



Jessica Spiegel
Regional Director

December 28, 2018

Ms. Tari Enos
Administrative Regulations Analyst
Washington State Department of Labor & Industries
P.O. Box 44620
Olympia, WA 98504

Via email to: psmcomments@lni.wa.gov

Re: Process Safety Management Amended Rulemaking, (Chapter 296-67 WAC, Safety Standards for Process Safety Management of Highly Hazardous Chemicals)

Dear Ms. Enos:

The Western States Petroleum Association (WSPA) submits this comment letter and enclosure in response to the Washington State Department of Labor & Industries' (L&I) second discussion draft of the Process Safety Management (PSM) rule for petroleum refineries (Second Discussion Draft).

WSPA and its member companies appreciate the opportunity to provide comments on the Second Discussion Draft and further participate in the stakeholder process that has allowed WSPA and others to provide feedback throughout the rule making process. The Second Discussion Draft reflects some of the proposed changes suggested by WSPA in response to the First Discussion Draft, which provided some improvement of the draft. Although WSPA believes that those changes are a positive first step, there are a number of other revisions set forth in our comments from which the Second Discussion Draft would benefit. WSPA appreciates L&I's engagement during stakeholder meetings and encourages L&I to further explore the suggestions and alternatives in our submissions so that the proposed PSM regulation can be improved.

WSPA shares L&I's commitment to reduce the risk of accidental releases and supports process safety management improvements. However, WSPA and its members have remaining concerns with the scope and language of the Second Discussion Draft. The enclosure to this letter entitled "*WSPA's Comments on L&I's Second Discussion Draft*" documents each of WSPA's specific concerns. Generally, WSPA is concerned that the Second Discussion Draft as currently written eliminates the strengths of the current PSM rule, which has been effective at keeping employees and communities safe. The expanded scope of the proposed PSM regulation risks diluting employer resources by prescribing a multitude of tasks that are often duplicative and that do not address the risk of a major uncontrolled release. And, the Second Discussion Draft incorporates some elements of the California PSM rule that have been problematic to implement since that rule went into effect.

This letter and enclosure supplement the comment letter WSPA submitted on May 14, 2018, in which it provided feedback on the First Discussion Draft of the proposed PSM regulation. WSPA member representatives, with over 150 years of practical process safety experience, spent over 2500 hours reviewing and commenting on the First Discussion Draft. WSPA continues to prefer its suggested revisions to the First Discussion Draft reflected in its May 14, 2018 letter and enclosure and believes they would create a revised rule that accomplishes the shared goal of improved process safety management in the State of Washington. WSPA

encourages L&I to re-review and consider those comments as the rulemaking process proceeds. WSPA incorporates those comments herein by reference.

Additionally, WSPA has also provided written input to and participated in several L&I stakeholder meetings in advance of and after the release of the Second Discussion Draft. We also incorporate the comments made in those previous submissions herein by reference.

I. The Second Discussion Draft's Expanded Requirements Seek to Regulate Activities and Equipment That Pose Little or No Process Safety Risks

WSPA's members remain concerned that some of the language used in the Second Discussion Draft is overly broad and would trigger significant and burdensome operational requirements that are likely to result in little to no process safety benefit. WSPA's members believe that a successful process safety program requires the concentration of key resources and employee focus on efforts most likely to prevent catastrophic incidents. The expanded scope of the Second Discussion Draft thus raises concerns that it will have a detrimental impact on process safety because achieving compliance will require a significant workload increase for employees and work groups on tasks with minimal safety value. Diverting employer resources and personnel toward unproductive compliance obligations will also make it more difficult for employees to identify critical process safety activities and prioritize the most impactful work in terms of preventing major incidents.

Accordingly, WSPA believes that it is essential to retain the existing PSM rule's core focus on preventing and mitigating the *consequences* of catastrophic releases, rather than eliminating all risks that could contribute to a release, regardless of size, severity, or impact. The federal PSM standard takes this approach, which the Occupational Safety and Health Administration (OSHA) acknowledges has been effective when properly implemented in significantly decreasing the number of reportable incidents and employee injuries or fatalities at PSM-covered facilities. For example, the federal standard applies to processes involving specific, listed highly hazardous chemicals above a threshold quantity, which reflects its prioritization of safety-critical tasks focused on mitigating the most serious risks that may lead to a catastrophic release. Similarly, the federal rule excludes atmospheric storage tanks and some utilities from PSM coverage in recognition of the fact that they are unlikely to contain highly hazardous chemicals that pose an uncontrolled risk of release.

In contrast, the Second Discussion Draft remains significantly broader than Washington's existing PSM rule and the federal PSM standard in its scope, application, and purpose. In fact, many of the Second Discussion Draft's definitions, examples of which are listed below, even exceed the scope of those contained in California's recent PSM rule.¹ The Second Discussion Draft is not limited to processes with highly hazardous chemicals above a threshold quantity, but rather would apply to all processes found within a petroleum refinery fence line with chemicals in any quantity. The Second Discussion Draft also eliminates the existing coverage exemptions such as atmospheric storage tanks. However, not all processes in a refinery have the potential for a catastrophic release, and expending resources to bring new processes into PSM compliance for which there are no credible scenarios presenting a risk of catastrophic release dilutes employers' ability to focus on truly safety-critical scenarios.

¹ California adopted different definitions of "highly hazardous materials," "major incident," "utility," and "qualified."

As described above, WSPA's members support improvements to the existing PSM rule that will result in likely safety benefits in the workplace. However, WSPA suggests that such improvements can be made by revising the existing PSM provisions in the Washington Administrative Code and making targeted improvements rather than adopting an entirely new rule. Doing so would allow for modernization of the PSM rule's requirements while maintaining the targeted scope, application, and purpose that has been so effective in reducing the number and severity of release incidents at PSM covered facilities. Alternatively, WSPA believes that certain revisions impacting the scope of the Second Discussion Draft will increase the safety benefits of the rule by returning the focus to high value process safety work that is targeted at the prevention of process safety incidents with the potential to be catastrophic.

First, WSPA recommends modifying certain definitions within the Second Discussion Draft that, as written, would significantly expand the scope and coverage of PSM requirements and that trigger onerous and unproductive compliance obligations. Specifically:

- The Second Discussion Draft revises the prior draft's definition of "highly hazardous chemical (or material)" to delete the word "highly." This change implies that the rule will not differentiate between chemicals or materials with respect to their relative hazards or the extent to which their potential impact in a release event varies based on quantity or their hazardous properties. WSPA recommends reverting to the definition of "highly hazardous chemical (or material)" proposed by WSPA in its comments regarding the First Discussion Draft.
- The Second Discussion Draft replaces the prior draft's definition of "major incident" with "process safety incident," which it defines broadly as a "near miss, unplanned release, process equipment failure, or other event within or affecting a process that could cause a fire, explosion, or release of a hazardous chemical or material." In contrast, the First Discussion Draft's definition of "major incident" was limited to only those events that have the "potential to result in death or serious physical harm." The scope of incidents that fall within the definition of "process safety incident" will determine when employers must conduct incident investigations, conduct a hierarchy of hazard controls analysis (HCA), prepare a written analysis of human factors associated with past covered incidents, and implement post-incident corrective actions or interim measures. The Second Discussion Draft's broader definition of covered incidents will also expand the workload associated with HCAs, process hazard analyses (PHAs), and safeguard protection analyses (SPAs), with little to no safety benefit, given that employers will be required to conduct these analyses with respect to incidents that do not have the potential to cause death or serious physical harm. Given the dilution of employer and personnel resources that would result, WSPA recommends reverting to the definition of "major incident" proposed by WSPA in its comments regarding the First Discussion Draft.

Additional examples of significant definitions that expand the scope of the rule are included in the enclosure to this letter.

II. PSM Works Best as a Performance-Based Regulation

WSPA is also concerned that the Second Discussion Draft contains overly prescriptive requirements that also will function to dilute the benefits of the performance-based PSM rule that has proven to be effective. The last quarter of a century of experience with the PSM standard demonstrates that it works best as a performance-based regulation in which the

regulator sets specific goals and the covered employer selects the best means of compliance. OSHA stated in the preamble to the final PSM rule that “[w]hen OSHA issued its final report on the Special Emphasis Program for the Chemical Industry (Chem SEP), among its findings were that ‘specification standards . . . will not . . . ensure safety in the chemical industry . . . [because such standards] tend to freeze technology and may minimize rather than maximize employers safety efforts.’ The Chem SEP report recommended a new approach to the identification and prevention of potentially catastrophic situations. This approach would involve ‘performance-oriented standards . . . to address the overall management of chemical production and handling systems.’”²

A PSM performance-based standard enables subject matter experts with specific, detailed knowledge of each covered process and its potential hazards to safely and effectively control those potential process safety hazards. The performance-based PSM rule that exists today has encouraged innovative approaches to managing risk, which has led to new industry consensus documents on a variety of issues like facility siting, fatigue management, high temperature hydrogen attack, process safety indicators, and other PSM procedures and practices. These innovations occurred within the confines of the existing PSM rule and did not require additional regulations to prompt those changes. In fact, broad prescriptive requirements would make it less likely that employers could exercise professional engineering judgment in the development of new and innovative methods to control and eliminate process safety hazards. A prescriptive approach may hinder the regulatory goal of safely eliminating or reducing process hazards by imposing unnecessary burdens on covered employers’ time and resources without addressing significant underlying hazards.

Furthermore, the use of prescriptive requirements in the PSM rule ignores the fact that they may not be effective in all situations and, at times, may deflect employee focus and attention on other safety activities that the employer deems critical given the particular circumstances of a specific facility. For example, the Second Discussion Draft requires employers to conduct a PSCA every five years, which must include consideration of eleven specifically enumerated “elements of process safety leadership.” However, in the refining industry—as in many other industries—every facility has developed a unique safety culture over the course of decades, which includes a unique set of safety strengths and areas that require additional focus.

