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TGG: JCL: ERT: MSH: AJO: RF
XF: CSHA - Process Safety

VISTA

Docket Officer
Docket S-026
U. S. Department of Labor
OSHA, Room N2625
200 Constitution Avenue, NW
Washington, D.C. 20210

Dear Sirs:

Vista Chemical Company is a petrochemical manufacturing company with \$750 million in annual sales. Vista's main products include ethylene, vinyl chloride, polyvinylchloride, methyl chloride, linear alkylbenzene and synthetic alcohols. Vista will be significantly impacted by the proposed Process Safety Management of Highly Hazardous Chemicals Standard and offers the following comments on the proposal.

SIGNIFICANT ISSUES

OSHA asked for comments on 11 specific issues. Numbered comments below correspond to the numbered questions in the preamble.

1. There is little specific information on the criteria for the chemicals listed in Appendix A. Therefore, it is difficult to comment on the completeness of this list. Also, the threshold quantities in the list, derived from other lists may have little to do with the intent of the process safety standard. There is no stated justification for these thresholds in the preamble, such as risk assessment or potential to create life threatening impact. OSHA should provide information on how the thresholds were determined or at least reference the original list to justify inclusion on the list.
2. The 500 pound threshold proposed as the applicability volume limit for newly developed chemicals seems to be a very low threshold that could in many instances include substances that are similar in hazard to substances listed in Appendix A with much higher thresholds. Although an alternative method is not clear, some method of determining applicability for these substances should be proposed that takes into consideration the significance of the hazard. A 10,000 pound criteria similar to paragraph (b)(1)(ii) for flammable chemicals with no other hazard would be an example of differentiating criteria based on hazard.

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3. The documentation and training requirements of the proposed standard are extensive and will require significant manpower to develop and/or organize. The actual hazard assessment process is also manpower intensive. Vista recently spent 120 man days of internal time to do a HAZOP review on a portion of chemical processing unit that included only 60 P&ID's. Significant contractor time was also spent during this review. Another HAZOP review, which included only 20 P&ID's took 14 man days of internal time. Based on the resources available, internal and external, Vista proposes a 5 year time frame to complete process hazard assessments on Appendix A materials, and 8 years for paragraph (b)(1)(ii) substances.

Also OSHA should explicitly allow process hazard assessments completed in the last 3 years, that meet the requirements of the standard, to be allowed for compliance.

4. Appendix D should not be a mandatory appendix. Companies should be allowed to use proven methods available to them as long as they meet the intent of the standards. Technologies and methodologies change frequently and Appendix D should only be a guide to methods that can be used.
5. The specified team content is adequate as described. In practice, special functions will be added as necessary to accomplish the assessments. Only those employees who have the knowledge and expertise to be beneficial to the successful completion of the study should be on a team. Vista can see no practical benefit from requiring "an employee representative" on the team. In fact, this could be counterproductive in some cases due to labor contract restrictions on representation.
6. OSHA should not require tests be given to employees to prove training was effective. This is not required in any other OSHA standards that require training be done, and a testing requirement could be a significant labor problem in represented locations.

At Vista validation of operator skills is done with a combination of on the job observation and "oral testing" by front-line supervision as well as written testing. Any combination of methods should be allowed to meet this standard's requirements.

Requiring a specific number of hours of training is not an effective method of assuring training of specified content or purpose is accomplished. This type of requirement is inconsistent with other OSHA standards requiring training. The only known exception is the HAZWOPER standard.

7. OSHA should not require contractors that work a "significant amount of time" at a process be given a greater amount of training. This would be a vague and unenforceable requirement. Paragraph (h) requires that contractors be trained in hazards related to their work. If exposure potential is greater due to a contractor's presence on the site for extended periods, this language would require additional training as it is written now.

It is necessary and should be required that contractors must inform the plant's employer of the hazards presented by the contractor's work. Contract provisions are seldom specific enough to adequately disclose this information. The hazard communication standard generally requires contractors to provide hazard information and this standard should specifically require that contractors provide applicable information as well.

