

August 25, 2025

Belinda Cannon
OSHA Directorate of Standards and Guidance
200 Constitution Ave
Washington, DC

Submitted via regulations.gov [Docket No: OSHA-2012-0039]

Dear Ms. Cannon,

The American Chemistry Council (ACC)¹ appreciates the opportunity to provide comments concerning the Information Collection Request (ICR) for the Occupational Safety and Health Administration (OSHA) Process Safety Management of Highly Hazardous Chemicals (PSM) standard. A large percentage of ACC member companies manufacture or utilize chemicals above the threshold amounts specified in the PSM standard, making them subject to compliance with the standard.

ACC and our members are committed to advancing safety and sustainability in the communities where we operate and in the products we manufacture. Through implementation of the Responsible Care[®] program, our members demonstrate their commitment to the health and safety of their employees, the communities in which they operate, and the environment as a whole. The Responsible Care Process Safety Code enables a culture of process safety, from operations to management systems and leadership. The effect of Responsible Care and the Process Safety Code is significant: in 2024, ACC members reported a record low number of Tier 1 process safety events. Since 2017, ACC members have reduced Tier 1 process safety events by 22%.²

ACC is broadly supportive of OSHA's goal of reducing process safety incidents through the implementation of the PSM standard. However, based on the information provided by OSHA in the ICR, ACC is concerned that OSHA undercounts the number of facilities subject to the PSM standard, thus resulting in inaccurate burden estimates.

In addition, ACC notes that OSHA issued a Request for Information on the PSM standard in 2013.³ Should OSHA choose to move forward with a notice of proposed rulemaking in the future, we have also provided partial cost and burden estimates for OSHA's use in developing a robust economic analysis. More detail on these issues is provided below.

¹ The American Chemistry Council (ACC) represents the leading companies engaged in the multibillion-dollar business of chemistry. ACC members apply the science of chemistry to make innovative products, technologies, and services that make people's lives better, healthier, and safer. ACC is committed to improved environmental, health, safety, and security performance through Responsible Care[®]; common sense advocacy addressing major public policy issues; and health and environmental research and product testing. ACC members and chemistry companies are among the largest investors in research and development, and are advancing products, processes, and technologies to address climate change, enhance air and water quality, and progress toward a more sustainable, circular economy.

² <https://www.americanchemistry.com/chemistry-in-america/news-trends/press-release/2025/responsible-care-R-companies-achieve-trifecta-of-record-safety-performance>

³ Process Safety Management and Prevention of Major Chemical Accidents. 78 FR 73756 (Dec. 9, 2013)

1. OSHA's use of the EPA RMP facilities will result in undercounting the number of facilities subject to the PSM standard.

In the preamble of the ICR, OSHA estimates the number of respondents has decreased from 11,641 to 11,329 as a result of 'the reduction in the number of establishments in the RMP database as of March 2025'.⁴ The RMP database presumably refers to the Environmental Protection Agency (EPA) Risk Management Program (RMP) database. Facilities covered by the RMP standard are required to submit a copy of their Risk Management Program to EPA on a regular basis. Similar to the PSM standard, the EPA RMP standard also utilizes a list of chemicals with threshold quantities to determine if facilities are covered. Certain facilities are also required to conduct a Process Hazard Analysis (PHA), requiring the same elements as the PSM standard.⁵

Despite the similarities, ACC believes it is inappropriate to equate the number of RMP establishments in the RMP database as equivalent to the number of respondents for PSM. This is primarily because the threshold quantities for PSM are significantly lower than the threshold quantities for RMP. Take, for example, acetaldehyde (CAS 75-07-0). Under the PSM standard, any facility with more than 2500 pounds of acetaldehyde held in a process would be covered by PSM. For RMP, the threshold quantity for acetaldehyde is 10,000 pounds. Put another way: any facility with between 2500 and 9,999 pounds of acetaldehyde would be covered by PSM, but not RMP.

Of the 57 chemicals that appear on both the RMP and PSM lists, only five have the same threshold quantity for both RMP and PSM. The other 52 chemicals have PSM threshold quantities that are often half or less of the RMP threshold quantities. A full table comparison can be found in Appendix A. In addition, PSM covers chemicals that are not covered by the RMP rule – again, often at relatively low threshold quantities. Indeed, ACC members often report being subject to PSM but not RMP.

Based on this information, ACC does not believe that it is appropriate for OSHA to use the number of RMP establishments for the purposes of estimating the number of respondents for this ICR. We believe that the number of PSM-covered facilities – and therefore the number of respondents – is likely to be significantly higher than the estimate OSHA provides. ACC encourages OSHA to utilize additional resources to develop a more accurate estimate of respondents.

