

# Safety Bulletin

## Creating Better Process Safety Management Programs



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SAFETY & ENVIRONMENTAL

### Introduction

*At this time, the EPA is working to update their Risk Management Plan (RMP) regulation and OSHA is preparing to update their PSM regulation, which were both promulgated >30 years ago. The proposed updates are provided in List 1 and List 2 below. A careful review of these proposed updates reveals a common theme, which is to improve the quality and rigor of PSM implementation to lower risks. This is expected to lead to a reduction in catastrophic incidents.*

*Even though these regulatory updates have not been finalized yet, they should at the very least provoke introspective thinking for PSM leaders. For me, the following questions come to mind:*

- Are the programs at our worksite helping us achieve improvements in PSM performance?
- Could we improve our programs in a way to attain a higher level of PSM performance?
- Can we refine work processes to better achieve our goals?

*The good thing is that it is never too early to start improving PSM programs. You don't have to wait for new regulatory requirements to come out. Instead, you can be ahead of the curve and proactively build a higher degree of quality and rigor in your existing PSM programs, starting today.*

*This Safety Bulletin provides three tips for improving the quality of your Process Safety Management (PSM) programs. It is not meant to provide an all-inclusive list of what should be included in a program. Rather, the intent is to provide suggestions that may ultimately help improve process safety performance. Clear, high-quality PSM programs help to ensure systems are thoroughly and consistently implemented and that they remain robust over time. This will minimize the potential for a serious incident.*



### In This Issue

This Safety Bulletin provides three tips for improving the quality of your Process Safety Management (PSM) programs. Clear, high-quality PSM programs help to ensure systems are thoroughly and consistently implemented and that they remain robust over time. This will minimize the potential for a serious incident at your worksite.

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<https://www.NebulaSafety.com>

## 1. State Your Expected Outcome

Process Safety programs generally provide purpose and/or objectives statements. These statements indicate the importance of the program and overall goals for implementation of the program. They are highly beneficial to the program as they provide the reader a much better understanding of what needs to be done. See an example, as follows:

*The purpose of the PSM Pre-Startup Safety Review (PSSR) Program is to describe how PSSRs are managed at the \_\_\_\_ worksite.*

*The objective of the PSSR program is to ensure that for new installations, all necessary equipment checks, procedures, and associated training is completed prior to startup.*

However, process safety programs often do not state why you are implementing this program. They generally lack the performance expectations for the program. However, by stating the expected outcome within the program, you can provide the reader with a bigger picture understanding. The overarching goal isn't simply to execute the requirements in the program, but rather to do it in such a way that process safety performance is improved. So the end goal is not the action, but rather the performance results. See an example performance expectation statement below:

*Ultimately, successful execution of PSSRs, per this program, is expected to result in safe start-up of PSM covered equipment.*



## 2. Add the Regulation Text, Not Just Citations or Links

Process Safety regulations are much shorter than many other regulatory codes. This provides the ability to list the requirements verbatim within your program and not have it be excessively long. It may seem unnecessary to list this as a program tip, but I've met several PSM practitioners who had never read the PSM regulatory requirements. This is a problem that has a simple solution- add the regulatory text verbatim to the PSM programs. If they have ownership of that program or specific implementation responsibilities, they will be compelled to read it. An example for PSSR is as follows:

### OSHA Process Safety Management (PSM) 1910.119

- 1910.119(i)(1): *The employer shall perform a pre-startup safety review for new facilities and for modified facilities when the modification is significant enough to require a change in the process safety information.*
- 1910.119(i)(2): *The pre-startup safety review shall confirm that prior to the introduction of highly hazardous chemicals to a process:*
  - o *Construction and equipment is in accordance with design specifications;*
  - o *Safety, operating, maintenance, and emergency procedures are in-place and adequate;*
  - o *For new facilities, a process hazard analysis has been performed, and recommendations have been resolved or implemented before startup; and modified facilities meet the requirements contained in management of change (MOC); and,*
  - o *Training of each employee involved in operating a process has been completed.*

### EPA Risk Management Plan (RMP) Title 40 Part 68.77

- *The owner or operator shall perform a pre-startup safety review for new stationary sources and for modified sources when the modification is significant enough to require a change in the process safety information.*
- *The pre-startup safety review shall confirm that prior to the introduction of regulated substances to a process:*
  - o *Construction and equipment is in accordance with design specifications;*
  - o *Safety, operating, maintenance, and emergency procedures are in place and are adequate;*
  - o *For new stationary sources, a process hazard analysis has been performed and recommendations have been resolved or implemented before startup; and modified stationary sources meet the requirements contained in management of change (MOC); and,*
  - o *Training of each employee involved in operating a process has been completed.*

It is beneficial to list these requirements verbatim as this will make it much easier for new process safety practitioners to see and understand the basic requirements. Then, they can make sure that these requirements are being met at the worksite. If you have links or regulatory references, instead of adding the text verbatim, many people will not read, understand, and know the regulatory requirements. They will instead trust that others have faithfully incorporated all requirements into the program. This can lead to a lack of PSM knowledge, which can be detrimental to performance.

The regulatory requirements listed in the program also provide a firm foundation for the implementation activities at the worksite. In a subsequent section of the program, you can provide the policies, procedures, and practices that the worksite has, which satisfy the specific regulatory requirements.

### 3. Incorporate an Evaluation Cycle

A PSM audit is required every three years. However, that doesn't mean that you should wait for the audit to review the effectiveness of your PSM programs. A best practice strategy is to conduct an annual review of all your PSM programs. This may seem cumbersome, but it doesn't have to be! If you establish performance measures or means to verify effectiveness of the program in achieving the desired performance, then you can review your performance against those measures. You can keep it simple, and use performance measures that make sense for your worksite. Some programs may have only one or two performance measures, while others might have several. This is a way of verifying that the programs are being implemented, per expectations. Example measures for PSSRs are as follows:

- % PSSRs completed prior to start-up for applicable activities
- % PSSR post-startup action items completed within 60 days, post change implementation

Having a list of measures from your PSM programs and evaluating them on a yearly basis can be highly beneficial. The outcome of this evaluation can then be shared with program management sponsors and other pertinent leaders. This can become a conduit for addressing any roadblocks along the way.



#### References:

1. <https://www.saltegra.com/post/osha-is-now-considering-revisions-to-the-psm-standard-as-epa-previously-proposed-changes-to-the-rmp#:~:text=However%2C%20OSHA%20has%20not%20updated%20the%20PSM%20standard,resuming%20enforcement%20for%20oil%20and%20gas%20production%20facilities.>