8. Vista believes the "critical" process equipment list in Paragraph (j) is appropriate.
9. Vista supports the concept that drills are an effective method to test emergency procedures. However, what constitutes a drill and the usefulness in all facilities, particularly smaller ones, is not easily definable or apparent. Drilling should not be a requirement.
10. Vista has indicated what we believe to be a reasonable time frame for compliance in Item 3 above. In addition to those comments, a phased compliance period for the requirements would seem necessary and appropriate. The sequence of steps to be taken to perform a process hazard analysis often must occur in a "step" fashion rather than concurrently. Vista proposes a minimum of 3 years for compliance with the information and documentation requirements, and three to five years to complete the training portions of the standard.
11. Based on current SARA Title III, Section 311 and 312 requirements for hazardous chemical inventory and information reporting, Vista believes there is sufficient publicly available information for OSHA to utilize to meet the intent of a notification requirement.

SPECIFIC COMMENTS ON THE PROPOSAL LANGUAGE

1. Paragraph (b) is vague regarding the application of the standard's requirements. Are they applicable only to the specific process unit that contains a threshold quantity or is the entire facility that "houses" the process then covered by the standard's requirements? This should be clarified.

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The 10,000 lb. criteria for applicability in paragraph (b)(ii) seems too small. This criteria would include processes that have little potential to create a "major incident". The difficulty in requiring an evaluation of all chemicals in this category to determine applicability is recognized but Vista would propose adding language that allows companies to demonstrate that processes with 10,000 lbs. or less could not create a major hazard under worse case conditions and therefore be exempted from the requirements of the standard.

2. Paragraph (c) should have definitions added for: a) replacement in kind; b) engineering control; c) hazard analysis, and d) major incident.
3. The requirements of Paragraph (d)(1) should be consistent with the hazard communication standard, 1910.1200. The purpose and intent of this paragraph is the same and the standard should explicitly state that this information be provided according to 1910.1200.

Paragraph (d) states "... information must be communicated to employees...". The terms "communicated to" are vague and not used in other standards requiring similar training. The words "provide information" and "train" are consistently used in health standards and for consistency should be used here.

Paragraph (d)(2)(B) uses the term "process chemistry". This is vague and should be clarified.

Paragraph (d)(2)(C) speaks to "maximum intended inventory". Based on recent requirements of SARA Title III, it is not clear if this means the total process or is vessel specific.

Paragraph (d)(2)(D) and (d)(2)(E) should require information only for those items "critical" to the safe operation of the unit. To include all information listed in the information provided could easily detract from the significance of the critical information. There are a large number of deviations from normal operating parameters that do not have a safety impact. An example of this is the pressure of a process vessel that is protected by a relief valve which discharges into a flare header. Deviations from normal operating pressure will not have an affect on safety and the employer should be allowed to exclude this type of parameter if they believe it is appropriate. Requiring every process parameter of every piece of equipment and how to control each of these parameters will make the operating procedures extremely complicated, lengthy and less useful.

The ability to develop the information required in paragraph (d)(2) through a process hazards analysis should be expanded from the 1/1/80 date proposed in (d)(2)(ii) to the effective date of the standard. Newer units designed with good engineering practices may not have all of the documentation required by the proposed standard.

4. Paragraph (d)(3)(i)(F) and (d)(3)(ii) requires documentation of design codes employed at the time of design and construction. This requirement may prove impracticable in many cases as good engineering practice may not have resulted in explicit information on the design Codes or standards used in all equipments choices, equipment sizing or material of construction choices.

The requirements of Paragraph (d)(3)(G) are unnecessary for process safety management and appear to have little to do with the intent of the standards. This information may be useless for many batch processes.

5. Paragraph (e)(iv) requires a consequences analysis of the effects on "all workplace employees". This requirement should be reworded to read: "assure consequences on all employees potentially impacted by the process occurrence being assessed". Many plant sites containing affected processes are very large and to include all employees in consequences analysis may be academic at best.

Paragraph (e)(4) requires establishment of a "system" and that the system be "communicated" to employees. These words are vague and should be clarified. Also, this paragraph requires all recommendations be "implemented". This word should be changed to "addressed". In practice, further review of team recommendations may result in no action or different action than recommended.