Developing an effective safety culture takes time and requires flexibility for the employer to establish safety objectives specific to the facility, develop a plan to achieve those objectives, and sustain safety improvements over time. WSPA’s members believe that every refinery should have the ability to rely on the unique experience of their employees and data in their possession to determine the process safety culture improvement areas that are most appropriate for their facility. Requiring employers to focus on the eleven specific PSCA items listed in the Second Discussion Draft could result in employers lacking the ability to focus on the items that the employer has determined would deliver the biggest process safety culture gain, or identifying other elements that are not listed that would achieve the same result.

For the same reasons, WSPA believes that it is essential that refineries be permitted to select the recognized and generally accepted good engineering practices (RAGAGEP) that they believe are most appropriate for their facilities, including internal standards that they have developed over time. There are two important RAGAGEP developments in recent years that should guide L&I’s modernization of this concept. Federal OSHA provided detailed guidance for interpreting and enforcing RAGAGEP in its May 11, 2016 memorandum to Regional

² 57 Fed. Reg. 6,356, 6,357 (Feb. 24, 1992).

Administrators. In addition, the Occupational Safety and Health Review Commission rendered a decision September 27, 2018 in the BP-Husky case that provides substantial additional direction to OSHA and employers for complying with and enforcing RAGAGEP. Importantly, both confirmed the performance oriented nature of the PSM Standard, the employer's authority to select its own RAGAGEP, and that employers internal standards can comprise RAGAGEP. L&I should incorporate those recent developments in any modifications it makes to the PSM Standard.

Finally, many of the prescriptive requirements in the Second Discussion Draft are redundant, and would require employers to needlessly duplicate resources in order to comply with overlapping PSM requirements. For example, the Second Discussion Draft requires that employers conduct PSM compliance audits every three years and process safety culture assessments (PSCAs) every five years. However, the Second Discussion Draft requires employers to evaluate many of the same factors when conducting both an audit and a PSCA. This duplication of resources and time diverts employee time and attention toward onerous tabletop or paperwork exercises and away from critical safety activities. WSPA is concerned that doing so would increase the risk that employees miss a critical safety item because they are overwhelmed with the volume of work associated with completing these prescriptive compliance obligations.

In short, WSPA's members believe that the true experts on process safety are the engineers, operators, and other employees who have day-to-day experience working with the processes in question. Those individuals are familiar with the equipment, the chemicals or materials that are present, and the potential safety hazards that must be managed. Their careers, and in some circumstances, their lives depend on a process operating safely and a robust process safety culture. All of the benefits from the existing PSM rule in terms of reducing incidents and injuries, and developing new technologies and guidance documents, are the result of good engineering judgment by engineers and experts in the field. WSPA strongly encourages L&I to take note of this expertise and reconsider the prescriptive requirements for detailed analyses and report writing contained in the Second Discussion Draft related to PSCAs, HCAs, SPAs, Damage Mechanism Reviews (DMRs), and human factors analyses that will eliminate employer flexibility and divert engineers and employees from more critical tasks that have a direct impact on safety.

III. The Second Discussion Draft Creates Confusion and Is Subject to Multiple Interpretations

WSPA believes that precise regulatory language ensures better industry understanding and compliance. Accordingly, WSPA is concerned that the Second Discussion Draft contains a number of ambiguous terms that deviate from their commonly understood meaning and that remain open to interpretation, both by industry and the regulator.

Regulated entities are required to be put on notice as to what activity will violate a health and safety standard. A safety and health standard is unconstitutionally vague if it is not sufficiently definite "that ordinary people can understand what conduct is prohibited" and it "does not encourage arbitrary and discriminatory enforcement."³ Putting it another way, so long as the standard "conveys sufficiently definite warning as to the proscribed conduct when measured by common understanding and practices," it will pass constitutional muster.⁴ The terms listed below fail this test, as the "common man," and employers alike, will be left guessing as to their

³ *U.S. v. Pitt-Des Moines, Inc.*, 168 F.3d 976, 986 (7th Cir. 1999).

⁴ *U.S. v. Shrader*, 675 F.3d 300, 310 (4th Cir. 2012).

precise meaning and application, as demonstrated by the variety of comments in the Second Discussion Draft meetings.

Specifically, a number of the definitions contained in the Second Discussion Draft are inconsistent with the definitions and terms in other safety and health standards and their commonly understood industry meaning. The definition of “qualified” is one good example.

- The Second Discussion Draft defines a “qualified” operator as one who “by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated their ability to solve, collaborate, or resolve problems relating to the subject matter, the work, or the project.” This definition is inconsistent with the way Federal OSHA and industry typically defines a “qualified” operator—someone who is able to do their assigned job correctly and safely, either as a result of education, experience, or both. Whether or not an employee has “successfully demonstrated” their ability to solve problems is irrelevant so long as that fundamental criterion is met. Furthermore, the successful demonstration of an ability to solve problems is a vague and indefinite concept that provides insufficient guidance to employers as to what is expected. The Second Discussion Draft’s definition of “qualified” is also inconsistent with the Second Discussion Draft’s training provisions, which state that employers have the discretion to establish the criteria used to determine whether an employee is “qualified.” WSPA recommends adopting a definition of “qualified” that is aligned with the common industry understanding of the terms.

WSPA’s members believe that revising this term and those included in the enclosure and their requirements to conform with their common usage throughout industry as well as with similar definitions in other safety and health standards will benefit process safety by improving stakeholder understanding of what precisely the Second Discussion Draft requires to ensure compliance.

IV. The Second Discussion Draft’s Employee Collaboration Provisions Conflict with the Federal National Labor Relations Act and Raise Co-Employment Concerns

As WSPA described in its May 14, 2018 comment letter, the First Discussion Draft contained a number of provisions requiring employee collaboration on committees and teams involved in various stages of process safety management that conflict with federal labor law. The First Discussion Draft also required covered employers to exercise a level of control over contractor employees that would essentially convert independent contractors into employees.

WSPA remains concerned about these provisions, which were retained in the Second Discussion Draft. Indeed, the issues these provisions raise are magnified by the Second Discussion Draft’s revised definition of “affected employee,” which was modified to include not only refinery employees, but also their representatives as well as contractor employees and their representatives. As such, this definition functionally extends an employer’s PSM communication, training, and collaboration obligations to cover a wide range of individuals who are not actually employees as that term is commonly understood and, in some cases, may never even have performed any work at the facility in question. The Second Discussion Draft does not contain any language permitting employers to limit compliance with these requirements to the circumstances in which they are actually applicable to the specific representatives in question. For example, it does nothing to improve process safety to require an employer to provide PSM training to employee representatives from outside of the refinery who never work in or around any covered processes.

Moreover, as explained in more detail in WSPA's May 14, 2018 comment letter, the requirement that employers "establish effective procedures in consultation with affected employee(s) for the selection of employee representatives" to collaborate in PSM program development and implementation planning would likely constitute an unfair labor practice under the National Labor Relations Act (NLRA). By requiring employers to establish procedures for selecting employee representatives to serve on safety committees, the Second Discussion Draft implicitly imposes on employers the duty to determine the structure and procedures of the committees and teams and to set their agendas. This constitutes a mechanism for bilateral engagement on mandatory subjects of bargaining between employers and employee representatives, and would thus establish an employer-controlled forum for de facto bargaining in non-unionized workplaces. This constitutes a violation of the NLRA.⁵ The items that an employer must consider during a human factors analysis also potentially conflict with federal labor law. A number of those items are typically considered exclusive management rights, such as the right to determine staffing levels, work schedules, and overtime. Where there is a collective bargaining agreement containing a "management rights" clause in effect at a facility, these items are mandatory subjects of bargaining that may only be changed by mutual agreement of the employer and the union through good faith collective bargaining negotiations. As such, requiring employers to evaluate and revise these elements outside of the collective bargaining process would constitute a violation of federal labor law.

Finally, defining "affected employees" to include contract employees expressly converts independent contractors into employees for the purposes of federal and state wage and hour laws. Given that employee representatives already participate in developing, implementing, and maintaining all required PSM elements, WSPA sees no safety benefit that justifies the Second Discussion Draft's expanded definition of "affected employee." Thus, WSPA's members recommend reverting to the proposed definition incorporated in WSPA's comments to the First Discussion Draft.

V. Conclusion

WSPA thanks L&I for reviewing its members' comments regarding the Second Discussion Draft. WSPA would like to stay closely involved in this process as L&I develops a timeline for the issuance of a proposed rule in the agency's CR-102, as well as the timeline for implementing new or changed requirements once the rule is finalized. WSPA members and L&I have a long history of working together to improve employee safety and health, and WSPA believes that tradition can and should continue here.

WSPA also encourages L&I to consider alternatives to moving forward with a CR-102 based on the Second Discussion Draft absent significant changes. As mentioned previously, WSPA does not believe that the available data regarding process safety performance justifies this rulemaking. As the federal Occupational Safety and Health Administration observed when it recently considered revising the federal PSM standard, the overall number of fatalities and injuries that involved days away from work at PSM-covered facilities decreased substantially between 2003 and 2013, with the decrease in fatalities having become "more pronounced in recent years."⁶ Although there may be targeted updates to the existing PSM provisions in the Washington Administrative Code that may be beneficial, WSPA does not believe that the

⁵ See *Goody's Family Clothing, Inc.*, NLRB Div. of Advice, No. 10-CA-26718, 1993 WL 7267909 (Sept. 21, 1993) (stating that an employee safety committee composed of employer and employee representatives who were mandated by Tennessee's occupational safety and health law to meet and discuss safety issues violated the NLRA).

⁶ OSHA, SER Background Doc. 13 (2016), <https://osha.gov/dsg/psm/>.

Ms. Tari Enos
December 28, 2018
Page 8

available evidence justifies a wholesale redrafting of the rule. Moreover, if L&I thinks that additional action with respect to PSM-covered facilities is necessary, it already has more effective tools at its disposal to address specific industries or employers that pose unique dangers, such as instituting a state emphasis plan or engaging in enforcement activities through L&I's Severe Violators Enforcement Program.

We would be pleased to meet with you to review and explain these comments and proposals in further detail. Please contact me if you have any questions regarding WSPA's comments. Again, we have enclosed a more detailed list of proposed revisions to the language of the Second Discussion Draft that we believe would create a more workable rule.

