

**AMERICAN SOCIETY
OF SAFETY ENGINEERS**

1800 East Oakton Street
Des Plaines, Illinois 60018-2187

847.699.2929
FAX 847.296.3769
www.asse.org

January 13, 2001

Mr. Marvin Nichols
Director
Office of Standards, Regulations, and Variances
Mine Safety and Health Administration
US Department of Labor
1100 Wilson Blvd., Room 2313
Arlington, VA 22209-3939

By E-Mail (comments@msha.gov)

RE: MSHA Proposed Rule on Emergency
Evacuations, Emergency Temporary
Standard

Dear Mr. Nichols:

The purpose of this statement, from the American Society of Safety Engineers (ASSE), is to offer comment about the reopened MSHA Emergency Evacuation Proposed Rule pursuant to the notice published in the Federal Register on December 12, 2002, 67 Fed. Reg. 76658 et seq.

Introduction

The American Society of Safety Engineers (ASSE) is the oldest and largest society of safety engineers and safety professionals in the world. Founded in 1911, ASSE represents more than 30,000 dedicated safety and health professionals. ASSE's membership includes Certified Safety Professionals, Certified Industrial Hygienists, Certified Mine Safety Professionals, Professional Engineers, ergonomists, academicians, fire protection engineers, system safety experts, health professionals, and an impressive collection of other disciplines, skills, and backgrounds. We pride ourselves on our dedication to excellence, expertise, and commitment to the protection of people, property, and environment on a worldwide basis.

ASSE serves as Secretariat of eight American National Standards Institute (ANSI) Committees, developing safety and health standards that are used

by private sector organizations and state and federal governmental agencies including MSHA and OSHA. ASSE members sit on over forty additional standards development committees and the Society sponsors educational sessions on standards development. The Society also has thirteen practice specialties including Mining, Construction, Consultants, Engineering, Environmental, Industrial Hygiene, International, Management, Risk Management and Insurance, and Transportation. The ASSE members in these divisions are leaders in their field with the knowledge and expertise needed to move safety and health forward on a global level. ASSE also has 149 chapters, 56 sections, and 64 student sections.

The following are ASSE's specific comments regarding MSHA's Emergency Temporary Standard (ETS) addressing Emergency Evacuations:

General

This Emergency Temporary Standard is performance-based, with broadly defined requirements included within 30 CFR §§ 75.1501 and 75.1502. In this regard, the ETS does not specifically indicate what the goals and objectives of the standard are except that the ETS is in response to several recent significant mining accidents resulting in multiple fatalities. In order to be an effective performance-based standard, the ETS should have identifiable and specific goals and objectives that can be achieved by mine owners and operators, using existing "Emergency Evacuation" standards as a framework in order to minimize the potential for loss of life during a mining accident as defined by the standard.

ASSE strongly urges MSHA to determine whether the appropriate goal of the standard is to ensure the fastest and safest means of evacuating mining personnel during a mining accident or the rescue of potentially trapped mining personnel, and whether existing standards are sufficient to accomplish this goal absent further rulemaking. Based on fundamental principles of occupational safety and health, it is clear that while the two goals -- fast and safe evacuation -- are not mutually exclusive, an effective Emergency Evacuation plan must have well-established priorities that are based on economic and technically feasible requirements applying the standard hierarchy of safety and health controls (i.e., engineering controls, personal protective equipment and administrative controls).

Preliminary Regulatory Economic Analysis

A review of MSHA's "Preliminary Regulatory Economic Analysis" suggests that the agency has seriously undervalued the benefits associated with implementation of the ETS. In its analysis of the benefits of the proposed rule, MSHA states, "(T)his emergency temporary standard could prevent 11 miners' lives from being lost every ten years, or an average

benefit of the emergency temporary standard of 1.1 miners' lives saved every year".¹ MSHA makes this determination based on its evaluation of its coal accident investigation database and the absence of any other fatalities during the past ten years, except for those cases referenced (i.e., "Jim Walter No. 5 Mine accident" and "Willow Creek Mine").

The benefit of adopting this standard is narrowed down to 1.1 lives per year, however; MSHA's discussion fails to address coal mine accidents that were "near misses" and that might otherwise have resulted in coal mine fatalities. Outreach to the mining community – which may have solid data concerning such "near misses" and associated root causes analyses – could be extremely beneficial in justifying the expenditures incurred to implement the ETS. Furthermore, MSHA has omitted any mention of serious injuries and/or illnesses experienced by coal mine workers as a result of mining accidents, which might otherwise have been of a lower severity had the requirements of the ETS been in place.

In the case of "near misses," ASSE notes that cost savings in terms of "cost avoidance" is a significant factor that offsets the costs associated with implementation of the requirements of the ETS. In addition, the actual costs associated with serious injuries and illnesses experienced by coal mine workers due to mine emergencies would also offset additional costs arising from implementation of the ETS. The net result of MSHA's failure to address these actual and potential cost savings weakens the perception of a need for such an ETS. If anything, the stated number of fatalities avoided through implementation of the ETS (1.1 per year) lessens the significance of the standard given there were 37,182 coal miners employed in 2000 and coal fatalities in 2002 were the lowest in the history of the mining industry.

