



THE CHLORINE INSTITUTE
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U. S. Department of Labor

Occupational Safety and Health Administration
200 Constitution Ave., NW
Washington, DC 20210

August 12, 2016

RE: Process Safety Management (PSM) of Highly Hazardous Chemicals,
Docket Number: [OSHA-2013-0020](#)

Dear Sir or Madam:

The Chlorine Institute (“CI” or the “Institute”) is a 190 member, not-for-profit trade association of chlor-alkali producers worldwide, as well as packagers, distributors, users, and suppliers. The Institute’s North American Producer members account for more than 93 percent of the total chlorine production capacity of the U.S., Canada, and Mexico. The Institute’s mission chemicals, namely chlorine, sodium hydroxide and potassium hydroxide, and hydrogen chloride, are used throughout the U.S. economy and are paramount to the protection of public health.

With reference to the public comment period for the Process Safety Management Small Entity Representative Background Document, CI members request that OSHA consider how it incorporates sodium hydroxide, hydrogen chloride, safer technology and alternatives analysis, third party audits, and critical equipment into a proposed Process Safety Management rule.

Sodium Hydroxide

The Coast Guard keeps record of reportable quantity excursions in its [National Response Center database \(NRC\)](#). Between 2011-2015, there have been 69 incidents involving sodium hydroxide, and none resulted in an injury due to chemical contact. One incident did mention an injury due to a motor vehicle collision. The chemicals listed in Appendix A were selected because they are "toxic and reactive highly hazardous chemicals which present a potential for a catastrophic event at or above the threshold quantity." 29 CFR 1910.119 defines a catastrophic release as “a major uncontrolled emission, fire, or explosion, involving one or more highly hazardous chemicals, that presents serious danger to employees in the workplace.” The NRC data do not show severe injuries or fatalities due to sodium hydroxide. Employers are already required to protect workers and provide personal protective equipment under the General Duty Clause and 29 CFR 1910 Subpart I. Sodium Hydroxide is not listed on the US EPA Risk Management Program or New Jersey Right to Know Hazardous Substance list. It is not categorized as highly hazardous by UNDG nor GHS and has an NFPA reactivity rating of 1. Among Chlorine Institute members alone, over one hundred facilities would be subject to PSM if sodium hydroxide were added to



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Appendix A. This is much higher than the OSHA-estimated 79 facilities. Adding Sodium Hydroxide to the PSM standard will only result in additional burden and not increased safety.

Hydrogen Chloride

The Chlorine Institute appreciates OSHA's recent July 18, 2016 memo, "Process Safety Management of Highly Hazardous Chemicals and Covered Concentrations of Listed Appendix A Chemicals" and the important distinction between hydrochloric acid and anhydrous hydrogen chloride. The EPA recognizes that hydrochloric acid less than 37% does not present the types of hazards and health concerns attributed to highly hazardous chemicals. Therefore the list of covered chemicals in 40 CFR 68 includes Hydrogen Chloride and 37% Hydrochloric Acid while specifically not including the commercial grades of Hydrochloric Acid less than 37% in concentration. CI believes OSHA should adopt the same concentration threshold for PSM.

Safer Technology and Alternatives Analysis

Chemical facilities consider Inherently Safer Technology ("IST") in preparing Process Hazard Analyses (PHAs) that are required for both the PSM and RMP standards. PHA teams should suggest viable, effective (and inherently safer) alternatives for risk reduction which may include features such as inventory reduction, material substitution and process control changes. These changes are made as opportunities arise, without regulation or adoption of completely new and unproven process technologies.

Because there is no accepted methodology for objectively measuring whether certain process parameters are inherently safer, it is not possible to determine whether certain particular measures are "inherently safer" than others. Analyzing process changes requires considerable judgment by facility personnel teams with expertise in process safety, operations, health, environmental issues and security because the benefits of potential risk reduction measures must be balanced against a host of other factors such as employee safety, public safety, environmental impact and ongoing operation and maintenance costs.

Consequently, it is still the facility operator who is in the best position to have a comprehensive picture of what may or may not be feasible and how the facility environment will be impacted by process changes. Companies must be permitted to continue to use all risk management tools and options at their disposal, and the consideration of available options must be placed in the context of the complexities of their unique operating environments. Because of these complexities, regulating the use of safer alternatives is not practicable. No one regulatory program addresses the holistic safety and security environment of a given facility



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Third Party Audits

The Institute believes that employers should be afforded the discretion to choose the audit method best suited to their unique operations including self-audits, second-party audits, or third-party audits. Company-led audits can be far more effective in actually addressing issues uncovered during an audit, due to the company auditor's intimate knowledge of the organization and how it functions. Using common audit questions and a standardized scoring system across the company also allows for the ready comparison of results across sites, including consistent report writing and recommendation tracking across the company. And as many can attest, using internal resources broadens Process Safety Management system education while leveraging the auditor's detailed knowledge of the organization and how it functions.

Critical Equipment

The definition of Critical Equipment should be by owner, not an outside agency, as these processes are highly complex. The PHA process is extensive, leading the PHA team to examine hazards, means of mitigation, and interconnectivity. Facility owners should be able to make equipment criticality determinations by the PHA's team's findings and other rigorous internal analyses.

The Chlorine Institute appreciates this opportunity to comment on this important step in the regulatory process. Thank you for your time and attention.

Best Regards,

Robyn Brooks
Director - Health, Environment, Safety and Security