Sincerely,

A handwritten signature in black ink, appearing to be 'Tom Umenhofer', written in a cursive style.

Enclosure

cc: Tom Umenhofer, WSPA
Liz Smith, L&I
Alan Lundeen, L&I



Enclosure

**WSPA Detailed Comments
Washington PSM 2nd Discussion Draft**

December 28, 2018

WSPA Comments on the Washington PSM 2nd Discussion Draft

Contents

I.	Purpose	3
II.	Problematic Definitions.....	3
	(a) Hazardous Chemical or Material	3
	(b) Major Change	4
	(c) Major Incident and Process Safety Incident.....	4
	(d) Process	6
	(e) Process Equipment.....	7
	(f) Process Safety Hazard	8
III.	Definitions That Conflict with Typical Industry Usage.....	8
	(a) Affected employee	8
	(b) Human Factors	10
	(c) Isolate.....	11
	(d) Outage.....	12
	(e) Process Safety Culture.....	13
	(f) Qualified	13
	(g) Temporary Pipe or Equipment Repair.....	14
IV.	Problematic Requirements Due to Prescriptiveness or Lack of Clarity	15
	(a) Employee Collaboration: Access to Documents.....	15
	(b) Operating Procedures: Handling, controlling and stopping leaks, spills, releases and discharges	15
	(c) Training: Implementation Timing.....	16
	(d) Contract Employer Responsibilities for Collaboration and Contractor Employee Representative	16
	(e) Prestartup Safety Review: Process Equipment Maintained and Operable in Accordance with Design Specifications.....	17
	(f) Mechanical Integrity: Equipment deficiency repairs.....	18
	(g) Mechanical Integrity: Equipment deficiency evaluations of similar equipment.....	18
	(h) Incident Investigation - Root Cause analysis	19
	(i) Incident Investigation - Report.....	20
	(j) Compliance Audits – Auditor Qualifications.....	21
	(k) Process Safety Culture Assessments – Elements	21
	(l) Process Safety Culture Assessments – Signatory	22
	(m) Human Factors – RAGAGEP.....	23
V.	Recommended Edit Table for Items Not Covered in Document Narrative.....	23

WSPA Comments on the Washington PSM 2nd Discussion Draft

I. Purpose

WSPA's objective is to protect people; this objective is and should be the focus of process safety management. The approach of process safety management includes identifying hazards and managing the risks associated with those hazards, with the goal of protecting people. A change to focus process safety management on eliminating hazards inappropriately diverts attention from the true goal of protecting people from the consequences of process safety incidents. Elimination of a hazard is one effective method, but minimization of the risks associated with the hazard is an equally effective method. Not all hazards present the same risk and it is important to differentiate between significant process safety risks and situations that are not significant process safety risks to facilitate employer, employee, and contractor focus on preventing major incidents. Refer to WSPA's previous comments on Purpose, Scope, and Application.¹

II. Problematic Definitions (intertwined definitions broaden scope with potential for negative impact on process safety):

When a condition or event falls within one of the definitions noted below, it triggers one or more of the PSM element requirements as described below. The substantial expansion of the requirements under the draft PSM Regulation resulting from these changes eliminates differentiation between significant process safety risks and situations that are not significant process safety risks. This will require the implementation of new procedures, equipment, and/or maintenance activities to address low-risk situations and will unnecessarily consume limited resources, making it more difficult for the workforce to manage the most impactful work for preventing major incidents or to identify critical process safety activities. This unnecessary demand on resources will also create human factors issues due to information and activity overload for operators, mechanics, inspectors, engineers, and managers.² Ultimately this dilutes efforts to prevent releases of highly hazardous materials that have the potential to cause death and serious injury.

WSPA presents their comments on problematic definitions from the second draft below along with a description of the issues each of those definitions creates and WSPA's recommendation for an alternative approach.

(a) Hazardous Chemical or Material.

A substance possessing toxic, reactive, flammable, or explosive properties.

Problem Description:

The normally used term in PSM regulation, Highly Hazardous Chemical or Material, was modified to Hazardous Chemical or Material in the second draft. WSPA's previous comments³ recommended reverting to original WAC language. Removing the word "Highly" implies that all materials are equally hazardous regardless of their properties or quantities (toxic, reactive, flammable, or explosive). This change requires identical treatment for every spill or release and triggers PSM requirements that may not be justified by the risks associated. For example, a small quantity release of lubricating oil or a very small fugitive gas leak detected during routine Leak Detection and Repair activities does not present a process safety risk but would be treated identically to a large vapor release. Removing "highly" compounds the expansion of "flammable" in the draft regulation. The current WAC PSM definition of "flammable" includes liquids with a flashpoint below 100 degrees F and Category 1 gases. The draft definition includes

¹ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 1.

² "Task Saturation" is a key theme discussed in aircraft safety. "Flawless Execution," by James D. Murphy, who spent 8 years as an F-15 fighter pilot flying numerous missions in Iraq and other locations, identifies task saturation as a significant factor in fighter pilots' performance during their missions.

³ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 9.

WSPA Comments on the Washington PSM 2nd Discussion Draft

liquids with a flashpoint below 200 degrees F and Category 2 gases. This expansion of PSM applicability would require significant additional resources to address lower risk hazards and would further dilute the focus on the most important process safety activities. Furthermore, the draft language creates a lack of clarity for “toxic” materials because “toxic” refers to a broad definition and is not bounded by specific named chemicals and threshold quantities or even by a threshold acute toxicity level.

WSPA Recommendation:

Revert to the normally used term in PSM regulation, Highly Hazardous Chemical or Material, and the original WAC language for the definition.

(b) Major Change.

Any of the following:

- a) Introduction of a new process, new process equipment, or new hazardous material;
- b) Any operational change outside of established safe operating limits; or,
- c) Any alteration that introduces a new process safety hazard or worsens an existing process safety hazard.

Problem Description:

The definition of Major Change in the second draft has been broadened further by the removal of the term “highly” in front of “hazardous material” in a) and the broader definitions for the terms used to describe Major Change including process, process equipment, hazardous material, and process safety hazard. The effect of this change will be requiring PSM analyses and processes for changes that do not have the potential to result in a major incident and diluting the focus on process safety. WSPA’s previous comments recommended clarifying the definition of Major Change to be applicable to changes with potential to result in Major Incidents. Removing the word “highly” implies no differentiation of materials and their potential impact, properties, or quantities. Under this definition, virtually every change requires the same treatment, triggering time intensive additional PSM requirements that are not justified by the risks. These requirements include Hierarchy of Hazard Control studies and Damage Mechanism Reviews. Feedback on Cal OSHA’s revision of the “Major Change” definition indicates that the regulators and industry are struggling with implementation because the Cal OSHA definition is so broad that it triggers PSM analyses for inconsequential changes. The second draft definition broadens the problematic California definition even further, and if implemented, will result in greater problems for regulators and refiners in Washington.

WSPA Recommendation:

Replace the second draft definition⁴ with the previously recommended WSPA definition which includes the word “highly” in front of “hazardous material”.

Major Change. 1) An alteration to a covered process that introduces a new process safety hazard with the potential to cause a major incident or worsens an existing process safety hazard with the potential to cause a major incident by the introduction of new process equipment, new highly hazardous material, or an operational change outside of established safe upper and lower limits. 2) The introduction of a new covered process.

(c) Major Incident and Process Safety Incident.

In the second draft, Major Incident was replaced with a new term Process Safety Incident with a new definition.

⁴ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 16.

WSPA Comments on the Washington PSM 2nd Discussion Draft

First Draft:

Major Incident. An event within or affecting a process that causes a fire, explosion or release of a highly hazardous material and which has the potential to result in death or serious physical harm.

Second Draft:

Process Safety Incident. A near miss, unplanned release, process equipment failure, or other event within or affecting a process that could cause a fire, explosion, or release of a hazardous chemical or material.

Problem Description:

The second draft significantly broadens the scope of actual and potential incidents or events governed by the regulation. Events that have no impact on process safety would be unnecessarily and inappropriately included, as would incidents or near misses that have no potential for death or serious physical harm because the draft definition is not limited by potential consequences. Particularly problematic is that the definition gives no consideration for potential consequences associated with a “release of a hazardous material or chemical”. By treating all incidents the same, focus shifts from preventing high consequence incidents to trying to eliminate all risk, even if consequences are manageable.

For example, a ppm level fugitive gas leak at a valve bonnet would be an unplanned release of a hazardous material as defined by the second draft. Without the quantification of a limit for the hazardous material or the limitation for events that have the potential for death or serious physical harm, this event (which would be managed by an environmental program to reduce fugitive emissions), becomes a Process Safety Incident. In the Incident Investigation section of the draft, the event would trigger an Incident Investigation and a Hierarchy of Hazard Control Analysis for resulting recommendations. The Hazard Analysis section of the draft requires the team to address findings of incident investigations in the Process Hazard Analysis (PHA) and to perform a Safeguard Protection Analysis for each PHA scenario “that identifies the potential for a process safety incident”. Actual Process Safety Incidents, such as the valve bonnet ppm level fugitive gas leak, would be evaluated for safeguards. Additionally, resulting recommendations from the PHA require a Hierarchy of Hazard Control Analysis. The Damage Mechanism Review (DMR) section of the draft requires a DMR review or recommendation to complete a DMR (if one is not complete) where a damage mechanism is a contributing factor. The Human Factors section of the draft requires a written analysis of human factors that, at a minimum represents RAGAGEP relevant to incident investigations. These studies result in recommendations and interim measures.

The definition also includes “near miss” and is coupled with words like “potential”, “could reasonably have resulted in”, and “possible” in requirements for Process Hazard Analysis, Safeguard Protection Analysis, Hierarchy of Hazard Control Analysis, and Incident Investigation. For example, Incident Investigations are required for an incident that “could reasonably have resulted in, a process safety incident”. Therefore, an investigation is required for a “potential” near miss. Incident Investigations for events that have no potential for death or serious physical harm would result in additional work, procedures and tasks for employees, all defined as being process safety critical.

The draft regulation does not allow for differentiation between a highest risk level incident and a low risk incident, nor to determine when the studies or tasks will be effective for preventing major incidents. Implementing the important PSM activities well will more effectively prevent process safety incidents than expanding current PSM activities and covering more equipment and processes that do not necessarily have the potential for death or serious physical harm.

