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**Comments of the American Petroleum Institute
on EPA Docket ID No. EPA-HQ-OEM-2015-0725
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Accidental Release Prevention Requirements: Risk Management Programs Under the
Clean Air Act, Proposed Rule
March 14, 2016**

The American Petroleum Institute (API) appreciates the opportunity to provide comments on the Environmental Protection Agency's (EPA) Proposed Rule on Accidental Release Prevention Requirements: Risk Management (RMP) Programs Under the Clean Air Act, Section 112(r)(7). API represents more than 650 companies involved in all aspects of the oil and natural gas industry including exploration, production, refining, marketing, pipeline, and marine transporters, as well as service and supply companies that support all segments of the industry. As such, API and our members are significantly affected by the EPA RMP rule. API and its member companies support performance-based RMP regulations that are reasonable and are written, applied and enforced in a manner that is consistent with the applicable statutory scope.

API shares EPA's goal of enhancing safety at refineries and other RMP-covered sites. Safety is a top priority for API and its members who devote substantial resources to ensuring safe and reliable operations through numerous safety programs, conformance to industry standards, training and information sharing.

API contends that the EPA RMP regulations have been successful in incident prevention over the past several decades. Going forward, API continues to recommend that EPA focus on prevention of and mitigation of catastrophic releases that could have significant offsite effects and not address issues that are mostly worker protection issues which are the primary focus of the Occupational Safety & Health Administration (OSHA). In addition, API believes where incidents have happened, they were not failures of the current regulatory structure and therefore does not believe evidence has been adequately presented by EPA to demonstrate new regulation is needed. Furthermore, the EPA proposal does not address the West, Texas accident which was the initiating event for EPA to propose revisions to the RMP program. Lastly, API believes EPA has proposed RMP revisions that will impose prescriptive requirements with little benefits to the environment or worker and community safety.

As mentioned above, the impetus for Executive Order 13650 and this proposal illustrates that bad facts make bad law. As it happens, the tragedy that occurred at West was not the result of an accident but an alleged criminal act, a root cause that does not fall into a neat category. Law enforcement officials needed almost three years to come to this determination, demonstrating that gathering facts takes time and analysis takes even longer. Cut the process short and incorrect conclusions will be drawn, bad decisions will be made and unintended consequences will result.

The RMP Rule requires “a flexible regulatory structure instead of a ‘one-size fits all’ approach.”¹ EPA’s proposal forgets this fact. The Agency sought to propose “a rule that works” without “unintended consequences.”² This proposal will not accomplish that objective. EPA could have examined the best reasonably obtainable scientific, technical, and economic information available.³ Instead, it relied on individual data points, outdated data, and improper statistical analysis.

EPA rushed through the rulemaking process. The Agency did not take the time to gather the facts. Even less time was spent on the analysis. Clearly questionable decisions have been made. As a result, this proposed rule will create several unintended consequences. API, therefore, cannot support this proposal.

In addition to the API comments below, EPA should not interpret API’s silence on a particular issue or question as our agreement with the proposal. EPA has not allowed sufficient time to address all the background materials and questions posed. API, therefore, has had to focus its comments on select matters. Should EPA wish a more complete response, it should grant an extension of the comment period deadline.

EPA Failed to Address the Primary Purpose of Executive Order 13650.

On April 17, 2013, tragedy struck West, Texas. Family members, neighbors and friends died in an explosion at an ammonium nitrate storage facility.⁴ In response, President Obama issued Executive Order 13650 calling upon EPA to act. It did not. Instead, EPA took the

¹ James C. Belke, U.S. EPA Chemical Emergency Preparedness and Prevention Office, *The Case for Voluntary Third Party Risk Management Program Audits* at 3 (unpublished but presented at the 5th Bi-Annual Process Plant Safety Symposium) (April 22-26, 2001) (hereinafter Belke Symposium Paper).

² See generally Statements of Mathy Stanislaus, Assistant Administrator for the Office of Land and Emergency Management at the AIChE Safety & Health Division Dinner in Houston, TX (April 12, 2016).

³ Office of Mgmt. & Budget, Exec. Office of the President, OMB Circular A-4, *Regulatory Analysis*, at 17 (Sept. 17, 2003) available at <https://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a004/a-4.pdf> (hereinafter OMB Circular A-4).

⁴ Officials now believe the incident at West Fertilizer was a criminal act. See 2016-05-11 West Fertilizer Explosion Was Intentionally Set: ATF, State Fire Marshal, available at <http://www.nbcdfw.com/news/local/ATF-Texas-State-Fire-Marshals-Office-on-West-Explosion-Cause-379007181.html>. It should be noted that if the incident at West, TX was a deliberate, criminal act, it cannot be cited as evidence of a deficiency with the existing RMP Rule or as evidence supporting the proposed changes.

opportunity to propose a “wish list” of regulations unrelated to the Executive Order or to the West, TX tragedy.

Even after the EPA acknowledged, “The Executive Order requires the Working Group to carry out a number of tasks whose overall aim is to prevent chemical accidents, *such as the explosion that occurred at the West Fertilizer facility* in West, Texas,” it has not met this aim.⁵

Nothing in this proposal will improve the safe and secure storage, handling, and sale of ammonium nitrate. Nor does the proposal identify ways in which ammonium nitrate safety and security can be enhanced under existing authorities.

EPA could have proposed changes to the Emergency Planning and Community Right-to-Know Act (EPCRA) regulations to address the risks all first responders encounter. Instead, EPA elected to try to help only a small, select group of first responders by addressing the issue in the RMP regulations. For all these reasons, EPA failed to address the primary purpose of Executive Order 13650.

EPA Has Not Satisfied its Obligations Under Executive Order 12866.

Executive Order 12866, *Regulatory Planning and Review*) enumerates twelve principles that govern the creation of new regulation.⁶ Each requires EPA complete a task. In its haste, the Agency has not addressed many of its Executive Order 12866 obligations.

Principle #3 states, “Each agency shall identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.” API finds no evidence EPA identified the available alternatives to direct regulation.

Principle #5 states, “When an agency determines that a regulation is the best available method of achieving the regulatory objective, it shall design its regulations in the most cost-effective manner to achieve the regulatory objective. In doing so, each agency shall consider incentives for innovation, consistency, predictability, the costs of enforcement and compliance (to the government, regulated entities, and the public), flexibility, distributive impacts, and equity.” API finds no evidence EPA has designed its proposed regulation in the most cost-effective manner.

Principle #6 states, “Each agency shall assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs.” API finds no valid evidence that EPA has determined the benefits justify the costs.

⁵ Accidental Release Prevention requirements: Risk Management Programs Under the Clean Air Act, 79 Fed. Reg. 44604, 05 (July 31, 2014) (emphasis added).

⁶ Executive Order No. 12,866, *Regulatory Planning and Review*, 58 Fed. Reg. 51735 (October 4, 1993).

Principle #7 states “Each agency shall base its decisions on the best reasonably obtainable scientific, technical, economic, and other information concerning the need for, and consequences of, the intended regulation.” As these comments demonstrate, EPA has not based its decisions on the best reasonably obtainable scientific, technical, economic and other information available.

Principle #8 states, “Each agency shall identify and assess alternative forms of regulation and shall, to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt.” API finds substantial evidence the Agency is specifying the behavior and manner of compliance.⁷

Principle #10 states, “Each agency shall avoid regulations that are inconsistent, incompatible, or duplicative with its other regulations or those of other Federal agencies.” This proposal creates many potential conflicts between OSHA’s PSM Standard and the RMP Rule.

Lastly, Principle #12 states, “Each agency shall draft its regulations to be simple and easy to understand, with the goal of minimizing the potential for uncertainty and litigation arising from such uncertainty.” Many of the proposed changes are inherently vague and ambiguous. This will lead to greater uncertainty regarding compliance resulting in subsequent litigation.

EPA may view these principles as suggestions not requirements.⁸ API disagrees. An exception is only appropriate when the principle is either prohibited by law or inapplicable. Otherwise, the Agency must adhere to the governing principles. EPA has not.

Proper regulatory impact analysis requires EPA to identify clearly the baseline (which in this case would presumably be the option of not regulating).⁹ The Agency should then consider the costs of this option.¹⁰ Also required is an examination of alternative regulatory approaches. These include utilizing different enforcement methods and market-oriented approaches rather than direct controls.¹¹ “Where relevant, agencies should consider flexible approaches that reduce burdens and maintain freedom of choice To the extent feasible, agencies should specify performance objectives, rather than specifying the behavior or manner of compliance that

⁷ e.g. Safer technology alternative analysis to be performed in a specified order of preference, compliance audits to be conducted by independent third-party auditors, and incident investigations to utilize commercially developed root cause analysis programs.

⁸ Executive Order 12866 (“agencies *should* adhere to the following principles”)(emphasis added).

⁹ OMB Circular A-4, FN3 at 2.

¹⁰ Office of Information and Regulatory Affairs, Exec. Office of the President, *Regulatory Impact Analysis: A Primer*, at 2 available at https://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf (hereinafter OIRA Primer).

¹¹ OMB Circular A-4, FN3 at 7, 8.

regulated entities must adopt.”¹² API cannot find evidence in the record that EPA has met these obligations.

