Staff Evaluation Summaries- July 25, 2013 Public Meeting

Recommendation No. 2001-05-I-DE-R1

Recommendation Text

Ensure coverage under the Process Safety Management Standard (29 CFR 1910.119) of atmospheric storage tanks that could be involved in a potential catastrophic release as a result of being interconnected to a covered process with 10,000 pounds of a flammable substance.

Rationale for Recommendation

The recommendation followed a fatal explosion involving a poorly maintained and corroded atmospheric aboveground tank containing spent sulfuric acid and flammable hydrocarbons at the Motiva Enterprises refinery in Delaware City in July 2001. The company considered the tank to be exempt from the OSHA Process Safety Management standard under the 1997 *Meer* decision. This decision was issued by an administrative law judge of the U.S. Occupational Safety and Health Review Commission. The decision, exempts from PSM coverage, "flammable liquids stored in atmospheric tanks or transferred which are kept below their normal boiling point without benefit of chilling or refrigeration." The CSB Motiva investigation concluded that if Motiva had adhered to a PSM standard requirements for the tank, the accident could have been avoided.

Summary of OSHA Response to the Recommendation

OSHA does not agree that it is necessary to revise the PSM standard in order to clarify the issues of coverage of tanks connected to processes. As an alternative, OSHA reported to the CSB in 2003 that it would issue a revised PSM Compliance Directive that would clarify to all its compliance officers and to the regulated parties that tanks like the one at Motiva (which OSHA contended had a process function as well as a storage function) were covered under PSM. To date, however, OSHA has not revised its compliance directive. An August 2012 communication from the Assistant Secretary projected completion of a revision in 6-9 months, and the agency's Spring 2013 regulatory agenda indicates that it is considering "clarifying the PSM exception for atmospheric storage tanks" as part of a broader revision of its PSM standard, 29 CFR 1910.119.

Summary Evaluation

Because ten years have passed and OSHA has yet to take any regulatory or other actions which would address the intent of the recommendation, CSB staff propose that the Board vote to designate Recommendation 2001-5-I-DE-R1 with the status "Open-Unacceptable Response."

Recommendation No. 2005-04-I-TX-R9

Recommendation Text

Amend the OSHA PSM standard to require that a management of change (MOC) review be conducted for organizational changes that may impact process safety including:

a. *Major organizational changes such as mergers, acquisitions, or reorganizations;*
b. *Personnel changes, including changes in staffing levels or staff experience; and*
c. *Policy changes, such as budget cutting.*

Rationale for Recommendation

The CSB investigation of the 2005 explosions and fire at the former BP refinery in Texas City, Texas revealed that poorly managed corporate mergers, leadership and organizational changes, and budget cuts increased the risk of catastrophic accidents at the site. The CSB also noted that a 2002 survey revealed that organizational change was assessed in the Management of Change (MOC) programs of only forty-four percent (44%) of chemical processing companies, strongly suggesting that assessment of such organizational factors are not widely used in the industry. While OSHA's Process Safety Management (PSM) standard (29 CFR 1910.119) requires MOC analyses for changes to "process chemicals, technology, equipment, procedures; and, changes to facilities that affect a covered process," the CSB concluded that it does not explicitly require that employers conduct MOC reviews for organizational, personnel and policy changes that could affect process safety. Consequently, the CSB recommended that OSHA amend the PSM standard to clarify that MOC reviews must be conducted for organizational, personnel, and policy changes that may impact process safety.

Summary of OSHA Response to the Recommendation

OSHA responded that the PSM standard already requires employers to develop and implement MOC reviews to determine the adequacy of all contemplated changes with respect to their safety and health impacts as they relate to "process chemicals, technology, equipment, procedures, and facilities." In OSHA's view, these are the types of changes encompassed by the CSB recommendation. In addition, OSHA sent a memorandum to all Regional Administrators to clarify this policy with regard to the coverage of organizational changes under the PSM's management of change requirements. The policy clarification was to be provided to OSHA's compliance officers. OSHA's Spring 2013 regulatory agenda indicates that the agency is considering expanding the scope of its PSM standard to "require greater organizational management of change from employers."