Paragraph (e)(5) requires a process hazard analysis be repeated every 5 years. If a management of change system is in place, this seems unnecessary on a 5 year interval. Although we agree a "big picture" review should be done periodically 5 years seems unnecessary and Vista proposes a 8-10 year time frame.

6. Paragraph (f) requirements in Section (iii)(A),(B), and (C) should be included in a specific reference to 1910.1200.

It is unclear what (f)(1)(iii)(E) has to do with the intent of the standard and this should be deleted or clarified.

7. Paragraph (g) speaks to requirements for employees "involved in a process". The scope of this is unclear, as many employees may be involved in a process in ways that have little or no impact on process safety. The scope of employees included in these requirements should be clarified. Vista proposes "involved in a process" be modified to "employees that can affect the operation of critical process equipment listed in paragraph (i).

Annual refresher training should only be required on "critical" process systems and other areas of deficiency as indicated by audits or competency demonstrations.

8. Paragraph (h) requires that employers "ensure that contractor employees are trained in the work practices...". This is a vague requirement and if documentation from the contractor regarding his training is not sufficient, this requirement is impractical. It would place employees in a tenuous legal position as to the contractor/employee relationship. The safety of contractor employees requires a joint effort between the employer and the contractor to train and enforce rules and requirements. The standard, as written appears to lay the brunt of this requirement on the workplace management. This standard should clearly indicate that specific safety and health training for the contractor employees is the responsibility of the contractor.

Also, it should be clarified that "work practices" in this paragraph does not mean actual work skills or specifics of how to do individual tasks, such as welding.

The requirements of Paragraph (h)(3)(i)(2)(iv) should be clarified to indicate the training be completed prior to an employee returning to work. An Employee may be on a long leave of absence or vacation and this should not be construed as a barrier to starting the unit.

9. Item (j)(2)(i) should be rewritten to more closely reflect the intent described in the preamble (Page 29155). As written this could be interpreted to mean detailed written procedures are required for every piece of equipment. Paragraph (j)(4) should explicitly state that it applies only to "critical" process and safety equipment such as those listed in (j)(1).

Paragraph (j)(5)(ii) should allow for modifications or deviations from the "manufacturers" instructions. In practice, specific plant or process conditions often require this.

Paragraph (j)(5)(iii) should expressly include the requirement for only "critical" process equipment materials.

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10. Paragraph (m) speaks to "major accidents". While it would be difficult to define this term, it is vague and probably unenforceable. Some clarification or definition should be given.

The 48 hour requirement may be unreasonable and unnecessary for "near-misses" or some less serious events. This requirement should be a performance requirement.

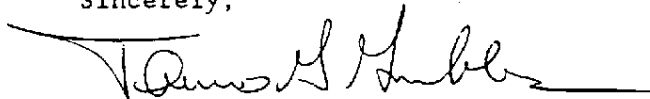
Paragraph (m)(6) uses the words "implement report findings". This should be changed to address. In practice recommendations are often modified upon further review or a no action decision validly made.

Paragraph (o)(4) should be changed to read "... and certify that deficiencies have been addressed".

Lastly, Vista believes OSHA has seriously underestimated the economic impact of the proposed standard. Based on Vista's recent experience with HAZOP evaluations on new project designs, which are small portions of larger units, the following costs can be estimated. The cost to perform a HAZOP review on one P&ID from a unit ranges from \$550 to \$1,400 per drawing depending on the use of contractors. Based on this experience and the number of P&ID's in Vista's process units, it could cost Vista between \$500,000 and \$1,000,000 to accomplish all hazard assessments required by the standard. This is far above the \$25,000 per facility estimated by OSHA.

However, a more significant cost, based the labor intensive nature of the task is that associated with updating P&ID's to meet the standard's requirements. Vista's experience indicate that it costs approximately \$5,000 on an average to do one P&ID. Based on the number of P&ID's to be updated by Vista, this cost could potentially exceed 3 million dollars. This is, of course, the necessary first step before other elements of the standard can be accomplished.

Sincerely,



Thomas G. Grumbles, C.I.H.
Manager Environmental Affairs

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