

Process Safety Management Compliance



Why is OSHA CFR 1910.119 compliance important?

Compliance is important because it protects employees, property, and the environment by establishing procedures to prevent or minimize the consequences of accidents involving highly hazardous chemicals or flammables.

PSM, as a structured program, provides proven methods that have become the model for general process safety management systems worldwide in the chemicals, process, oil and gas, and other energy related industries.

Implementation of a successful PSM program will not only provide you with what is most important, a safe workplace, but it will also provide your organization with the tools and methods to meet or exceed the requirements of regulatory compliance and verification audits.

What is Process Safety Management?

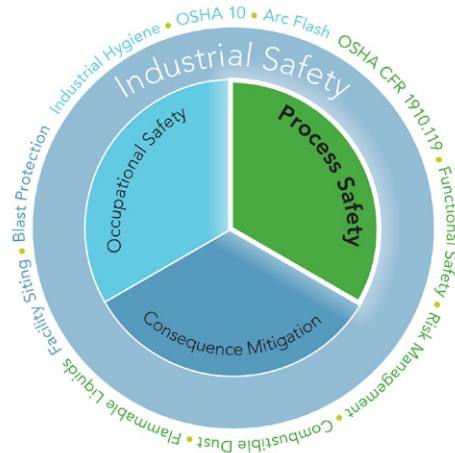
Process safety management (PSM) is the life-cycle approach to reducing risk associated with the storage and use of highly hazardous chemicals and flammables. This life-cycle approach sets proactive measures in place to ensure that the process remains in control, and chemicals and flammables are properly contained, thereby protecting people and property from potential disasters or hazardous situations.

In 1992, the U.S. Occupational Safety and Health Administration (OSHA) finalized CFR 1910.119, the PSM of highly hazardous chemicals regulation that sets the rules around the use and storage of listed chemicals and flammables above established threshold quantities.

CH2M HILL Can Help

Since 1992, the process and petroleum industries have toiled to remain fully compliant. CH2M HILL has successfully assisted many clients with implementing individual elements to entire PSM programs. Whether by establishment of process safety requirements, preparation of written plans and procedures, or addressing training and management issues, CH2M HILL can assist in any of the 14 elements of PSM shown here:

- Risk identification
 - Process safety information
 - Process hazard analysis
 - Pre-startup safety review
- Documentation
 - Management of change
 - Mechanical integrity
 - Operating procedures
 - Process safety information
- Written plans of action
 - Employee participation
 - Emergency planning and response
 - Incident investigation
- Employee training
 - Contractors
 - Training (initial, refresher, and supplementary)
- Management issues
 - Compliance audits
 - Hot work permit
 - Trade secrets



Capabilities

Whether you are planning a new facility or reengineering an existing facility to meet new safety requirements, our process safety professionals have the diversified industrial, process design and operations experience you need to help you meet OSHA’s PSM guidelines.

The following list provides a sampling of some of the services we have available to help you address your process safety management requirements:

- PSM program implementation
- Process hazards analysis and risk assessment
 - Process hazards analysis
 - Baseline and revalidation PHA
 - Layer of protection analysis (LOPA)
 - Quantitative risk assessment
 - Process safety scenario evaluation (PSSE)
- Facility analysis
 - Area classification
 - Short circuit analysis
 - Mechanical integrity
 - Preventive maintenance/risk-based inspection
 - Facility assessments (facility siting, structural assessment, dispersion, blast)
 - PSM and RMP compliance audits
- Process operations
 - Operations support services
 - Operations engineering (onsite)
 - Operating procedures
 - Training
 - Process safety reviews
 - Process mass and energy balance models
- PSI verification and update
 - Relief systems
 - Complete PRV audits
 - Flare system evaluations
 - Equipment specifications
 - Safety instrumented systems
- Procedural audits
 - Incident investigation
 - Management of change
 - Pre-startup safety reviews
 - Emergency planning and response

Process Safety Management Clients

- Alyeska
- Amoco
- BP
- BASF
- Bayer
- Chevron
- ConocoPhillips
- DSM
- Eka Chemicals
- ExxonMobil
- Georgia Pacific
- Monsanto
- Pfizer
- Roche
- Shell
- Solutia
- Texas A&M University
- Texaco
- Texaco NGL
- Valero

About CH2M HILL

Headquartered near Denver, Colorado, employee-owned CH2M HILL is a global leader in full-service consulting, program management, design, construction, and operations for public and private clients. With \$6.3 billion in revenue and more than 23,500 employees worldwide, CH2M HILL delivers innovative, practical, sustainable solutions—helping clients develop and manage infrastructure and facilities that improve efficiency, safety, and quality of life. The firm has long been recognized as a most-admired company and leading employer, including being named by FORTUNE magazine as one of the 100 Best Companies to Work For (2009). CH2M HILL is an industry-leading program management, construction management, and design firm as ranked by *Engineering News-Record* (2009).

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