API suggests EPA has frequently underestimated the costs of the proposed rule provisions. In some instances, EPA has neglected to include any costs associated with the proposed changes.¹³ In others, the Agency’s proposed regulations work against each other. For example, the Agency proposes to increase the number of compliance audits that facilities must perform. At the same time, it seeks to restrict who may perform these new, additional audits. The result will be an almost certain increase costs and reduced net benefits.

Even with these low cost assumptions, EPA acknowledges, “the rule’s costs likely outweigh the portion of impacts from improved prevention and mitigation that were monetized.”¹⁴

EPA attempts to clear this hurdle by pointing to “additional benefit categories not reported in the RMP data”,¹⁵ benefits such as catastrophes avoided, lost productivity avoided, emergency response costs avoided, etc. API suggests EPA might have been able to monetize these benefits if it had taken an appropriate amount of time to develop its Regulatory Impact Analysis.

For example, EPA might have followed its June 1996 document titled *Economic Analysis in Support of Final Rule on Risk Management Program Regulations for Chemical Accident Release Preventions, as required by Section 112(r) of the Clean Air Act*.¹⁶

Instead, twenty years later EPA offers:

It is not possible to estimate quantitative benefits for the proposed rule. EPA has no data to project the specific impact on accidents made by each proposed rule provision. The accidents themselves have highly variable impacts that are difficult to predict. However, it is clear from the RMP accident data and other data, such as that reported by Marsh, that chemical accidents can impose substantial costs on firms, employees, emergency responders, the community, and

¹² OIRA Primer, FN10 at 2, 3.

¹³ See generally the discussion of the proposed sections 68.170(d)(2) and 68.175(d)(2) *infra*.

¹⁴ EPA-HQ-OEM-2015-0725-0037 Regulatory Impact Analysis Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7) at 96 (February 24, 2016) (*hereinafter* RIA).

¹⁵ RIA, FN14 at 97.

¹⁶ EPA-HQ-OEM-2014-0328-0023, Chemical Emergency Preparedness and Prevention Office, Office of Solid Waste and Emergency Response U.S. Environmental Protection Agency (June 1996) at 6-1 through 6-40. For example, Exhibit 6-8 titled “Summary Damage Valuation from Hazardous Chemical Releases” on pg. 6-15 clearly demonstrates monetization would have been possible had EPA taken the appropriate amount of time to prepare this proposal.

the broader economy. Reducing the risk of such accidents and the severity of the impacts when accidents occur, and improving information provision, as the proposed provisions intend, would provide benefits to the potentially affected members of society.¹⁷

EPA’s Incident Investigation Proposals are Not Needed.

EPA seeks to revise the incident investigation and accident history reporting requirements. In so doing, however, the Agency will substantially increase the incident investigation burdens on covered facilities. It will do so by merging catastrophic releases and “five-year accidental releases”. Next, investigations for near misses and process upsets are added. Then EPA expands it further by including releases from non-covered processes. As proposed, API cannot support these changes.

The Regulation as Promulgated

When the RMP Rule was promulgated, it was understood that the regulations addressed four nested release scenarios: (1) worst-case releases, which were a subset of (2) catastrophic releases, which were a subset of (3) accidental releases that had to be reported (“five-year accidental releases”), which were a subset of (4) accidental releases (*see* Figure 1).

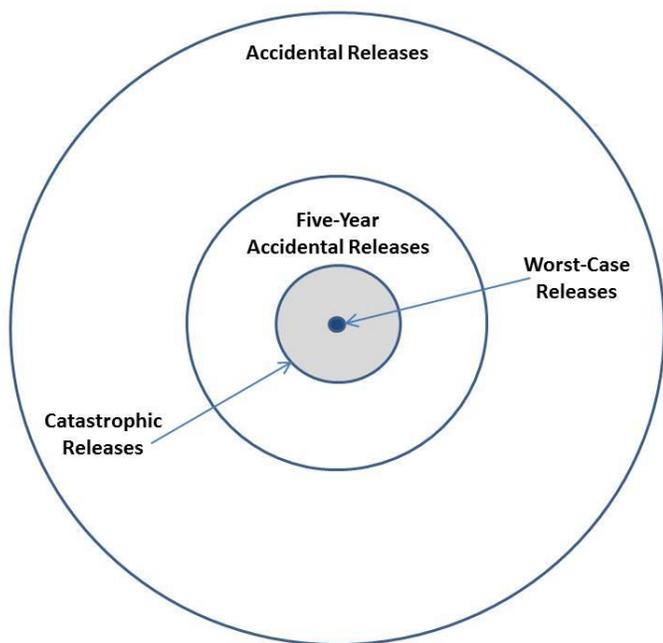


Figure 1. RMP Releases

EPA suggests that redefining the term catastrophic release clarifies rather than expands its definition. This assertion is without evidence. In fact, the text of the regulation argues very strongly against this reading. EPA’s proposal is a clear expansion of the scope of a catastrophic release.

¹⁷ RIA, FN14 at 101.

To start, Congress defined the outer boundary of releases covered by Section 112(r) of the Clean Air Act Amendments by defining an “accidental release”.¹⁸ This definition was included in EPA’s Chemical Accident Prevention Provisions.¹⁹ EPA then proceeded to define two additional categories of releases: “catastrophic releases” and “worst-case releases”.²⁰ The drafters of the Rule, however, recognized a value in having the owner/operator make special note of releases that did not rise to the level of a catastrophic release but were more serious than an accidental release. These are the “five-year accidental releases” discussed in §68.42.

The five-year accident history reporting requirements apply to accidental releases with specific characteristics. They are not described as catastrophic releases despite the fact that §68.3 defines that term. In fact, unlike the terms “accidental release”²¹ and “worst-case release”,²² the term “catastrophic release” does not appear once in Subpart B – Hazard Assessment. But when EPA wishes to distinguish a release from either an accidental release or a worst-case release, it does so (*e.g.* “alternative release”).²³

Further evidence that the “five-year accidental release” was not the same as a catastrophic release is found in reviewing the permissive nature of the report requirements listed in §68.42. There, the initiating event and contributing factors need only be included *if known*. This stands in stark contrast to the incident investigation requirements of §68.60 and §68.81 where *at a minimum* the factors that contributed to the incident must be included in the investigation report. Clearly these releases are not interchangeable. Otherwise the regulatory text is contradictory. EPA’s proposal to merge these two categories of releases is a clear expansion of the incident investigation reporting requirements, a proposal without supporting evidence.

Near Miss and Process Upsets

EPA also seeks to have the owner/operator conduct root cause incident investigations for “near misses”. While the Agency does not define the term “near miss”, it does state that a near miss may occur outside of a covered process.²⁴ As a result, the total number of incidents requiring investigation will be expanded dramatically by this proposal.

¹⁸ 42 U.S.C. §7412(r)(2)(A).

¹⁹ 40 C.F.R. §68.3.

²⁰ *Id.*

²¹ The term “accidental release” appears 4 times in Subpart H.

²² The term “worst-case release” appears 19 times in Subpart H.

²³ The term “alternative release” appears 6 times in Subpart H.

²⁴ Accidental Release Prevention requirements: Risk Management Programs Under the Clean Air Act, 81 Fed. Reg. 13638, 51 (proposed March 14, 2016) (to be codified at 40 C.F.R. pt 68). EPA argues that expanding the scope beyond covered processes is necessary in part because an accidental release in a non-covered process “may

API agrees that in some instances, a near miss may call for an incident investigation. For example, a demand on a safety system might occasionally be considered a near miss. However, if the safety system is operating as designed, an investigation should not be required. API would recommend a root cause analysis be performed only when the safety system does not work as designed.²⁵

EPA seeks to include process upsets as well. Process upsets vary across a wide range from product quality/efficiency issues to ones that represent near miss situations. Requiring a root cause analysis of all process upsets would overburden the investigation resources available at a facility. These events, therefore, should be excluded from the incident investigation requirements of §68.60 and §68.81.

Investigation Deadlines

API opposes regulatory deadlines for investigations. The investigations of catastrophic releases often require the assistance of outside technical experts (*e.g.*, metallurgical analysis). The analyses these experts perform can take significant time. It is, therefore, unreasonable to set a timeline for completion. Regulatory deadlines may inadvertently focus the incident investigation team's attention on completing the report rather than taking the time and effort necessary to fully investigate the accident and ascertain the real root causes. This potentiality will be even more likely should the EPA require completion of the incident investigation prior to the restart of an affected process. That will incentivize facilities that do not place safety as a priority to avoid a shutdown at all costs and keep running even during an incident. The EPA should not foster these unintended consequences.

While the Agency suggests the proposed changes are necessary because "EPA has discovered situations where owners or operators . . . indefinitely delayed completing incident investigations", these situations are already violations. They are not evidence that regulatory deadlines are needed.

Root Cause Categorization

API recommends that EPA not force facilities to select from a predetermined list of copyrighted root cause categories created by third-party consultants. Each operating company has developed its own categories for root causes and equivalent methodologies. By mandating online reporting based on predetermined categories, EPA will either force facilities to pigeonhole the findings into an inappropriate category or report every finding as "other". This will defeat the purpose of the proposal. It also ensures that new and improved investigation techniques are unlikely to be developed.

indicate a safety management failure". This statement misses the fact that a facility is not required to adopt the safety management elements for non-covered processes.