WSPA Comments on the Washington PSM 2nd Discussion Draft

WSPA Recommendation:

WSPA recommends replacing the term and definition of Process Safety Incident with Major Incident as defined below. The definition for Major Incident needs to be limited by the potential for death or serious physical harm. The term “near miss” should not be used in the definition of Major Incident. Instead, L&I should only specify actions in response to a “near miss” that has the potential to cause death or serious physical harm, in individual sections of the PSM rule such as in Incident Investigation, where appropriate. The PSM element requirements should focus on preventing a major incident that has the potential to cause death or serious physical harm. Additionally, since a fire or explosion does not occur independently of an uncontrolled release, those terms do not need to be specified.

WSPA’s recommended definition does not include “has the potential for death or serious physical harm,” because the requirements in the draft address potential incidents, making it duplicative to include “potential” in the definition. The draft requirements listed below clarify that the draft regulation addresses potential incidents without including “potential” in the definition of Major Incident.

- SPA: (2)(a) For each scenario in the PHA that identifies the potential for a process safety incident, the employer must.....
- HCA: (3)(d) The HCA team must: (II) identify, characterize, and prioritize risks posed by each process safety hazard;
 - Process Safety Hazard defined as “a hazard of a process that has the potential for causing a process safety incident.....”
- Incident Investigation: (1) The employer must develop, implement and maintain effective written procedures for promptly investigating and reporting any incident that results in, or could reasonably have resulted in, a process safety incident.

WSPA members currently take into account the potential consequences of an incident when determining whether to conduct an investigation, selection of investigation methodology, and for scenario development when conducting hazard analyses. Further, L&I stated in stakeholder meetings that they currently do not have any concerns with WSPA members’ level and quality of investigations involving potential death or serious physical harm. WSPA’s recommended wording modifications clarify the current practice.

WSPA recommends replacing Process Safety Incident with Major Incident throughout the draft regulation, using the following definition:

Major Incident. A major uncontrolled release of a highly hazardous material that results in death or serious physical harm.

(d) Process.

Any activity involving a hazardous chemical or material, including:

(a) Use; (b) Storage; (c) Manufacturing; (d) Handling; (e) Piping; (f) Release mitigation; (g) Utilities;.....

Problem Description:

In the second draft, the definition for Process was revised by removing the word “highly” as a modifier of “hazardous chemical or material” and by adding Utilities without limiting utilities to those that may contribute to a major incident in the event of failure or malfunction. The risk of utility failures or malfunction resulting in death or serious physical harm can be effectively and completely managed by considering such failure or malfunction as an initiating event. For example, in refinery process units, a loss of cooling water may trigger over-heating of process equipment. This differs from scenarios that would be considered when conducting a PHA for a cooling water tower which would include evaluating a cooling water loss of containment event. The broader Process

WSPA Comments on the Washington PSM 2nd Discussion Draft

definition expands the applicability of PHAs and other studies or requirements such as Safeguard Protection Analysis, Damage Mechanism Reviews, and Operating Procedure requirements. In cases with no potential for death or serious physical harm, this would result in an unnecessary dilution of process safety focus by diverting focus to low value tasks.

WSPA Recommendation:

WSPA supports its previous recommendation⁵ for reverting to the original WAC definition as the best approach. However, at a minimum the term “highly” should be inserted in front of the term “hazardous chemical” and should include only those failures or malfunctions that could contribute to a major incident as shown below:

Process. Any activity involving a highly hazardous chemical or material, including:

(a) Use; through (f) Release mitigation;

(g) Utilities, if in the event of a failure or malfunction they could potentially contribute to a major incident.

(e) **Process Equipment.**

Equipment, including but not limited to pressure vessels, rotating equipment, piping, instrumentation, process control, or appurtenances, related to a process.

Problem Description:

In the second draft the definition for Process Equipment has been revised from “equipment that is part of the process” to the definition above without limiting process equipment by including only that equipment that could potentially contribute to a major incident in the event of failure or malfunction.⁶ L&I stated in stakeholder meetings that the term “appurtenances” is intended to refer to mitigative equipment; however, that is not clear in the draft language. A number of requirements exist in the second draft for Process Equipment such as conducting a Hierarchy of Hazard Control Analysis for new installations, analyzing the failure and potential incidents when conducting Process Hazard Analyses and Safeguard Protection Analyses, developing safety procedures and safe work practices for opening process equipment, Mechanical Integrity program requirements, and MOC requirements. Without limiting Process Equipment to equipment that has the potential to contribute to a major incident in the event of failure, a significant amount of work will be required for equipment that has no potential for contributing to a major incident, at the expense of more important process safety issues. Treating all equipment as if it has the same process safety risks will dilute the process safety focus for operators, mechanics, inspectors, and other staff.

WSPA Recommendation:

Modify the definition of Process equipment:

Process equipment. Equipment, including pressure vessels, rotating equipment, piping, instrumentation, process control, or mitigative equipment, related to a process, which in the event of a failure or malfunction has the potential to contribute to a major incident.

⁵ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 18

⁶ California limited the equipment included in the process to that equipment which “in the event of a failure or malfunction . . . could potentially contribute to a major incident”.

WSPA Comments on the Washington PSM 2nd Discussion Draft

(f) **Process Safety Hazard.**

A hazard of a process that has the potential for causing a process safety incident or death or serious physical harm.

Problem Description:

The use of Process Safety Incident instead of Major Incident in the second draft definition for Process Safety Hazard, broadens the definition to include hazards that have potential for causing near misses or events that have no potential for death or serious physical harm, thus significantly broadening the scope of the rule to include a significant number of low risk hazards. The problems associated with the definition of Process Safety Incident are described in II(c) and impact this definition. The example used above for a ppm level fugitive gas leak from a valve bonnet that is managed with the environmental Leak Detection and Repair Program would result in the valve itself being defined as a hazard of the process. The second draft triggers requirements for addressing Process Safety Hazards such as Major Change, Stop Work, Process Hazard Analysis, and Hierarchy of Hazard Controls Analysis requirements. Similar to the discussion above, the definition of this term creates a substantial amount of work that has no impact on improving process safety and may negatively impact process safety by overloading employees with requirements to perform low-value PSM tasks.

WSPA Recommendation:

WSPA previously recommended that the definition of Process Safety Hazard be revised as shown below, focusing on the potential for causing a major incident, thus addressing the potential for causing death or serious physical harm as part of the definition of “major incident”.⁷

Replace the draft definition with the following:

Process Safety Hazard. A hazard of a process that has the potential to cause a major incident.

III. Definitions That Conflict with Typical Industry Usage

WSPA presents their comments on definitions from the second draft that are different than typical industry usage below along with a brief description of the issues each of those definitions creates and WSPA’s recommendations for alternative approaches.

(a) **Affected employee.**

Anyone who controls, manages, or performs job tasks in or near a process. The term, "affected employee" includes, but is not limited to:

Maintenance employees and their representatives; (b) Operations employees and their representatives; (c) Contract employees and their representatives; and (d) Laboratory employees who perform sampling tasks within a process.

Problem Description:

The definition of Affected Employee includes persons who are not employees of the host employer such as contractors and non-employee employee representatives (“external representatives”). Contractors and external representatives have a different relationship with the refinery employer, governed by contracts and/or laws and codes. For example, external representatives would not be expected to work in process areas and therefore, would not be expected to be exposed to process hazards.

⁷ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 20

WSPA Comments on the Washington PSM 2nd Discussion Draft

In addition, petroleum refineries use a wide variety of contractors to perform services. Some are long-term while others are short-term. Some perform routine maintenance while others perform highly specialized and non-routine activities. Some are exposed to a variety of process safety hazards while the hazards others are exposed to are very limited. In other words, the regulation should not treat all contractors the same, but instead recognize those differences and require adherence to specific elements of the PSM regulation when those elements are relevant to the contractors' activities.

Therefore, contractors and external representatives should not be subject to the same requirements as operations and maintenance employees who work in the process on a routine basis. Contractors and external representatives have different responsibilities, training, participation, and communication needs than employees. Furthermore, their own employers have the primary responsibility for assuring their health and safety and are in a much better position to assure their proper training and competence.

The definition of Affected Employee, along with the term's usage in the second draft, is also unclear. At times both contractors and affected employees are subject to a specific draft requirement. Employee Representatives are listed separately in the PSM requirements in addition to being included in the Affected Employee definition. Some of the requirements for employees do not apply to contractors or employee representatives. To clarify the regulation, it should identify different work groups in the relevant requirement when the work group is involved or impacted and revert to a definition of Affected Employee that only includes employees of the host employer. Employee Representatives do not need to be included in the definition of Affected Employee as the relevant sections call them out specifically.

As stated in previous comments⁸, WSPA believes that the term Affected Employees should be focused on those involved in operating or maintaining a covered process. The Contractor Section of the Discussion Draft includes contractors and vendors adequately.

WSPA Recommendation:

Modify the definition of Affected Employee consistent with WSPA's previous recommendation:

Affected employee. Employees who operate or maintain a covered process, such as: (a) Maintenance personnel; (b) Operations personnel; and (c) Support personnel, such as technical or environmental, health, and safety (EHS) professionals. Note: "Support personnel" does not include employees providing incidental services which do not influence process safety, such as janitorial work, food and drink services, laundry, delivery, or other supply services.

To the extent that L&I determines that contractors need training, access to information or communication, the specific requirement should include contractors, when relevant to assigned job tasks. The following identifies WSPA's recommended modifications for each PSM element of the second draft:

PSI:

(3) The employer must provide for employee collaboration, pursuant to section XXXX. The PSI must be made available to all employees and relevant PSI must be made available to affected employees of contractors. Information pertaining to the hazards of the process must be effectively communicated to all affected employees and contractors when relevant to job tasks.

⁸ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 4.

WSPA Comments on the Washington PSM 2nd Discussion Draft

PHA:

(1)(e) The team must document its findings and recommendations in a PHA report, which must be available in the respective work area for review by any affected employees working in that area and to contractors when relevant to job tasks.

