



February 28, 2003

Marvin W. Nichols, Jr.
Office of Standards, Regulations, and Variances,
Mine Safety and Health Administration
Room 2313
1100 Wilson Blvd.
Arlington, Virginia 22209-3939

Dear Mr. Nichols,

Jim Walter Resources, Inc. (JWR) submits the following comments on the Emergency Temporary Standard on Emergency Evacuations published December 12, 2002 in the Federal Register.

JWR operates three underground coal mines in west central Alabama including the No. 5 Mine. All three of these mines utilize continuous miner and longwall mining methods. In September of 2001, the No. 5 Mine experienced the devastating effects of at least two explosions resulting in the death of 13 miners and is the focus of many comments in the Emergency Temporary Standard and proposed rule.

Since we are currently in the final stages of our own investigation, and have not had the opportunity to conference the citations that were issued, we were somewhat hesitant to make comments on the proposed rule. However, we feel compelled to provide comments where appropriate and make certain information available to the public that we feel will aid in the development of this proposed rule. In fact, plans prepared under the

AB33-COMM-105

MSHA proposed rule will virtually mirror the current Fire Fighting and Evacuation Plans in place at JWR.

We applaud MSHA for claiming to want to improve the way that miners react and respond during emergency situations, however, we feel they have failed to take several key factors into consideration and to clearly define several of the proposed requirements in the ETS. It appears that MSHA is more interested in promulgating regulations that will allow them to pass blame rather than improve the safety for America's miners. The proposed rule lacks any substantive changes from the existing rule but ensures that MSHA retains its right to second guess any decision made during an emergency.

TRIGGERS FOR EMERGENCY EVACUATION

While the proposed rule discusses in the preamble that under CFR 75.1502 miners should be trained not to re-enter an area during a mine emergency, MSHA also recognizes that not all mine emergencies will require mine wide evacuation. While we recognize that this type of ambiguity can not be totally avoided due to the varying severity of an emergency, it will leave all parties open to second-guessing whenever plans go awry.

In 1986, a gob fire at our No. 3 Mine was successfully sealed and brought under control saving the jobs of almost 500 miners. Mining operations were able to resume at No. 3 in a matter of weeks and representatives from MSHA and JWR spent the next year presenting papers on this successful endeavor to various mining organizations throughout the country. Prior to sealing this fire, up to 30 MSHA and JWR employees attempted to extinguish this blaze for almost two hours as fire rolled from the gob and small explosions could be heard every few minutes. These individuals were considered heroes and their actions were praised. What if an explosion had occurred and killed all of them? Would they have been considered heroes or would their actions have been second-guessed? Each and every emergency in a coal mine is unique and the outcomes can not be predicted with certainty. It is unfair to judge the efforts of individuals or groups based

on the outcome of the event. However, this new regulation will allow MSHA to continue to do so.

How does MSHA expect managers to react the next time they are faced with sending someone into a potentially dangerous situation to rescue a fellow miner? Is the safest avenue for management to always evacuate the mine and wait for the rescue teams, regardless of the consequences? Is it fair to send rescue teams in to battle a raging fire that could have been brought under control by the immediate actions of miners on the scene? These are some of the questions that the responsible person must consider when making their evacuation decision. This decision could cost miners their lives if not made quickly enough but also this decision could cost lives or a mine to be lost to fire if made too hastily.

HUMAN BEHAVIOR DURING AN EMERGENCY

Any new regulations must focus on education and training to be effective. In the proposed regulations, MSHA has given no indication that it considered the role of human behavior in miners response. Until the role of human behavior is better understood and factored into the provisions of 75.1502, or any new regulations, the attempt to improve response during an emergency will be unsuccessful.