²⁵ See generally American Petroleum Institute, *Process Safety Performance Indicators for the Refining and Petrochemical Industries*, ANSI/API Recommended Practice 754 (April 2010).

Conclusions

API member practice is to investigate all incidents and any near miss events that could have resulted in a catastrophic release. The existing RMP Prevention Program elements are effective in driving industry performance. Incident investigation procedures are well established in the industry. The procedures already minimize the probability of recurrence. API believes the incident investigation requirements are adequate as they exist.

EPA should not attempt to define the term “catastrophic release”. To the extent EPA seeks to define the term, it should fall within the statutory authority granted to the EPA and be limited to known offsite consequences that result in fatalities, hospitalization, or the loss of offsite property.

EPA should delete proposed §68.42(b)(10). EPA should delete proposed §§68.60(a)(2) and 68.81(a)(2). EPA should modify proposed §§68.60(d) and 68.81(d) to remove any reference to a timeframe for completion of the report and modify proposed §§68.60(d)(8) and 68.81(d)(8) to remove the requirement for including a schedule for addressing incident investigation findings. Determining an adequate response takes time. Scheduling the response takes time as well. Completion of the report should not be delayed for these reasons.

In addition, EPA should delete proposed §68.67(c)(2). As written, the findings to be reviewed would include findings from all incident investigations for the entire history of the facility. Furthermore, the phrase “as well as any other potential failure scenarios” is inherently vague and ambiguous. EPA should also delete §68.175(l)(3).

Independent Third-Party Compliance Audits Will Have an Effect Opposite to EPA’s Intent

EPA is proposing to amend the RMP Rule to require third-party compliance audits. For evidence, EPA cites to law review articles, vehicle emission studies, accounting studies, and even a field experiment from the State of Gujarat in India. Absent is any study involving either compliance with the RMP Rule or the regulated stakeholders. Yet numerous relevant studies and published articles exist. In fact, EPA conducted a pilot program to determine if there were any benefits to having third-party auditors perform the audits of RMP covered facilities.²⁶ Despite reports²⁷ concluding there were benefits to be realized by having audits conducted by third-party auditors, EPA omitted these studies from the proposal and docket.

²⁶ U.S. Environmental Protection Agency, EPA 550-F-00-010, *Risk Management Plan (RMP) Audit Program* (August 2000). (“EPA Region III has been collaborating on a research effort with The Wharton School and other stakeholders to explore the possibility of using third-parties, such as insurance companies and safety consultants, to audit small business compliance with the RMP rule.”)

²⁷ Robert A. Barrish et al., *Third Party Audit Pilot Project In the State of Delaware, Final Report*, Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Delaware (June 6, 2000); U.S. Environmental Protection Agency Region III, *Third Party Audit Pilot Project in the Commonwealth of Pennsylvania, Final Report* (February 2001). See also Pat McNulty and Peter Schmeidler, *Use of Third Party Auditors to Ensure Regulatory Compliance*, Risk Management Review (Fall 2001) (“In both experiments third party auditors were considered to be highly successful.”).

One explanation for the omission may lie in a presentation titled “The Case for Voluntary Third Party Risk Management Program Audits” presented at the 5th Bi-Annual Process Plant Safety Symposium in 2001. In responding to why the EPA could not “simply make third party audits mandatory”, an EPA official noted that due to the costs associated with third-party audits “EPA would likely face long odds politically and legally if it attempted to make third party audits mandatory.”²⁸

A second possible explanation is that these studies provide contradictory evidence regarding the need for auditor independence.²⁹ For example, following the pilot program, EPA found benefits to utilizing the facility’s insurance carrier representatives to conduct RMP compliance audits.³⁰

The Drawbacks to Third-Party Audits

As noted by EPA, “there is no universally accepted standard against which an auditor or inspector may objectively measure a facility’s performance.”³¹ In the proposed rule, EPA spends significant time bolstering the benefits of third-party audits. EPA notes that according to the CCPS, “Third-party auditors . . . potentially provide the highest degree of objectivity.” Omitted, however, is the rest of the paragraph that states, “3rd party auditors do not have the first-hand familiarity with company programs and policies, and may not have the familiarity with the process, that a facility employee has. Finally, this potentially higher objectivity may come with

²⁸ Belke Symposium Paper, FN1 at 11-12.

²⁹ See generally Jweeping Er, et al., *Utilizing Third-Party Inspections for Preventing Major Chemical Accidents*, Risk Analysis, vol. 18, no. 2 (1998) at 145-153; Howard C. Kunreuther, et al., *Improving Environmental Safety through Third Party Inspection*, (October 2001) also available via Harvard University JFK School of Government Regulatory Policy Program (2002); James C. Belke et al., *The Insurance Industry as a Qualified Third Party Auditor*, Professional Safety, vol 47, no. 4 (April 2002) at 31-38; Howard C. Kunreuther, et al., *Third-Party Inspection as an Alternative to Command and Control Regulation*, Risk Analysis, vol. 22, no. 2 (2002) at 309-318; Howard C. Kunreuther and Geoffrey Heal, *A Firm Can Only Go Bankrupt Once: Risk Management Strategies in an Uncertain World*, Univ. of Pennsylvania (July 2002); National Research Council, *Terrorism and the Chemical Infrastructure*, at 94-96 (National Academies Press 2006); Howard C. Kunreuther, *The Weakest Link: Risk Management Strategies for Dealing with Interdependencies*, Working Paper #2008-10-13, Univ. of Pennsylvania (October 2008); Isadore Rosenthal and Howard Kunreuther, *Roles for Third Parties in Implementing USDA Food Safety and Inspection Service (FSIS)’s Food Safety Process Management Programs*, April 12, 2010 Revision of Wharton Risk Center Working Paper #2008-12-16, Univ. of Pennsylvania; Isadore Rosenthal, *Roles for Third Parties in Improving Implementation of EPA’s and OSHA’s Regulations on the Management of Low-Probability, High-Consequence Process Safety Risks*, Working Paper #2010-10-01 (January 2011).

³⁰ James C. Belke, U.S. EPA Chemical Emergency Preparedness and Prevention Office, *The Case for Voluntary Third Party Risk Management Program Audits* (unpublished but presented at the 5th Bi-Annual Process Plant Safety Symposium) (April 22-26, 2001); James C. Belke et al., *The Insurance Industry as a Qualified Third Party Auditor*, Professional Safety, vol 47, no. 4 (April 2002): at 31-38.

³¹ Belke Symposium Paper, FN1 at 3 (unpublished but presented at the 5th Bi-Annual Process Plant Safety Symposium) (April 22-26, 2001).

an increased out-of-pocket cost, and some of the knowledge gained by the audit team walks out the door at the end of the audit.”³²

The Benefits of Non-Independent Auditors

API notes that facility led self-audits have many safety benefits that are lost with third-party audits. Company-led audits can be far more effective in addressing issues uncovered during an audit, due in part to the company auditor’s intimate knowledge of the process technology and of the organization including how it functions. This is true of both active and retired personnel. These audits facilitate sharing audit findings across the company.

Competence is the Key

In addition to requiring third-party audits, EPA is proposing to limit these new compliance audits to only those auditors who do not, have not, and will not work for the company to be audited. This is a mistake. An effective audit is more dependent on auditor competence than auditor independence, as EPA studies have demonstrated.³³ Yet this proposal will drive many consulting firms out of the auditing business and greatly reduce the number of available competent auditors.

Also, the CCPS statement EPA credits actually undercuts EPA’s proposal. It is the “consulting companies who can provide experienced auditors.”³⁴ This is due to the consulting companies’ preexisting working relationships with the facilities to be audited. With this proposal, EPA seeks to disqualify these individuals.

Auditor Bias is Not a Problem

EPA suggests that the independent third-party auditors are necessary to eliminate bias. The Agency, however, has not presented evidence that RMP auditor bias exists. Furthermore, as the name suggests, *compliance* audits are both technical and legal endeavors. The ethical obligations of in-house attorneys and outside counsel already ensure that audits will not be lenient or biased.

One suggestion EPA has made to combat alleged bias is to require the third-party auditor hold a professional engineering license. Yet when the EPA tested a pilot program to determine the benefits of utilizing third-party auditors, a professional engineering license was not

³² Center for Chemical Process Safety, Guidelines for Risk Based Process Safety, at 607 (2d ed. 1992).

³³ James C. Belke, U.S. EPA Chemical Emergency Preparedness and Prevention Office, *The Case for Voluntary Third Party Risk Management Program Audits* (unpublished but presented at the 5th Bi-Annual Process Plant Safety Symposium) (April 22-26, 2001); James C. Belke et al., *The Insurance Industry as a Qualified Third Party Auditor*, Professional Safety, vol 47, no. 4 (April 2002).

³⁴ *Id.*

required.³⁵ In fact, officials with the EPA concluded “insurance company loss-control specialists were effective at conducting third party risk management program audits”³⁶ in part because those individuals had a vested interest in the outcome of the audits (the very opposite of an independent auditor). The available data simply does not support EPA’s proposal.