Summary Evaluation

A policy memorandum to OSHA Regional Administrators is not the permanent regulatory change envisioned by the Board, which sought an explicit change in the requirements of the standard through rulemaking procedures. For this reason, staff propose that the Board vote to designate Recommendation 2005-04-I-TX-R9 with the status: "Open—Unacceptable Response."

Urgent Recommendation No. 2010-07-I-CT-UR1

Recommendation Text

Promulgate regulations that address fuel gas safety for both construction and general industry. At a minimum:

a. *Prohibit the release of flammable gas to the atmosphere for the purpose of cleaning fuel gas piping.*
b. *Prohibit flammable gas venting or purging indoors. Prohibit venting or purging outdoors where fuel gas may form a flammable atmosphere in the vicinity of workers and/or ignition sources.*
c. *Prohibit any work activity in areas where the concentration of flammable gas exceeds a fixed low percentage of the lower explosive limit (LEL) determined by appropriate combustible gas monitoring.*
d. *Require that companies develop flammable gas safety procedures and training that involves contractors, workers, and their representatives in decision-making.*

Rationale for Recommendation

The CSB investigated two natural gas explosions (Kleen Energy Natural Gas Explosion and ConAgra Natural Gas Explosion and Ammonia Release) and concluded that the fire and explosion hazards of releasing flammable gas in the presence of workers and ignition sources can be largely or entirely avoided through the use of currently available inherently safer methods than those currently in use in most workplaces. These CSB reports focused particularly on the hazards of gas purging in industrial establishments and "gas blows" conducted during the construction of gas-fired power plants. The CSB also found that OSHA has three gas-specific standards for flammable gases that are used far less frequently in the workplace than natural gas. These existing gas standards apply to liquefied petroleum gases (propane and butane, 1910.110), hydrogen (1910.103) and acetylene (1910.102). Yet the Agency has no comprehensive fuel gas safety standard, despite the fact that fuel gases pose serious explosion and fire hazards and are in much more widespread use in OSHA-regulated workplaces.

Summary of OSHA Response to the Recommendation

OSHA's initial response to the recommendation described several forceful enforcement actions affecting the industry sector conducting "gas blows" during the construction of power plants—which the CSB commended—but stated only that it would "consider" a new fuel gas standard during its next regulatory review. In a subsequent notification, however, OSHA reported that it did not "believe this is the appropriate time to initiate the regulatory process." Briefly stated, OSHA indicated that "the most prudent approach for OSHA is to monitor the implementation" of two recently revised NFPA standards and "evaluate their effectiveness at controlling the targeted hazards, and then determine if additional rulemaking is necessary to protect workers." Moreover, OSHA did not include fuel gas rulemaking in the Agency's most recent regulatory agenda (Spring 2013), indicating that it has no current intention to begin rulemaking in this arena.

Summary Evaluation

Per 42 U.S.C. 7412(6)(J), OSHA must inform the CSB within 180 days whether it will initiate rulemaking (and provide a timetable), or not initiate rulemaking (and explain why). OSHA's latest response to the CSB recommendation indicates that the agency does not currently intend to pursue rulemaking, and provides a rationale for this decision.

CSB's Board Order 22 obligates staff to recommend an “Open- Unacceptable Response” status for urgent recommendations that “[have] not been responded to in an acceptable manner within 6 months and [are] not at a point where completion is imminent.” In this case, OSHA's apparently indefinite postponement of any regulatory action on fuel gases is inconsistent with the intent of the recommendation and staff propose that the Board vote to change the status of Recommendation 2010-07-I-CT-UR1 to “Open-Unacceptable Response.”