Operating Procedures:

(2) Written operating procedures must be readily accessible to all affected employees, including the employees of contractors, when relevant to job tasks, and any other affected employee who works in or near the process.

Operating Procedures:

(5) The employer must develop, implement, and maintain effective written safe work practices applicable to all affected employees and employees of contractors when relevant to job tasks. Safe work practices must be established for specific activities that include, but are not limited to...

Training:

(1) Initial training. (a) Each affected employee involved in the operation of a process, and each employee prior to working in a newly assigned process, including employees of contractors, when relevant to job tasks, must be trained in an overview of the process and in the operating procedures, pursuant to WAC 296-67-XXXX. (b) Each affected employee involved in the maintenance of a process, and each maintenance employee prior to working in a newly assigned process, including employees of contractors, when relevant to job tasks, must be trained in an overview of the process and in the relevant hazards and safe work practices, pursuant to section WAC 296-67-XXXX.

MOC:

(6) Affected employees and employees of contractors, when relevant to job tasks, must be informed of, and effectively trained in, the change in a timely manner, prior to implementation of the change.

Incident Investigation:

(3) The employer must establish an incident investigation team, which at a minimum must consist of a person with expertise and experience in the process involved; a person with expertise in the employer's root cause analysis method; and a person with expertise in overseeing the investigation and analysis. The employer must provide for employee collaboration pursuant to section XXX. If the incident involved the work of a contractor, a contractor with knowledge pertaining to the incident must be included on the investigation team.

Incident Investigation:

(10) Within one week upon the completion of reports required under subsection six, the reports must be provided to affected employees and employees of contractors, when relevant to job tasks. Upon request the employer must review the report with affected employees and employees of contractors, when relevant to job tasks. These reports must be provided upon request to affected employee representatives and employers of affected employees.

(b) Human Factors.

The design of machines, operations and work environments such that they closely match human capabilities, limitations and needs. Human factors include:

WSPA Comments on the Washington PSM 2nd Discussion Draft

- a) Environmental factors;
- b) Organizational and job factors;
- c) Human and individual characteristics such as fatigue, that can affect job performance;
- d) Process safety;
- e) Health and safety, and
- f) Potentially adverse consequences created by the design of equipment or systems within a process.

Problem Description:

In the second draft, the reorganization results in the appearance that “(d) Process safety, (e) Health and Safety, and (f) Potentially adverse consequences created by the design of equipment or systems within a process” are Human Factors. From stakeholder discussions, WSPA believes that L&I intended that “process safety” and “health and safety” are areas potentially impacted by “(c) Human and individual characteristics such as fatigue”. WSPA believes that “Potentially adverse consequences created by the design of equipment or systems within a process” does not belong since consequences and equipment design are not human factors. The draft regulation addresses design of equipment and systems to minimize consequences elsewhere.

Previously WSPA recommended⁹ a definition that is consistent with definitions in existing literature. WSPA believes that its recommended definition below is the best solution and that human factors are more appropriately incorporated into PHA and other sections where relevant and appropriate rather than as a standalone section in the Discussion Draft. However, if L&I chooses to use the definition in draft one and two, we recommend organizing as shown below. See further comments in the Human Factors Section.

WSPA Recommendation:

Replace with the following definition provided in WSPA’s prior comments:

Human Factors. A discipline concerned with designing machines, operations, and work environments so that they are adapted to human capabilities, limitations, and needs. Includes technical work (engineering, procedure writing, worker training, worker selection, etc.) related to the human factors in operator-machine systems.

At a minimum, if L&I plans to use the second draft definition, replace with:

Human Factors. The design of machines, operations, and work environments such that they closely match human capabilities, limitations, and needs. Human factors include:

- (1) *Environmental factors;*
- (2) *Organizational and job factors;*
- (3) *Human and individual characteristics such as fatigue, that can affect job performance, process safety, or health and safety.*

(c) **Isolate.**

To completely protect workers against the release or introduction of hazardous material or energy by such means as:

Blanking, inerting, or blinding; Misaligning or removing sections of lines, pipes, or ducts; Implementing a double block and bleed system; or Blocking or disconnecting all mechanical linkages so that the process can continue to operate or remain pressurized while discrete sections of the facility are taken out of service for maintenance or inspection.

⁹ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 11.

WSPA Comments on the Washington PSM 2nd Discussion Draft

Problem Description:

The term Isolate is typically used to describe how to prevent transmitting or releasing energy from a process when performing maintenance work. In the second draft, the definition of Isolate is similar to the way it is used when referring to protecting workers during maintenance activity (LOTO). However, the term is only used once in the second discussion draft with respect to isolating a leaking vessel or piece of equipment, which is a very different context than the type of activities described by the proposed definition.

During an emergency response, an operator is likely to simply shut off flow into or out of the piece of equipment. This can often be done by closing block valves or bypassing the equipment.

On the other hand, isolation is the first step in preparing to clear equipment for maintenance or repair. Isolation steps such as installing blinds or using double block and bleeds assure that maintenance tasks may be performed safely. The definition of Isolate should be replaced with one appropriate for the context of the relevant section (Operating Procedures Section (6)(b) in the second draft).

WSPA Recommendation:

Consistent with WSPA's prior comments¹⁰, WSPA recommends replacing the definition with the following definition:

Isolate. To stop flow into or out of a vessel, piping, or piece of equipment where a leak, spill, or discharge is occurring so that the leak may be addressed.

(d) **Outage.**

Any occasion, including scheduled turnarounds, during which a process or part of a process is taken off stream. Outages also include the reduction of temperatures and/or pressures within equipment, and total or partial shutdowns of a process to: (a) Perform maintenance; (b) Overhaul or repair of a process and process equipment; or (c) Perform routine and non-routine maintenance, where such maintenance consists of regular, periodic maintenance on one or more pieces of equipment that may require shutdown of such equipment.

Problem Description:

The definition of outage in the second draft is problematic given how it is used in the Mechanical Integrity section (4)(a) Equipment deficiencies. It may not be possible to complete repairs on the "first outage", using the second draft definition, if a piece of equipment is still in service with reduced temperature or pressure. For example, if a heat exchanger bank is taken off line for cleaning and the temperature in an associated vessel decreases, the vessel may still be in service and not available for a repair.

Given that "first outage" triggers specific repair requirements, the regulation should distinguish between planned and unplanned outages and tie the repair requirements to planned outages when sufficient advance notice is provided for proper planning and conditions are suitable to complete the required action (e.g., reducing pressure and temperature of a piece of equipment for a repair may not be adequate to allow safe implementation of some other action). An example of not having sufficient advance notice may be when a metallurgical flaw is found in a pressure vessel during a non-destructive on-the-run inspection and a fitness for service analysis determines that the

¹⁰ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 15.

WSPA Comments on the Washington PSM 2nd Discussion Draft

equipment is safe to operate following codes and state requirements. The long-term repair may involve replacing the pressure vessel; however, the pressure vessel can't be designed, fabricated, and installed in time for a shutdown that is scheduled for the next month.

Additionally, multiple stakeholders have recommended removing the requirement in Mechanical Integrity (4)(a) which is the only place the word Outage is used in the second draft.

WSPA Recommendation:

Remove definition. See Mechanical Integrity section below for WSPA's comments about the requirement that uses the term. WSPA previously recommended¹¹ that when using the terms "shutdown" and "turnaround", the regulatory provision should provide sufficient time for planning required repairs including time for engineering and acquisition of long lead delivery items. WSPA previously commented¹² on potential difficulties with completing permanent repairs within a fixed timeframe as there may be long lead times for delivery of parts or materials or detailed engineering. The current Mechanical Integrity (MI) provision already requires that the employer correct deficiencies before further use or in a timely manner when necessary means are taken to ensure safe operation. WSPA members believe that the language of "necessary means are taken to ensure safe operation" to mean that any temporary repair would be required to be safe to operate until such time as a permanent repair can be performed with long lead items.

(e) [Process Safety Culture.](#)

A combination of group values and behaviors that reflects whether there is a collective commitment by organizational leadership to emphasize process safety over competing goals, in order to ensure the protection of employees.

Problem Description:

WSPA previously recommended¹³ and still recommends that the Process Safety Culture Assessment section and the definition of Process Safety Culture be removed. However, WSPA would like to point out a serious conflict between the way industry uses the term "process safety culture"¹⁴ and the second draft definition which focuses only on the collective commitment of organizational leadership. Leaders have an important role in shaping a facility's process safety culture; however, industry understands the term to include the commitment of the facility's entire workforce to operate safely and how well that commitment is demonstrated in the way the entire workforce engages in process safety activities and performs their assignments.

WSPA Recommendation:

Remove definition. If, however, L&I proposes a regulation with Process Safety Culture requirements and a definition, the definition should be modified to include a facility's entire workforce.

(f) [Qualified.](#)

Any employee, who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated their ability to solve, collaborate, or resolve problems relating to the subject matter, the work, or the project.

¹¹ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 17 and 23.

¹² WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 61 and 62.

¹³ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 19.

¹⁴ Center for Chemical Process Safety, *Risk-Based Process Safety*, John Wiley & Sons, 2007, p. viiii.

WSPA Comments on the Washington PSM 2nd Discussion Draft

Problem Description:

In the second draft Qualified Operator was replaced with Qualified. The definition for Qualified Operator is understood in industry with associated training and qualification programs. Operator qualifications are very important for safe operation of a process unit. The new definition implies that the employer training and qualification requirements for an operator no longer need to be met. The operator could have extensive knowledge, training, and experience and demonstrate an ability to solve problems related to the subject matter without being qualified by an employer. For example, an employer may require that an operator know stabilizing actions for emergency scenarios in his or her process unit as well as familiarity with many other important aspects of safe operation. The second draft refers to a “qualified operator” in the majority of instances rather than another type of “qualified” individual such as a skilled PHA facilitator.

