

ACC concerns with EPA proposed changes to the Risk Management Plan (RMP) rule
Meeting with OMB, Tuesday, February 16

Background:

On April 17, 2013, an ammonium nitrate explosion occurred at the West Fertilizer Company storage and distribution facility in West, Texas resulting in the destruction of the facility, 15 fatalities (12 were members of the volunteer fire department), 260 injuries and significant property damage to the surrounding community. The West accident served as the impetus for Executive Order 13650 (EO) "Improving Chemical Facility Safety and Security" signed by President Obama in August of 2013. In response to the Executive Order, EPA is proposing significant changes to its Risk Management Plan (RMP) rule including new mandates for third-party RMP compliance audits, safer alternatives and feasibility analysis, and expanded information sharing and public meetings.

The Bottom Line:

EPA's proposal will impose substantial costs on the regulated community, more than 12,000 facilities nationwide, **without adding significant benefit** to reducing the risk of accidental chemical releases. Further, **EPA's proposal seems to ignore the findings from the West Texas accident**, the very event that served as the impetus for this action. The U.S. Chemical Safety and Hazard Investigation Board (CSB) recently completed its investigation of West. In its final report, the CSB cited poor regulatory oversight of fertilizer storage facilities and the lack of hazard awareness of fertilizer grade ammonium nitrate as key findings. Additionally, the CSB identified the need for improved storage practices of fertilizer grade ammonium nitrate and for improved land use planning and zoning practices. Unfortunately, none of EPA's proposed changes to RMP, discussed to date, would address these key findings from the CSB.

ACC firmly believes that when correctly implemented and enforced, **the current RMP requirements are highly effective in minimizing the risk of accidental chemical releases**. The RMP rule has been in place for nearly 20 years and during that time RMP accidents have steadily declined. Based on data provided by EPA, the number of **accidents at RMP facilities has dramatically decreased** from a high of 473 in 1998 to 123 in 2013, nearly a **75% reduction** over that time. It should be EPA's duty to affirmatively demonstrate why its proposed changes are needed, and how they will reduce risk and increase chemical safety commensurate with the cost burden. To date, no such justification or explanation has been offered.

It is our understanding that **EPA sent its proposal to OMB prior to the issuance of a final report from the SBREFA panel**, which appears to be a troubling procedural irregularity, at best. However, based on information provided during the SBREFA Panel review process and during the Request for Information (RFI), ACC is providing the following specific concerns.

Specific Issues:

Third-party audits

EPA is proposing to mandate third-party audits for RMP compliance following an RMP reportable accident. **This will unnecessarily increase the cost of conducting an audit** and it is unclear what benefit this will serve to enhance chemical safety. ACC is not aware of any evidence that suggests that current auditing practices are deficient. In fact, in a recent study performed by OSHA, data from the PSM National Emphasis Program (NEP) launched in June 2007, **OSHA found no significant problems with current auditing practices**. Of the total PSM compliance issues identified, OSHA attributed less than 5% to compliance auditing.

Based on the limited availability of qualified third-party auditors, ACC is very concerned that in many

cases, **it will be nearly impossible to meet a third-party mandate.** The RMP rule covers more than 12,000 chemical facilities across the Nation; most of which are small businesses located in remote areas that do not readily have access to third-party experts. As a result, companies will be forced to fly in auditors from across the country or settle with what's available. **The end result will be a significant increase in cost to conduct an RMP compliance audit, while compromising audit quality and defeating the objective of enhancing chemical safety.** In March 2013, ACC investigated the cost of employing third-party PSM compliance auditors. At that time the estimated cost of a single third-party audit for a medium-sized company was as high as \$33,600 to \$112,000 per audit.

Safer Alternatives Analysis

EPA is proposing a new requirement that certain Program Level 3 facilities, including chemical manufacturing, conduct an analysis of safer technologies and alternatives, perform a feasibility analysis and document the findings and recommendations. **Safer alternative analyses are highly complex, resource intensive and very process technology specific.** In fact, EPA understood this complexity when it promulgated the RMP rule in 1996. In the preamble EPA states: **"EPA does not believe that a requirement that sources conduct searches or analyses of alternative processing technologies for new or existing processes will produce additional benefits** beyond those accruing to the rule already. . . EPA believes these processes can be safely operated through management and control of the hazards without spending resources searching for unavailable or unaffordable new process technologies. **Good PHA techniques often reveal opportunities for continuous improvement of existing processes and operations."** EPA offers no explanation why this is no longer the case and why new regulatory requirements that mandate exactly what EPA previously stated was unnecessary are being proposed at this time.

Information Sharing

EPA is considering mandating that all RMP facilities provide significantly more information to members of the public and to first responders, including incident investigation reports, root cause findings, compliance audit reports and inherent safer technology options. In addition the format for providing such information must be provided in an easy format. RMP facilities would also be required to hold public meetings every five years.

