

When It Comes To Process Safety Competence, There Is Never Enough

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Every year, companies find their safety performance reports show gaps in regulatory [Process Safety Management \(PSM\)](#) compliance. This happens not out of carelessness but because of the ongoing mergers, liquidations, and reorganizations leading to changes in key personnel whose knowledge has been critical to process safety. That makes it more challenging to maintain competency simply by relying on the knowledge in people's heads. Learning must be proactive and ongoing, and lessons must not be forgotten.

The OSHA PSM Standard

Bhopal and a series of other major incidents underscored the need for increased attention to process safety management. OSHA began to develop a standard that would incorporate these principles. In 1992, OSHA issued the [OSHA PSM Standard 29 CFR 1910.119](#) aimed at preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals. This standard consists of technologies, procedures, and management practices that act as compliance guidance for process safety, collectively known as the 14 elements of PSM.

Strengthen Your Knowledge

Risk mitigation and ensuring the continuity of key tasks are essential for workplace health and safety. With improved knowledge, you can optimize your existing PSM program. Below find answers to some key questions on Process Safety Management (PSM) from ioMosaic instructors [Dianne Coon, CSP](#), and [Pamela Nelson, CCPSC](#), who are well-versed in OSHA compliance.

Live Q&A

Q. What type of companies must comply with the OSHA PSM Standard?

A. Compliance with the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.119 standard is based on the type and quantity of highly hazardous chemicals used, stored, manufactured, handled, or moved at a facility. Many believe the standard only applies to chemical and petrochemical companies, but that is not the case. Any company that meets or exceeds the threshold quantities of chemicals listed in Appendix A must comply with the standard. Also, any company that has a process that involves a Category 1 flammable gas (as defined in 1910.1200(c)) or a flammable liquid with a flashpoint below

100 °F (37.8 °C) on-site in one location of 10,000 pounds (4535.9 kg) or more must comply unless they meet the requirements for one of the stated exemptions.

Q. What happens if my facility isn't compliant with the PSM Standard?

A. If your facility does not comply with the PSM Standard, determine if your facility is subject to the requirements of 29CFR 190.119 Process Safety Management Standard. If your facility is not, you are not required to be compliant with the PSM Standard. However, voluntary implementation of PSM elements can have a beneficial effect on the safety and reliability of your facility.

If your facility is required to be compliant with the PSM Standard, it runs the risk of a regulatory audit resulting in financial and potentially civil penalties. The worst potential outcome is the occurrence of an incident that results in injury to personnel, the facility, or the environment. A robust PSM system will work to minimize the potential of such incidents occurring.

Q. My facility is introducing a new process. How do I know if the standard applies?

A. If your process is already covered under the PSM standard and this new process will be part of the existing process, The combined process must comply with the PSM standard. The maximum allowable inventories of the combined highly hazardous chemicals should be calculated, other Process Safety Information should be updated, a new or expanded Process Hazard Analysis (PHA) should be completed, and all other PSM elements should be applied to the new process.

Suppose the new process is being added to a process currently not covered by the PSM standard. In that case, the total quantities of Appendix A and flammable chemicals should be evaluated to determine if the combined processes now meet or exceed the threshold quantities or the 10,000-pound minimum for the specified flammable materials. If the limits are met or exceeded, the combined process must comply with the PSM standard.

Suppose the new process is a standalone process on the same site. In that case, the first question is whether it meets or exceeds the threshold quantities or contains applicable flammable materials at or above 10,000 pounds. If the answer is yes, then the process is PSM-covered. If the answer is no, then additional questions must be asked.

Based on an applicability letter written by OSHA on July 9, 1999, if the new process is interconnected or proximate to the PSM-covered process, the site must determine if the new process could cause a release of Highly Hazardous Chemicals (HHCs) in the PSM-covered process due to an event that occurs in the new process, such as a fire or explosion. The site must also determine if the new process could interfere with mitigating an HHC release in the covered process. Suppose the new, standalone process could cause an HHC release or interfere with the mitigation of an HHC release. In that case, the new process is subject to the PSM standard even if it does not meet or exceed the threshold quantities in Appendix A or the 10,000-pound limit for specified flammable materials.

Quality eLearning

eLearning via [Process Safety Learning®](#) can give your employees round-the-clock access to vital safety information anytime, anywhere, even on their smartphones. eLearning promotes continuous, proactive learning so your employees stay safety competent.

The new online course, [Process Safety Management \(PSM\) Essentials](#), is now open for enrollment. Both Ms. Coon and Ms. Nelson have decades of real-world experience implementing PSM programs in a variety of oil, gas, and chemical companies worldwide, which means you'll learn from the best. Training is suited for process safety professionals, engineers, managers, and corporate professionals new to process safety.

We Can Help

ioMosaic can help you comply with internal company standards and global industry standards such as CCPS, ACC, API, and other RAGAGEPs, OSHA's PSM Standard, and EPA's RMP Rule. Call us today at **1.844.ioMosaic** or [send us a note](#). We'd love to hear from you.