2. Estimates of Time & Burden to Collect Information

OSHA states that the major information collection requirements in the standard include:

“Consulting with workers and their representatives on and providing them access to process hazard analyses and the development of other elements of the standard; developing a written action plan for implementation of employee participation in process hazard analyses and other elements of the standard; completing a compilation of written process safety information; performing a process hazard analysis; documenting actions

⁴ Process Safety Management of Highly Hazardous Chemicals standard; Extension of the Office of Management and Budget's (OMB) Approval of Information Collection (Paperwork) Requirements. 90 FR 26831.

⁵ The 2024 EPA Safer Communities by Chemical Accident Prevention: Risk Management Program rule made changes to the PHA requirements for Program 2 and 3 facilities. However, as the compliance deadline for these changes is May 10, 2027, the original PHA requirements aligning with the PSM standard are still in effect.

taken to resolve process hazard analysis team findings and recommendations; updating, revalidating, and retaining the process hazard analysis; developing and implementing written operating procedures accessible to workers; reviewing operating procedures as often as necessary and certifying the procedures annually; developing and implementing written operating procedures accessible to workers; reviewing, operating procedures as often as necessary and certifying the procedures annually; developing and implementing safe work practices; preparing training records; informing contract employers of known hazards and applicable provisions of the emergency action plan; maintaining a contract worker injury and illness log; establishing written procedures to maintain the integrity of and documenting inspections and tests of process equipment; providing information on permits issued for hot work operations; establishing and implementing written procedures to manage changes; preparing reports at the conclusion of incident investigations, documenting resolutions and corrective measures, and reviewing the reports with affected personnel; establishing and implementing an emergency action plan; developing a compliance audit report and certifying compliance; and disclosing information necessary to comply with the standard to persons responsible for complying process safety information.”⁶

Given the breadth of documentation required for compliance, the PSM standard represents a significant – if necessary – burden. In an effort to inform OSHA’s cost and burden estimates for both this ICR and any future rulemakings, ACC surveyed our members to better understand the burden to comply with the PSM standard. The survey focused entirely on the burden to conduct a PHA, as the other elements described by OSHA above are often intertwined with other compliance initiatives: for example, employers ‘developing safe work practices’ are likely to include PSM-specific work practices along with other work practices developed for the facility, whether those work practices are required by regulation or not. In addition, many ACC members may utilize the requirements in the PSM standard as a ‘best practice’ for their processes or units, regardless of whether the process is technically covered by the standard or not. This is especially true for facilities where some, but not all, processes are PSM covered.

For these reasons, ACC chose to focus this survey entirely on the time and cost to conduct a PHA. We consider this survey to cover the effort to ‘perform a process hazard analysis’ and ‘document actions taken to resolve the process hazard analysis’ as described by OSHA in the preamble of the ICR.

ACC requested members to estimate the following for both the least complex and most complex processes at their company. Our intent was to provide an estimated range for OSHA’s consideration.

- 1) Number of days required to conduct a PHA, including the amount of time required to prepare for a PHA (for example, by updating process safety information),
- 2) The number of employees involved in conducting a PHA, including their general job titles,
- 3) If relevant, the annual cost for outside consulting services needed to conduct the PHA.

Overall, 18 ACC member companies responded to the survey, representing a total of 192 facilities with covered processes present. The member companies indicated that between 3 and 60 PHAs are conducted on an annual basis, with an average of ~26 PHAs. This includes both revalidations and PHAs triggered by the Management of Change (MOC) process.

It will surely come as no surprise to OSHA that the time and effort to conduct a PHA varies considerably across the complexity of process. For the least complex processes, a PHA may take anywhere between half a day to 14 days

⁶ Process Safety Management of Highly Hazardous Chemicals standard; Extension of the Office of Management and Budget’s (OMB) Approval of Information Collection (Paperwork) Requirements. 90 FR 26831.

(average 4.3 days; median 4 days). For the most complex processes, members report anywhere between 3 and 180 days (average 32.2 days, median 19 days) to conduct the PHA. This includes the time spent to perform the PHA, as well as the time spent to compile the final report.

Members report spending an average of 32 hours and 104 hours for the least and most complex processes, respectively, to prepare the documentation necessary to conduct the PHA. Such preparation activities may include reviewing previous PHAs, gathering and compiling documentation and drawings, reviewing process changes and incidents, reviewing and verifying previous action item closure, and reviewing applicable RAGAGEP for updates.

Depending on the process being evaluated, anywhere from 4-9 people may be involved, regardless of the complexity of the process. At minimum, ACC members report use of a PHA facilitator, an operator or other knowledgeable person, and an engineer. Other possible employees involved may include chemical and equipment engineers, environmental, health, and safety professionals, chemists and other technical scientific advisors, and unit or area managers.

