

Does your Process Safety Management program need a facelift?

The OSHA Process Safety Management (PSM) standard (29 CFR 1910.119) was published in the Federal Register and effective in February 1992. But even after 15 years of the standard being in place, industry was still experiencing incidents such as the BP refinery explosion in March 2005. In June 2007, OSHA implemented the Refinery National Emphasis Program (NEP) for refineries and in July 2009 piloted the Chemical NEP for all other PSM-covered facilities. Jordan Barab, OSHA deputy assistant secretary, stated the “NEPs are the most significant enforcement action since the [PSM] standard was promulgated in 1992.”¹ The purpose of the NEP was to conduct planned, focused and comprehensive inspections using a structured list of questions. Using this new approach, OSHA inspections have resulted in the identification of more violations and higher penalties than ever before.

Differences exist between the Refinery NEP and Chemical NEP; for example, the Chemical NEP was intended to consist of shorter, more focused inspections in order to conduct

a larger number of them. Additionally, the Chemical NEP did not include any questions that were considered “static” or available for review in advance of the inspection; rather all were “dynamic” and specific to the type of facility.

There were on average eight to 11 citations and penalties ranging from \$31,600 to \$76,800 in fines per inspection, indicating there was significant room for improvement in most PSM programs. It is time for self-reflection to determine how your facility’s PSM program is “looking” in the current auditing mirror.

The NEP top-cited PSM elements with deficiencies were mechanical integrity (J) and PSI (D). Sub elements related to mechanical integrity and PSI that were cited also included:

- Compliance with recognized and generally accepted good engineering practices (RAGAGEPs).
- Correction of deficiencies (mechanical).
- No written mechanical integrity procedures.

Mechanical integrity and PSI are two

PSM elements that are closely aligned. It is essential to properly identify which RAGAGEPs are applicable to your facility and then work to ensure compliance through an effective inspection, test and preventive maintenance (ITPM) program. Effectiveness requires understanding the risks, hazards and degradation mechanisms. Using the risk-based process safety model, understanding the risks through a hazard analysis is essential and must be completed prior to attempting to manage the risks. It doesn’t matter how many ITPM activities are being performed if they are not targeting the degradation mechanism affecting the integrity of your facilities’ equipment. RAGAGEPs provide guidance on the initial frequency to perform the ITPMs, but frequency intervals should be reevaluated based on ITPM findings.

Another common problem identified by the NEP citations is the failure to correct deficiencies. Often the management of mechanical integrity programs becomes too focused on completing ITPMs against the inspection schedule

and less focused on correcting the identified deficiencies. This can be corrected by ensuring the acceptance criteria is identified and available at the time the ITPM activity is performed and adhere to an established process to escalate the noted deficiencies to the proper review and corrective action. Deficient equipment should not remain in service without an evaluation.

The NEP provides an opportunity to learn from others and evaluate your PSM program against the static list of audit questions. The NEP also helps in focusing on your mechanical integrity program and supporting PSI.

For more information, visit www.gpstrategies.com or call (800) 727-6677.

¹Presentation dated July 12, 2012.



NEWS UPDATE

Enterprise sets ethane export facility on Houston Ship Channel

HOUSTON — Enterprise Products Partners LP will build its recently announced ethane export facility on the Houston Ship Channel. Enterprise has signed a 30-year agreement with the Port of Houston Authority for use of facilities adjacent to the partnership’s existing Morgan’s Point terminal.

The facility is expected to begin operations in the third quarter of 2016.

Enterprise also plans to construct a pipeline from its Mont Belvieu, Texas, natural gas liquids fractionation and storage complex, providing direct access to ethane supply. As designed, the export terminal will have the capability to load fully refrigerated ethane at approximately 10,000 barrels per hour.

The facility is expected to begin operations in the third quarter of 2016.

Enterprise has long-term contracts in place to support the terminal and is in discussions with other potential customers for the remaining capacity.

“The agreement is exciting for the port and the entire region in terms of creating jobs and fostering positive economic impact,” said Janiece Longoria, chairman of the Port Commission of the Port of Houston Authority. “The energy renaissance underway in the state of Texas continues to drive new opportunities along the Houston Ship Channel.”

For more information, visit www.enterpriseproducts.com or call (713) 381-3635.



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