The draft definition of Qualified is subjective and intended to apply more broadly to personnel who perform specific tasks. The new draft definition emphasizes the ability to collaborate and is applied to employees who perform MOCs or SPAs rather than just to process unit operators. When performing PSM analyses, employees need to have specific knowledge or skills necessary to perform the work, but this should not be defined as solving, collaborating, or resolving problems which are more general (though useful) skills. Also, the definition in the second draft could be interpreted to mean that only one of the listed skills (solving, collaborating, or resolving problems) is needed to be Qualified which means, for example, that demonstrating only a capability to collaborate is sufficient for one to be qualified. The definition of Qualified needs to be focused on the quality of the task being conducted rather than solving, collaborating, or resolving problems. The latter issues can be addressed in the Employee Participation requirements.

WSPA Recommendation:

Remove the definition of Qualified and describe the skills employees need to perform the MOC and SPA in those specific elements and include the definition below for Qualified Operator.

Alternatively, modify the definition of Qualified and include a definition for Qualified Operator:

Qualified: Any employee, who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated their ability to perform a particular task.

Qualified Operator. A worker who has fulfilled the requirements of the employer’s operator training program.

(g) [Temporary Pipe or Equipment Repair.](#)

A temporary repair of an active or potential leak from process piping or equipment. This definition includes active or potential leaks in utility piping or utility equipment, and flange or valve packing leaks that could result in a process safety incident.

Problem Description:

The second draft broadened the repairs that are included in the Temporary Pipe or Equipment Repair definition, thereby broadening MOC and Mechanical Integrity Equipment Deficiency requirements for these repairs. The definition has been broadened in two ways from the first discussion draft: 1) by removing the qualification that utility leaks must “affect a process” and 2) by changing Major Incident to Process Safety

WSPA Comments on the Washington PSM 2nd Discussion Draft

Incident. WSPA previously recommended¹⁵ removing the definition since the meaning of Temporary Repair is well understood in the industry and when it is relevant to a particular requirement, that term can be included in the appropriate provision. The second draft definition of this term will increase requirements without an associated process safety benefit. Refer to above discussion on the definitions of Process, which includes Utilities, and Process Safety Incident.

WSPA Recommendation:

Remove definition. If L&I decides to include a definition for Temporary Pipe or Equipment Repair then, at a minimum, it should revert back to the language in the first draft.

IV. Problematic Requirements Due to Prescriptiveness or Lack of Clarity

This section provides WSPA's comments on prescriptive or unclear requirements from the second draft below along with a brief description of the problems these create and WSPA's recommendation for an alternative approach.

(a) Employee Collaboration: Access to Documents

Second Draft Language:

(1)(c) Access by employees and employee representatives to all documents or information developed or collected by the employer, including information that might be subject to protection as a trade secret.

Problem Description:

In (1)(c) the words "pursuant to this section" following "the employer" were removed in the second draft. The scope of documents that the employer would need to provide access to under the draft is unlimited but should be limited to documents related to meeting the requirements of the draft regulation.

WSPA Recommendation:

Revert to the first draft for (1)(c) requiring access to be provided to documents related to process safety element requirements in this section. WSPA also recommends adding in the relevant new PSM elements in (1)(a) consistent with comments by several stakeholders.

(b) Operating Procedures: Handling, controlling and stopping leaks, spills, releases and discharges.

Second Draft Language:

(5)(d) Handling, controlling and stopping leaks, spills, releases and discharges;

Problem Description:

(5)(d) has been broadened from requiring Safe Work Practices for "The handling of leaks, spills, releases, or discharges of highly hazardous materials" to applying to leaks, spills, releases, and discharges of any material. This will require the development of safe work

¹⁵ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, P. 23.

WSPA Comments on the Washington PSM 2nd Discussion Draft

practices for leaks, spills, or releases that have no potential for causing death or serious physical harm and will create unnecessary work with no process safety benefit. A safe work practice is not necessary for handling a cooling water leak or for overfilling a lubrication oil reservoir, for example.

WSPA Recommendation:

Revert back to the language in the first draft for (5)(b), “The handling of leaks, spills, releases, or discharges of highly hazardous materials”

(c) Training: Implementation Timing

Second Draft Language:

(5) Within twenty-four months of the effective date of this chapter, the employer must develop, implement, and maintain an effective written training program to ensure that all affected employees are aware of and understand all PSM elements described in this chapter. Employees and employee representatives participating in a team pursuant to this chapter must be trained in the PSM elements relevant to that team.

Problem Description:

24 months to develop, implement and maintain a written training program for all employees is overly aggressive. Some of the PSM elements are entirely new to the employer and some will need significant modification.

WSPA Recommendation:

Implementation of new process safety requirements such as training should be phased in at a pace that is appropriate for the individual facility rather than assuming that implementation can conform to a fixed schedule. Therefore, WSPA reserves the right to comment on implementation timing during the CR-102 process once the requirements are understood.

(d) Contract Employer Responsibilities for Collaboration and Contractor Employee Representative

Second Draft Language:

Contractors Section

(4) The refinery employer and contract employer must provide for employee collaboration, pursuant to WAC 296-67-XXXX.

Employee Collaboration Section

(4)(b) Effective procedures to ensure the right of all employees, including employees of contractors, to anonymously report hazards. The employer must respond in writing within thirty calendar days to written hazard reports submitted by employees, employee representatives, contractors, employees of contractors and contractor employee representatives.

Incident Investigation Section

(3) If the incident involved the work of a contractor, a representative of the contractor’s employees must be included on the investigation team.

Problem Description:

In Contractors (4), contractor employers are required to provide for contractor employee collaboration as a new responsibility. Contractors (4) references the Employee Collaboration section for requirements that include having a contractor employee representative. There is also a shared responsibility for the refinery employer. The

WSPA Comments on the Washington PSM 2nd Discussion Draft

second draft has a specific role for the contractor employee representatives for reporting hazards and for participating in Incident Investigations. The requirements described in the draft regulation in the Employee Collaboration section may not apply to the contractor employer's business. For example, contractors do not typically participate in the PSM studies such as a PHA or DMR and many are at the job site only for short term project specific work. Contractors may not have contractor employee representatives at all of the job sites. The draft requirements and the employer's role in these requirements, or which party, the employer or the contract employer, would be accountable for compliance remains unclear.

WSPA Recommendation:

Remove requirement (4) for collaboration in Contractors Section.

Modify the contractor employee representative requirement in the Incident Investigation Section to include a contractor rather than a representative for the contractor.

(3) If the incident involved the work of a contractor, a contractor with knowledge pertaining to the incident must be included on the investigation team.

Include requirements for contractor employers, contractor employees, and contractor employee representatives (if L&I proposes such requirements) in the contractor section of the regulation, including requirement in Employee Collaboration Section (4)(b), to clarify the requirements and make them easier to find.

(e) [Prestartup Safety Review: Process Equipment Maintained and Operable in Accordance with Design Specifications](#)

Second Draft Language:

(2) The pre-startup safety review must confirm all of the following prior to the introduction of hazardous materials to a process:

- (a) Construction, maintenance, and repair work has been performed in accordance with design specifications;
- (b) Process equipment has been maintained and is operable in accordance with design specifications;

Problem Description:

The second draft added "(b) Process equipment has been maintained and is operable in accordance with design specifications." It is possible that maintenance work has been substantially completed for a process unit prior to startup, but that some existing equipment may not have yet been permanently repaired or some new equipment may not be completely installed. As currently drafted, the PSSR is problematic given the broad definition of Process Equipment in this draft and the need to be able to plan work and obtain materials. Even if some equipment is not been completely repaired or installed, the employer is nonetheless required to operate the process safely with temporary or permanent repairs as stated in the Mechanical Integrity section until the repair or installation can be completed.

WSPA Recommendation:

Remove requirement (2)(b) in the Pre-startup Review Section since the Mechanical Integrity Section requires maintaining and operating equipment within design specifications.

WSPA Comments on the Washington PSM 2nd Discussion Draft

(f) Mechanical Integrity: Equipment deficiency repairs

Second Draft Language:

(4) Equipment deficiencies.

(a) The employer must correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information (PSI)) before further use or in a safe and timely manner when necessary means are taken to ensure safe operation. For purposes of this section, "safe and timely" is defined as the first outage after the deficiency is detected. If a temporary repair fails, the employer did not take necessary means to ensure safe operation.

Problem Description:

The correction of mechanical integrity deficiencies can sometimes require substantial engineering, design, procurement, delivery and construction related activities. Depending upon the complexity of the corrective action, those preparatory activities could take months or even years. The second draft's definition of outage coupled with the requirement noted above to implement corrective action at the first outage will make compliance with this provision difficult if not impossible with respect to more complex or resource intensive corrective actions. WSPA encourages L&I to include language in the mechanical integrity provision that provides employers with sufficient time to plan for and implement corrective actions.

In the second discussion draft the following was added:

(4)(a) states that, "If a temporary repair fails, the employer did not take necessary means to ensure safe operation." The term "fails" is ambiguous and it appears a determination is being made without investigation or understanding what the employer did or what the potential impact might be. This is further complicated by the broad definition of process equipment in the second draft. Stakeholders agreed to revise (4)(a) to eliminate: 1) the definition of "safe and timely" as the first outage; and 2) the determination that the employer did not take necessary means to ensure safe operation if a temporary repair fails.

WSPA Recommendation:

Replace (4)(a) with:

The employer shall correct deficiencies in equipment that are outside acceptable limits defined by the process safety information (PSI) in WAC 296-67-013 before further use or in a safe and timely manner when necessary means are taken to assure safe operation.

(g) Mechanical Integrity: Equipment deficiency evaluations of similar equipment

Second Draft Language:

(5)(f) Once an equipment deficiency or failure mechanism is identified, substantially similar equipment in similar service must be evaluated for the same deficiency or failure mechanism.

Problem Description:

The requirement in section (f), "Once an equipment deficiency or failure mechanism is identified, substantially similar equipment in similar service should be evaluated for the same deficiency or failure mechanism," is redundant and overly prescriptive because the Mechanical Integrity provisions already require that: 1) inspections and tests must be informed by operating history and equipment maintenance history; 2) deficiencies must

WSPA Comments on the Washington PSM 2nd Discussion Draft

be addressed; and 3) equipment must be safe to operate. Therefore, if a similar deficiency exists in similar equipment, the periodic inspections already required by this provision would identify it.

