the expected date of completion of any changes resulting from the investigation.

(j) The date of the most recent review or revision of employee participation plans.

(k) The date of the most recent review or revision of hot work permit procedures.

(l) The date of the most recent review or revision of contractor safety procedures.

(m) The date of the most recent evaluation of contractor safety performance.

- (n) The date of the most recent Hierarchy of Hazard Control Analysis.
- (o) The date of the most recent Process Safety Culture Assessment.
- (p) The date of the most recent evaluation of the Accidental Release Prevention Program Management policies and procedures.
- (q) The date of the most recent evaluation of the Human Factors Program.
- (r) The date of the most recent Safeguard Protection Analysis.
- (s) The date of completion of the most recent Damage Mechanism Review or update.
  - (1) The expected date of completion of any changes resulting from the Damage Mechanism Review,
  - (2) Major damage mechanisms identified; and
  - (3) Changes since the last Damage Mechanism Review.
- (t) The owner or operator shall submit the following external events analysis information:
  - (1) The types of natural and human caused external events considered in PHA Section 2762.2;
  - (2) The magnitude or scope of external events which were considered. If not known, the owner or operator of the stationary source shall work closely with the UPA to determine what is required. If seismic events are applicable, the parameters used in the consideration of the seismic analysis and which edition of the Building Code was used when the process was designed;
  - (3) For each external event, with a potential to create a release of a regulated substance that will reach an endpoint offsite, apply sections (e)(1) through (e)(6); and,
  - (4) The date of the most recent field verification that equipment is installed and maintained as designed.

19 CCR § 2762.1

§ 2762.1. Process Safety Information.

(j) The owner or operator shall develop and maintain a compilation of written process safety information before conducting any PHA, Hierarchy of Hazard Control Analysis, Safeguard Protection Analysis, or Damage Mechanism Review, as required by this Article. The compilation of written process safety information shall be sufficient to enable the owner or operator and the employees involved in operating or maintaining a process to identify and understand the hazards posed by the process. This process safety information shall include information pertaining to (1) the hazards of any ~~highly hazardous materials~~ **regulated substances** used or produced by the process; (2) the technology of the process; (3) process equipment used in the process; and (4) results of previous Damage Mechanism Reviews. The process safety information shall be made available to all employees and relevant process safety information shall be made available to affected employees of contractors. Information pertaining to the hazards of the process shall be effectively communicated to all affected employees.

(b) Information pertaining to hazards of substances used in, present in or produced by the process shall include at least the following:

- (1) Toxicity information, including acute and chronic health hazards;
- (2) California Permissible exposure limits (PELs);
- (3) For regulated substances: American Conference of Governmental Industrial Hygienists (ACGIH) Emergency Response Planning Guideline values, U.S. EPA Acute Exposure Guideline Levels (AEGLs), and the California Office of Environmental Health Hazard Assessment (OEHHA) acute and eight-hour Reference Exposure Levels (RELs);
- (4) Physical data;
- (5) Corrosion data;
- (6) Thermal and chemical stability data;
- (7) Reactivity data; and
- (8) Hazardous effects of incompatible mixtures that could foreseeably occur.

(c) Information pertaining to the technology of the process shall include at least the items specified in paragraphs (c)(1) through (c)(5). Safety Data Sheets meeting the requirements of [section 5194\(g\) of Title 8 of CCR](#) may be used to comply with this requirement to the extent they contain the information required by this subsection.

- (1) A block flow diagram or simplified process flow diagram;
- (2) Process chemistry;
- (3) Maximum intended inventory;
- (4) Safe upper and lower limits for process variables such as temperatures, pressures, flows, levels, and compositions; and,
- (5) The consequences of deviations, including chemical mixing or reactions that may affect the safety and health of employees or the public.

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

- (1) Materials of construction;
- (2) Piping and instrument diagrams (P&ID's);
- (3) Electrical classification;
- (4) Relief system design and design basis;
- (5) Ventilation system design;
- (6) Design codes and standards employed, including design conditions and operating limits;
- (7) Material and energy balances for processes built after June 21, 1999 and previously covered under Program 3, and material and energy balances for all other processes as of the effective date of this Article;
- (8) Safety systems, such as interlocks, detection and suppression systems; and
- (9) Electrical supply and distribution systems.

(e) The owner or operator shall document that process equipment complies with recognized and generally accepted good engineering practices (RAGAGEP), where RAGAGEP has been established for that process equipment, or with other more protective internal practices that ensure safe operation. If the owner or operator installs new process equipment for which no RAGAGEP exists, the owner or operator shall document that the equipment is designed, constructed, installed, maintained, inspected, tested and operated in a safe manner.

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

19 CCR § 2762.7

§ 2762.7. Pre-Startup Safety Review.

(a) The owner or operator shall perform a pre-startup safety review (PSSR) for new processes, for modified processes if the modification necessitates a change in the Process Safety Information, and for partial and unplanned shutdowns. The owner or operator shall also conduct a PSSR for all turnaround work performed on a process.

(b) The pre-startup safety review shall confirm, as a verification check, independent of the management of change process, that prior to the introduction of ~~highly hazardous materials~~ **regulated substances** to a process:

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

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

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

(4) For new process units, a Process Hazard Analysis, Hierarchy of Hazard Control Analysis, Damage Mechanism Review and Safeguard Protection Analysis have each been performed as applicable pursuant to this Article, and recommendations have been implemented or resolved before start-up. For new or modified processes, all changes have been implemented in accordance with the requirements contained in the Management of Change, section 2762.6; and,

(5) Training of each operating employee and maintenance employee affected by the change has been completed.