Third-Party Audits are Simply Unnecessary

EPA proposes requiring a third-party compliance audit after an accidental release meeting the criteria listed in §68.42(a). The unstated but underlying presumption is that a release resulted from an inadequacy in the facility’s risk management program, more specifically, an inadequacy that would not be identified by personnel working for the facility. This presumption is incorrect. Properly conducted incident investigations performed by site personnel consistently identify deficiencies in risk management programs when they exist. This proposal is simply not necessary.

The new third-party audits would also be required following a finding of prior non-compliance. This too is unnecessary. EPA may require subsequent third-party audits as part of a consent decree when deemed appropriate.³⁷ No rule change is required for this to occur.

EPA’s Proposal Will Create Problems Where None Currently Exists

Independent third-party auditors will also face substantial liability concerns. Increased insurance premiums for these auditors will discourage many of the potentially independent, self-employed auditors from engaging in this line of work and will have the unintended consequence of further reducing the number of available competent auditors.³⁸

There is also the potential that EPA’s proposal for independent third-party compliance audits will not only decrease the pool of available competent auditors, it may create a potentially adversarial relationship between the auditor and the facility.

Following the audit, an audit report will be generated. EPA proposes the following revisions³⁹ to govern the audit report preparation:

³⁵ Robert A. Barrish et al., *Third Party Audit Pilot Project In the State of Delaware, Final Report*, Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Delaware at 6-7 (June 6, 2000).

³⁶ Belke Symposium Paper, FN1 at 10.

³⁷ 81 Fed. Reg. at 13655.

³⁸ See generally Isadore Rosenthal, *Roles for Third Parties in Improving Implementation of EPA’s and OSHA’s Regulations on the Management of Low-Probability, High-Consequence Process Safety Risks*, Working Paper #2010-10-01 at 6 (January 2011) (in response to OSHA’s proposal to require a power sensing device be approved and certified by a third-party auditor, commenters remarked “Any organization that served as a third party would be taking on considerable potential liability.”).

³⁹ 81 Fed. Reg. at 13707.

§68.80 Third-party audits.

(c)(1)(iv) Include a summary of the owner's or operator's comments on, and identify any adjustments made by the auditor to, any draft audit report provided by the auditor to the owner or operator for review or comment;

(c)(3) The auditor shall submit the audit report to the implementing agency at the same time, or before, it provides it to the owner or operator.

(c)(4) The audit report and related records shall not be privileged as attorney-client communications or attorney work products, even if written for or reviewed by legal staff.

(e)(2) Copies of all draft third-party audit reports. The owner or operator shall provide draft third-party audit reports to the implementing agency upon request. This requirement does not apply to any draft audit reports that are more than five years old.

EPA states that it “believes that these provisions are important to minimize third-party compliance audit bias.”⁴⁰ Given the lack of evidence that bias currently exists, API believes that EPA intends to use the auditors as its enforcement personnel and the audit reports and accompanying drafts as potential evidence in enforcement actions. This will harm the audit process by creating an adversarial relationship between the auditor and the facility.

It is well documented that EPA lacks the number of personnel necessary to audit all covered facilities.⁴¹ Congress intended EPA to enforce these requirements and without an express provision allowing EPA to delegate that authority to third-party auditors, the agency is not permitted to do so. If the agency lacks the trained resources to conduct its enforcement activities, its recourse is to make a request to Congress for the budgetary authority to hire more qualified inspectors.

EPA's Cost Estimate Falls Short

It also appears EPA has underestimated the compliance costs associated with this proposal. In the RIA, EPA concludes that auditor fees would equal approximately \$40,000 for complex facilities. There are several flaws in EPA's analysis.

⁴⁰ 81 Fed. Reg. at 13662. As an aside, with this statement, the EPA implies that even independent third-party auditors cannot be trusted.

⁴¹ Belke Symposium Paper, FN1 at 4. (“Currently, there are approximately 15,000 RMP facilities, but relatively few government inspectors with the training and experience necessary to perform comprehensive RMP audits Considering the difficulty inherent in risk management program audits, and the small number of government inspectors available to do them, it is unlikely that EPA will ever be able to regularly perform comprehensive RMP audits on more than a small fraction of the total number of regulated facilities.”).

The first is that the estimate appears to be based on a single data point provided by J.R. Simplot Company.⁴² The second problem is that according to EPA's characterization of what constitutes a complex facility (NAICS Code 324, 325),⁴³ the J.R. Simplot facilities should be considered simple, not complex, facilities as they fall under the following NAICS sectors: Frozen Food Processing (NAICS 311411), Fertilizer Manufacturing (NAICS 32531), Storage Terminal (NAICS 4246), and Agricultural Retail (NAICS 4249).⁴⁴ The third problem stems from the fact that the number of covered processes at J.R. Simplot's facilities are unlikely to approach the number of processes to be audited at API member facilities, an estimated average of 9.3 processes per facility.⁴⁵

Based on the experience of API members who use external auditors for compliance audits, EPA's cost estimates are low. To complete an audit of a single covered process, the audit team would include four third-party subject matter experts, each having an hourly cost of \$175/hr. Preparation time typically averages 120 hours, on-site time is 240 hours, and report writing time runs approximately 40 hours. At 400 total hours, the minimum cost for a third-party audit of a complex facility with more than 100 full time employees costs approximately \$70,000 per each covered process.⁴⁶ In contrast, EPA suggests the unit cost to conduct a third-party audit of all processes at an entire complex facility is only \$47,710,⁴⁷ an average of \$5,130.10 per covered process at a complex facility.⁴⁸ Stated another way, EPA's proposal suggests a complete audit of a covered process at a complex facility and the preparation of a written report would only require 30.3 hours of a third-party consultant's time.⁴⁹

Furthermore, the on-site staff will have to support the audit team while they are on-site either by providing escorts and/or being involved in more interviews. This would certainly take more than the 86 hours EPA estimates would be required.⁵⁰ EPA's cost analysis is unsupported by the evidence.

⁴² EPA-HQ-OEM-2014-0328-0667 at 19.

⁴³ RIA, FN14 at 28 ("For the purposes of the cost analysis, therefore, all facilities in NAICS 324 and 325 (petroleum and coal products manufacturing and chemical manufacturing) are considered complex; all other facilities are considered simple.").

⁴⁴ EPA-HQ-OEM-2014-0328-0667 at 1, 2.

⁴⁵ NAICS Code 324 comprises 156 facilities covering 1,453 processes. RIA, FN14 at 26, 28.

⁴⁶ 400 hours at \$175/hr. This would correspond to an average cost of \$650,000 to audit all covered processes at each complex facility (based on an average of 9.3 covered processes per facility).

⁴⁷ RIA, FN14 at 57-8, Exhibits 5-2, 5-3, and 5-4.

⁴⁸ \$47,710 per complex facility divided by an average of 9.3 covered processes per complex facility.

⁴⁹ \$5130.10 divided by \$175/hr.

⁵⁰ RIA, FN14 at 39, Exhibit 4-2: Hourly Assumptions and Unit Costs for Hiring Third-party Auditors.

Conclusion

In conclusion, API recommends that EPA revisit this issue after it has had the time to examine the relevant studies and data. EPA is proposing to increase the number of compliance audits that facilities must perform. At the same time, EPA seeks to restrict who may perform these new, additional audits. If enacted, this proposal will harm API member companies, the environment and the public at large by the unintended consequences that will result. The quality of compliance audits will suffer due to a decrease in the talent pool, an increase in demand, all resulting in a net decrease in the total time dedicated to each audit. Exacerbating the future problem will be EPA's insistence that compliance audits entail a systematic evaluation of the full prevention program for all covered processes in contrast to the current practice of auditing representative samples of a facility's prevention program.

Given that the costs of mandatory third-party audits outweigh the benefits to be realized and auditor independence is unnecessary to ensure "that third parties could successfully conduct compliance audits at RMP facilities", API cannot support this proposal.⁵¹

EPA should delete proposed §68.58(f, g, h). EPA should also eliminate §68.59 in its entirety. To the extent EPA seeks to maintain portions of §68.59, at a minimum §68.59(b)(1)(iv) and §68.59(b)(2) should be removed from the Final Rule and §68.59(b)(3) should be edited to remove independence and impartiality requirements. In addition, §68.59(c)(1)(iv), (c)(3, 4), (d) and (e)(2) should be removed. Section 68.59(c)(1)(v) should be edited accordingly.

EPA should delete proposed §68.79(f, g, h). EPA should also eliminate §68.80 in its entirety. To the extent EPA seeks to maintain portions of §68.80, at a minimum §68.80(b)(1)(iv) and §68.80(b)(2) should be removed from the Final Rule and §68.80(b)(3) should be edited to remove independence and impartiality requirements. In addition, EPA has not provided sufficient justification for the proposals in §68.80(c)(1)(iv), (c)(3, 4), (d) and (e)(2) and therefore they should be removed. Section 68.80(c)(1)(v) should be edited accordingly.

Safer Technology Alternatives and Analysis Should Not be Regulated.

EPA is proposing to modify the PHA provisions in § 68.67 to require the analysis of safer technology alternatives. EPA is also proposing to require the owner/operator to evaluate the feasibility of implementing any inherently safer technology considered.