Finally, ACC requested information as to if outside consulting services are utilized for the PHA. Many members who responded to the survey used consultants for parts of the PHA. For example, most reported the use of consultants to conduct facility siting studies that are used in the PHA, or to conduct audits. However, the use of consultants to act as PHA facilitators varies significantly. Members who reported the use of outside consultants for PSM compliance purposes reported an average of \$260,000 spent per year.

ACC hopes that these comments provide useful information to OSHA. Should you have any additional questions, I can be reached at 202-249-6729 or Rebecca_odonnell@americanchemistry.com

Sincerely,



Rebecca O'Donnell
Associate Director, Process Safety & Occupational Health

Appendix A: List of Covered Chemicals & Threshold Quantities for EPA RMP and OSHA PSM

Chemical Name	CAS No.	RMP Threshold Quantity (lbs.)	PSM Threshold Quantity (lbs.)
1,1-Dimethyl hydrazine	57-14-7	15,000	1,000
2-Propanamine	75-31-0	10,000	5,000
2-Propen-1-amine	107-11-9	10,000	1,000
2-Propenenitrile, 2-methyl-	126-98-7	10,000	250
2-Propenoyl chloride	814-68-6	5,000	250
Acetaldehyde	75-07-0	10,000	2,500
Ammonia (anhydrous)	7664-41-7	10,000	10,000
Arsine	7784-42-1	1,000	100
Aziridine	151-56-4	10,000	1,000
Bis(chloromethyl) ether	542-88-1	1,000	100
Borane, trichloro-	10294-34-5	5,000	2,500
Borane, trifluoro-	7637-07-2	5,000	250
Bromine	7726-95-6	10,000	1,500
Carbonic dichloride	75-44-5	500	100
Carbonochloridic acid, methylester	79-22-1	5,000	500
Chlorine	7782-50-5	2,500	1,500
Chlorine dioxide	10049-04-4	1,000	1,000
Chloromethyl methyl ether	107-30-2	5,000	500
Cyanogen chloride	506-77-4	10,000	500
Cyanogen	460-19-5	10,000	2,500
Diborane	19287-45-7	2,500	100
Dichlorosilane	4109-96-0	10,000	2,500
Dimethylamine	124-40-3	10,000	2,500
Dimethylhydrazine	57-14-7	15,000	1,000
Ethanamine	75-04-7	10,000	7,500
Ethene, chlorotrifluoro-	79-38-9	10,000	10,000
Ethyl nitrite	109-95-5	10,000	5000
Ethylene oxide	75-21-8	10,000	5,000
Fluorine	7782-41-4	1,000	1000
Formaldehyde	50-00-0	15,000	1000
Furan	110-00-9	5,000	500
Hydrazine, methyl-	60-34-4	15,000	100
Hydrochloric acid (conc 37% or greater)	7647-01-0	15,000	5,000

Hydrocyanic acid	74-90-8	2,500	1,000
Hydrofluoric acid (conc. 50% or greater)	7664-39-3	1,000	1,000
Hydrogen selenide	7783-07-5	500	150
Hydrogen sulfide	7783-06-4	10,000	1,500
Iron carbonyl (Fe(CO) ₅), (TB-5-11)-	13463-40-6	2,500	250
Methanesulfonyl chloride, trichloro-	594-42-3	10,000	150
Methanethiol	74-93-1	10,000	5,000
Methenamine	74-89-5	10,000	1,000
Methyltrichlorosilane	75-79-6	5,000	500
Nickel carbonyl	13463-39-3	1,000	150
Nitric acid (conc 80% or greater)	7697-37-2	15,000	500 at 94.5% by weight or greater
Nitric oxide	10102-43-9	10,000	250
Nitrous acid, ethyl ester	109-95-5	10,000	5,000
Oleum (fuming sulfuric acid)	8014-95-7	10,000	1,000
Oxirane	75-21-8	10,000	5000
Phosphine	7803-51-2	5,000	100
Phosphorous trichloride	7719-12-2	15,000	1,000
Phosphorus oxychloride	10025-87-3	5,000	1,000
Plumbane, tetramethyl-	75-74-1	10,000	1,000
Silane, dichloro-	4109-96-0	10,000	2,500
Silane, trichloro-	10025-78-2	10,000	5,000
Sulfur dioxide (anhydrous)	7446-09-5	5,000	1,000
Sulfur fluoride (SF ₄), (T-4)-	7783-60-0	2,500	250
Sulfur trioxide	7446-11-9	10,000	1,000

Note: Duplicate CAS numbers have been removed from the list