WSPA December 4th Stakeholder Meeting Topics for Discussion

Circle Back Topic #1: Problematic Intertwined Definitions Broaden Scope with Potential for Negative Impact on Process Safety

Description

The draft L&I PSM Regulation includes changes to important definitions that greatly expand the requirements of the draft regulation. The draft new definition of "highly hazardous material" greatly expands the regulated substances. The draft definition of "major change" expands the process changes and associated requirements regulated by the draft regulation. The draft definition of "process safety incident" expands the events regulated by the draft regulation. The draft definitions of "process" and "process equipment" expand the refinery equipment covered by the draft regulation. The draft definition of "process safety hazard" expands the hazards to be addressed under the draft regulation.

Those and other definitions are significant changes because of the new PSM elements introduced into the draft regulation. The current L&I PSM Regulation requires that a single hazard analysis be conducted which it characterizes as a process hazard analysis (PHA). L&I proposes to quadruple the number of analyses required by their draft revision by adding new PSM elements for: 1) safeguard protection analyses (SPAs)); 2) damage mechanism reviews (DMRs); 3) hierarchy of controls analyses (HCAs); 4) and process safety culture assessments. Each one of those analyses is lengthy, detailed, and resource intensive.

Why is this a problem?

When a condition or event falls within one of the definitions noted above (e.g. process safety incident), it triggers one or more of the PSM element analyses noted above. The substantial expansion of the requirements under the draft PSM Regulation accomplished by those changes eliminates differentiation between issues that are significant process safety risks and those that are not significant. This will result in the implementation of new procedures, equipment, or maintenance activities to address low-risk issues which will unnecessarily consume limited resources, make it more difficult for the workforce to manage the most impactful work for the prevention of major incidents or identify critical process safety activities. This unnecessary demand on resources will also create human factors issues with information and activity overload for operators, mechanics, inspectors, engineers, and managers. Ultimately this dilutes efforts to prevent releases of highly hazardous materials that have the potential to cause death and serious injury.

For example, under the current draft regulation the following incidents would receive the same level of attention and activity:

1) A small leak from a thermal pressure relief valve on an off-plot pipe of a hydrocarbon that does not have the potential for an explosion and does not easily ignite
2) A small leak from a diesel product pump seal at atmospheric temperature that does not have the potential for an explosion and is likely not to ignite
3) Any small leak of heavy liquid (high flash point) at ambient conditions to secondary containment
4) A very small leak from a valve bonnet that is typically managed as part of the environmental Leak Detection and Repair program
5) An event that has potential for a catastrophic incident, such as a loss of primary containment from an overpressure

The draft regulation would require a root cause analysis, an analysis of human factors, safeguard protection analysis, hierarchy of hazard control analysis and damage mechanism reviews. The studies would result in recommendations and interim measures. All five incidents would result in additional work, procedures and tasks for employees, all identified as being process safety critical. The draft regulation does not allow for using judgment to differentiate 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. Doing the important PSM activities well will more effectively prevent process safety incidents than expanding PSM activities and covering more equipment/processes.

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WSPA Proposal

Edit the definitions such that additional requirements for PSM analyses and practices ***improve process safety by focusing on preventing incidents that have the greatest potential for serious harm***. WSPA will propose alternative definitions in written comments to focus the regulation and requirements on prevention of major incidents.

Circle Back Topic #2: Affected employee definition goes beyond definition norm and causes the proposed regulation to be problematic; intended flexibility to include work groups is not written into the proposed regulation

Description

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

Why is this a problem?

The definition of "Affected Employee" is confusing. At times contractors are listed in addition to being included in "Affected Employee". 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 make the regulation clearer, the regulation should identify different work groups in each requirement when the work group is involved or impacted.

WSPA Proposal

- Modify the definition of "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~~:
  (a) Maintenance employees ~~and their representatives;~~ (b) Operations employees ~~and their representatives~~; ~~(c) Contract employees and their representatives;~~ and (c) Laboratory employees who perform sampling tasks within a process.
- Modify PSM element requirements to include contractors "where relevant to assigned job tasks." [1]
  - **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 where relevant to job tasks.
  - **PHA:** 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 where relevant to job tasks.

[1] Note that the changes illustrated below only address the issue related to the definition of "affected employee" and should not be interpreted as addressing other issues in those provisions.

