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API Comments on OSHA PSM SBREFA **Background Document**

Comments of the American Petroleum Institute
on OSHA Docket: OSHA-2013-0020

Introduction

The American Petroleum Institute (API) appreciates the opportunity to provide comments, in conjunction with the Small Business Advocacy Review Panel, on the potential revisions to the Occupational Safety and Health Administration's (OSHA) Process Safety Management (PSM) standard. API represents more than 600 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. API's membership includes companies of all sizes, including small business. Furthermore, the oil and gas supply chain that leads to the production of oil and natural gas and the refining of fuels is long and includes literally thousands of companies across the country of all sizes. As such, API and our members are significantly affected by the OSHA PSM rule, including potential revisions to the standard. API and its member companies support performance-based PSM regulations that are reasonable and are written, applied and enforced in a manner that is consistent with the applicable statutory scope.

API shares OSHA's goal of enhancing safety at refineries and other PSM-covered sites. Safety is a core value 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.

Current Situation and Lack of Need to Revise the Current PSM Regulation

API believes the existing PSM standard has been effective in improving process safety in the oil and gas industry. This is largely because the standard has focused on significant hazards/risks and provided flexibility for compliance using performance-based language that allows companies and sites to select the most appropriate manner to achieve compliance.

The PSM rules have represented a consistent and well-understood framework that has been consistently used by manufacturing facilities for many years. Before OSHA undertakes regulatory revisions, API suggests first focusing on improving existing regulatory compliance efforts and programs.



Proposed changes to the PSM standard that OSHA may consider should not be developed to address “one-off” incidents. Rather, proposals should address actual systemic industry process safety performance problems based on identification of root causes of problems and supported by data. API requests that OSHA make public the data relied upon to support its action to propose changes to the scope of the standard as well as changes to particular provisions within the existing PSM standard. API is particularly interested in the OSHA data that supports the inclusion of oil and gas well servicing, drilling and production (i.e., how does the OSHA data map, from a causation standpoint, the actual incidents). API is also interested in OSHA’s information that supports its contention that oil and gas well servicing, drilling and production incidents are not already covered by existing regulations (Federal and/or state) and thus are warranted for inclusion in the PSM standard.

API believes that nearly all of the major incidents that have occurred since the creation of process safety regulations in the U.S. relate to existing elements in the PSM standard and not because there are major “gaps” in the existing PSM standard. API believes that there is little supporting evidence that changes to the PSM standard are needed to correct deficiencies that could otherwise be addressed through improved enforcement of the PSM standard.

The major factor spurring OSHA to consider revisions to the PSM standard was Executive Order 13650 which resulted from the West Fertilizer incident in 2013. As it happens, the tragedy that occurred at West was not the result of an accident but an alleged criminal act, for which the PSM standard is not intended nor would the proposed PSM requirements have prevented. Law enforcement officials required almost three years to come to this determination, demonstrating that thorough incident investigations may require considerable time to adequately provide conclusions.

To continue to improve safety performance, API respectfully suggests that OSHA’s focus should be on improving compliance assistance, education, enforcement and incident investigation programs. API supports agency efforts to identify “outlier” companies, rather than increasing regulatory obligations for sites/companies that may already be in compliance. Lastly, the Federal government should do a better job of collaborating with State and local agencies to more effectively enforce existing laws and regulations.

OSHA has the burden to show additional regulations are “reasonably necessary” and address a “significant risk of harm.” If OSHA determines that it has sufficient industry performance evidence to support change to the PSM standard, API recommends that any regulatory proposals be based upon the following criteria:

- Be risk-based and performance-based (not prescriptive)
- Be supported by scientific data
- Address root causes of significant performance issues and incidents
- Be done only in conjunction with enforcement improvement
- Undergo rigorous cost-benefit analysis to clearly demonstrate that benefits to society exceed overall costs
- Provide adequate time and certainty for implementation
- Provide appropriate structure for compliance and enforcement

Broad regulatory expansion to cover areas that either cannot be reasonably shown to be a significant risk/hazard or are already addressed under other regulations may dilute agency and company resources away from higher risk areas.

The oil and natural gas industry has a strong commitment to safety, as demonstrated by the actions of the industry to develop and incorporate best practices and a culture of safety into operations. For example, safety performance data shows declining incident and fatality rates as a result of industry efforts such as the continuous development and updating of industry standards and information sharing that occurs through activities such as the local and the National Service, Transmission, Exploration & Production Safety (STEPS) networks.

With regard to the potential application of OSHA process safety regulations to drilling, completion or production activities, there is scant evidence or support for OSHA to move forward with regulation and/or enforcement of those operations:

1. The exploration and production sector's recordable incident rate has continued to decline over the past several years.
2. The exploration and production sector's fatality rate has continued to decline over the past several years.
3. The categories of incidents that have occurred in the exploration and production sector are largely unrelated to process safety but instead are related to occupational safety and include such activities as contact, transportation, and slips, trips and falls. Those incidents that may be asserted as process safety type events are very rare. The industry drills tens of thousands of wells per year with very few of these types of incidents.
4. State regulatory bodies in every oil and natural gas producing state have regulations in place for downhole and surface activities that are specifically designed to ensure containment and to prevent a safety or environmental incident from occurring.
5. Oil and gas upstream operations are typically unmanned during most phases of the asset lifecycle, and applying process safety management to the entire value stream will be cost prohibitive with very little worker safety impact.

To conclude the above point, the exploration and production sector is committed to safe drilling, completion and production operations, and there is an effective system in place for advancing safety goals and improving performance. Expanding OSHA process safety regulations to these activities would not provide an appreciable added safety benefit and would likely only create duplication of state level regulation.

For the refining industry, the injury rate has been steadily decreasing, including a decline of 50% from 2005 to 2014 for refinery job-related injuries and illnesses, including process safety incidents. In fact, refinery employees are more than five times less likely to be injured on the job than employees in other manufacturing sectors. According to API's *Workplace Injuries and Illnesses Safety (WIIS) Report, 2005-2014*, in 2014, the rate of job-related nonfatal injuries and illnesses for petroleum refinery workers was 0.7 per 100 full-time workers, compared to a rate of 4.0 for the U.S. Manufacturing sector. Similarly, the exploration and production industry has shown continued, consistent improvement in reducing incidents. From 2005 to 2014, job-related injuries and illnesses declined by 43%.



Also, with any potential new requirements and changes to existing requirements, OSHA should promote performance based regulations over prescriptive regulations. Prescriptive regulations are known to stifle innovation and the advancement of technologies and can have unintended safety ramifications.

In addition to the API comments below, OSHA should not interpret API's silence on a particular issue or question as our agreement with OSHA's potential changes.