API cannot support this proposal because it disregards (1) the inherent limitations of the analysis due to the "relative" nature of inherently safer technology (IST), (2) the purpose of a process hazard analysis (PHA), and (3) the technical qualifications of the PHA team members. Analysis of alternative technologies and processes should not be required in the PHA. Rather the

⁵¹ James C. Belke, U.S. EPA Chemical Emergency Preparedness and Prevention Office, *The Case for Voluntary Third Party Risk Management Program Audits* at 6 (unpublished but presented at the 5th Bi-Annual Process Plant Safety Symposium) (April 22-26, 2001); James C. Belke et al., *The Insurance Industry as a Qualified Third Party Auditor*, Professional Safety, vol 47, no. 4 (April 2002).

analysis should be considered when appropriate during the design phase of projects, within the management of change element of RMP, and the facility's ongoing risk assessment analysis.

The Relative Nature of Inherently Safer Technology (IST)/Inherently Safer Design (ISD)

The inherent safety of an alternative is relative; it is dependent on the hazard assessed and dependent on the current technology being utilized by a facility. It would be incorrect to state one process is inherently safer than a second process. "Safer" is a comparative term. Any conclusion regarding the inherent safety of an alternative technology or process must include at least a qualifying statement regarding the hazard being assessed, the location of the hazard being assessed, and the population potentially affected.⁵² This is why CCPS insists that ISTs are relative.⁵³ Alternative B may be inherently safer than existing technology A with respect to hazards such as acute toxicity and flammability but may be substantially less safe with respect to chemical reactivity, chronic toxicity, and the potential for hazardous decomposition.⁵⁴ This makes the analysis of many forms of IST inappropriate for inclusion within a PHA.

The Importance of Process Safety Information

The quality of a PHA is dependent on the available process safety information. Several PHA methodologies exist but not one is intended to be a comparative tool. Rather, PHAs are among the tools designed to identify the hazards in a process (what can go wrong?); the consequences (how bad could it be?), and the associated likelihood (how often might it happen?).⁵⁵ Performed properly, the PHA successfully pinpoints the highest consequence scenarios within a process that lacks sufficient safeguards. It achieves this result by incorporating an analysis of the available process safety information. Without the relevant process safety information, the hazard evaluation would not be effective. This is why both EPA and OSHA require the process safety information be compiled before the PHA is performed.⁵⁶

With this proposal, EPA seeks to have PHA team members perform a comparative analysis on alternatives. Presumably, the PHA team would be required to compile relevant process safety information⁵⁷ for all alternatives to be analyzed. The proposal is conspicuously

⁵² Center for Chemical Process Safety & The American Institute of Chemical Engineers, "Final Report: Definition for Inherently Safer Technology in Production, Transportation, Storage, and Use" (U.S. Dept. of Homeland Security – Science & Tech. Directorate, July 2010) at 5 (*hereinafter* CCPS Definition Report); *See also* Scott Berger, CCPS Executive Director, Comments to EPA Listening Session, Newark, NJ (February 27, 2014) (*hereinafter* Berger Comments).

⁵³ CCPS Definition Report, FN 52 at 5; Berger Comments, FN 52.

⁵⁴ CCPS Definition Report, FN 52 at B-1. *See also* Berger Comments, FN 52 ("The choice of technology is rarely cut and dry. It depends on the relative importance of the range of hazards")

⁵⁵ Center for Chemical Process Safety, Guidelines for Risk Based Process Safety, at 210 (2d ed. 1992).

⁵⁶ 40 C.F.R. § 68.65(a); 29 C.F.R. § 1910.119(d).

⁵⁷ 40 C.F.R. §68.65 (b, c, d).

silent as to how this compilation of process safety information for alternatives should occur given that facilities would not normally possess the necessary materials. The lack of process safety information for alternatives would make any IST analysis performed during a PHA incomplete at best and inaccurate at worst.⁵⁸

The Limitations of the PHA Team

Furthermore, PHA team members may not have the expertise necessary to assess all alternative technologies. It is undisputed that in order to analyze effectively the hazards of a process, the PHA team members must be knowledgeable in the process. As CCPS has noted, the PHA team should be comprised of “experts in various aspects of the design and operation of the process being evaluated.”⁵⁹ OSHA states “[a]t least one team member **must** be familiar with the process.”⁶⁰ With this proposed rule, however, EPA seeks to force the owner/operator to perform hazard assessments of ever-changing alternative technologies that team members may have little to no experience in dealing with.

That said, a PHA team could conduct certain aspects of a safer technology analysis. Discussion of whether to replace breakable sight glasses with level transmitters would be an example. However, there are many instances where the analysis of a safer alternative is best considered outside the PHA.

A typical PHA HAZOP team will include at least a team leader/scribe, a unit engineer, and a unit operator. In some instances, these three individuals may constitute the entire team. The team leader/scribe may be a third-party consultant with extensive experience using the HAZOP methodology. The engineer may be a recent graduate with five years of production experience in the process unit being analyzed. The operator may be a fifteen-year veteran who has worked their entire career in the production unit. This team would be capable of assessing the hazards of the process unit to be analyzed. Yet, given the work experience of the team, not one single member would be qualified to assess the relative hazards of an alternative technology. In fact, it is entirely foreseeable that not one single individual on site will have the necessary design and/or operational expertise in an alternative technology that would be necessary to adequately assess whether the alternative is inherently safer with respect to flammability, toxicity, explosivity, etc. This lack of expertise disqualifies the team from assessing alternatives.⁶¹ In these instances, the STAA should instead be considered, when appropriate,

⁵⁸ Center for Chemical Process Safety, Guidelines for Hazard Evaluation Procedures, at 27 (2d ed. 1992) (“Ultimately, the quality of any hazard evaluation depends directly on the quality of the information available to the analyst(s).”).

⁵⁹ Center for Chemical Process Safety, Guidelines for Hazard Evaluation Procedures, at 31 (2d ed. 1992).

⁶⁰ Process Safety Management of Highly Hazardous Chemicals, 29 C.F.R. § 1910.119, Appendix C, Compliance Guidelines and Recommendations for Process Safety Management (Nonmandatory) (emphasis added).

⁶¹ See generally Center for Chemical Process Safety, Guidelines for Hazard Evaluation Procedures, at 21 (2d ed. 1992) (Table 1.4 Classical Limitations of HE Studies. Relevance of Experience: “An HE team may not have an appropriate base of experience from which to assess the significance of potential accidents.”).

during the design phase of projects, within the management of change element of RMP, and the facility's ongoing risk assessment analysis.

Materials of Construction as IST/ISD

EPA promotes two reports from the U.S. Chemical Safety Board as evidence that accidents in the refining sector might have been avoided had safer technologies been adopted.⁶² In both instances, however, the refiner followed applicable recognized and generally accepted good engineering practices in choosing the materials of construction.⁶³

In one report, the CSB states that it “has investigated numerous major process safety incidents over the years . . . where the implementation of inherently safer design and materials of construction could have prevented the incident.”⁶⁴ This statement oversimplifies the impact of changing the materials of construction.

It would be more accurate to state that the use of an alternative material of construction might have delayed the failure of the material but it is inaccurate to state use of the alternative material would have prevented the accident.⁶⁵ No material is resistant to all forms of degradation for an infinite period. As a result, while certain processes may obtain a longer run time with a change in the materials of construction, piping and equipment will still fail if not maintained. The solution lies not in choosing an alternative material of construction but ensuring the site has a comprehensive mechanical integrity program. As long as the mechanical integrity program is being effectively managed, facilities may choose from a multitude of materials. Absent the mechanical integrity program, incidents will still occur.

EPA's Faulty Selection Approach

API believes that EPA's proposal to apply the new requirement to only a select number of RMP facilities is unsupported by the evidence. To begin with, two of the three NAICS codes to be subject to the proposal account for less than two percent of the total number of RMP covered facilities.⁶⁶ In addition, as evidence provided to support its proposal, EPA cites

⁶² 81 Fed. Reg. at 13665.

⁶³ *See generally* API RP 941 - Steels for Hydrogen Service at Elevated Temperatures and Pressures in Petroleum Refineries and Petrochemical Plants; API RP 939-C: Guidelines for Avoiding Sulfidation (Sulfidic Corrosion Failures in Oil Refineries).

⁶⁴ U.S. Chemical Safety and Hazard Investigation Board, Report 2010-08-I-WA, Investigation Report: Catastrophic Rupture of Heat Exchanger (Seven Fatalities), Tesoro Anacortes Refinery, Anacortes, WA, at 113 (May, 2014).

⁶⁵ U.S. Chemical Safety and Hazard Investigation Board, Report No. 2012-03-I-CA, Final Investigation Report: Chevron Richmond Refinery Pipe Rupture and Fire, Chevron Richmond Refinery #4 Crude Unit, Richmond, CA, at 47 (January, 2015) (acknowledging the use of the suggested alternative would have only reduced the inherent rate of corrosion).