Coal miners by nature are unique individuals that are used to working in harsh and oftentimes dangerous conditions. This environment fosters an atmosphere of strong camaraderie between workers and often effects how they will react during an emergency. For several years, going back until at least the early 1990's, the Bureau of Mines, and their successor NIOSH have recognized this effect and conducted research into how miners react and respond during an emergency situation such as a fire. Most of this research was conducted through the BofM/NIOSH Pittsburg Research Lab in Bruceton, PA and has resulted in several reports on the subject as well as suggested modifications for training dealing with emergency response. Following the accident at No. 5 Mine we were sent a copy of a book published by NIOSH titled Behavioral and Organizational

Dimensions of Underground Mine Fires. This book outlines the emergency response of 48 miners during three underground mine fires. In the book the authors cite a study by Beach and Lucas in 1960. Beach and Lucas determined that:

“In common with many mining communities the norms shared by all individuals guaranteed mutual help. The miners’ code of rescue meant that each trapped miner had the knowledge that he would never be buried alive if it were humanly possible for his friends to reach him. This code was so widely understood and unconsciously accepted that no miner-rescuer was faced with serious role conflict. At the same time, the code was not rigid enough to ostracize those who could not face the rescue role.”

JWR believes that any rule proposed to improve miners’ response during emergency situations cannot ignore human nature and that MSHA should take this into consideration during rulemaking. How people can be expected to react during an emergency must be taken into account during training and education. Information obtained during the investigation at No. 5 revealed that most of the miners that were fatally injured had not been directed by management to respond to the emergency but responded for other unexplained reasons. Until these reasons are better understood we cannot be assured that a similar reaction will not occur in future events. A similar dilemma can be seen with the Fire Department of New York. They are trying to prevent an event similar to the World Trade Center event where many fire and rescue personnel rushed into the building to offer help, only to die when the buildings collapsed.

CFR 75.1501 (d) ensures that any miner has the ability to warn of an imminent danger requiring evacuation. While we agree that this is a necessary provision, the need for proper and complete two-way communication during these situations is critical. Often the information used to make evacuation decisions will have passed through many people before reaching the Responsible Person. Also in the book Behavioral and Organizational Dimensions of Underground Mine Fires, the authors discuss how individuals tend to filter

information that they are receiving and that work can be done to improve warning systems. The authors state:

“For a warning system to be successful, the communicated message must also be received properly. This requires that everyone underground be trained in the proper way to gather information during a warning communication. In many instances, workers who received warnings of the fires did not ask any questions of the person telling them to evacuate the mine. In the worst case, one person simply ran from the phone as soon as the beginning of the message was relayed. Miners must be prepared to control their stress levels as they hear about the potential threat and obtain as much information as possible so that later decision-making can be done in an informed manner. At the minimum, they should be trained to ask (1) the nature of the problem, (2) the location of the problems, (3) the severity of the situation, (4) which actions should be taken, and (5) any details of the situation that would be relevant specifically to the people in that area. If the person providing the warning and the person receiving it are both trained in emergency communication protocols, the potential for an effective warning system can be greatly enhanced.”

Proper and informative communication is a critical factor in any emergency and more research and training needs to be conducted to improve communication during an emergency. Interviews with miners underground at the time of the accident at No. 5 indicated that their recollection of the event often varied. One miner might remember hearing one thing while another miner next to him would remember it a different way. MSHA should revisit the research done by NIOSH/BofM on this subject to ensure that miner behavior is considered in any new evacuation regulations and that any requisite training is included.

DEFINITIONS

As with many others who have provided comments, JWR believes that MSHA should better define certain terms that are used in the proposed regulation. If MSHA knows what they intend “properly trained and equipped persons” to mean in CFR75.1501(b), they should define it within the regulation. Without guidelines MSHA appears to be only interested in having a tool to penalize the operator with if anything goes wrong during an emergency situation. That is, if the situation goes bad, management will always be cited because the employee was improperly trained or equipped.

MSHA should also define “imminent danger” as they expect it to be interpreted in this same section. In the preamble, MSHA indicates that this is a well-understood term but, even today, the courts are continually forced to resolve the issue of what is or isn’t and imminent danger on a regular basis. Coal mines and accident scenes are dynamic. What may not be an imminent danger when miners elect to enter an area could quickly become one before they arrive.