OSHA's Statutory Jurisdiction

As an Agency of the Executive Branch, OSHA's power to promulgate legislative regulations and safety standards is limited to the authority delegated by Congress.¹ Regarding the Process Safety Management Standard, there are two relevant statutes, the OSH Act and the Clean Air Act Amendments of 1990. Both should be read and applied together.²

Section 6(b) of the OSH Act³ grants the Secretary of Labor the authority to promulgate and subsequently modify safety standards. Part of this process requires the Secretary "to make a threshold finding that a place of employment is unsafe – in the sense that significant risks are present *and can be eliminated or lessened by a change in practices.*"⁴ The finding that a significant risk exists is but one part of the analysis required by the Secretary. The Secretary must also demonstrate that the risks can be eliminated or lessened by the proposed regulatory changes.

The OSH Act defines OSHA standards as requiring "the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment."⁵ This means the proposed regulatory requirements, *i.e.* practices, must be "efficacious in reducing a significant risk."⁶ Put another way, regulatory requirements must provide significant benefits that address significant risks of harm. Several of the proposed changes fail this requirement.

OSHA proposes to require a safer alternative and technology analysis. An analysis alone will not eliminate or lessen a significant risk. While API understands OSHA is attempting to seek a common ground regarding inherently safer technology, OSHA's efforts must still be in accord with the authority granted to it by Congress and elucidated by the Courts. As requiring an analysis alone affects no change to the existing risk, it therefore cannot exist as a requirement of the standard.

¹ See generally *Bowen v. Georgetown Univ. Hospital*, 488 U.S. 204, 208 (1988).

² See generally *United States v. Estate of Romani*, 523 U.S. 517, 530-31 (1998).

³ 29 U.S.C. §655(b).

⁴ *Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst.*, 448 U.S. 607, 642 (1980) (emphasis added).

⁵ 29 U.S.C. §652(8).

⁶ See generally *Alabama Power Co. v. Occupational Safety & Health Admin.*, 89 F.3d 740, 746 (11th Cir. 1996) quoting *Texas Independent Ginners Ass'n v. Marshall*, 630 F.2d 398, 410 (5th Cir. 1980).

In addition, API does not agree that requiring third-party compliance audits will be effective in reducing significant risks in covered facilities. In fact, API suggests that requiring third-party compliance audits will increase risk by eliminating the most qualified auditors from the available pool. Furthermore, Courts have indicated that under the OSH Act, OSHA should adopt the less costly of two equally effective regulatory approaches,⁷ and it is well established that requiring third-party compliance audits will result in significant cost increases for covered facilities with negligible to no added benefit. In short, the benefits expected will not outweigh the costs imposed.⁸

Lastly, requiring the documentation of organizational chart changes as part of a management of change process is neither reasonably necessary nor appropriate to provide safe or healthful employment and places of employment.⁹

As these proposals will neither eliminate nor lessen the significant risks of harm that may exist at a covered facility, API suggests these proposals fall outside the bounds of OSHA's authority to regulate.

In addition to the OSH Act, the Secretary's grant was subsequently and more specifically addressed¹⁰ by Congress through the Clean Air Act Amendments of 1990.¹¹ Section 304 of the Appendix *Provisions of the Clean Air Act Amendments of 1990 that did not Amend the Clean Air Act, Part B – Other Provisions Sec. 304. Chemical Process Safety Management* outlined the original fourteen elements of the Process Safety Management Standard as shown in *Table 1*.¹² Each proposed regulatory change should fit within these elements enumerated by Congress.

⁷ See *Am. Dental Ass'n v. Martin*, 984 F.2d 823, 838 (7th Cir. 1993) quoting *Am. Textile Mfrs. Inst., Inc. v. Donovan*, 452 U.S. 490, 514 n. 32 (1981).

⁸ See *Alabama Power Co. v. Occupational Safety & Health Admin.*, 89 F.3d 740, 746 (11th Cir. 1996) quoting *Am. Petroleum Inst. v. Occupational Safety & Health Admin.*, 581 F.2d 493, 503 (5th Cir. 1978) (“Although the agency does not have to conduct an elaborate cost-benefit analysis, it does have to determine whether the benefits expected from the standard bear a reasonable relationship to the costs imposed by the standard.” (internal citations omitted)).

⁹ See 29 U.S.C. §652(8).

¹⁰ See generally *State of Wyoming, et.al. v. United States Dept. of Interior et.al.* No. 2:15-CV-041-SWS, 2016 WL 3509415, at *4 (D. Wyo. June 21, 2016).

¹¹ See 29 U.S.C. §655 referencing Clean Air Act Amendments of 1990, Pub. L. 101-549, Appx. Part B, §304, Nov. 15, 1990.

¹² Clean Air Act Amendments of 1990, Pub. L. 101-549 Appx. Part B, §304(c)(1-14), Nov. 15, 1990.

Appendix to Clean Air Act Amendments of 1990	Text of Statute (emphasis added)	Corresponding PSM Standard Element
§304(c)(1)	develop and maintain written safety information identifying workplace chemical and process hazards, equipment used in the processes, and technology used in the processes	§1910.119(d) Process Safety Information
§304(c)(2)	perform a workplace hazard assessment , including, as appropriate, identification of potential sources of accidental releases, an identification of any previous release within the facility which had a likely potential for catastrophic consequences in the workplace, estimation of workplace effects of a range of releases, estimation of the health and safety effects of such range on employees	§1910.119(e) Process Hazard Analysis
§304(c)(3)	consult with employees and their representatives on the development and conduct of hazard assessments and the development of chemical accident prevention plans and provide access to these and other records required under the standard	§1910.119(c) Employee Participation
§304(c)(4)	establish a system to respond to the workplace hazard assessment findings , which shall address prevention, mitigation, and emergency responses	§1910.119(e)(5), (m)(4), (o)(4)
§304(c)(5)	periodically review the workplace hazard assessment and response system	Passim
§304(c)(6)	develop and implement written operating procedures for the chemical process including procedures for each operating phase, operating limitations, and safety and health considerations	§1910.119(f) Operating Procedures
§304(c)(7)	provide written safety and operating information to employees and train employees in operating procedures, emphasizing hazards and safe practices	§1910.119(g) Training
§304(c)(8)	ensure contractors and contract employees are provided appropriate information and training	§1910.119(h) Contractors
§304(c)(9)	train and educate employees and contractors in emergency response in a manner as comprehensive and effective as that required by the regulation promulgated pursuant to section 126(d) of the Superfund Amendments and Reauthorization Act	§1910.119(n) Emergency Response and Planning
§304(c)(10)	establish a quality assurance program to ensure that initial process related equipment, maintenance materials, and spare parts are fabricated and installed consistent with design specifications	Passim

Appendix to Clean Air Act Amendments of 1990	Text of Statute (emphasis added)	Corresponding PSM Standard Element
§304(c)(11)	establish maintenance systems for critical process related equipment including written procedures, employee training, appropriate inspections, and testing of such equipment to ensure ongoing <i>mechanical integrity</i>	§1910.119(j) Mechanical Integrity
§304(c)(12)	conduct <i>pre-start-up safety reviews</i> of all newly installed or modified equipment	§1910.119(i) Pre-startup Safety Reviews
§304(c)(13)	establish and implement written procedures to <i>manage change</i> to process chemicals, technology, equipment and facilities	§1910.119(l) Management of Change
§304(c)(14)	<i>investigate</i> every <i>incident</i> which results in or could have resulted in a major accident in the workplace, with any findings to be reviewed by operating personnel and modifications made if appropriate	§1910.119(m) Incident Investigation