Oftentimes, the existence of a mechanical deficiency on one item of equipment has no bearing on the condition of a similar item even if the service is similar. The evaluations that are required for each situation that arises are already covered in the MI section.

WSPA Recommendation

WSPA recommends draft provision (5)(f) be removed. If L&I decides to include such a provision, at a minimum it should be modified as follows:

(f) Once an equipment deficiency or failure mechanism is identified that could result in a major incident, the employer must determine if substantially similar equipment in similar service should be evaluated for the same deficiency or failure mechanism.

(h) Incident Investigation - Root Cause analysis

Second Draft Language:

(1) The employer must develop, implement and maintain effective written procedures for promptly investigating and reporting any incident that results in, or could reasonably have resulted in, a process safety incident. The written procedures must include an effective method for conducting a thorough root cause analysis, including identification of management system failures and organizational and safety culture deficiencies.

Problem Description:

The first draft stated, "The written procedures must include an effective method for determining the root cause of an incident," whereas the second draft requires conducting a thorough root cause analysis. The term, "root cause analysis", has different meanings to different employers. Employers use different investigation methodologies for different types of near misses or incidents. L&I has stated that the intent is to provide for flexibility in choosing appropriate investigation methodologies. WSPA believes the regulation should make it clear that such flexibility exists.

Also, not all incidents and near misses have an underlying management system failure or organizational and safety culture deficiency. The regulation should not assume that all incidents in all cases were caused by some management system failure or safety culture deficiency. Instead the investigation team needs to be able to determine if there are management system causes.

As discussed above, "Process Safety Incident" should be replaced with "Major Incident" to focus on prevention of incidents that could result in death or serious physical harm and to prevent dilution of Process Safety.

WSPA Recommendation:

WSPA previously submitted comments¹⁶ recommending that the original WAC language be used because the language is well understood and determining root cause is inherent in the methodologies identified in that provision. However, if L&I proceeds to modify the language to require determining root cause, L&I should at a minimum revert back to language in the first draft:

(1) The employer must develop, implement and maintain effective written procedures for promptly investigating and reporting any incident that results in, or

¹⁶ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, Page 70

WSPA Comments on the Washington PSM 2nd Discussion Draft

could reasonably have resulted in, a major incident. The written procedures must include an effective method for determining the root cause(s) of an incident.

Or modify the language in the second draft as follows:

(1) The employer must develop, implement, and maintain effective written procedures for promptly investigating and reporting any incident that results in, or could reasonably have resulted in, a major incident. The written procedures must include an effective method for conducting a thorough root cause analysis, such as a Fault Tree, 5-Why, Cause and Effect, or other method that determines root causes, including identification, as relevant and appropriate, of management system failures and organizational and process safety culture deficiencies.

(i) Incident Investigation - Report

Second Draft Language:

(6) The incident investigation team must prepare a written investigation report within ninety calendar days of the incident. The team must prepare a final investigation report within four months of the incident.

(g) The incident investigation team's recommendations;

(10) Within one week upon the completion of reports required under subsection six, the reports must be provided to affected employees. Upon request the employer must review the report with affected employees. These reports must be provided upon request to affected employee representatives and employers of affected employees.

(11) Any draft or final report required in subsection six and related documentation must be provided immediately to the department upon written request.

Problem Description:

The second draft (6) requires that a final report must be complete within 4 months of the incident. WSPA agrees that timely investigation is important, however, for complex incidents it may not be possible to complete the report in 4 months. For example, a final report may require destructive testing of in-service equipment for a metallurgical analysis; or a process engineering analysis may require a process unit test run for validation. The language does not provide for extensions in appropriate circumstances.

The second draft (10) requires that the final report include "The incident investigation team's recommendations." This change in language doesn't make it evident that the recommendations are tied to the incident investigation, only that they need to be made by the team. The language should clearly state that the recommendations must be tied to the incident.

The second draft (11) requires that "Any draft or final report required in subsection six and related documentation must be provided immediately to the department upon written request." This language implies that the employer needs to implement a document control system for managing all drafts so they can be provided at any time. L&I has stated that the intent is that the employer provides the current draft of the investigation report. This is also problematic. A draft report may contain theories, inaccuracies, and incomplete information not fully vetted or supported by the team. The team should be able to freely explore technical and operational possibilities for incident sequences, causes, and potential solutions without being concerned that the team's hypotheses (or hypotheses of individuals on a team) could be shared with the regulator. The requirement to provide a draft at any time will likely have a negative or chilling impact on

WSPA Comments on the Washington PSM 2nd Discussion Draft

the investigation process. Instead, L&I should use the normal information request process to obtain any needed information until a final report, pursuant to the regulation, is complete.

WSPA Recommendation:

WSPA believes the original WAC language is sufficient and should be retained. If L&I decides to modify this provision, it should, at a minimum, change the second draft language as follows:

Modify (6):

The incident investigation team must prepare a written investigation report within ninety calendar days of the incident. The team must prepare a final investigation report within four months of the incident, unless the employer demonstrates in writing that it is infeasible to do so.

Revert to the first draft for (g):

Any recommendations resulting from the investigation;

And modify (11):

The final report required in subsection six and related documentation must be provided to the department upon written request.

(j) [Compliance Audits – Auditor Qualifications](#)

Second Draft Language:

(2) The compliance audit must be conducted by at least one person with expertise and experience in the requirements of the section under review. As part of the compliance audit, the employer must consult with operators with expertise and experience in each process audited and must document the findings and recommendations from these consultations in the written report. The report must state the qualifications and identity of the persons performing the compliance audit.

Problem Description:

It is possible that an employee may have expertise, but not experience for a new requirement under review. Expertise should be sufficient. For example, a corrosion engineer that is trained in identifying damage mechanisms may not have applied their knowledge of damage mechanisms in the exact manner required by the discussion draft and therefore does not yet have experience in DMR as “the section under review”.

WSPA Recommendation:

Modify (2):

The compliance audit must be conducted by at least one person with expertise in the requirements of the section under review.

(k) [Process Safety Culture Assessments – Elements](#)

Second Draft Language:

(4) The PSCA must at least include an evaluation of the effectiveness of the following elements of process safety leadership:

- a) The employer's hazard reporting program;
- b) The employer's response to reports of hazards;
- c) The employer's procedures to ensure that incentive programs do not discourage reporting of hazards;

WSPA Comments on the Washington PSM 2nd Discussion Draft

- d) The employer's procedures to ensure that process safety is prioritized during upset or emergency conditions.
- e) Employee collaboration practices;
- f) Compliance with government regulations, RAGAGEPs and internal policies and procedures;
- g) Asset integrity and reliability;
- h) Contractor management;
- i) Safe work practices;
- j) Employee competency, training, and performance assurance; and
- k) Compliance audits.

Problem Description:

As stated previously in comments¹⁷, WSPA is concerned that this section attempts to regulate issues that are subjective, not assessed directly and for which there are no consensus assessment methods. Consequently, process safety culture is not a topic that lends itself to regulatory control much less overly prescriptive control. Therefore, WSPA continues to believe that Process Safety Culture Assessment should not be included in a revised Washington PSM Regulation.

The changes made in the second draft require additional prescriptive and, in some cases, duplicative requirements (i.e. requirements (4)(e) – (k)), deviating further from the original intent of the regulation as a performance-based regulation. The Compliance Audits already require an evaluation of compliance with all requirements of the chapter. Process Safety Culture improvements require a sustained effort over time. Different employers' facilities will have different strengths and areas that need improvement based on their current culture, ongoing activities, process safety data, and findings. If L&I nonetheless includes Process Safety Culture Assessments in the regulation, at a minimum there needs to be a great deal of flexibility for an employer to choose areas of focus, methodologies used, and the best approach for implementing and sustaining improvements for the specific refinery.

WSPA Recommendation:

WSPA previously recommended¹⁸ removing Process Safety Culture Assessment requirements. If L&I ultimately decides to require Process Safety Culture Assessments, the requirements should be less prescriptive rather than more prescriptive and provide the employer flexibility to focus on improvements that have a process safety benefit.

(I) [Process Safety Culture Assessments – Signatory](#)

Second Draft Language:

- (8) The refinery manager must serve as signatory to all PSCA reports, corrective action plans and interim assessments.

Problem Description:

The first draft states, "The refinery manager or designee..." The second draft removed the word "designee" causing the regulation to become more prescriptive. The WAC regulations are applicable to the employer. Large facilities such as petroleum refineries have hundreds of employees and contractors. By necessity, authority and responsibility need to be delegated allowing the leaders to focus on larger and more impactful issues. This level of detail is inappropriate and unnecessary because it requires the refinery

¹⁷ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 94.

¹⁸ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 94.

WSPA Comments on the Washington PSM 2nd Discussion Draft

manager to assume responsibilities that are more appropriately delegated to others with more direct involvement in this specific activity.

WSPA Recommendation:

If the Process Safety Culture Assessment requirements remain, revert to the first draft language:

(8) The refinery manager or designee.

(m) Human Factors – RAGAGEP

Second Draft Language:

(2) The employer must include a written analysis of human factors that, at a minimum, represents industry recognized and generally accepted good engineering practices (RAGAGEP) relevant to MOCs, incident investigations, PHAs, MOOCs, and HCAs. The analysis must include a description of the selected methodologies and criteria for their use.

Problem Description:

RAGAGEP does not exist for identifying Human Factors relevant to the PSM elements listed above. During stakeholder discussions with L&I, this type of RAGAGEP could not be identified. Furthermore, WSPA believes that there should not be a separate section devoted to human factors but instead included in the other PSM provisions as appropriate.