Recommendations Related to the Prevention of Combustible Dust Fires and Explosions

Recommendation Texts

Recommendation No. 2006-1-H-R1 (from the Combustible Dust Hazard Investigation Study):
Issue a standard designed to prevent combustible dust fires and explosions in general industry. Base the standard on current National Fire Protection Association (NFPA) dust explosion standards (including NFPA 654 and NFPA 484), and include at least —hazard assessment,—engineering controls,—housekeeping,—building design,—explosion protection,—operating procedures, and—worker training.

Recommendation No. 2008-5-I-GA-R11 (from the Imperial Sugar report):
Proceed expeditiously, consistent with the Chemical Safety Board's November 2006 recommendation and OSHA's announced intention to conduct rulemaking, to promulgate a comprehensive standard to reduce or eliminate hazards from fire and explosion from combustible powders and dust.

Recommendation No. 2011-4-I-TN-R1 (from the Hoeganaes case study):
Ensure that the forthcoming OSHA Combustible Dust Standard includes coverage for combustible metal dusts including iron and steel powders.

Recommendation No. 2011-4-I-TN-R2 (from the Hoeganaes case study):
Develop and publish a proposed combustible dust standard for general industry within one year of the approval of this case study.

Rationale for Recommendations

After investigating three deadly combustible dust accidents that claimed the lives of fourteen workers in 2003, the CSB conducted a comprehensive combustible dust hazard investigation study. Released in late 2006, the study concluded that voluntary consensus standards and enhanced regulatory enforcement efforts are insufficient to prevent dust fires and explosions that occur across a broad range of industries. The CSB therefore recommended that OSHA issue a combustible dust general industry standard. In 2009, after investigating the catastrophic sugar dust explosions at the Imperial Sugar Refinery in Port Wentworth, Georgia that killed 14 workers, the CSB issued a second recommendation calling on OSHA to "proceed expeditiously" with the rulemaking. In 2011, following its investigation of three iron dust-related incidents at the Hoeganaes Corporation facility in Gallatin, Tennessee, that killed five workers, the CSB issued two more recommendations to OSHA regarding the dust rulemaking: one calling for the inclusion of metal dust in the scope of the standard, and a second calling for issuance of a proposed rule within one year.

Summary of OSHA Response to the Recommendations

Initially resistant to the CSB's recommendation to develop a new standard, in October 2007, OSHA launched a National Emphasis Program to improve regulatory enforcement in workplaces handling combustible dust. The program was revised and reissued in March 2008 to better target affected industries. That same month, OSHA distributed a combustible dust Safety and Health Information Bulletin (SHIB) to approximately 30,000 workplaces within industries with potential dust hazards.

In April 2009, OSHA indicated that it would commence a combustible dust rulemaking, and issued an Advanced Notice of Proposed Rulemaking in the Federal Register in October 2009. That winter, OSHA held a series of stakeholder meetings, but twice postponed the next step in the rulemaking process, the Small Business Regulatory Enforcement Fairness Act (SBREFA) Panel Review. In May 2011, OSHA held a Combustible Dust Expert Forum in May 2011. In January 2012, shortly after the release of CSB's most recent recommendations to the agency, OSHA released its Fall 2011 Semiannual Regulatory Agenda, which indicated that an estimated date for the next step in the rulemaking process was “undetermined.” OSHA reiterated its commitment to developing a standard, however, in a June 14, 2012 letter to the CSB, and its most recent Semiannual Regulatory Agenda estimates that the SBREFA Panel Review will be held in November 2013.

Summary Evaluation

OSHA has initiated a rulemaking to issue a combustible dust standard and continues to undertake noteworthy and important regulatory enforcement and educational efforts to prevent and control combustible dust hazards in the workplace. The federal rulemaking process is complex; however, a combustible dust general industry standard is urgently needed to prevent future fires and explosions from claiming the lives of American workers. In addition, more than six years have passed since the CSB first issued a recommendation for this standard. Therefore, staff propose that the Board vote to designate all four recommendations with the status: “Open-Unacceptable Response.”