- **Operating Procedures:** (2) Written operating procedures must be readily accessible to all affected employees, including the employees of contractors, where 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 where 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, where 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, where 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. for contractors on operating, maintenance, safe-work practices/procedures
- **MOC:** Affected employees and employees of contractors, where 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, where relevant to job tasks. Upon request the employer must review the report with affected employees and employees of contractors, where relevant to job tasks. These reports must be provided upon request to affected employee representatives ~~and employers of affected employees~~.

Listed Topic Not Discussed Yet #1: **Mechanical Integrity Requirement for Equipment Deficiencies**

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 prescriptive, requiring evaluating similar equipment in similar service when a deficiency is identified. The Mechanical Integrity requirements already include that inspections and tests be informed by operating history and equipment maintenance history and that deficiencies be addressed and that equipment is operated safely.

Why is this a Problem?

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. WSPA does not understand the justification for this broadly applied change.

WSPA Proposal

Eliminate (f) or

Modify (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.

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Listed Topic Not Discussed Yet #2: Definition of MOOC and 15% Increase

Description

The draft regulation requires the employer to determine if there is a 15% increase in employee responsibilities.

Why is this a problem?

The employer and employees will be doing a significant amount of work evaluating tasks and job duties, attempting to quantify a percent increase. The change may not have any impact on process safety. WSPA does not understand how the employer will quantify a 15% increase or how to demonstrate compliance. The 15% trigger in the California PSM regulations is not an industry standard. The source was a study of control room operators whose responsibilities were "quantified" simply by counting the number of control loops in their process unit(s) without making any distinction regarding complexity or process safety implications. This simplistic basis does not adequately quantify control room operator responsibilities and has no relevance to other positions in the refinery.

WSPA Proposal

Eliminate triggers for MOOC (reducing staffing levels, reducing classification levels, etc.) including 15% increase in job responsibilities. Require MOOC for Organizational Change, defined as:

> A change to organizational structure, employee roles and responsibilities and/or classification levels that has the potential to impact process safety of a covered process.

Note that WSPA's previous comments recommended incorporating an organizational change definition and requirements in the MOC section and eliminating the MOOC section.

New Topic #1: Contractor Collaboration Requirements

Description

In the Contractor section (4), contractor employers are required to provide for contractor employee collaboration as a new responsibility. This section references the Employee Collaboration section for requirements that include having a contractor employee representative. The draft has a specific role for the contractor employee representatives for reporting hazards and in Incident Investigations.

Why is this a Problem?

The requirements described in the draft regulation in the Employee Collaboration section may not appropriately 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 for short term project specific work. Contractors may not have contractor employee representatives at all of the job sites. Was L&Is intent to have a role for contractor employee representatives only for reporting hazards and Incident Investigations? Did L&I discuss this 2nd draft requirement with Contractor Employers to assess their ability to implement this requirement? WSPA doesn't understand the requirements or the employer's role in these requirements.

WSPA Proposal

Eliminate contractor employer requirement for collaboration.

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

Requirements for contractors, contractor employers and contractor employee representatives should only be in the contractor section of the regulation.

New Topic #2: Human Factors

Description

The Human Factors section has requirements for other sections of the regulation, MOC and Operating Procedures for example, and list human factors to consider that may not apply to the sections referenced in the regulation.

Why is this a problem?

WSPA previously commented that Human Factors requirements should appear in the PSM elements that have a human factors component. The PHA or MOC team should be able to find all of the requirements for PHA or MOC in the parts of the regulation addressing PHA or MOC rather than having to go look at a separate Human Factors section. Did L&I consider WSPA's comment regarding incorporating Human Factors into the PSM elements? Using this approach, the employer would incorporate Human Factors into the report for the PSM element rather than writing a separate report which would be more efficient and effective because all of the relevant information would be together.

Human Factors should focus on reducing the probability of human error rather than analyses already included as part of an MOOC, by an HR organization or managed through labor negotiations. WSPA believes that some of the specified human factors that must be considered are inappropriate for particular PSM analyses. For example, it may be appropriate for an investigation team to consider whether fatigue or staffing contributed to a process safety event, but a PHA team should not consider fatigue or staffing issues which are addressed by other means.

WSPA Proposal

Insert appropriate human factors requirements into PSM elements where they should be considered, for example, identifying sources of human error in Investigations; and operating and maintenance procedures.

New Topic #3: PHAs and Phase in Requirements

WSPA respectfully requests that L&I spend some time at the next meeting discussing the phase-in of new requirements. For example, if the regulation changes PHA requirements with the expectation that existing PHAs will need to be redone, 3 years would be an insufficient amount of time. A more reasonable amount of time would be 5 years. That timeframe would be more reasonable especially considering the existing PHA revalidation cycle.