Table 1. Elements of PSM Enumerated by Congress

The proposal to add Stop Work Authority to 29 C.F.R. §1910.119(c) falls outside of OSHA’s statutory jurisdiction and authority. The employee participation provisions of §304(c)(3) do not grant OSHA the authority to transfer operational decisions from facility management to hourly employees, particularly contract employees. Section 304 is clear. Employers need only “*consult with* employees and their representatives on the development and conduct of hazard assessments and the development of chemical accident prevention plans and *provide access* to these and other records required under the standard” (emphasis added). As currently written, the provisions of 29 C.F.R. §1910.119(c) match Congress’ grant. By seeking to add a provision regarding Stop Work Authority, OSHA is clearly going beyond the Congressional grant of authority to regulate.

OSHA also proposes to include organizational changes to 29 C.F.R. §1910.119(l). The Agency alleges that this requirement already exists and that the proposal is merely a clarification. This position is not unsupported by the statutory text nor does it comport with commonly accepted canons of construction for statutory text.

Section 304(c)(13) states that employers should be required to “establish and implement written procedures to manage change to process chemicals, technology, equipment and facilities.” There is no mention by Congress that this provision should apply to staffing decisions or organization chart development. The plain meaning of these terms does not incorporate personnel staffing.

Furthermore, in addition to the plain meaning of the text, application of the linguistic canons of construction *noscitur a generis* and/or *eiusdem generis* do not support OSHA’s contention either. *Noscitur a generis* stands for the proposition that “words grouped in a list should be given related meanings.”¹³ A term such as “facilities” should be interpreted in light of the proceeding terms

¹³ *Third Nat’l Bank in Nashville v. Impac Ltd.*, 432 U.S. 312, 322 (1977).



“chemicals, technology, [and] equipment.” As such, the term “facilities” would not include the personnel staffing the production site.

Ejusdem generis stands for the proposition that a general, catch all term at the end of a list, such as “facilities,” should be viewed as being “of the same kind” as the preceding terms. Here again, this would exclude interpreting “facilities” to mean the personnel staffing those facilities.

Clarifying Atmospheric Storage Tank Exemption

The PSM standard covers processes with 10,000 pounds or more of a flammable liquid or gas, but exempts those “stored in atmospheric tanks or transferred which are kept below their normal boiling point without benefit of chilling or refrigeration.” 29 CFR § 1910.119 (a)(1)(ii)(B). The atmospheric storage tank exemption was originally intended to exclude processes that only involved flammable liquid storage (OSHA, 1997). However, this intention is not clear in the language of the standard, and a decision by an Occupational Safety and Health Review Commission ALJ concluded that atmospheric storage tanks that are connected to processing operations are exempt from PSM coverage. OSHA is considering changing the language in § 1910.119(a)(1)(ii)(B) to limit the exemption to NAICS 4247 Petroleum and Petroleum Products Merchant Wholesalers.

API supports preserving the exemption for atmospheric storage tanks (AST) which pose a low risk for catastrophic release and are already regulated under OSHA’s flammable liquids standard as the correct approach.

Safety incidents related to flammable liquids in ASTs are infrequent, and there is little, if any, industry performance evidence provided by OSHA to indicate that the current regulations are insufficient to protect workers in covered sites. Rather, OSHA should enforce existing regulations such as Sections 1910.106, 107, and 252 - compliance with these requirements is sufficiently protective of worker safety. In addition, API believes that the issue of including flammable liquids in ASTs within or connected to processes covered by the PSM standard has already been addressed via the “Meer Decision” and other avenues and no further action is needed.

The economic impacts of developing and implementing PSM programs for a very large number of atmospheric storage tanks at field production facilities will be substantial. Therefore, more specifically, API believes the following activities with ASTs should be exempted from the PSM standard:

- Oil and Gas Extraction (Exemption would only apply to Field Production Facilities – not gas plants)
- Drilling Oil and Gas Wells
- Support Activities for Oil and Gas Operations
- Petroleum Bulk Stations and Terminals
- Pipeline Transportation of Crude Oil
- Pipeline Transportation Products



If OSHA attempts to define “storage” and/or “process,” API suggests that OSHA define the term “storage tank” using the definition found in NFPA 30 for atmospheric storage tanks. The confusion between “storage” and “process” tank is created by the PSM definition for “process,” which includes any “storage of a highly hazardous chemical.” OSHA should revise the definition for “process” to specifically exclude “storage within an atmospheric storage tank as defined within NFPA 30.”

More emphasis on proper application of OSHA’s existing standards such as those for hot work, confined space and energy isolation requirements would likely prove more effective in reducing risk than additional regulations. These standards provide a great deal of worker protections as they relate to the PSM standard’s application to ASTs. Additional emphasis on the existing standards could include training, education, etc.

API recommends that OSHA utilize existing regulations, guidance, and enforcement to support enhanced oil and gas production safety and worker protection for the approximately 300,000 atmospheric storage tanks in the U.S. Also, OSHA should clarify that PSM does not apply to atmospheric oil and gas storage tanks connected to typical wellbores, treatment, and storage.

Expanding PSM Standard to Include Oil and Gas Well Drilling & Servicing

API opposes the elimination of the PSM exemption for oil and gas well drilling and servicing. Since oil and gas well drilling or servicing operations are transient (temporary), are inherently variable (to address the unique factors associated with each well) and are not “processes” that typically handle covered substances, they are **not** the type of operations intended to be regulated under the PSM standard.

More specifically, API believes that NAICS Codes 21111 Oil and Gas Extraction, 213111 Drilling Oil and Gas Wells, and 213112 Support Activities for Oil and Gas Operations should continue to be exempted from the PSM standard. In addition, OSHA has not provided sufficient data or evidence that onshore exploration facilities and related servicing activities have experienced a significant number of catastrophic releases of the type that the PSM standard is meant to address. If such data does exist, API asks OSHA to make that data public, along with explanations of how such data supports inclusion of oil and gas well servicing, drilling and production sites. API is not aware of any performance data showing there is a process safety problem at these facilities. The risk level is not high, and the safety incidents are not process safety but occupational safety and thus covered by other regulations. In addition, even if applied, the PSM standard only applies to a very short duration of the overall life cycle of a well and, once in full production mode, such sites are largely unmanned; therefore, there is no significant process safety concern. API contends that these low risk operations do not warrant a new regulatory program overlaid onto these sites, and the benefits of a PSM program for these operations would not justify the costs of such a program.