MSHA also needs to define what they consider to be a “gas inundation” in 75.1502 (1). Under 75.323, MSHA has clearly defined actions that are to be taken for excessive methane. In most cases, these actions will include the removal of all persons except those referred to in 104 (c) of the Act, from the effected area. Will this now require evacuation of the whole mine? Will a mine wide evacuation be required if a gas outburst occurs in a face area but is confined to the face? MSHA should clarify this requirement.

PRELIMINARY REGULATORY ECONOMIC ANALYSIS (PREA)

In reviewing the PREA we are unable to determine if MSHA merely intends the proposed rule to be a token effort during this period of increased scrutiny or if they have

totally misjudged the potential cost of developing and implementing an effective plan. As mentioned earlier, plans developed under these new regulations will virtually mirror the current Fire Fighting and Evacuation Plans currently in use at JWR. The development and implementation of those plans required hundreds of hours of work to be effective.

MSHA has estimated that under CFR75.1501 (a) it will take six minutes to designate a responsible person. While this may be sufficient time to notify someone that they will be the responsible person, it does not include the time needed to evaluate the qualifications of the potential candidates and conduct training in areas that might be deficient. The regulations state:

The responsible person shall have current knowledge of the assigned location and expected movements of miners underground, the operation of the mine ventilation system, the location of the mine escapeways, the mine communications system, any mine monitoring system if used, and the mine emergency evacuation and fire fighting program of instruction.

While certain individuals at a mine may meet all, or most, of the required qualifications of this standard, the operator must be assured that enough people are trained to ensure that someone with these qualifications is always at the mine. In addition, a prudent operator will initially train and educate each of these individuals on the provisions of these regulations and the systems they are responsible for. At JWR, our responsible persons continue to receive several hours of continuing education each month in these areas.

It is hard to believe that an agency like MSHA can be so far out of touch with the mining community as to make the financial estimates that it has made in this PREA. For example, when discussing the potential for “false” evacuations under 75.1501 (b), MSHA makes several errors in their calculation of the potential cost. The first mistake is in the determination of the sales price of coal.

MSHA references the price of coal to be \$16.78 from USDOE Annual Energy Review 2000 data (tables 80 & 81). These tables refer to the sales price of all US coals, not just coal from underground mines. Why would the sales price of surface coals, such as Powder River Basin coal, be calculated into a PREA for an underground standard? Table 89 from the same 2000 data would have provided MSHA with the price for coal from only underground mines. While the price from table 89 only averages \$24.73, it is an example of the magnitude of error in only one of the assumptions used in this equation.

MHSA estimates that it will take an additional six minutes to train miners in the provisions of 75.1501 (c). This training has already been conducted at our mines as required in the ETS. Training for this provision ranged from 12- 35 minutes depending on the number of questions from the trainees. It can only be assumed that similar training will incur the same overage. This represents a 100% to almost 600% increase on this provision alone.

While we have taken the opportunity to point out what we believe to be flaws in MSHA's PREA, our main concern is ensuring that the plans developed, and the training conducted, are in our miners best interest. MSHA has estimated that it will take only 15 minutes to train a miner in the procedures developed and described in the program of instruction. MSHA has identified 16 topics, which they say may be expanded if necessary, that should be included in the program of instruction. If MSHA truly believes 15 minutes of training is sufficient to cover these 16 topics and to educate miners about how to respond to the various emergencies that are listed in the proposed regulations, it must be assumed that MSHA is either not serious about improving the health and safety of miners, or they have no concept of what training is required.

While we agree that the current regulations need to be modified to include mine emergencies other than fires, we hope that MSHA takes the opportunity to promulgate regulations that will truly improve miner safety. Improving communication, not only what is passed verbally, but also the means used to convey the information is critical. In

the few minutes that miners may be away from phone communications, they may be unaware if a situation becomes life threatening. We would also like to reiterate that MSHA must consider the role of human behavior if there is to be any hope of regulating how miners will react in an emergency situation.

Sincerely Yours,

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