Finally, ASSE believes that accounting for the costs associated with "false evacuations" and the costs associated with the training covered under "Mine Emergency Evacuation and Firefighting" (§ 75.1502) is duplicative when considering the proposition that any "false evacuations" should be a reasonable substitute for the evacuation drills covered under § 75.1502(c). When "false evacuations" are counted as evacuation drills, miners are responding to perceived mine emergencies rather than planned drills, and as a result, mine emergency evacuation plans, training and equipment are tested under "real life" conditions. As such, mine owner and miners will be better trained in anticipation of responding to true mine emergencies while at the same time conserving valuable financial and labor resources. See further discussion of this issue as it relates to § 75.1502(c).

Emergency Evacuations: §75.1501

¹ Preliminary Regulatory Economic Analysis and Preliminary Regulatory Flexibility Analysis, pg. 10.

The “Responsible Person Requirement” appears analogous to the “Site Incident Commander” requirement under OSHA’s Hazardous Waste and Emergency Response standard, codified at 29 CFR § 1910.120. In this regard, OSHA has adopted the “incident command” system that is almost universally employed by emergency responders in the United States. By contrast, MSHA’s “Responsible Person” requirement places the burden on a single, well-identified and trained individual without specifying the individual’s duties and responsibilities while leading the emergency evacuation and response efforts during an emergency at a coal mine. ASSE believes that it is critical that the “Responsible Person’s” duties and responsibilities be well defined in order to make the designee more effective during an actual emergency and to reduce the potential for human error. In this regard, ASSE recommends that MSHA make this requirement more prescriptive [as it has done under § 75.1502(a)], consistent with the incident command structure identified in 29 CFR § 1920.120, by addressing the following minimum elements:

1. Pre-emergency planning and coordination with outside emergency responders.
2. Personnel roles, line of communication.
3. Emergency recognition and prevention.
4. Mine evacuation routes and procedures.
5. Emergency alerting and responsive procedures.
6. Emergency equipment including personal protective equipment.
7. Site control.
8. Conduction of emergency evacuation drills.

Mine Emergency Evacuation and
Firefighting Program of Instruction:

§75.1502(a) Requirement for Evacuation Training

This subsection on evacuation training does not address training on the use of personal protective equipment such as “escape only” respirators.

§75.1502(c) - Requirements for Conducting
Emergency Evacuation Drills

First, ASSE states that “false emergencies” involving activation of a mine’s Emergency Evacuation Plan should be counted as a mine emergency evacuation drill for the purpose of this subsection for the reasons discussed above. In such cases, the requirement that drills be

conducted “at intervals of not more than 90 days” may pose professional, regulatory, and logistical dilemma for safety professionals assigned to carry out the rule. As a result, ASSE proposes that this requirement be changed to allow for this contingency and be included as an exception. ASSE proposes the following language for this requirement:

“Except where a ‘false emergency’ occurs, each operator of an underground coal mine shall require all miners to participate in mine emergency evacuation drills so as to ensure that all miners participate in such evacuations at intervals of not more than 90 days. Where a ‘false emergency’ occurs that requires the total evacuation of a mine, the mine operator may substitute the ‘false emergency’ for planned drill during the 90-day cycle or where a drill has previously occurred during the same 90-day cycle, the mine operator may elect to substitute the ‘false emergency’ for a planned drill during the next 90-day cycle.

Secondly, ASSE strongly believes that, in addition to the “evacuation drill” documentation requirements set forth under this sub-section, it is extremely beneficial to mine owners and miners to document the overall mine’s performance (i.e. responsible person, foremen, lead persons, safety and health professional, emergency responders, etc.) during the course of the drill in order to identify the mine’s emergency evacuation plan’s strengths and weaknesses and critique the performance of the key personnel identified in the plan.

ASSE recommends that MSHA require the following elements to be evaluated by the mine operator during the drills and “false emergencies”:

1. Evacuation times.
2. Ease of evacuation.
3. Performance of emergency equipment.
4. The existence of any potential hazards that require correction.
5. Whether outside emergency responders participated in the drill and their respective performances.

Encouraging Training Standard

Finally, the ultimate success of a final rule will depend greatly on the effectiveness of training. To help encourage effective training, ASSE urges that MSHA reference in the final rule the American National Standards Institute Z490.1 Standard entitled “Criteria for Accepted Practices in Safety, Health, and Environmental Training,” for which ASSE

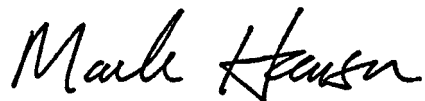
is the Secretariat. Approved in July 2001, the Z490.1 Standard sets accepted practices for safety, health and environmental training to help employers and consumers select quality safety and health training materials, instructors and other program components. Z490.1 is also used to audit, monitor, evaluate and analyze the programs of training providers as well as the employee training activities of corporations and government entities seeking third-party review.

Federal agencies were encouraged to utilize consensus standards by both Congress in Public Law 104-113, "The National Technology Transfer and Advancement Act of 1995," and the Office of Management and Budget in its Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities." MSHA has already commented favorably on the Z490.1 Standard in its Hazard Communication Final Rule (67 Fed. Reg. 42324; June 21, 2002). Reference to the standard here would help MSHA achieve its goal of improved safety for mine workers.

Conclusion

ASSE appreciates the chance to provide input on this critical rulemaking issue and welcomes the opportunity to provide additional assistance to MSHA in developing standards dealing with workplace safety, health and security. Please let us know if we can provide more information to support the recommendations set forth above.

Sincerely,

A handwritten signature in black ink that reads "Mark D. Hansen". The signature is written in a cursive, flowing style.

Mark D. Hansen, PE, CSP
President