Robust state laws are designed to effectively ensure safety and environmental protection. State regulatory programs address both downhole and surface operations and have protocols requiring operators to identify the fresh water zones, provide for casing and cementing (zonal isolation) of those zones, and well construction requirements that provide assurance for safety, so the targeted production zones will not impact shallow potable water supplies. Many states, including California, Colorado, North Dakota, Pennsylvania, Texas, and Wyoming have and/or are currently revising their oil and gas regulatory programs for drilling, casing, cementing, well stimulation, and chemical

disclosure to address the latest industry practices and innovative technologies. There is a long and successful history of state oversight of oil and gas activities. States are best positioned to tailor laws precisely for the local geology and hydrology while addressing safety issues in drilling and stimulation activities. In addition to the existing federal and state regulations, there are many industry codes, standards, and recommended practices that already effectively address the hazards posed by oil and gas well drilling or servicing operations.

Some states have unique standards that cover Oil and Gas Well Drilling, Servicing, Special Servicing and Anchor Tester Requirements. Federal OSHA does not have specific standards for this industry. However, state regulatory bodies clearly do have specific standards for drilling, completion, and production. State level regulations are effectively designed to ensure containment and the prevention of safety or environmental incidents. For OSHA to create a compelling case for pursuing process safety rulemaking for oil and gas well drilling and servicing, as well as production, OSHA should first complete a thorough survey of the existing relevant, effective state regulations and existing industry practices as input to its rulemaking efforts. OSHA should review whether other rules and standards (both state and federal) are sufficiently addressing the risks. Any proposal should be harmonized with existing requirements to avoid duplication or conflicts.

If OSHA develops a sufficient technical basis to show that regulating oil and gas well drilling and servicing activities is warranted beyond the benefits already possible under existing regulations, then API recommends that OSHA initially utilize existing regulations to develop drilling and servicing sector-specific process safety performance and enforcement guidelines. OSHA should conduct a thorough evaluation of the operating safety benefits, and compliance and cost burdens, of full extension of process safety regulations to this sector. This assessment should be conducted in cooperation with the oil and gas well drilling and servicing industry, oil and gas operators, and other affected stakeholders. There is precedent for federal regulators to defer to state regulatory bodies for the application of operation requirements on drilling, completion, and production activities. OSHA should pursue any of its own regulatory decision-making with a view toward deferring to the state regulatory regimes that already govern these activities. Furthermore, OSHA should consider its own expertise, resourcing, and ability to oversee and regulate downhole oil and gas operations as it progresses through the rulemaking process, particularly when thousands of wells are drilled each year, and state regulators already have the resources in place to oversee those operations. OSHA should also recognize the existence of thousands of normally unmanned remote facilities, or “NURFs,” and should ensure that any regulatory activity provides reasonable thresholds for the application of the regulations and exemptions where man-hours do not warrant the application of the regulations.

Enforcing the Existing PSM Standard in Oil and Gas Production

API opposes OSHA lifting the enforcement policy position exempting oil and gas production facilities from compliance with the PSM standard and rather recommends that oil and gas production be explicitly included in the oil and gas well drilling and servicing PSM exemption. API’s position on oil and gas production coverage was well-defined in our 2000 letter to OSHA. Most production operations conducted by API members are not covered by the PSM standard because these operations fall within one of the well-established and appropriate exemptions defined in 1910.119(a)(1)(ii)(B) (atmospheric storage of flammable liquids), 1910.119(a)(2)(ii) (oil or gas well



drilling or servicing operations) or 1910.119(a)(2)(iii) (normally unoccupied remote facilities). In addition, there are numerous federal and/or state regulations which, as OSHA has recognized previously, adequately address oil and gas production operations. In fact, oil and gas production activities should be exempted for the same reasons discussed in the section above for well drilling and servicing.

Existing data demonstrates that process safety risk in production facilities is low. We also believe that an economic analysis of applying the PSM Standard to production facilities would show that the costs far exceed the benefits, in part because many production facilities are already covered by existing exemptions. Lastly, by enforcing the PSM Standard on low-risk production facilities, OSHA would divert scarce federal resources away from higher priority hazard enforcement.

API recommends that OSHA utilize existing regulations, enforcement actions, safety alerts, operator education, etc. to support enhanced oil and gas production facility sector-specific safety performance. Enhanced industry recommended practice development should include cooperation with the API, AESC, IADC, and others with oil and gas production expertise.

Adding Reactive Chemical Hazards – Coverage and Requirements

The PSM standard covers certain chemicals considered to be reactive due to instability. The standard does not address chemicals that pose other sorts of reactivity hazards, such as those associated with the generation of heat or toxic products when combined with other chemicals. OSHA is interested in expanding the PSM regulation to cover processes that mix substances with a listed functional group if the heat of the reaction is above 100 kcal/mol or if the reaction generates a toxic product and the substance is at the threshold quantity.

With scientifically supported, peer-reviewed documentation, API could support listing certain substances based on their individual reactivity characteristics (e.g., NFPA 4 reactivity rating). API could also support the coverage of inadvertent mixing or abnormal process condition situations based upon a practical reactive chemical hazard evaluation of already-covered processes/chemicals. Any reactive chemical hazard solution or measure should be risk and/or performance-based that allows the facility to determine the best approach for evaluation.

Additionally, the current requirement for PSI to include the “hazardous effects of inadvertent mixing of different materials that could foreseeably occur,” covers the hazard we believe OSHA is trying to prevent with this change. Therefore, there is no reason for this change.

API is concerned, however, with adding any additional requirements that prescriptively require specific testing, literature searches, etc. and overall expansion of process safety information requirements as captured within the existing rule. Particularly for processes already covered by the PSM regulation by other triggers, requiring burdensome testing, such as testing “each reaction vessel for all reactive hazardous substance (RHS) mixture” would be an unnecessary and costly burden not adequately reflected within the SBREFA issues documentation. API also believes the existing process safety information performance-based language 29 CFR 1910.119 (d)(1)(iv), (vi) and (vii) adequately captures the regulatory requirements should coverage be expanded for inclusion of certain reactive substances .



API also does not believe any changes are warranted to specify PHAs include an “evaluation of reactive hazards.” The current language included in 29 CFR 1910.119(e)(3)(iv) already requires the PHA to include the “hazards of the process,” and adding a new, specific requirement to specific reactive hazards is confusing, redundant, and unnecessary.

Update Appendix A – List of Covered Chemicals in Existing PSM Standard

Appendix A of the existing PSM standard lists substances and threshold quantities to determine PSM coverage. OSHA is considering, based on a review of updated sources and comments received on the RFI, adding several chemicals to Appendix A of the existing PSM standard.

API does not believe that additional chemicals need to be added to the PSM list, nor do any threshold quantities (TQs) need to be changed. However, if OSHA demonstrates via sound scientific analysis that specific chemicals should be added to Appendix A, they should be proposed on their individual merits.

