

VISTA CHEMICAL COMPANY - ABERDEEN PLANT**PROCESS SAFETY MANAGEMENT MANUAL**

GLOSSARY

Adapted from Vista Corporate Standards

Catastrophic Release or Incident - a major uncontrolled emission, fire, or explosion, involving one or more highly hazardous chemicals (HHC), that presents a serious danger to employees in the workplace.

Commodities and materials - term specifically used in the Quality Assurance section of Mechanical Integrity. Includes such items as pipe, piping, components (valves, fittings, etc.), electronics and instrumentation, insulation, welding rods, etc. Many of the commodity manufacturers have been surveyed by the Company's Commodity Quality Improvement Process Team (CQIP) and the accepted manufacturers are listed in the Company's Accepted Manufacturers List (AML) maintained by Corporate Engineering.

Consultation - two-way dialogue between facility management and employees, contractors, and their representatives (if unionized), in which the employer elicits, and responds to, employee and contractor concerns and suggestions bearing upon the elements of process safety management required under the OSHA standard. Consultation is therefore more than a way to inform employees about aspects of process safety; it is a process of seeking advice, criticisms and suggestions.

Contractor - person or entity contracted by Vista to perform work in and around a process that involves highly hazardous chemicals, who has the potential for affecting process safety (e.g., construction, demolition, equipment installation, maintenance, repair, turnaround, or specialty work on or adjacent to covered processes).

Core Equipment Group - equipment that contains an aggregate amount of an HHC at or above the minimum concentration or flammable liquids or gases that have an aggregate amount above 10,000 pounds. This is the aggregate group of equipment that triggers or could trigger PSM coverage at a facility. In practice, there may be more than one core equipment group based on the presence of the same HHC, group(s) based on the presence of either flammable liquids or gases and if the facility has more than one HHC, there may be group(s) based on each HHC present.

Covered Equipment - specific equipment or systems that is included in the covered process Mechanical Integrity program.

Covered Process - The group(s) of equipment and systems to which all PSM elements except for the Mechanical Integrity element (which is a subset of the Covered Process) apply. It is possible to have one or more covered process equipment groups.

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Emergency Shut Down Equipment - systems to provide for the safe and orderly shutdown of process units or subunits.

Employee Representative - intended to mean union representative (local, international or individual designated by these parties) where a union exists.

Excluded Equipment - specific equipment or systems that is excluded in the covered process Mechanical Integrity program.

Fabricated Equipment - term used in the Quality Assurance section of Mechanical Integrity. Includes such items as drums, towers, heat exchangers, storage tanks, rotating equipment, structural steel, etc. Many equipment fabricators have been surveyed by the Company and are listed by category in the Acceptable Manufacturer/Supplier Listings or in the Manufacturers Specialty Listing maintained by Corporate Engineering.

Facility - the building, containers or equipment that contain a process.

Flammable Gas - (a) a gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or (b) a gas that at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit. (29 CFR 1910.1200, Hazard Communication).

Flammable Liquid - any liquid having a flashpoint below 100°F, except any mixture having components with flashpoints of 100°F or higher, the total of which make up 99 percent of the total volume of the mixture. (29 CFR 1910.1200, Hazard Communication) Refer to 1910.1200 for definitions of flashpoint.

HAZOP - acronym for Hazards and Operability study. A HAZOP is a systematic method to identify hazards and operability problems. A HAZOP study involves a systematic, methodical examination of design documents that describe a process. The study is performed by a multi-discipline team. Deviations from the design value of key parameters are studied using guide words to control the examination evaluation. This presumes that the design values of flows, temperatures, and other process variables are inherently safe and operable.

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Highly Hazardous Chemicals (HHC) - a substance possessing toxic, reactive, flammable, or explosive properties and specified in Appendix A of the OSHA PSM Standard or a flammable liquid or gas on site in one location, in a quantity of 10,000 pounds or more. See 1910.119 (a)(1)(B) and (a)(2) of the OSHA PSM standard for exceptions.

Interconnected Equipment - Equipment is interconnected when there is a direct process connection between pieces of equipment in a process unit. The interconnection includes the interconnecting piping. Generally, equipment immediately upstream and downstream of equipment including the piping is considered interconnected to the equipment under consideration. Interconnection will extend to the point where there is no reasonable potential for a catastrophic release. Facilities will use their judgement to decide if the interconnection should extend past the immediate upstream or downstream equipment.

Necessary Function Support Equipment - equipment or systems that provide needed support for other equipment. Examples of necessary function support equipment include electrical distribution systems; utilities such as water, steam, air, cooling water and inert gases; backup generators; UPS systems; etc.

Operating Manual - the general document which contains the operating procedures.

Operating Procedure - contains the step by step actions needed to perform a particular operating activity. The operating procedure also contains safety and health information, operating limits, and information of safety systems and their functions.

PHA - acronym for Process Hazards Analysis. A PHA is a thorough, orderly, systematic approach for identifying, evaluating, and controlling the hazards of processes involving highly hazardous chemicals.

Pressure Vessel - defined as any unfired vessel with an inside diameter greater than six inches and with a design pressure greater than 15 psig.

Process - any activity involving a highly hazardous chemical (HHC) including any use, storage, manufacturing, handling, or the on-site movement of chemicals, or combination of these activities. For purposes of this definition, any group of vessels which are interconnected and separate vessels which are located such that a highly hazardous chemical could be involved in a potential release

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shall be considered a single process.

Proximate Equipment - the group of equipment that is located such that it could contribute to a catastrophic event in other equipment. To determine if a piece of equipment is proximate, use the "radius of exposure" calculated in the DOW FIRE & EXPLOSION INDEX HAZARD CLASSIFICATION GUIDE, 7th edition or more recent edition if available.

PSI - an abbreviation or acronym for Process Safety Information.

PSM - abbreviation or acronym for Process Safety Management, which is short for the OSHA regulation for Process Safety Management of Highly Hazardous Chemicals (29 CFR 1910.119).

Release - same as a Catastrophic Release or Incident.

Safeguard Equipment - equipment and systems present primarily to prevent, detect, control, destroy, or mitigate catastrophic events. These may be active or passive devices and systems. Examples include firewater and deluge systems, portable extinguishers, emergency cooling systems, relief devices, flares, dikes around equipment, blast walls, scrubbers, blow down tanks, and combustible gas detection systems.

Spare parts - term specifically used in the Quality Assurance section of Mechanical Integrity. Includes such items as component parts for machinery, replacement instrumentation, equipment gaskets, etc.

Subcontractor - person or entity retained by a Contractor to perform work in and around a process that involves highly hazardous chemicals who has the potential for affecting process safety at a Vista Facility (e.g., construction, demolition, equipment installation, maintenance, repair, turnaround, or specialty work on or adjacent to covered processes).

Threshold Quantity (TQ) - quantity at or above which the OSHA PSM Standard applies. The threshold quantities listed in Appendix A of the standard apply only to pure (or "commercial grade") chemicals unless otherwise specified.

Vista Facility - Each facility owned and operated by Vista Chemical Company which has a process or processes covered by (e.g., subject to) the PSM regulation.