



Standard Interpretations

10/31/1996 - Process Safety Management of Highly Hazardous Chemicals and process hazard analyses.

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• **Standard Number:** [1910.111](#); [1910.119](#); [1928.21](#)

October 31, 1996

Mr. Michael J. Hazzan, P.E.
Vice President and Technical Director
PrimaTech Inc.
5 Vaughn Drive, Suite 309
Princeton, NJ 08540

Dear Mr. Hazzan:

This is in response to your letter of February 6, 1995, addressed to Mr. Roger Clark, former Director of Compliance Programs, regarding the Process Safety Management of Highly Hazardous Chemicals, 29 CFR 1910.119, and process hazard analyses (PHA). Please excuse the delay in our response.

Please find in the following, your specific questions and our responses.

Question 1: Could OSHA find a PHA conducted as described below

acceptable?

"The PHA team leader performs the PHA by himself/herself or with the help of other technically knowledgeable people, but not as a team effort. The PHA worksheets are completely filled-in except for the recommendation's column. The team leader then brings the results of that effort to a PHA team representing the unit/process under consideration, the team reviews the completed worksheets, and makes the appropriate recommendations."

Response: Section 1910.119(e)(4) states that the process hazard analysis shall be performed by a team with expertise in engineering and process operations, and the team shall include at least one employee who has experience and the knowledge specific to the process being evaluated. Also, one member of the team must be knowledgeable in the specific process hazard analysis methodology being used.

Your question indicates that the "PHA team leader"

performs the PHA, but "not as a team effort." In that respect, there is no PHA team, and it is inaccurate to state that the person filling in the worksheets is a team leader. This scenario is not consistent with the requirements of the Standard (see preamble at 57 Federal Register at 6378). In addition, your letter does not indicate exactly what information is "filled in" on the worksheets, and therefore, on what basis the PHA team makes recommendations. Please note that the scenario you have described for conducting a PHA would not meet the intent of the standard.

Question 2: Are the PSM regulations applicable to a farmer who

uses ammonia as a fertilizer, and has stored an amount greater than the threshold quantity for anhydrous ammonia or ammonia solutions (10,000 or 15,000 lbs. respectively)?

Response: 1928.21(a)(2) states that 1910.111(a) and (b) (storage and handling of anhydrous ammonia) shall apply to agricultural operations. The same section 1928.21(b) excludes the applicability of any of the standards contained in Subpart B through T and Subpart Z of 1910. PSM is included in Subpart H and therefore, PSM does not apply to agricultural operations.

Question 3: Do the management of change (MOC) provisions of the

PSM regulations apply when maintenance procedures are changed? Would the MOC process be required for changes made to equipment test and inspection frequencies? At the June 1993 PSM Symposium in Houston, OSHA representatives stated that changes to maintenance procedures, test and inspection frequencies, as well as engineering codes and standards would not invoke the MOC rules.

Response: 1910.119(l)(1) requires that the employer establish and implement written procedures to manage changes (**except for "replacements in kind"**) to process chemicals, technology, equipment and procedures; and, changes to facilities that affect a covered process.

According to Paragraph 1910.119(l)(1), except for replacements in kind (please see definition in 1910.119), the management of change (MOC) provisions, l(1) through l(5), would apply to changes in maintenance procedures and for changes made to equipment test and inspection frequencies. OSHA believes that it is necessary to thoroughly evaluate any contemplated changes to a process to assess the potential impact on the safety and health of employees and to determine what modifications to operating procedures may be necessary. Please refer to 1910.119(l)(2) for the considerations that must be addressed prior to any change.

Question 4: Do the Contractor Employers' responsibilities of

the Contractor Safety element of the PSM regulations apply to engineering contractors or safety consultants, including those performing PSM consulting work? OSHA has issued a clarification in CH-1 to CP: 2-2.45A that states that the Contractor Safety element would apply to any contractor where there are "...contractor activities that have the potential for affecting process safety." Although PSM consultants certainly affect process safety at the facility, they do not typically do "work on or adjacent to a covered process." [PSM regulations paragraph (h) wording].

Response: Paragraph (h)(1) by its terms applies to "contractors performing maintenance or repair, turnaround, major renovation, or specialty work on or adjacent to covered process." The preamble to the standard (57 Federal Register at 6386) further explains that OSHA intended to cover contractors "whose work brings them into direct contact with, or whose work could affect the hazards of processes covered by the standard." Therefore, PSM coverage of engineering contractors and safety consultants depends not on the job classification of the contractor, but on the precise nature of their onsite activities.

Question 5: Regarding docks connected to various processes,

would the following interpretations be correct?

Scenario: *A dock connected to refinery tankage which is connected to other covered processes would be covered by the PSM regulations.

Response: This interpretation is correct; PSM would apply.

Scenario: *A dock connected to tankage in a bulk petroleum products storage terminal would not be covered by the PSM regulations.

Response: This interpretation is also correct, assuming that the flammable liquids are stored in atmospheric tanks or transferred and are kept below their boiling point without the benefit of chilling or refrigeration in accordance with 1910.119(a)(ii)(B); and the dock is connected to storage tanks only to conduct storage and transfer operations; NOT mixing or blending. Any deviation from the above criteria would cause the tankage and dock to be covered under the PSM standard.

Question 6: Regarding compliance audits, can OSHA provide any

guidance on sampling size for documents in elements which are specific to one covered process (such process safety information) in order to produce confident audit results?

Response: Concerning your request for sampling guidance, this is a matter which must be determined by persons knowledgeable of the processes that are responsible for the audit. They should be able to explain their sampling strategies in terms of statistical validity and common sense results (see Appendix C of 1910.119)

Thank you for your interest in occupational safety and health. If you need further assistance, please contact Alceme Haloftis of my staff at 202-219-8031.

Sincerely,

John B. Miles, Jr., Director
Directorate of Compliance Programs

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