For the few highly hazardous chemicals (HHC) most often used in API member facilities, API believes the existing TQs are effective in focusing attention on prevention of catastrophic releases that could create serious dangers to worker safety. Moreover, any changes to the HHC list TQ changes or “harmonization” with the lists/TQs of other rules (e.g., RMP, CFATS) should respect the differences between statutory mandate, the purpose/focus of the rules, as well as industry accident experience. In this way, the integrity of the rationale for listing each chemical in each regulatory regime will be maintained. OSHA must also provide industry advance notice of applicable flammable thresholds so that the industry can analyze and comment on any proposed thresholds.

There are anhydrous forms of certain chemicals listed in §1910.119 Appendix A that have an implicit concentration of 100%. After the June 5, 2015 publication of the OSHA enforcement policy which replaced the term “commercial grade” with a 1% test for chemicals listed in Appendix A that have no stated concentration, OSHA mistakenly applied the same threshold quantity (TQ) to treat solutions of anhydrous chemicals the same as the pure compound.

We support OSHA’s recent reversal of this enforcement policy as published in its July 18, 2016 memorandum from Thomas Galassi, Director, Directorate of Enforcement Programs with the subject “Process Safety Management of Highly Hazardous Chemicals and Covered Concentrations of Listed Appendix A Chemicals.” That memorandum clarifies “...that where an entry in Appendix A is listed as ‘anhydrous,’ it does not cover aqueous solutions or aqueous mixtures.”

With regard to chemicals currently listed on Appendix A without specific stated concentrations, OSHA should adopt science-based concentration limits and TQs for chemicals which establish a cut-off point, below which the compound should not be considered to pose an unreasonable risk to human health and the environment in the event of a catastrophic release.

Expand PSM Requirements to Cover Dismantling and Disposal of Explosives and Pyrotechnics

OSHA standard 1910.109, explosives and blasting agents, paragraphs § 1910.109(k)(2) and (3), requires that the manufacture of explosives and pyrotechnics follow the requirements of the PSM



standard. Although dismantling and disposing explosives can be just as hazardous as the covered activities, dismantling and disposing are currently not covered by 1910.109 or PSM.

OSHA is considering revising the scope of § 1910.109 (k)(2) and (k)(3) to include dismantling and disposal of explosives and pyrotechnics, so that these operations must follow the requirements of the PSM standard as well.

As stated above, OSHA has already ruled that the loading of explosives into the perforating gun is a “covered process.” Many companies have already adopted PSM for some of their operations; therefore revising the PSM scope for dismantling explosives should not affect these companies. However, OSHA should be clear to make the distinction of what is covered by the dismantling of explosives.

We believe this refers to separating explosive materials from their container in the process of waste remediation. We do not believe this should affect disassembling loaded guns into their individual explosive components.

Companies typically utilize third party disposal companies for remediation of explosives waste. It is picked up from the explosive storage location for transport to disposal site. Some companies do not retain qualified explosive waste drivers or take on the burden of carrying special insurance. We do not believe the OSHA proposal would significantly affect most service companies regarding PSM and explosives disposal.

Employee Participation and Stop Work Authority

OSHA recognizes that more employee participation can increase worker safety by empowering employees to have a more active role in their employer’s PSM program. OSHA is considering updating the current employee participation element in § 1910.119(c) to include requirements for:

- I. Consulting with employees on entire written employee participation plan
- II. System for employee input & management response on how management, non-management & contract employees and/or their representatives will be included in this element
- III. Policy for all employees, including contractors, to recommend to operator in charge that an operation/process be shut down based on safety or health concerns
- IV. Policy giving operator in charge of process authority to shut down operation/process based on safety or health concerns – To Stop Work Authority

API members support and have implemented “stop work authority” programs and consider such policies a matter of their corporate safety cultures. In addition, the PSM standard already requires employee participation in the PSM program. Therefore, given that stop work authority and employee participation are covered by the existing PSM standard, there is not a need or justification for additional requirements on these topics, particularly when it is not apparent there will be any safety benefits. Federal agencies should ensure that companies have the flexibility to develop and tailor



programs such as employee participation and stop work authority to their own internal business practices.

RAGAGEP Updates

PSM requires employers to document that covered equipment complies with recognized and generally accepted good engineering practices (RAGAGEP). However, § 1910.119(d)(3)(iii) of PSM states that for existing equipment designed and constructed to codes, standards, or practices that are no longer in general use, the employer need merely determine (and document) that the equipment is designed, maintained, inspected, tested, and operates in a safe manner. The PSM standard does not require employers to evaluate updates to applicable RAGAGEP or to examine new RAGAGEP after evaluating and documenting compliance with PSM. OSHA is considering adding a requirement to (d)(3)(iii) that employers periodically review RAGAGEP for updates, and when the employer discovers that RAGAGEP has been updated, implement those updates.

API does not support OSHA action to revise the PSM standard to specifically require employers to evaluate updates to applicable RAGAGEP. This requirement would be extremely costly, impractical to implement, with no corresponding risk reduction. Further, current PSM requirements already ensure that employers consider pertinent safety updates applicable to RAGAGEP.

Moreover, OSHA's recently-revised enforcement guidance to inspectors acknowledges that for situations where the design codes, standards, or practices used in the design and construction of existing equipment are no longer in general use, the employer need not undertake any actions beyond "determin[ing] and document[ing] that the equipment is designed, maintained, inspected, tested, and is operating in a safe manner."¹⁴

Where industry standards are revised, "Where RAGAGEP are updated to be more protective but are not explicitly retroactive, PSM *does not mandate that employers upgrade their equipment, facilities, or practices to meet current versions of their selected RAGAGEP*. However, under 1910.119(d)(3)(iii), employers must determine and document that their equipment is designed, maintained, inspected, tested, and operating in a safe manner." RAGAGEP Enforcement Guidance (emphasis added).

API urges OSHA not to propose provisions in a proposed rule that would undo or setback the significant progress the agency and industry made together in developing the compromise RAGAGEP settlement

API also believes that RAGAGEP should be limited to equipment issues only (as was originally intended) and not expanded, as has been done in recent years by OSHA enforcement actions. Employers are currently required to ensure that equipment is designed and operated in a safe manner, regardless of code/standard originally used or the availability of more recent editions. The issuance of an updated edition of an industry document (i.e., RAGAGEP) does not mean a previous version was necessarily unsafe or inadequate or that the process/equipment covered by the PSM regulation has become less safe because it was designed to a previous version of an industry

¹⁴ January 15, 2013 RAGAGEP in Process Safety Management Enforcement (RAGAGEP Enforcement Guidance) *available at* https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=30785.



standard at the time of installation. API believes that current OSHA regulations adequately protect worker safety and already ensure that employers examine all pertinent safety updates applicable to RAGAGEP. A mandate to evaluate codes and standards updates would be costly and impractical, with likely little to no corresponding risk reduction.

OSHA clarified in a Letter of Interpretation that after the employer makes a baseline safety determination (with corresponding documentation of the determination) under 29 C.F.R. § 1910.119(d)(3)(iii), other PSM elements address continuing safety: “Generally speaking, OSHA intended for the employer determination and documentation required by 29 CFR 1910.119(d)(3)(iii) to be completed prior to the implementation of the original PHA or startup of a PSM-covered process. Therefore, once an employer is in compliance with this requirement, there is no additional requirement per 29 CFR 1910.119(d)(3)(iii) for future determinations/documentation simply because a code or standard related to the covered equipment has been revised.”

