WAC 296-67-307 Definitions. (1) **Affected person.** Anyone who controls, manages, or performs process-related job tasks in or near a process.

(2) **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.

(3) **Damage mechanism.** The mechanical, chemical, physical, microbiological, or other mechanism that results in equipment or material degradation.

(4) **Decontamination.** The application of chemical agents, inert gas, steam, or other material in vessels, piping, or other process equipment in order to eliminate the hazards that residual chemicals or materials present to workers who open process equipment.

(5) **Employee representative.** A union representative, where a union exists, or an employee-designated representative in the absence of a union. The employee representative must be on-site and qualified for the task. The term is to be construed broadly, and may include the local union, the international union, or a refinery or contract employee designated by these parties, such as the safety and health committee representative, where the person works on-site at the refinery. Employee representative may partner with an employee representative who does not work on-site when designated by the union, employees in the absence of the union, or when their participation is requested by the employee representative.

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

(7) **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.

(8) **Flammable gas.** As defined in WAC 296-901-14024 (B.2), Appendix B–Physical hazard criteria.

(9) **Flammable liquid.** As defined in WAC 296-901-14024 (B.6), Appendix B–Physical hazard criteria.

(10) **Hierarchy of hazard controls.** Hazard 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.

(11) **Highly hazardous chemical or material.** A flammable liquid or flammable gas, or a toxic or reactive substance.

(12) **Hot work.** Work involving electric or gas welding, cutting, brazing, or any similar heat, flame, or spark-producing procedures or operations.

(13) **Human factors.** The design of machines, operations and work environments such that they closely match human capabilities, limitations and needs. Human factors include:

(a) Working environment factors;

(b) Organizational and job factors;

(c) Human and individual characteristics such as fatigue that can affect job performance, process safety, and health and safety.

(14) **Independent protection layers (IPLs).** Safeguards that reduce the likelihood or consequences of a process safety 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.

(15) **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:

(a) 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 nontoxic.

(b) 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.

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

(17) **Isolate.** To cause equipment to be removed from service and completely protected from the inadvertent release or introduction of material or energy by such means as:

(a) Blanking or blinding;

(b) Misaligning or removing sections of lines, pipes, or ducts;

(c) Implementing a double block and bleed system; or

(d) Blocking or disconnecting all mechanical linkages.

(18) **Lagging indicators.** Retrospective metrics of equipment, written procedures, training, employee collaboration, or other practices identified as requiring corrective action.

(19) **Leading indicators.** Predictive metrics of equipment, written procedures, training, employee collaboration, or other best practices used to identify potential and recurring deficiencies.

(20) **Major change.** Any of the following:

(a) Introduction of a new process;

(b) Introduction of new process equipment, or new highly hazardous chemical or material that results in any operational change outside of established safe operating limits;

(c) Any alteration in a process, process condition, process equipment, or process chemistry that results in any operational change outside of established safe operating limits.

(21) **Must.** Must means mandatory.

(22) **Process.** Any activity involving a highly hazardous chemical or material, including:

(a) Use;

(b) Storage;

(c) Manufacturing;

(d) Handling;

(e) Transfer using piping; or

(f) The on-site movement of such chemicals or materials, or combination of these activities.

Utilities and process equipment must be considered part of the process if in the event of a failure or malfunction they could potentially contribute to or fail to mitigate a process safety incident. 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, must be considered a single process. This definition includes processes under partial or unplanned shutdowns.

This definition excludes ancillary administrative and support functions, including office buildings, labs, warehouses, maintenance shops, and change rooms.

(23) **Process equipment.** Equipment including, but not limited to, pressure vessels, rotating equipment, piping, instrumentation, process control, or appurtenances, related to a process.

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

(25) **Process safety hazard.** A hazard of a process that has the potential for causing a process safety incident, or death or serious physical harm.

(26) **Process safety incident.** An event within or affecting a process that causes a fire, explosion or release of a highly hazardous chemical or material and has the potential to result in death or serious physical harm.

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

(28) **Process safety performance indicators.** Measurements of the refinery's activities and events that are used to evaluate the performance of process safety systems.

(29) **Qualified operator.** A person designated by the employer who, by fulfilling the requirements of the training program as described in WAC 296-67-331, has demonstrated the ability to safely perform all assigned duties.

(30) **Reactive substance.** A self-reactive chemical, as defined in WAC 296-901-14024 Appendix B—Physical hazard criteria.

(31) **Recognized and generally accepted good engineering practices (RAGAGEP).** Engineering, operation or maintenance practices and procedures established in codes, standards, technical reports or recommended practices, and published by recognized and generally accepted organizations such as, but not limited to, 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), and International Society of Automation (ISA). RAGAGEP does not include standards, guidelines or practices developed for internal use by the employer.

(32) **Replacement-in-kind.** A replacement that satisfies the design specifications of the item it is replacing.

(33) **Safeguard.** A device, system or action designed to interrupt the chain of events or mitigate the consequences following an initiating cause. Safeguards include:

(a) 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.

(b) 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.

(c) Procedural safeguards: Policies, operating procedures, training, administrative checks, emergency response and other management approaches used to prevent incidents or to minimize the outcome of a process safety incident. Examples include hot work procedures and emergency response procedures.

(34) **Safety instrumented system.** Engineered systems designed to achieve or maintain safe operation of a process in response to an unsafe process condition.

(35) **Temporary pipe or equipment repair.** A temporary 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, and flange or valve packing leaks that may affect a process, and that could result in a process safety incident.

(36) **Toxic substance.** Acute toxicity, as defined in WAC 296-901-14022 Appendix A—Health hazard criteria.

(37) **Turnaround.** A planned total or partial shutdown/outage 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/outages 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.

(38) **Utility.** A system that provides energy or other process-related services to enable the safe operation of a refinery process. This definition includes water, steam and asphyxiants, such as nitrogen and carbon dioxide, when used as part of a process.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, and chapter 49.17 RCW. WSR 24-02-037, § 296-67-307, filed 12/27/23, effective 12/27/24.]