
From: Mark Watson [mailto:Mark.Watson@arlp.com]
Sent: Monday, August 18, 2008 5:35 PM
To: zzMSHA-Standards - Comments to Fed Reg Group
Cc: Silvey, Patricia - MSHA
Subject: RIN 1219-AB58; Comments of Alliance Coal, LLC on Proposed Rule for Refuge Alternatives

Attached please find the comments of Alliance Coal, LLC on the Proposed Rule for Refuge Alternatives in Underground Coal Mines: RIN 1219-AB58.

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AB58-COMM-27



Mark Watson
Vice President – Technical Services

August 18, 2008

Ms. Patricia W. Silvey
Director, Office of Standards,
Regulations and Variances
Mine Safety and Health Administration
1100 Wilson Boulevard
Room 2350
Arlington, VA 22209-3939

Re: Comments of Alliance Coal, LLC on MSHA's Proposed Rule for
Refuge Alternatives for Underground Coal Mines: RIN 1219-AB58

Dear Ms. Silvey:

Set forth below are the comments of Alliance Coal, LLC ("Alliance") on the subject refuge alternatives for underground coal mines, published as a notice of proposed rulemaking ("NPR") in the *Federal Register* for June 16, 2008, 73 Fed. Reg. 34140. Alliance is a diversified coal producer with eight large underground coal mining complexes in Illinois, Indiana, Kentucky, and West Virginia. Thus, Alliance's underground coal mines are operating in four MSHA Coal Mine Safety and Health Districts, specifically Districts 3, 6, 8 and 10. Alliance is also a member of the National Mining Association ("NMA"). As such, we hereby adopt the comments of NMA on this proposed rule, and incorporate them by reference in our comments as though fully set forth.

Alliance supported the passage of the MINER Act and we are committed to fully implementing all of its provisions with a sense of urgency and prudence. Thus, since passage of the MINER Act, we have purchased over 5000 self-contained self-rescuers (SCSRs), installed advanced communications and electronic tracking systems, installed lifelines, and provided comprehensive training sessions for all of our underground coal miners. We are operating in compliance with all provisions of our approved emergency response plans. As a key part of that compliance, our mines comport with the specifications for providing miners with 96 hours of breathable air set forth in Program Information Bulletin ("PIB") No. P07-03, issued by MSHA in February 2007, and entitled "Implementation of Section 2 of the MINER Act of 2006: Options for Providing Post-Accident Breathable Air to Underground Coal Miners". This PIB specified that operators would have to provide "[e]ach miner [with] a 96-hour supply of breathable air located within 2000 feet of the working section." In significant respect, therefore, Alliance has been, for

some time now, in accord with central portions of the NPR. More particularly, we have selected specific and tailored methods for providing breathable air to best suit the conditions unique to each of our underground mines and the locations within these mines. Thus, our refuge alternatives (which are in conformance with §75.1507 of the NPR (73 Fed. Reg. 34172)) include a combination of inflatable rescue chambers, pre-constructed safe havens with boreholes to the surface and quickly deployable barricade trailers. We, therefore, strongly encourage MSHA to retain all three of the options proposed in the above-cited section for refuge alternatives. As is the case with most mine safety technologies, there is no one-size-fits-all solution for refuge alternatives. An overly prescriptive approach, such as one that requires mines to install pre-fabricated self-contained rescue chambers exclusively, would diminish miner safety by prohibiting refuge alternative designs that could allow miners to barricade in spaces that are not constrained by the size of the inflatable tent or metal structure. Pre-fabricated refuge chambers can offer some advantages over other refuge alternative designs but certain disadvantages are inherent to their design as well. For example, the volume internal to the refuge alternative must be restricted in order for the pre-fabricated chamber to be portable. Thus, MSHA correctly noted in the preamble of the NPR that "larger volumes seem to be more effective at dissipating heat." *Id.* at 34146. Although the ease of deployment of pre-fabricated refuge chambers can offer an advantage, the limitations of internal volume are a significant disadvantage. Pre-fabricated refuge chamber designs have advanced rapidly in the last couple of years but (as the NMA comments point out so eloquently) they have yet to be tested in actual mine conditions with human subjects. Until thorough, long term functional testing is completed, pre-fabricated self contained refuge chambers simply can not be considered the "silver bullet" for refuge alternatives.