API notes that companies, not agencies, determine the RAGAGEPs that apply to their facilities, which can be both internal company standards as well as industry standards. Companies then evaluate the updates to those applicable RAGAGEPs during on-going activities such as PHAs, PSM audits, MOCs, etc.

If OSHA should move forward with this potential revision, API strongly urges the agency to carefully limit any RAGAGEP update evaluation provision by simply requiring that an employer “have a process for evaluating updates.” If the employer has an update evaluation process in place and there is evidence that reviews of RAGAGEP deemed applicable by the employer are, in fact, being performed from time to time, that should constitute compliance. On the exploration and production side, there are thousands of operators, drilling and service companies, and OSHA must recognize that RAGAGEP principles may not logically apply to these types of operations and that state regulatory regimes are designed to ensure the application of best practices and to promote integrity in operations.

Safer Technology and Alternatives Analysis

A number of stakeholders have advocated for OSHA to require the implementation of safer technology and alternatives, including inherently safer options. Safer technology and alternatives refer to risk reduction strategies developed through analysis using a hierarchy of controls. The hierarchy of controls organizes hazard controls into a framework. The hierarchy establishes that inherently safer options (e.g., elimination/reduction, substitution, attenuation, and simplification) are preferable and occupy the top of the hierarchy. OSHA is considering adding a requirement to PSM that employers identify and evaluate applicable safer technology and alternatives.

More specifically, OSHA is considering adding requirements to the PHA specifying that employers must consider safer technology and alternatives when identified hazards result in an employer-specified level of risk. Requirements could specify that employers consider the hierarchy of control in determining the appropriate safeguards and document when safeguards at the top of the hierarchy cannot be implemented.

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 analysis should be considered, when appropriate, during the design phase of projects, within the management of change element of PSM, and/or 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 that 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.¹⁵ This is why the Center for Chemical Process Safety (CCPS) insists that ISTs are relative.¹⁶ 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.¹⁷ 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?).¹⁸ 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.¹⁹

With this proposal, OSHA seeks to have PHA team members perform a comparative analysis on alternatives. Presumably, the PHA team would be required to compile relevant process safety

¹⁵ 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).

¹⁶ CCPS Definition Report, FN 15 at 5; Berger Comments, FN 15.

¹⁷ CCPS Definition Report, FN 15 at B-1. *See also* Berger Comments, FN 15 ("The choice of technology is rarely cut and dry. It depends on the relative importance of the range of hazards")

¹⁸ Center for Chemical Process Safety, Guidelines for Risk Based Process Safety, at 210 (2d ed. 1992).

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

information²⁰ for all alternatives to be analyzed. OSHA is conspicuously 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.²¹

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.”²² OSHA states “[a]t least one team member **must** be familiar with the process.”²³ OSHA now plans to require the owner/operator to perform hazard assessments of ever-changing alternative technologies for which team members may have little to no experience or expertise.

A typical PHA 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 chosen PHA 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.²⁴

Appropriate Timing for Alternative Technology Assessments

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 PSM, and the facility’s ongoing risk assessment analysis. Consideration of IST first occurs during the design phase. This is why CCPS

²⁰ 40 C.F.R. §68.65 (b, c, d).

²¹ 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).”).

²² Center for Chemical Process Safety, *Guidelines for Hazard Evaluation Procedures*, at 31 (2d ed. 1992).

²³ *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).

²⁴ *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.”).

states the IST analysis is more correctly understood as inherently safer design analysis.²⁵ 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. New technology is not necessarily better technology; adopting new technology too soon may introduce new hazards unforeseen at the time of adoption.

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. 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. For exploration and production, state regulators already have detailed, robust regulatory systems in place to ensure safety and environmental protection, while at the same time providing companies the flexibility to deploy the most effective technologies for purposes of resource extraction.

Add “Critical” Equipment to List of Covered Equipment under Mechanical Integrity

OSHA is considering expanding the list of equipment to which the requirements of the mechanical integrity (MI) requirements of 1910.119(j) apply. Currently, the MI section of the PSM regulation applies to six categories of equipment: pressure vessels and storage tanks; piping systems (including piping components, such as valves); relief and vent systems and devices; emergency shutdown systems; controls (including monitoring devices and sensors, alarms, and interlocks); and pumps.

OSHA is considering adding a requirement to § 1910.119(j) specifying that other equipment deemed critical will be included in the application of the PSM standard's mechanical integrity provisions and adding a definition of critical equipment that includes equipment where failure can lead directly to a release of HHC or equipment that is relied upon as a safeguard in the PHA.

API believes that the six categories of equipment covered in Paragraph (j) of the PSM Standard appropriately cover mechanical integrity of equipment. The proposed definition for the term ‘critical’ is very vague and would likely lead to interpretation problems and implementation challenges. The intent should be that the mechanical integrity of equipment is maintained and that a subset of that

²⁵ Berger Comments, FN 15 (“the topic of Inherently Safer Design (ISD), which we believe is a more technically accurate term . . .”).



equipment receives greater management oversight due to its role in protecting people and the environment. Many safeguards are passive in nature and do not require maintenance for successful function.

API members have implemented mechanical integrity programs to ensure equipment is maintained appropriately. There are existing industry standards/recommended practices on mechanical integrity thus the PSM scope/list does not need to be expanded.

Additionally, OSHA has not provided sufficient evidence that industry safety performance is deficient in the area of recognizing and managing safety systems or that any such deficiencies would prompt expanding the scope of the mechanical integrity element. If OSHA has data that indicates additional types of equipment present hazards, then OSHA should specify that equipment in the rulemaking, so stakeholders can provide insightful comments on those particular items.

OSHA appears to have expanded the scope of equipment deficiencies by including, “equipment that is not operating or functioning as designed by the manufacturer.” This can include conditions which may be operating differently than designed but are certainly safe; for example, a pressure drop across a control valve, fouling of an exchanger. If changes in this area are pursued, API suggests that OSHA limit the changes to those situations that are outside of acceptable limits.

Adding Emergency Response Planning & Coordination Requirements

The existing PSM standard requires employers to establish and implement an emergency action plan in accordance with § 1910.38, OSHA’s Emergency Action Plans (EAP) standard, and to meet applicable requirements in § 1910.120, OSHA’s Hazardous Waste Operations and Emergency Response (HAZWOPER) standard. While some OSHA standards require employers to coordinate emergency planning with local emergency response authorities, the existing PSM standard does not. OSHA is considering adding additional requirements for emergency response planning, including coordination with local responders, conducting emergency drills, and evaluation of local emergency response capabilities.

OSHA is considering requiring that employers establish a process to identify, prevent, prepare for, and/or respond to emergencies, including:

- Development of plans to prevent and minimize risks for potential emergencies, such as the availability of emergency response resources (e.g., medical rescue, crisis response, law enforcement, fire departments, etc.);
- Periodic testing of the emergency plans through drills and similar activities, such as tabletop exercises.