(c) An operating employee who currently works in the unit and has expertise and experience in the process being started shall be designated as the employee representative pursuant to section 2762.10.

19 CCR § 2762.10

§ 2762.10. Employee Participation.

(a) In consultation with employees and employee representatives, the owner or operator shall develop, implement and maintain a written plan to effectively provide for employee participation in Accidental Release Prevention elements, as required by this Article. The plan shall include provisions that provide for the following:

(1) Effective participation by affected operating and maintenance employees and employee representatives, throughout all phases, in performing PHAs, DMRs, HCAs, MOCs, MOOCs, Process Safety Culture Assessments (PSCAs), Incident Investigations, SPAs, and PSSRs;

(2) Effective participation by affected operating and maintenance employees and employee representatives, throughout all phases of in the development, training, implementation and maintenance of the Accidental Release Prevention elements required by this Article.

(3) Access by employees and employee representatives to all documents or information developed or collected by the owner or operator pursuant to this Article, including information that might be subject to protection as a trade secret;

(b) An ~~authorized collective bargaining agent~~ may **employee representative(s)** selects **(A)** employee(s) to participate in overall Accidental Release Prevention program development and implementation planning and **(B)** ~~for~~ employee(s) to participate in ~~each~~ **Accidental Release Prevention** team-based activity pursuant to this Article.

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

(d) Nothing in this subsection shall preclude the owner or operator from requiring an employee or employee representative to whom information is made available under subsection 2762.10(a)(3) to enter into a confidentiality agreement prohibiting him or her from disclosing such information.

**(e) Nothing in this section shall be construed to alter any legal rights pursuant to federal law, including rights pursuant to a collective bargaining agreement or status as a collective bargaining agent.**

19 CCR § 2762.13

§ 2762.13. Hierarchy of Hazard Control Analysis.

(a) The owner or operator shall conduct an HCA 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:

(1) No less than 50% of existing processes within three (3) years of the effective date of this Article;

(2) Remaining processes within five (5) years of the effective date of this Article.

(b) The owner or operator shall also conduct an HCA in a timely manner in the following instances:

(1) For all PHA recommendations for each scenario that identifies the potential for a major incident;

(2) Whenever a major change is proposed at a facility, the owner or operator shall conduct an HCA as part of a Management of Change review required by section 2762.6;

(3) When a major incident occurs, the owner or operator shall complete an HCA on the recommendations of the incident investigation report required by section 2762.9; and

(4) During the design and review of new processes, new process units, and new facilities, and their related process equipment. An HCA report prepared for this purpose shall be provided to the UPA. The UPA shall make these HCA reports available to the public by posting them on the UPA's website within 30 calendar days, with appropriate protections for trade secret information.

(c) All HCAs shall be updated consistent with the requirements of this section at least once every five years, in conjunction with the PHA schedule.

(d) An HCA shall be performed, updated, and documented by a team with expertise in engineering and process operations and the team shall include at least one operating employee who currently works on the process and has experience and knowledge specific to the process being evaluated. The team shall also include one member knowledgeable in the HCA method being used. The owner or operator shall provide for employee participation in this process, pursuant to section 2762.10. As necessary, the team shall consult with individuals with expertise in damage mechanisms, process chemistry, and control systems.

(e) The HCA team shall:

(1) Include all risk-relevant data for each process or recommendation, including incident investigation reports pursuant to section 2762.9;

(2) Identify, characterize and prioritize each process safety hazard.

(3) Identify, analyze, and document all inherent safety measures and safeguards (or where appropriate, combinations of measures and safeguards) in an iterative manner to reduce each hazard to the greatest extent feasible. Identify, analyze, and document relevant, publicly available information on inherent safety measures and safeguards. ~~This information shall include inherent safety measures and safeguards that have been: (A) achieved in practice by for the petroleum refining industry and related industrial sectors; or, (B) required or recommended for the petroleum refining industry, and related industrial sectors, by a federal or state agency, or local California agency, in a regulation or report.~~

(f) For each process safety hazard identified using the analysis required by subdivision (e), the team shall develop written recommendations to eliminate hazards to the greatest extent feasible using first order inherent safety measures. The team shall develop written recommendations to reduce any remaining hazards to the greatest extent feasible using second order inherent safety measures. If necessary, the team shall also develop written recommendations to address any remaining risks in the following sequence and priority order:

(1) Effectively reduce remaining risks using passive safeguards;

(2) Effectively reduce remaining risks using active safeguards;

(3) Effectively reduce remaining risks using procedural safeguards.

(g) The HCA team shall complete an HCA report within 90 calendar days following development of the recommendations. The report shall include:

(1) A description of the composition, experience, and expertise of the members of the team that performed the HCA;

(2) A description of the methodology used by the team;

(3) A description of each process safety hazard analyzed by the team, pursuant to subdivision (e)(2) above;

(4) A description of the inherent safety measure(s) and safeguards analyzed by the team, pursuant to subdivision (e)(3) above; and

(5) The rationale for the inherent safety measures and safeguards recommended by the team for each process safety hazard, pursuant to subsection (f).

(h) The owner or operator shall follow the corrective action work process documented in subsections 2762.16 (d) and (e) when resolving the HCA team's finding and recommendations determining corrective action for implementation, tracking to completion, and documentation of closeout.

(i) The owner or operator shall retain all HCA reports for the life of each process.