WSPA Recommendation:

WSPA believes human factors should be integrated into other elements of the Discussion Draft, such as PHA, MOC, and incident investigations, as appropriate. WSPA recommends identifying human factors to be considered in different areas rather than requiring RAGAGEP (a consensus-based standard for engineering practices) that does not exist for this purpose. If L&I continues to have a separate section for Human Factors, it should, at a minimum, modify the language in (2):

The employer shall include a written analysis of Human Factors, where relevant, in major changes, incident investigations, PHAs, MOOCs, and HCAs. The analysis shall include a description of the selected methodologies and criteria for their use.

v. Recommended Edit Table for Items Not Covered in Document Narrative

Second Draft Language	Discussion	WSPA Recommendation
Feasible. Capable of being accomplished in a successful manner within a reasonable period of time, taking into account health, safety, economic, environmental, legal, social, and technological factors. Economic factors must not be the sole basis in determining feasibility.	This definition is improved from the first draft with the addition of economic factors, however, the addition of the last sentence, "Economic factors must not be the sole basis in determining feasibility." is not consistent with definitions used in industry or by regulators. L&I should only include this restrictive statement with the specific requirement to be restricted, rather than including it in the definition.	Remove the last sentence from the definition and instead only include the sentence with specific feasibility requirements when appropriate. WSPA recommends this definition: <i>Feasible. Capable of being accomplished in a successful manner within a reasonable period of time, taking into account health, safety, economic, environmental, legal, social, and technological factors.</i>

WSPA Comments on the Washington PSM 2nd Discussion Draft

Second Draft Language	Discussion	WSPA Recommendation
<p>Hot Work. Work involving electric or gas welding, cutting, brazing, or any similar heat, flame, or spark-producing procedures or operations, including the use of non-intrinsically-safe equipment.</p>	<p>“Extreme” was replaced with “similar” and the last part of the definition was changed from “or spark producing procedures, operations, or the use of non-intrinsically-safe equipment.” The second draft definition is not clear. It is not clear what “similar” applies to or if “including the use of non-intrinsically-safe equipment” applies to the all of the words that preceded or if it applies to “operations”.</p>	<p>Revert back to the definition used in the first draft:</p> <p><i>Hot work. Work involving electric or gas welding, cutting, brazing, or similar flame or spark-producing operations.</i></p>
<p>Preventative Maintenance. Preventive maintenance tasks are those activities that are carried out when process equipment is shut down.</p>	<p>The definition is not technically correct since employers can perform preventive maintenance tasks when process equipment is shut down and when equipment is operating.</p>	<p>Remove definition since it is a commonly understood term and should not be limited by whether or not the equipment is operating.</p>
<p>Process Safety Performance Indicators. Measurements of the refinery’s activities and events that are used to evaluate the performance of process safety systems.</p>	<p>The second draft included a new definition for Process Safety Performance Indicators that evaluates the performance of process safety systems. It is not clear what is meant by process safety systems. WSPA previously commented that WSPA believes performance indicators are an employers’ responsibility to ensure the success of process safety management and recommended a definition.</p>	<p>Replace definition with previously recommended¹⁹ definition:</p> <p><i>Process Safety Performance Indicators. Measures that may be used to assess process safety performance and process safety management system(s).</i></p>

¹⁹ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 15 and 16.

WSPA Comments on the Washington PSM 2nd Discussion Draft

Second Draft Language	Discussion	WSPA Recommendation
<p>Recognized and Generally Accepted Good Engineering Practices (RAGAGEP). Engineering, operation or maintenance activities established in codes, standards, technical reports or recommended practices, and published by recognized and generally accepted organizations such as the American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), American Society of Mechanical Engineers (ASME), American Society of Testing and Materials (ASTM), National Fire Protection Association (NFPA), and Instrument Society of America (ISA). RAGAGEP does not include standards, guidelines or practices developed for internal use by the employer.</p>	<p>The major problems with this definition are discussed in the cover letter and have previously been included in past comments submitted by WSPA. An additional technical problem is that ISA does not currently mean "Instrument Society of America" as the organization has changed its name. ISA is the acronym for International Society of Automation.</p>	<p>In addition to dealing with the larger problem of the RAGAGEP definition as described in the cover letter, replace "Instrument Society of America" with "International Society of Automation."</p>
<p>Employee Collaboration: (1) In consultation with employees and employee representatives, the employer must develop, implement, and maintain a written plan to effectively provide for employee collaboration in all PSM elements. The plan must include at least the following: Effective collaboration by affected operating and maintenance employees, throughout all phases, in performing: (viii) Process safety startup reviews (PSSRs).</p>	<p>WSPA's major concerns with this section are discussed in the cover letter and have previously been included in past comments²⁰ submitted by WSPA. An additional technical problem is that PSSR in (1)(a)(viii) is not an acronym for Process Safety Startup Review. PSSR means Prestartup Safety Review.</p>	<p>Replace Process Safety Startup Review in (1)(a)(viii) with: <i>Prestartup Safety Review.</i></p>

²⁰ WSPA May 14, 2018 Comments on Proposed PSM Rule and WSPA Comments Matrix on Discussion Draft, p. 25 through 30.

WSPA Comments on the Washington PSM 2nd Discussion Draft

Second Draft Language	Discussion	WSPA Recommendation
<p>Operating Procedures (1) The employer must develop, implement, and maintain effective written operating procedures. The operating procedures must provide clear instructions for safely conducting activities involved in each process. The operating procedures must be consistent with the PSI and, at a minimum, must address the following: Steps for each operating phase or mode of operation: (viii) Non-routine work.</p>	<p>WSPA does not understand what is meant by non-routine work listed in (1)(a)(viii). In discussions with L&I temporary procedures and temporary repair procedures were discussed. Temporary procedures are listed in (iii) and maintenance procedures are not included in this section. In this case, L&I's intent for including all possibilities provides a requirement for the employer that is not clear and is redundant.</p>	<p>Remove (1)(viii) Non-routine work in Operating Procedures Section.</p>
<p>Operating Procedures: (3) Written operating procedures must be reviewed and updated as often as necessary to ensure that they reflect current, safe operating practices. The operating procedures must include any changes that result from alterations in process chemicals, technology, personnel, process equipment or other changes to the facility. Changes to operating procedures must be managed in accordance with the requirements of WAC 296-67-XXXX. (5) The employer must develop, implement, and maintain effective written safe work practices applicable to all affected employees. Safe work practices must be established for specific activities that include, but are not limited to: Opening process equipment or piping; (b) Tasks requiring lock-out/tag-out procedures; (c) Confined space entry; (d) Handling, controlling and stopping leaks, spills, releases and discharges; (e) Control over entry into hazardous work areas by maintenance, contractor, laboratory or other support personnel.</p>	<p>Subsection (3) in the first draft was changed from "The operating procedures must be reviewed and updated as often as necessary to ensure that they reflect safe, current operating practices, including..." to "Written operating procedures must be reviewed and updated as often as necessary to ensure that they reflect current, safe operating practices." A current operating practice in an operating procedure is understood by WSPA. The second draft introduces a new term, safe operating practices, by changing the order of words and grammar. This confuses the requirement. Industry has a common understanding for operating procedures, operating practices and safe work practices as listed in (5), but does not have a common understanding for a "safe operating practice."</p>	<p>In (3), revert back to "The operating procedures must be reviewed and updated as often as necessary to ensure that they reflect safe, current operating practices, including..."</p>

WSPA Comments on the Washington PSM 2nd Discussion Draft

Second Draft Language	Discussion	WSPA Recommendation
<p>Operating Procedures: (5) The employer must develop, implement, and maintain effective written safe work practices applicable to all affected employees. Safe work practices must be established for specific activities that include, but are not limited to: (a) Opening process equipment or piping; (b) Tasks requiring lock-out/tag-out procedures; (c) Confined space entry; (d) Handling, controlling and stopping leaks, spills, releases and discharges; (e) Control over entry into hazardous work areas by maintenance, contractor, laboratory or other support personnel.</p>	<p>It is not clear what “(5)(b) Tasks requiring lock-out/tag-out procedures” are. It is clear to WSPA what a LOTO Safe Work Practice is, but it is not clear what the safe work practice would be for tasks requiring LOTO, for example would a cleaning a heat exchanger be a task requiring LOTO that would need a safe work practice? Often tasks requiring LOTO can be managed on a work list. WSPA believes that this requirement is broader than the typical industry understanding and the requirements in WAC LOTO 296-803, providing no process safety benefit.</p>	<p>Remove (5)(b) Tasks requiring LOTO, as LOTO is required by (a) and (c). L&I already has comprehensive regulations addressing lockout/tag out, confined space, and emergency response. WSPA encourages L&I to rely on those existing regulations rather than attempting to incorporate those already well considered requirements in the PSM Regulation.</p>
<p>Emergency Planning and Response: (1) The employer must develop, implement and maintain an effective emergency response or emergency action plan for the entire plant, in accordance with the provisions of WAC 296-24-567, Employee emergency plans and fire prevention plans; and chapter 296-824 WAC, Emergency response. An emergency response plan must define and include procedures for handling all of the below: (a) Large and small spills or releases; (b) Fires; (c) Explosions; and (d) Any other emergency with a direct bearing on employee safety and health.</p>	<p>In discussion with L&I stakeholders were unable to identify what type of process safety incident requiring an emergency response were not already covered in (a), (b), and (c). There are potential incidents that have nothing to do with process safety that could fit in (d). For example, a situation in which an employee trips and falls resulting in a serious injury would have a direct bearing on employee safety and health but no impact whatsoever on process safety. Those types of situations are already sufficiently addressed by existing regulatory provisions.</p>	<p>Remove (1)(d) from Emergency Planning and Response Section.</p>

WSPA Comments on the Washington PSM 2nd Discussion Draft

Second Draft Language	Discussion	WSPA Recommendation
Employee Collaboration	The 2nd discussion draft continues to use collaboration; invites interpretation by the regulator especially since: 1) a definition for “collaboration” has been removed from the 2nd discussion draft; 2) “collaboration” is almost always modified by “effective” (which is a subjective judgment); and 3) this is a significant departure from federal regulations and suggests expanded authority/autonomy for employees;	Revert to the use of “participation” instead of “collaboration”, consistent with federal PSM and Risk Management Program (RMP) rules. The change to “collaboration” in the Discussion Draft is subjective and adds considerable uncertainty in compliance.
In the Contractors Section what is meant by adding “supply services” to the applicable contractors?	WSPA does not understand what would be included in “supply services” and not already included in the other applicable groups? There is an apparent conflict between including “supply services” in the applicable group and in the “not applicable” group in the same paragraph.	Remove “supply services” from the list of applicable contractors in the Contractor Section.