⁶⁶ NAICS Code 324 comprises 156 facilities and NAICS Code 322 comprises 70 facilities for a total of 226 facilities. The total number of RMP facilities is 12,542.. EPA-HQ-OEM-2015-0725-0037 Regulatory Impact

examples where the Agency believed a covered facility posed such a risk to the community that it required the facility to adopt safer technology alternatives as part of a consent decree.⁶⁷ Yet under the proposed rule, not one of these facilities would be required to perform the safer technology alternative analysis going forward. As such, this is not evidence of the need for the proposal.

Even the U.S. Chemical Safety Board has questioned⁶⁸ the decision to subject only 13% of RMP facilities (20.5% of the RMP Processes) to the safer technology alternative analysis requirements exempting industry segments where EPA has already required the adoption of safer alternatives.⁶⁹ EPA purportedly bases its decision on the allegation that “the three selected sectors have been responsible for a relatively large number of accidents, deaths, injuries, and property damage.”⁷⁰ The Agency comes to this conclusion by relying on faulty data analysis.

To begin with, EPA eliminated one-third of the accident data from its analysis based on an unsupported assumption that covered facilities submitted reports for almost eight hundred accidents that were not actually reportable accidents.⁷¹ EPA then compared the number of accidents to the number of covered facilities and ranked the corresponding ratios without performing any normalization based on facility size, quantity of chemical present, or number of employees.⁷²

Contrast EPA’s conclusions regarding the facilities most at risk for a catastrophic release with Bureau of Labor Statistics (BLS) Total Recordable Incident Rate data that indicates the three sectors singled out by this proposal have three of the four lowest total recordable incident rates for all RMP facilities.⁷³ Combining the BLS data with the data regarding public responder

Analysis Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7) at 31 (February 24, 2016); *see also* EPA-HQ-OEM-2015-0725-0053.

⁶⁷ 81 Fed. Reg. at 13664. EPA provides four representative instances where EPA mandated the owner/operator to adopt IST even though it was not required by law.

⁶⁸ EPA-HA-OEM-2015-0725-0040 February 17, 2016 Risk Management Program Interagency Meeting Summary – Meeting with the Chemical Safety Board.

⁶⁹ *See* FN 67; *see also* RIA, FN14 at 28, Exhibit3-3: Number of Processes by Program Level and Sector, and at 31, Exhibit 3-6: Number of Facilities by Sector and Program Level (February 24, 2016).

⁷⁰ 81 Fed. Reg. at 13666.

⁷¹ EPA-HQ-OEM-2015-0725-0349 April 7, 2016 Teleconference Meeting between EPA and American Chemistry Council.

⁷² RIA, FN14 at 34, Exhibit3-10: RMP Reportable Accidents by Sector.

⁷³ *See* U.S. Dept. of Labor Industry Injury and Illness Data *available at* http://www.bls.gov/iif/oshsum.htm#13Summary_Tables.

injuries from EPA's Technical Background Document,⁷⁴ it should be clear that these three sectors should not be singled out by EPA for this proposal.

EPA's Motivation

API members are concerned that the proposed requirements suggest EPA will use the analysis as the vehicle for mandating adoption of safer alternatives outside of rulemaking. It is foreseeable that EPA will rely upon elements of an owner/operator's analysis and subsequently require the adoption of any or all suggested alternatives as part of a consent decree.⁷⁵ As was stated during the public hearing on March 29th, there is no reason for requiring the analysis unless there is intent for implementation.⁷⁶

Creating a Problem Down the Road

It bears noting that by mandating the analysis of IST (specifically minimization and substitution), the Agency is all but encouraging facilities to engage in active risk shifting. Regarding minimization, the storage and/or use of smaller quantities of hazardous chemicals may be acceptable but such decision must be weighed in light of the potential for additional shutdowns and startups due to insufficient raw materials. It is well documented that the start-up and shutdown of a process pose greater risks than steady state operation. Moreover, minimization frequently involves the decrease of onsite storage resulting in an increase in deliveries and unloading, shifting the risk of a hazardous release from inside the fenceline to outside the fenceline into the surrounding communities.⁷⁷

Substitution also presents risks often unforeseen at the time of adoption. Substitution of a purportedly safer alternative may introduce environmental or safety risks that are not realized until much later.⁷⁸

EPA Approval Unauthorized

API does not believe any information related to the RMP regulations should be submitted to EPA for "approval." Under the 1990 Clean Air Act Amendments, Congress included the following language in subsection Sec. 112(r) as follows:

⁷⁴ EPA-HQ-OEM-2015-0725-0039 Technical Background Document for Notice of Proposed Rulemaking: Risk Management Programs Under the Clean Air Act, Section 112(r)(7) at 5, Table 3 (January 27, 2016).

⁷⁵ See FN67.

⁷⁶ EPA-HQ-OEM-2015-0725-0367 Transcript of March 29, 2016 Public Meeting on Proposed Changes to the Risk Management Program Rule at 83.

⁷⁷ See also 81 Fed. Reg. at 13667.

⁷⁸ MTBE as a fuel additive is a good example of unforeseen risks introduced by the adoption of alternative technologies. Another example is the increased use of the hazardous chemical anhydrous ammonia as a replacement for chlorofluorocarbon (CFC), hydrochlorofluorocarbon (HCFC) and hydrofluorocarbon (HFC) based refrigerants.

(7)(F) Notwithstanding the provisions of title V or this section, no stationary source shall be required to apply for, or operate pursuant to, a permit issued under such title solely because such source is subject to regulations or requirements under this subsection.

It is clear that Congress did not intend the requirements of subsection (r) to become a permitting program. Requiring the submission of a STAA for “approval” implies permission would be granted by EPA, thus turning the RMP into a permit-like activity. API believes that development of a new permit program for safer alternatives analysis is not warranted and in direct opposition to Congress’ intent.

Not What EPA Expects

API also suggests that requiring the analysis of IST will not lead to the anticipated results. The record shows that in New Jersey, where an IST Review Rule has already been adopted, activities such as protecting storage vessels from weather conditions, changing truck traffic patterns, installing closed circuit television cameras, labeling valves and equipment, revising procedures, installing training stations, and upgrading filter media are being reported as IST activities.⁷⁹ Many of these activities already occur as a matter of course in most facilities. The unintended consequence of mandating safer technology analysis will be that EPA will encourage facilities to delay consideration of these activities until the next scheduled PHA.

The Problems with EPA’s Data

EPA appears to have erred in relying on *Guidelines for Hazard Evaluation Procedures, 2ed.* to determine the “typical days of effort required to complete HAZOP and What-If/Checklist PHAs for small/simple and large/complex facilities.”⁸⁰ This data is not only a quarter-century old but it also pre-dates both the RMP Rule and PSM Standard. As a result, the estimated time does not reflect the true time required to conduct these analyses under existing regulations.

EPA also incorrectly relies on data from a published study dated 2001 regarding the costs of improving control systems at facilities thereby addressing human factors.⁸¹ EPA purports to report the costs in current dollars but neglects to note that examples provided involve minimal programming alterations to existing control systems. Such data is not representative of the costs associated with the majority of safer technology and process alternatives.

⁷⁹ See EPA-HQ-OEM-2015-0725-0143 Inherently Safer Technology Implementation Summary, New Jersey Dept. of Environmental Protection (January 15, 2010). All of these activities were listed as examples of facilities implementing IST based on New Jersey regulations.

⁸⁰ RIA, FN14 at 41, FN 36. The published date of the referenced book precedes enactment of both OSHA’s PSM Standard and EPA’s RMP Rule.

⁸¹ RIA, FN14 at 62.

EPA correctly notes that the “technical feasibility assessment considers the extent of process redesign, its engineering implications, and possible costs.”⁸² API notes however that EPA also erred in estimating the time and cost required for the feasibility analysis. EPA’s proposed rule includes a feasibility analysis related to IST/ISD. The cost of determining feasibility was wholly underestimated by EPA because feasibility study costs can be quite large depending upon the type of project, but still be only a fraction of the cost of what it would take to implement any projects determined to be feasible. A typical project consists of conceptual level design, feasibility level design, and then engineering and implementation. The experience of our members with hundreds of projects is that the cost of a conceptual level design is about 1% of the total project cost and the cost of a feasibility level design is 1% to 2% of the total project cost. Therefore, completing the conceptual and feasibility phases would cost about 2.5% of a total project’s cost. For example, the feasibility study for a small piping replacement project (estimated at \$1 million) would cost about \$25,000 and the feasibility study for a large unit replacement (estimated at \$500 million) would cost about \$12.5 million. If one were to assume that each PHA would result in an STAA and feasibility analysis for one modestly sized (estimated at \$25 million) project, the total costs for performing these IST feasibility evaluations for PHAs would cost about \$19 million over a 5 year period for a single refinery with 30 process units.

Industry Knows When it is Appropriate

API suggests that the proper time to assess alternative technologies is during the design phase of the capital project, within the management of change element of RMP, and the facility’s ongoing risk assessment analysis. Consideration of IST first occurs during the design phase. This is why CCPS states the IST analysis is more correctly understood as inherently safer design analysis.⁸³ It is during this phase owners decide which conversion process will be implemented, which chemicals will be utilized to facilitate the conversion, which equipment will be installed and what the materials of construction should be.

