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Sent: Monday, August 18, 2008 2:07 PM
To: zzMSHA-Standards - Comments to Fed Reg Group
Subject: Foundation Coal Comments on Refuge Chambers "RIN 1219-AB58"

Attached is Foundation Coal Corporation and its affiliates comments on the NPR concerning Refuge Chambers.

AB58-COMM-21

FOUNDATION COAL RESOURCES CORPORATION

P.O. Box 1020, 158 Portal Road
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August 18, 2008

Patricia W. Silvey
Director, Office of Standards, Regulations & Variances
U.S. Department of Labor
Mine Safety and Health Administration
1100 Wilson Boulevard
Arlington, VA 22209-3939

Re: Comments from Foundation Coal Corporation and its affiliates on MSHA's Proposed Rules for Refuge Alternatives for Underground Coal Mines (73 Fed. Reg 34140; RIN 1219-AB58)

Dear Ms. Silvey:

Foundation Coal Corporation submits the following comments for your consideration concerning the Mine Safety and Health Administration's (MSHA) Notice of Proposed Rulemaking (NPR) amending Part 7 and 75.

General Statement:

Foundation Coal Corporation supports in principal the implementation of refuge chambers as part of an overall mine emergency process. The questions/issues that Foundation Coal has with the rule are not to argue against the use of refuge alternatives. Foundation Coal's comments are to promote a clearer understanding of the proposed implementation of the regulations, to eliminate unnecessary provisions that do not promote safety, and to request clarification of some of the comments in the NPR as well as at the public hearing (particularly the Charleston, West Virginia hearing). Some of the rule's provisions seem to be written from a non-realistic or total lack of common sense perspective.

At the Charleston hearing your panel chose not to specifically address the issue of state approved units. The question posed by Mr. Hamilton of the West Virginia Coal Association could not have been clearer: Are the West Virginia approved units that are rated for a specific capacity going to be accepted at that capacity or not? The failure to answer that question at the Charleston public meeting continues to put the non-West Virginian operators in a dilemma. This issue should be clarified immediately. As noted in various public comments and written information the spacing regulation in the NPR is not a safety related sizing. Comfort alone, particularly as it conflicts with the work done

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by West Virginia state groups, should not be used to wreck a program that is well on its way to meeting the intent of the NPR.

Specific comments on size and space of units:

Section 7.505 (a) (1) proposes a minimum of 15 square feet of floor space and a minimum of 60 cubic feet of usable volume per person. These dimensions were extrapolated from a 1958 civil defense manual; for fall-out shelter designs. Clearly this is inappropriate. West Virginia used a performance based approach basing the capacity determination on the operational / safety characteristics of the shelters i.e. the apparent temperature maximum of 95 degrees. Using the apparent temperature maximum as a driver provides logical performance standards and as can be seen in the attached pictures still provides the miners enough usable space for their comfort during the timeframes contemplated in the rule.

Further, the regulation requires a "worst case scenario" for planning the number of employees that may be on the section, a pure hot seat scenario with two full crews trapped. Using this scenario for sizing of refuge chambers on the sections, while acceptable for planning purposes, practically provides an almost doubling of potential capacity for up to the 95% of the time when only one crew is on the section. The language in 7.505 (a) (1) should be eliminated completely.

If the agency believes a spacing number is needed, then other international mining industry regulations should be reviewed. South Africa uses refuge chambers in its mining systems. The South African standard for spacing is 6.4 square feet of floor space with no volume value used (Chief Inspector of Mines Directive B5, 14 Feb. 1994).

As a practical matter, to set the size and volume standards as listed in the NPR will result in the need for major modifications of refuge chambers already deployed or in production. This will result in significant deployment delays. I can support a delay wholeheartedly, if the data or testing indicates a safety hazard in the design work done on refuge chambers. This is not the case. Neither MSHA nor the NIOSH studies including the Foster Miller studies have indicated any safety hazard with the size and space configurations of the presently manufactured chambers. The potential delay that will result while manufacturers re-design units to accommodate the proposed rule can only be justified for a safety issue or concern. That is not the case here.

As you stated the philosophy of your department is to develop performance based standards. It is clear that the standard in this case is not only prescriptive; it was not taken from the best sourced document.

I again urge you to eliminate the language in 7.505 (a) (1) entirely or at the most use the South African standard for the basis of the regulation.

Training Requirements:

Miners will need initial training on how to activate refuge chambers. Re-instruction during Emergency Response Training (ERP) is also a logical requirement. The issue of expectation training as stated in the preamble (page 34156 and 34157) needs re-thought.

Annually requiring expectation training that includes exposing miners to the expected heat and humidity conditions in a refuge chamber is not realistic or beneficial to the miners. The expectation training standard required for SCSR training had a logical basis. Miners (or anyone) not familiar with breathing through self-contained oxygen devices may not fully appreciate the difference in restricted airflow, heat etc. It is difficult to portray those sensations without the actual donning of some type of device. A refuge alternative's environment is something that can be easily described as almost everyone has been subjected to a hot, humid environment. There may be training "tips" to pass on such as moisture in a tent type chamber, but this can be part of standard training.