Proposed §75.1507(c) provides, as one of the three acceptable options, "refuge alternatives consisting of materials pre-positioned for miners to use to construct a secure space with an isolated atmosphere." (hereinafter referred to as "constructed in place refuge alternatives") *Id.* 34172. Although some have commented that this option should be removed from the refuge alternative rules, when finalized, because it only serves to allow the continuance of the outdated practice of "barricading" with whatever materials may be at hand, such comments misapprehend the proposal. Simply stated, the constructed in place refuge alternative permitted in §75.1507(c) is "not your father's Oldsmobile," in that the proposed rule would mandate very stringent requirements for this refuge alternative option.¹

¹ Thus, proposed §75.1507(c)(1) through (5) provides as follows:

(c) [F]or refuge alternatives consisting of materials pre-positioned for miners to use to construct a secure space with an isolated atmosphere, the ERP shall specify--

- (1) The means to store and protect materials from being damaged when moved;
- (2) That the refuge alternative can withstand exposure to a flash fire of 300 ° F for 3 seconds and a pressure wave of 15 psi overpressure for 0.2 seconds prior to construction and activation.
- (3) The method to assure the refuge alternative is constructed and functional in 10 minutes after a person arrives at the pre-positioned materials;

(continued...)

Indeed, Alliance believes that constructed in place refuge alternatives can offer the most ideal method for providing miners with breathable air, even though it is the least portable of the three options. In some cases, that very lack of portability means that breathable air can be provided to this type of refuge alternative directly from the surface through a borehole. Furthermore, constructed in place refuge alternatives can be used to create safe havens large enough (in our experience) for over 100 miners to occupy; and to allow the breathable air and other provisions necessary to sustain miners for periods that exceed 96 hours. Durable construction methods can be used to create spaces that could withstand the destructive forces from secondary explosions. Safe havens can also be stocked with SCSRs and reliable post accident communication methods serving an integral role in mine escape plans.

Most importantly, constructed in place refuge alternatives offer the simplest and most fail-safe method for sustaining miners after an emergency event. The final rule for refuge alternatives, therefore, should encourage operators to use this method by allowing constructed in place refuge alternatives to be located at a maximum distance from the face up to the distance between SCSR storage locations as approved in the mine specific emergency response plan and an average distance from the face between 1000 and 2000 feet. This spacing would ensure miners are provided with more than twice the SCSR capacity required to reach the refuge alternative at all times, while constraining the average location to the ideal placement. This location requirement would ensure miners are provided with an accessible refuge alternative while allowing many more constructed in place refuge alternatives to be incorporated into mine emergency response plans.

A third approach for constructed in place refuge alternatives involves a pre-engineered method for quickly constructing an area with an isolated atmosphere of breathable air. This approach allows for a refuge alternative to be portable, similar to the previously described pre-fabricated refuge chamber, but it also provides a method for miners to safely barricade in a much larger area. The larger space, bounded by quickly deployed stoppings and the mine floor, roof and coal seam, can be much more effective in controlling the apparent temperature for the duration of its use. In order to be most effective, this method consists of much more than pre-positioning a few air cylinders and brattice cloth. Alliance has designed, fabricated, and installed quickly deployable breathable air trailers to provide safe refuge alternatives for many of our operating sections. The trailers are constructed to mine duty specifications for safe handling in the underground environment. They contain enough air to purge a 3000 cubic foot volume three times. Rows of air cylinders have been strategically placed on the trailers and connected with manifolds to silencing devices and air diffusers to optimize the purge effectiveness.

(...continued)

- (4) That all necessary materials have been provided as a self-contained unit ready to be activated and used within the secure space once constructed; and
- (5) The means to assure establishment of approved breathable air in the refuge alternative promptly after construction.

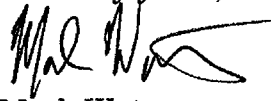
Id.

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Specially designed barricade provisions are provided and some of these provisions can be pre-installed to ensure that a secure space can be created quickly and with minimal effort. Oxygen cylinders and carbon dioxide scrubbing curtains safely supply breathable air for all occupants for 96 hours. Air monitoring equipment allows miners to make adjustments to air quality as required. Provisions are also made for sanitation, lighting, communications, food, water, and first aid. This highly engineered solution hardly resembles the outdated practice of barricading. It is a safe, effective refuge alternative that should be allowed in the final rule.

We appreciate the opportunity to provide you with these comments. Alliance is committed to and stands ready to work with MSHA to provide practical, safe and proven refuge alternatives in our underground coal mines.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Mark Watson', with a long horizontal flourish extending to the right.

Mark Watson
Vice President – Technical Services
Alliance Coal, LLC

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