While ACC agrees that facilities should develop constructive relationships with the local community and first responders, EPA has not provided any evidence that sharing internal company reports will improve community safety. ACC has significant concerns with providing complex sensitive technical reports to the LEPC and members of the public which contain proprietary and business sensitive information. **EPA needs to clearly demonstrate how each of the proposed new items will be used by the recipients to enhance emergency preparedness.**

As required by the 1999 Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (CSISSFRRRA), the federal government conducted assessments of both the increased risk of terrorist and other criminal activity that would result from providing broad access to sensitive chemical security information. Based on the assessments, EPA and DOJ decided to limit access to this information in ways designed to minimize the likelihood of harm to public health and welfare. **ACC is concerned that the type of information being proposed for release would in fact increase the very security risk that CSISSFRRRA was designed to minimize.**



Considerations for OSHA PSM RFI 3rd Party Audit Requirement

American Chemistry Council
March 2014

BACKGROUND

In OSHA's Request For Information (RFI) on potential revisions to its Process Safety Management Standard (PSM) (12/9/13), the agency requests comments on revising paragraph (o) of the PSM standard to require third-party compliance audits. Currently, many facilities conduct PSM compliance audits using expertise from within their own companies (2nd party audits) or by bringing in consultants (3rd party audits).

CHALLENGES OF MANDATING 3RD PARTY AUDITS

Because significant process safety and engineering expertise resides within companies regulated by PSM, 2nd party audits have been an effective tool for monitoring compliance with the PSM rule since 1992. Currently, companies typically only engage a consultant to conduct 3rd party audits when the expertise to conduct a comprehensive and thorough audit does not exist in-house or is otherwise unavailable. Beyond the higher cost of hiring a consultancy, there are several important considerations.

- Consultants may not be as familiar with a facility or process or may be inexperienced. Some process safety consultants are not trained to do "compliance" audits. Audits by inexperienced or under-experienced consultants are unlikely to improve safety.
- Audits can be technically challenging, including PHAs, evaluation of mechanical integrity, etc. It may be challenging to match the specific skills required with an audit
- It is not clear that there is a sufficient number of qualified process safety consultants to conduct audits of roughly 10,000 PSM-regulated facilities¹ each year.
- If there are issues, companies need an audit team that is able and willing to dig deep and go the extra mile to identify potential safety issues.
- Exclusive use of 3rd party auditors would limit learning opportunities for 2nd party auditors that can take back lessons learned to their own facilities.

PROCESS SAFETY AUDITS

A typical process safety audit team consists of 3-6 technical professionals with backgrounds in various engineering specialties in addition to regulatory requirements. These professionals work at other manufacturing facilities throughout the company and can also include corporate EH&S personnel. The composition of the audit team may depend on the type of process and materials at the facility, in addition to other variables. A typical audit includes the following elements.

- Preparation in advance of the audit (1-2 days)
- Audit (1-2 weeks depending on facility size/complexity)
- Post-audit review and report (1-2 days)
- Travel time and expense (varies)

¹ There are approximately 30,000 PSM-regulated facilities. Each of the 30,000 facilities is audited once every three years. Thus, approximately 10,000 PSM-regulated facilities are audited each year.

The length of time to conduct the actual audit depends on the size and complexity of the facility being audited. Based on discussions with ACC members, below are some rough assumptions on the length of an audit and audit team sizes for small, medium, and large industrial chemical manufacturers:

	Hours per auditor	Number of auditors	Total audit hours
Small (fewer than 50 employees)	40	3	120
Medium (50 - 300 employees)	40	5	200
Large (more than 300 employees)	80	6	480

Consultants vary considerably in both skill and cost. Hourly fees for consultants range from \$150-\$500 per hour. These hourly rates are nearly 3-9 times higher than the median hourly rate for chemical industry engineers that would likely participate in 3rd party audits. Thus, the cost of a single 3rd party compliance audit for a medium-sized company could be as high as \$33,600 to \$112,000. Even offsetting this with the opportunity cost of company personnel involved in 2nd party audits, the cost per audit remains high at \$21,300 to \$99,700. This represents the cost per audit. Many companies have several facilities that would need to be audited each year. Thus, this cost would be multiplied several times over. Given that the majority of PSM-regulated facilities are at small and medium-sized companies, this presents a significant cost burden.

	3rd Party (Low)	3rd Party (High)
Number of Auditors	4	4
Hours to Conduct Audit Activities	224	224
Pre-audit preparation	8	8
On-site audit	40	40
Post-audit report writing	8	8
Average hourly wage	\$150	\$500
Travel time and costs	n/a	n/a
Total Cost of 3 rd Party PSM Audit	\$33,600	\$112,000

CONCLUSION

While perhaps well-intentioned, the required use of 3rd party audits is unlikely to improve safety for reasons cited above. In addition, the requirement will add a significant cost burden to companies that have qualified and appropriate technical expertise on staff already, particularly to small and mid-size facilities.