API believes that the requirement for coordination with local emergency responders is adequately addressed in multiple existing regulations and interconnected standards, as follows:

- OSHA (29 C.F.R. § 1910.38, stating that an emergency action plan must include at a minimum “[p]rocedures for reporting a fire or other emergency,” 29 C.F.R. § 1910.120, and 29 C.F.R. § 1910.1200);
- EPA (40 C.F.R. § 68.95(c));



- DHS (6 C.F.R. Part 27) and
- DOT (29 C.F.R. § Part 172 Subpart H) regulations.

API members already provide information on coordination with local emergency responders to various agencies and organizations as required by other regulatory requirements such as EPA's Risk Management Plan (RMP) and Emergency Planning and Community Right-To-Know Act (EPCRA), and Department of Homeland Security's Chemical Facility Anti-Terrorism System (CFATS). API members coordinate site emergency planning with local emergency-responders.

Therefore, API recommends that OSHA focus its resources on using or enhancing emergency response coordination activities already required under other existing regulations and not expand such requirements beyond those already included in the PSM standard. If OSHA wishes to address the issue of local response, rather than adding another regulatory obligation to industry or local responders (who are often strapped and unable to comply well with their existing obligations to interface with industry), it ought to lead an effort with state governments to fix the problem of local responders' insufficient resources.

If OSHA believes there are gaps in the regulations related to employer coordination with local emergency responders or the capabilities of local responders, these short-comings should be addressed elsewhere such as EPCRA and not in the PSM Standard due to its narrowly-focused purpose.

It is important to note that much of the country's local responders have limited capabilities that OSHA should be aware of in considering changes to the PSM Standard. Based on the type and location of the facility, a wide range of response requirements exist. Some API members use on-site response resources, not local emergency responders for incidents inside the fence line. In addition, some smaller responders do not have adequate equipment to deal with larger scale emergencies; therefore sites rely on internal highly-trained and well-equipped teams. In some cases, mutual aid agreements exist with other sites to ensure the site is properly prepared for an emergency. Additionally, at some exploration and production sites, responders may only respond at the incipient stage and isolate equipment, and outside response is not necessary.

For emergency drills, if OSHA moves forward with a proposed revision to the PSM Standard, API requests that, at minimum, OSHA should accept compliance for emergency drill field exercise obligations via equivalent exercises conducted under other federal or state laws. Further, emergency drills should be site-specific. If an emergency drill requirement is included in the PSM standard, it should give employers flexibility in determining the frequency and types of drills to be conducted.

While periodic emergency drills are common, a requirement that each drill must require full staff participation provides challenges, especially when the level of participation is not defined. Many times, the entire staff at a facility may be involved simply by the fact that they hear the drill announcement, knowing that, if the announcement were not a drill, they would take the appropriate action. API member companies would consider this as full staff participation; however it is not clear that this is what OSHA intended by this wording.

OSHA should also be aware that it is often difficult to coordinate with local emergency responders. They are often challenged since they can be responsible for responding to a wide variety of plants

and can easily become overwhelmed by the new level of demand placed on them by a regulation like OSHA is considering. OSHA must not hold sites responsible for local responders that are either unable or unwilling to coordinate with the sites. Local responders often decline invitations to the site and/or repeatedly cancel drills or visits. These situations could become even more common if many additional PSM-covered sites are required to coordinate with local responders for drills, site visits, etc.

Finally, OSHA must recognize that many exploration and production sites are very remote and not near local emergency responders, thus complying with OSHA's potential PSM regulatory provisions would be very problematic, if not impossible. In addition, 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.

Process Hazards Management Sign-Off

Subsection (e)(5) of the existing PSM standard requires that the employer “establish a system to promptly address the [PHA] team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; [and] document what actions are to be taken.” Typically, a PHA team identifies hazards and, when relevant, makes recommendations to management, who then decides whether or not to implement those recommendations. Management may decide and justify why no action is required on some recommendations. Also, the creation of a recommendation does not necessarily mean the PHA team has determined the existing safeguards are inadequate.

OSHA is considering adding requirements to § 1910.119(e)(5) specifying that if management decides not to implement or make modifications based on PHA team findings and recommendations, management will ensure that the hazard identified by the PHA team has been adequately addressed. This could take the form of a formal document with management signature(s), approving the actions taken (or lack thereof) in order to resolve PHA team recommendations.

API contends that the PSM standard already requires that PHA findings be resolved and documented, noting that a decision not to act on a specific PHA recommendation is a resolution of that recommendation and would be documented by regulation. API does not believe that asking for management sign-off on a site's decision not to implement a PHA recommendation would not change the process or resolution, nor would it reduce risk. API believes the existing PSM documentation process and requirements are adequate to ensure PHA recommendations are properly resolved and documented. OSHA should also recognize that, fundamentally, there are different ways to solve a problem or to engage in an oil and gas operation. With regard to exploration and production activities, the on-site managers and personnel are best positioned to make engineering decisions based upon their knowledge of the geology, equipment, conditions, and other local factors. There are often various safe alternatives for engaging in a drilling, stimulation, or completion activity, and OSHA regulations should ensure that decision-makers have flexibility to employ good engineering judgment in these situations.

Root Cause Analysis

Currently, PSM-covered establishments are required to investigate incidents (§ 1910.119(m)), but they are not required to conduct a root-cause analysis. Learning from incidents and near misses is an effective way to prevent future incidents, but is best accomplished when investigations determine and address the underlying or root causes of the incidents rather than solely determining the initiating events. OSHA is considering the addition of a requirement to § 1910.119 specifying that the employer conduct a root-cause investigation of all incidents.

As noted above, PSM already covers incident investigations, recognizing that they can be valuable tools in evaluating and reducing risk. However, by requiring a root-cause analysis, as discussed in the materials provided to the public to date, it appears OSHA is contemplating specific root-cause analysis methodologies for all incident investigations. If OSHA is considering such an approach, API recommends that OSHA provides flexibility and 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 predetermined methodologies, OSHA would be undermining the performance-based approach of PSM. In addition, this proposal also ensures that new and improved investigation techniques are unlikely to be developed.

API believes the preferred incident investigation approach is directly related to the specific incident to be evaluated including the task/procedure at the time of the incident, the process/material involved, the physical environment, the personnel involved, etc. Based on this information, an investigation team, comprised of relevant experts, is established to conduct the investigation. This process is best served by regulations that are flexible and can be adapted to the specific incident or near-miss being investigated. In sum, API supports retaining the current requirement in the PSM standard.

Third Party Compliance Audits

At present, the PSM standard requires that employers certify that they have evaluated compliance with the PSM provisions at least every three years and that the audit is performed by at least one person knowledgeable in the covered process (§ 1910.119). An audit report must also be prepared, and responses must be made to the audit findings. OSHA is considering amending § 1910.119 to require that an audit be conducted by a qualified third-party auditor as well as adding a definition of a qualified third-party auditor.