There are, however, instances when technological advances such as the development of DCS control systems may provide opportunities to “reduce the likelihood of controls and safeguards failing to operate properly on demand”⁸⁴ thereby making “operating errors less likely”.⁸⁵ These types of technology advances do not, however, occur on five-year PHA cycles. Furthermore, it takes time for new technology to reach a state of development such that it is acceptable for installation into existing hazardous processes. New technology is not necessarily better technology. And adopting new technology too soon may introduce new hazards unforeseen at the time of adoption.

⁸² RIA, FN14 at 41.

⁸³ Berger Comments, FN 52 (“the topic of Inherently Safer Design (ISD), which we believe is a more technically accurate term . . .”).

⁸⁴ U.S. Env. Prot. Agency & U.S. Occupational Safety and Health Administration, EPA 550-F-15-003, Chemical Safety Alert: Safer Technology and Alternatives (June 2015).

⁸⁵ 81 Fed. Reg. at 13663.

Conclusions

EPA should recognize that analysis of passive measures, active measures, and procedural measures already occurs as required by § 68.67(c)(3, 4, 6, 7). It is the discussion of these measures that result in the safeguards listed on PHA worksheets. No modification of the regulatory text is required to make this analysis occur.

API suggests that neither “feasibility” nor “practicability” be the basis for any analysis⁸⁶ but rather “necessity”. If, during the design phase of a capital project or during the development of the Management of Change (MOC), the design team determines an alternative is necessary, then analysis of the alternative should occur. It should not be mandated otherwise.

If the EPA insists on regulating safer technology alternative analysis, it should be limited only to the design phase of new processes. Moreover, EPA should not require implementation of the analyzed alternative(s). Unfortunately, while EPA claims it is not requiring the implementation of a facility’s safer technology alternative analysis, EPA seeks to require facilities provide Local Emergency Planning Committees (LEPC) the date of implementation or planned implementation⁸⁷ -- a contradiction resulting in confusion.

API does not believe a clearing house for safer technology alternatives is needed as one already exists. It is administered by the United States Patent and Trademark Office and may be accessed at the following web address: <http://patft.uspto.gov/netahtml/PTO/search-bool.html>. New technologies can be patented, and subsequently licensed, or they are kept as trade secrets. EPA cannot mandate the disclosure of trade secret information so safer technology alternatives that are maintained as trade secrets would be omitted from any clearinghouse database. This leaves patented technology. The USPTO maintains a searchable database of all patents and patent applications that includes safer technology alternatives. One of the requirements for all patents and patent applications is that the invention be “enabled”. The enablement requirement refers to the requirement of 35 U.S.C. 112(a) or pre-America Invents Act 35 U.S.C. 112 (first paragraph) that states that the patent specification must describe how to make and how to use the invention. Therefore, the EPA does not need to expend resources to develop of a clearinghouse for safer technology. The USPTO has already done so. Furthermore, information on unpatented technologies is readily available through the internet and other means.

IST decisions are extremely complex and unique to site-specific processes and systems. They cannot and should not be determined by any governmental agency. The potential for creating unintended consequences is high, and EPA has long held that IST requirements would not produce additional benefits beyond those that already exist in the current Risk Management Plan program structure.

⁸⁶ If the choice is only between the two terms, “practicable” would be grudgingly preferred.

⁸⁷ 81 Fed. Reg. at 13712 (*see* Proposed §68.205(iv)).

Inherently safer approaches to manufacturing processes have been and will continue to be considered by facilities as a matter of course and the facility operators, not the government, are in the best position to understand the full ramifications of implementing IST. No one regulatory program or government agency can properly address the broad range of factors such as risk shifting, technical efficacy, cost, and product quality that a facility must consider and address when choosing appropriate safety and security measures, much less all of the different site-specific scenarios.

The current performance-based regulations in place today and in the marketplace itself already provide strong incentives for companies to consider and adopt “safer alternatives.” These programs allow facility operators to use all of the risk management tools and options at their disposal, while considering alternate technology costs and the complexities of their unique operating environment. Adding a new regulatory requirement focused on IST is not only unwarranted but also potentially detrimental.

As a result, EPA should delete proposed §§68.67(c)(8) and 68.175(e)(1, 2).

Stationary Source Location & Emergency Shutdown Guidance/Regulation are Not Needed

EPA has requested comments regarding two topics for potential future rulemaking, stationary source location and emergency shutdown. API suggests neither is appropriate for future rulemaking endeavors. With respect to stationary source location, EPA notes two primary issues: (1) where residential areas have “grown up next to the plant(s)” and (2) the location of processes and process equipment within a stationary source. API believes this is an unsuitable topic for regulation at the federal level for at least the following reasons: (1) state and local communities are in the best position to make zoning and land use determinations and (2) the existing facility siting requirements already address the location of processes and process equipment within stationary source boundaries. No additional regulation or published guidance is necessary.

Regarding emergency shutdown regulation, as EPA correctly notes, this concern is already addressed by existing regulation. While the regulation does not require emergency shutdown systems, such systems are unnecessary and may prove counterproductive in many instances. For many large Program 3 facilities, an operator controlled shutdown is more desirable because of the decision-making process involved. Requiring an automated emergency shutdown in an integrated refinery presents far greater issues than it would for a closed loop ammonia refrigeration system. In fact, a programmed automated shutdown system may result in unnecessary risk and greater emissions than the system currently in place.

Covered facilities are already required to utilize emergency shutdown operating procedures and to train operators on the use of these procedures. These procedures combined with appropriate interlock systems are sufficient to meet the shutdown requirements for all scenarios. Additional regulation and published guidance is unnecessary.

Emergency Response Preparedness Regulations Should be Revisited at a Later Date.

Under current regulation, stationary sources may choose whether to be a responding facility under the RMP Rule and therefore develop an emergency response program. With this proposal, EPA will presume the stationary source is a responding facility unless the site qualifies as a non-responding facility. In order to be eligible for non-responding status, the owner/operator must confirm, “that adequate local public emergency response capabilities are available to appropriately respond to any accidental release of the regulated substances at the stationary source”.⁸⁸ EPA has not provided guidance as to what activities would correspond to an adequate response.

One open question is whether responding facilities must attempt to put out a fire. If yes, the next question is whether the activation of deluge systems satisfy the requirements of §68.95(a)(2, 3). Often, the appropriate response to a large-scale flammable release is to cordon off the area and allow the fire to burn itself out. Flammable releases are self-mitigating in one aspect. Provided the EPA agrees that this would constitute an acceptable response plan under §68.95 for our smaller, “non-responding” facilities, then the designation change should not present an issue for our members. To the extent EPA is suggesting these facilities must have fully developed fire-fighting capabilities, API cannot support this proposal.

Facility Exercises

EPA is also proposing to amend Subpart E of the RMP Rule to require varying types of facility emergency response exercises each year. While API and its members support emergency preparedness, we believe this is not a problem to be addressed by RMP regulations. Instead, it should be addressed by subchapter J, Part 355 – Emergency Planning and Notification. As EPA notes in the proposed rule, communities such as West, TX are among the vulnerable communities and amending the RMP regulations will not address this fact and leaves many first responders unprotected. This topic should be addressed in a future rulemaking with input from all parties affected by the Emergency Planning and Notification regulations, not just facilities subject to the RMP Rule.

Among the varying types of emergency response exercises, EPA is proposing to require Program 2 and Program 3 facilities to test annually the emergency notification system. EPA is also proposing additional field exercises and tabletop exercises. API and its members support the concept of notification, field, and tabletop exercises but object to the exercises being mandated by regulation.

API members regularly conduct emergency response drills, typically on an annual basis. For those facilities that are part of a mutual aid group (e.g., Channel Industries Mutual Aid, CIMA, in Houston) joint exercises are also conducted. API member companies use existing government guidance and industry recommended practices when developing an exercise

⁸⁸ 81 Fed. Reg. at 13708.

program. API believes that the emergency response drill requirements necessary to ensure protection of the public and the environment should be based on the specifics of each regulated facility within the domain of an LEPC/emergency response agency. Specifying the drill requirements for all types of facilities without regard to local needs and circumstances is not appropriate.

The cost of conducting large external drills is not small and there is a cost to the community that varies according to the size, complexity, and capabilities of the community emergency response agencies. If done efficiently, conducting drills on a reasonable frequency can be beneficial. Each mobilization of facility emergency response personnel and associated equipment deployment at large Program 3 facilities, however, involves significant expenditures. While an exercise once every five years would be reasonable, credit should be given for actual deployment. The period for the next five-year field exercise should be reset after each deployment whether the deployment was live or simulated. As such, field exercises should not be required within one year of any accidental release meeting the criteria of §68.42(a). EPA should edit proposed §68.96(b)(1)(i) accordingly.

Finally, some API members have multiple small, closely located RMP facilities protected by one emergency response organization. In these instances, the team should not have to conduct a drill for each covered facility.

Unintended Consequences

EPA has proposed the creation of and public dissemination of evaluation reports. API objects to this proposal. We believe requiring the public sharing of exercise results including lessons learned, recommendations for improvement and the release of a schedule for addressing and resolving recommendations would have the unintended consequence of putting workers and the general public at risk. To be effective, evaluation reports should be detailed however, too much detail will expose any vulnerabilities in facility security and emergency response preparedness. API suggests the public release of this information is ultimately not in the public interest. Finally, even if the release of the evaluation report were justified, API sees no public benefit in requiring the names and organizations of each participant.