My reading of the NIOSH study does not support expectation training as described in the pre-amble. Panic and anxiety are not going to occur due to heat and humidity. It seems to me that NIOSH was suggesting that the training include not only the "how to use" a refuge chamber but training on decision –making i.e. when to use a refuge chamber.

My analogy on expectation training: I don't believe a mine rescue team member would need to have expectation training wearing an SCSR as he has experienced enough similarities with mine rescue units. In the same vein, all of our employees have been in hot, humid environments. Explain the likely conditions and describe it as analogous to a hot, humid summer day. That is sufficient for that portion of the training. Spending the time discussing decision-making is much more beneficial.

As written in 75.1504 ©, expectation training would not specifically require the setting in a hot, humid refuge chamber. I suggest that the pre-amble be changed to reflect that expectation training would include how to activate a unit including either hands-on training model (if the refuge alternative is in fact a tent type chamber) or the use of an equivalent activation façade. (I am envisioning here a chamber panel that may not have an actual complete box and tent attached but that has all the hands-on activation sequences necessary to activate a unit.) This is especially true in tent type chambers. If the training for unit deployment includes an activation requirement, large mines would be faced with repackaging of the inflatable chambers after each training session. The same

training goals can be reached without requiring a hands-on activation of an actual training model of a unit. Videos or other means should be clearly allowed as part of a performance standard.

Finally, if you choose to require expectation training to include getting into a hot, high humid refuge chamber, then I urge you to omit the requirement in 75.1504© (4). That requirement would require this type of training to be completed each quarter for newly hired employees. Putting a tent type chamber on a blacktopped parking lot in the summer will provide all the heat and humidity needed. Doing the same in the winter: less so.

Again, I urge you to remove the language in the preamble requiring the worker to experience heat and humidity as part of the training and in place of that emphasize a need to annually go through a hands-on activation training and decision making discussion.

Refuge Shelter Locations:

75.1507(a) (11) (i) and (ii) prescriptively requires shelters to be located (or not located) in specific areas of a mine. Most restrictive is the requirement that the unit cannot be within direct line of sight of the working face. On first examination this prohibition may seem to be rationale; off-setting the chamber from any forces of an explosion from the working faces would limit the potential damage to a chamber. The reality is that the over-all regulation includes provisions that make the location limitation unnecessary. The design standard for chambers in 7.505 (b) includes a requirement for the unit to meet an overpressure of 15 psi applied to the pre-activated units. This provision anticipates that the unit designed to this level will be in working order and function as a shelter for any survivors. West Virginia's analysis is that above this overpressure (+15 psi) a person would not survive.

Another practical consideration is that the only location for units that are being moved with working section would be in the cross-cuts. Each move will require the pushing and pulling of these units to place them in a cross-cut yet be ready to deploy. The potential for damage as these moves occur is much higher than a straight pull in the entry.

I would again urge you to delete 75.1507 (11) (i) entirely.

75.1506 (b) (1) requires the chambers be located "Between 1,000 feet and 2,000 feet from the working face..." This limitation conflicts with West Virginia's placement that requires chambers be located "within 1,000 feet" of the face. I would urge that this oversight be corrected by simply requiring that the refuge chambers be located with-in

2000 feet of the face. This is the same request put forward by the West Virginia Coal Association.

The NPR pre-amble on page 34158 discusses an alternative distance of up to 4000 feet if a refuge alternative with a borehole is part of the design criteria. Rather than using a prescriptive distance of 4000 feet I would suggest that an operator be permitted to submit a greater distance than 2000 feet from the working face and from locations where mechanized equipment is being installed or removed. This submission would be based upon a risk analysis of the area in question and the location of the borehole refuge chamber. I believe that in many cases such an analysis would provide a location that is more acceptable than an artificial number such as 4000 feet. Where available and appropriate a borehole refuge chamber adds a great deal to a Mine Emergency Plan. Limiting the use of boreholes by listing an artificial distance is a mistake.

If you do not find that a performance standard is applicable in this circumstance than I urge you to at least list the 4000 feet distance using boreholes as an alternative for operators to assess. This distance may limit their use but not listing any option for boreholes other than the 2000 foot distances already listed will almost eliminate their use.

75.1506 (a) states "Each operator shall provide refuge alternatives with sufficient capacity to accommodate all persons working underground." In fact a number of the persons working in many areas of mines may not need a shelter at all. 75.1506 (b) (2) notes that a safe exit less than 30 minutes suffices in lieu of a refuge chamber can be considered in this design. Some mine areas will be capable of meeting the 30 minute travel distance requirement with mine exits. 75.1506 (a) should be re-written to state "Each operator shall provide refuge alternatives including mine exits if properly spaced to accommodate all persons working underground."

Sincerely,

August 18, 2008

John M. Gallick
VP Safety and Health
Foundation Coal Corporation