API opposes requiring the mandatory use of 3rd party auditors to conduct PSM compliance audits. Rather, each operator should have the ability to use the best auditor available, regardless of whether internal, from another company site (2nd party), or a 3rd party. OSHA has provided little supporting evidence that PSM auditing failures are related to PSM performance and that the use of 3rd party auditors would result in safety improvements. While some companies chose to use independent third-parties to conduct or participate in some of their PSM audits, a mandate to require the use of 3rd parties would impose significant costs and other resource demands on companies and is not justified by industry safety performance data. API suggests that it is more important for OSHA to focus on the audit program/requirements and the quality and competency of the auditors, regardless of their affiliation.



The use of 3rd party auditors also introduces concerns with protection of intellectual property, confidential business information as well as site security concerns (i.e., Transportation Worker Identification Credential (TWIC), background checks, need for escorts, etc.). These concerns are not present with the use of internal auditors.

API also has concern regarding the availability of competent 3rd party auditors. The experience in response to the BSEE SEMS 3rd party audit requirement has been that there have not been sufficient competent resources to fill this role. This is a particular concern when considering the vast number of additional exploration and production sites that could potentially be covered by the PSM regulations.

Additionally, API is concerned that the definition of a ‘qualified third-party auditor’ has not been provided. If for example, OSHA were to follow EPA’s lead with the ‘qualifications,’ then the concerns with the use of third-party auditors would be increased.

Finally, API is very concerned with the motivation behind this proposal. There is a dearth of evidence indicating an existing problem needs to be addressed. The gains to be realized are questionable at best. All this and the increased costs associated with 3rd party auditors fails to support OSHA’s proposal. As a result, API believes the proposed change is intended to transfer much of the burden for ascertaining compliance from the compliance officer onto the backs of the 3rd party auditors, particularly if OSHA’s proposal tracks EPA’s proposed 3rd party audit requirements.

By comparison, for years the industry has been concerned with the potential misuse by OSHA of voluntary self-audits. In a letter or interpretation regarding potential misuse, OSHA stated “[a]n effective inspection for compliance with [OSHA Standard] requirements must consider information the employer has compiled concerning workplace safety and health conditions and performance.”²⁶ While OSHA later issued a policy stating “the Agency will not use self-audit reports as a means of identifying hazards upon which to focus during an inspection,”²⁷ API member experience indicates otherwise. OSHA does use voluntary self-audits as part of its enforcement efforts. With this proposal, the Agency appears to be taking the next step: proposing the usage of 3rd party auditors as the Agency’s enforcement personnel.

In summary, API believes that OSHA should not mandate the use of 3rd party auditors but rather leave the sites with the discretion to design audit programs that best meet the needs of their facility as required under the current PSM regulations. Ultimately, it is the responsibility of the company/site to determine how to verify compliance with the PSM regulations through the use of internal, 2nd party, and/or 3rd party auditors.

²⁶ September 11, 1996 Letter of Interpretation to Frank White of Organization Resources Counselors, Inc. available at https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22265.

²⁷ Final Policy Concerning the Occupational Safety and Health Administration’s Treatment of Voluntary Employer and Health Self-Audits, 65 Fed. Reg. 46498 (July 28, 2000).

New Management System Elements and Record Control Processes

OSHA's existing PSM standard uses a management system approach to prevent releases of highly hazardous chemicals. When OSHA promulgated the PSM standard in 1992, the standard adopted management-system elements based on best practices from industry at the time. However, best practices have continued to evolve since 1992, and additional management system elements are recognized as effective in preventing incidents. OSHA is considering the following additions or changes to § 1910.119 in management-system elements: Written PSM Management Systems; Employee Participation and Stop Work Authority; Periodic Evaluation and Corrective Actions; Performance Metrics, Root-Cause Analysis; and Documented Management Decisions on PHA recommendations.

Many elements of the existing PSM standard already require documentation with particular record retention periods. The elements that do not require documentation were previously determined not to need documentation as were the decisions regarding retention requirements. OSHA has not provided any new information that indicates that these past OSHA decisions were inadequate and should be revised.

Conversely, it appears to API that now requiring additional documentation covering all the PSM elements would be costly, administratively burdensome, and would not result in any meaningful improvements in safety or risk reduction. This is another example of attempting to revise a regulation that is not "broken," diverting safety resources from more meaningful activities to yet another paperwork activity.

Process Safety Performance Indicators

Under the section of the Background Document that addresses "Alternatives that Affect the Requirements of PSM," OSHA discusses Alternative 6 which would specify and limit the process safety indicators, as part of the evaluation and corrective action that all PSM-covered facilities must track.

Although OSHA has not determined which safety indicators would be specified for tracking, API does not support mandating particular indicators. While OSHA outlines some perceived benefits for having a prescribed set of indicators, API believes these benefits are far outweighed by the problems that would result from such a prescribed list of indicators. Several industries covered by the existing PSM regulations already have process safety indicator programs and have been collecting, analyzing, and acting on the data to improve process safety performance. Many of these existing programs have indicators agreed to via industry standards and best practices while other beneficial indicators, often the leading indicators, are more appropriately determined at the site level based on the site's particular needs.

API believes it would not be helpful and would actually set back industry safety performance if companies/sites were required by OSHA to new prescribed performance indicators, possibly at the expense of collecting other indicators that may be providing more value in driving process safety performance improvements.



Conclusion

API and its members appreciate the opportunity to provide comments regarding revisions OSHA is considering to the PSM Standard. API and OSHA share the goal of promoting process safety through conformance with the PSM standard as well as through other industry and individual company efforts. However, at this time, API can't readily determine where OSHA's potential revisions to the PSM standard will promote and improve process safety.

As discussed above in our comments, API has major concerns with some of the issues OSHA is contemplating, including:

- Altering the exemption status for Atmospheric Storage Tanks
- Inclusion of Oil and Gas Well Drilling, Servicing and Production Facilities
- Amending PSM Standard to Require Evaluation of Updates to RAGAGEP
- Inclusion of Safer Technology and Alternatives Analysis
- Requiring Root-Cause Analysis
- Requiring 3rd Party Analysis

API is concerned about the operational impacts, costs, and unintended consequences of the changes being considered by OSHA. These concerns are exacerbated by the fact that OSHA has not shown specific, compelling data to indicate that safety will be significantly improved by implementing the potential revisions. Based on these conclusions and the supported discussions in our comments above, API respectfully requests that OSHA halt this rulemaking, so data and information can be collected that would support potential targeted changes to the PSM standard.

API looks forward to initiating a comprehensive dialogue with OSHA as the rulemaking process moves forward, including potential meetings later this year in conjunction with other OSHA activities. Even more broadly, API will continue to be actively engaged with OSHA and other stakeholders as OSHA contemplates possible revisions to the PSM regulation. Thank you.

A handwritten signature in black ink that reads "R Chittim".

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