Currently, facilities that conduct drills typically create after action reports and a list of lessons and action items. These are considered part of a facility's performance management review process and action items are typically tracked to completion. Requiring the public dissemination of this information will almost guarantee the final report is written not by emergency responders but by corporate legal departments resulting in a report that is less about the findings from the exercise and more about limiting potential liabilities. EPA should therefore at a minimum delete proposed §§ 68.96(b)(3), 68.205(b)(6) and 68.210(b)(5).

More Cost Data Required

API also suggests EPA revisit the cost data developed for the Regulatory Impact Analysis in support of these proposed changes. We suggest that a representative facility from each NAICS sector covered by the RMP Rule be contacted for this information rather than relying

upon an estimate from one of its own personnel.⁸⁹ Not only is relying on a single data point improper cost analysis, but the fact that the estimates are unsupported by any accompanying independent, third-party vendor costs sheets makes the estimate even more concerning.⁹⁰ Finally, it is unclear why EPA then proceeded to reduce its own internally generated estimate by almost five percent.⁹¹ EPA should set aside time to develop more robust cost data before proceeding with this proposal.

The Proposed Information Availability Requirements Pose Grave Security Risks to Facilities and the Surrounding Communities.

EPA has stated that the Agency has two objectives that it believes may be accomplished by increasing the public information sharing provisions of the RMP Rule. The first objective is to ensure that local emergency response and planning officials have the information they need to prepare for an emergency response to an accidental release.⁹² The second is to improve public awareness of risks and provide the general public information on basic preparedness and community response plans.⁹³ API supports EPA's objectives. But we do not believe the proposal will accomplish these objectives.

EPA proposes to have covered facilities provide the LEPC or emergency response officials copies of the RMP. As this requirement already exists in § 68.210(a), this proposal is duplicative and unnecessary.

EPA also proposes to have accident history information, compliance audit reports, incident investigation reports and safer technology alternative analyses made available. While the EPA is only proposing this information be made available to the LEPC or emergency response officials, EPA acknowledges such disclosure is tantamount to public disclosure.⁹⁴ Due to security concerns regarding the sensitive nature of this information, API believes such disclosure puts workers and neighbors at increased risk. In addition, it is not clear how the disclosure of much of this information will assist with emergency response preparation.

Compliance audit findings involving the adequacy of operating procedures or whether human factors were properly examined during a PHA will not impact emergency response preparedness. Neither will schedules for addressing recommendations assist LEPCs or emergency response officials. As the EPA is only proposing an analysis of safer technology

⁸⁹ EPA-HQ-OEM-2015-0725-0093.

⁹⁰ *Id.*

⁹¹ *Compare* EPA-HQ-OEM-2015-0725-0093 *with* EPA-HQ-OEM-2015-0725-0037 Regulatory Impact Analysis Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7) at 51, Exhibit 4-11: New Responder Equipment Costs (February 24, 2016).

⁹² 81 Fed. Reg. at 13678.

⁹³ 81 Fed. Reg. at 13678-9.

⁹⁴ 81 Fed. Reg. at 13680.

alternatives, the requirement to provide timelines for IST/ISD implementation appears contradictory. Finally, as much of this information is highly technical by nature,⁹⁵ it is unclear how provision (without additional explanation) will benefit most LEPCs and emergency response officials.

API appreciates that the EPA believes more information will allow the public to be better prepared in an emergency. But the public would be best served by (1) not venturing closer to the facility during a release, (2) sheltering in place when instructed, and (3) evacuating when instructed. Disclosure of compliance audit reports, incident investigation summaries, and STAA summaries will not lead to a safer public.

On the other hand, the public disclosure of any purported deficiencies or weaknesses of a facility's emergency response capabilities put the workforce and the general public at a greater risk of harm from the acts of extremists or terrorists. Because these proposals have the unintended consequences of increasing the risks to the workers and communities, API cannot support the proposal.

In sum, API opposes EPA's proposed additions to the RMP Rule requiring the public release of sensitive information related to accident history, compliance audits reports, incident investigation reports, inherently safer technology analysis, and exercises. As such, EPA should not require the distribution of this information to LEPCs, emergency response officials, or the general public.

Similarly, EPA should not mandate public meetings following an accidental release. History demonstrates a lack of attendance and interest in similar public meeting requirements. EPA should not develop or propose a scorecard or grading system measuring facility compliance with the RMP Rule. Nor should one be developed by independent third-parties.

Local authorities are already lacking resources. Placing additional information management burdens on these organizations is not a good use of their limited resources. EPA's proposal will exacerbate the problem by overwhelming local responders with information irrelevant to community emergency response preparation. Furthermore, there still exists a concern regarding the release of proprietary information and security sensitive information. Any additional requirement to release this type of information outside of the regulated site increases the opportunity for sensitive information to be shared inadvertently with those wishing to cause harm.

Conclusion

EPA should eliminate proposed §68.160(b)(23). EPA should delete §68.205(a) as it is duplicative of existing §68.210(a). EPA should consider whether promulgating §68.205(b)(2) will lead to the unintended consequence of under reporting (particularly in light of EPA's belief

⁹⁵ It is also unclear how the owner/operator would "make information available in a manner that is understandable and avoids technical jargon." 81 Fed. Reg. at 13679.

that one-third of reported accidents already are not required to be reported).⁹⁶ EPA should delete proposed §68.205(b)(3, 4, 5, 6). Finally, EPA should withdraw proposed §§68.210(b)(3, 5) and 68.210(d).

EPA Improperly Seeks to Change Substantively Aspects of the Regulatory Requirements of RMP Rule Without Discussion and Without the Appropriate Cost/Benefit Analysis.

Section VII of the proposed rule (Risk Management Plan Streamlining, Clarifications, and RMP Rule Technical Corrections) contains substantive changes to the existing regulation. None of these proposed changes, however, is addressed in the proposal. API does not find any cost/benefit analysis performed on these proposed changes in the Regulatory Impact Analysis either. This is improper/incomplete rulemaking by the EPA.

In particular, API objects to proposed sections 68.170(d)(2) and 68.175(d)(2). The proposed requirement to create “A list of all Federal and state regulations, industry-specific and established company or stationary source design codes and standards that are applicable, and identify those followed, to demonstrate compliance with the process safety information requirements” will require significant resources and involve significant costs. Compiling a *Recognized and Generally Accepted Good Engineering Practices* (RAGAGEP) list is an administrative burden that will not prevent accidents or reduce the risk of accidents. EPA has neglected to include any costs for developing a list of all applicable RAGAGEP in the Regulatory Impact Analysis and provides no explanation as to the need for or benefit of having this new burdensome requirement.

In addition, EPA seeks to change the underlying obligations in §68.65. As written, the regulation does not impose a continuing obligation to maintain process safety information. While API member companies generally do update process safety information as it changes, the regulation only requires that “the owner or operator [] complete a compilation of written process safety information before conducting any process hazard analysis required by the rule.”⁹⁷ As PHAs are conducted on five-year cycles,⁹⁸ the applicable process safety information need only be compiled on a corresponding five-year cycle as well. Requiring that process safety information be kept up-to-date, as the proposed text suggests, will have costs associated as well.

EPA also seeks to expand a facility’s training requirements. EPA is proposing to add “supervisors with process operational responsibilities” to the list of employees requiring training. Putting aside the ambiguity of whether this new category includes salaried employees such as plant managers, production managers, and production engineers, there will be a recurring cost for training these newly covered employees. This cost that has been omitted from the Regulatory Impact Analysis.

⁹⁶ See FN71.

⁹⁷ 40 C.F.R. §68.65(a).

⁹⁸ 40 C.F.R. §68.67(f).

API Cannot Support this Proposal.

In its rush to regulate, EPA has proposed a rule fraught with unintended consequences. And it lacks the robust regulatory impact analysis required by law. It is clear that EPA has not given itself sufficient time to follow the procedural requirements for rulemaking as Congress intended. The result is a rule that will not meet the objectives of EO 13650 or EPA's obligations under EO 12866.

API and its member companies support performance-based RMP regulations that are reasonable. This proposal falls short. We support regulations applied and enforced in a manner that is consistent with the applicable statutory scope. The proposal goes beyond EPA's authority to regulate. Lastly, we believe that both the EPA RMP and OSHA PSM regulations have been successful in incident prevention over the past two decades. The unintended consequences of this proposal will jeopardize the progress made.

To best serve the public and regulated community, API recommends that EPA: (1) withdraw the proposed rule; (2) coordinate its development of changes to Prevention Program RMP requirements with OSHA to ensure consistency, recognizing workplace safety and health regulation should be led by the OSHA rulemaking process; (3) work with OSHA to evaluate and develop scientific and industry-wide performance data to support any new or revised regulatory requirements; and (4) following any finalization of changes to OSHA's safety and health standards, issue harmonized RMP Prevention Program rules.

API appreciates EPA's efforts to provide an opportunity to engage in this dialogue regarding its RMP proposed regulations. If you have any questions regarding these API comments, please contact me as shown below. Thank you.



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