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Cc: Sbaffoni, Joseph (PDMM); Bookshar, William; Walker, Dennis
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Refuge Alternatives for Underground Coal mines - Comments on Proposed Rules
RIN 1219-AB58

1. Pennsylvania is the 4th largest coal producing state yet there were no public meetings held in Pennsylvania. There should be public meetings held in Pennsylvania for all rule making issues.
2. Refuge alternatives should be applied widely allowing for future innovative development in this area, as long as miner survivability can be provided.
3. Refuge alternatives should be applied equally and any exemptions applied nationally. If something is acceptable for one state, it should be acceptable in all states.
4. Refuge chambers and all alternatives should require an acceptable atmosphere containing at least 19.5% oxygen and no harmful quantities of other gases.
5. Refuge chamber designs should include a "port" that can be used to connect to an external air source such as a borehole from the surface. This can provide an acceptable air quality for a time greatly exceeding 96 hours if necessary.
6. The rule should require an immediate mobilization of surface equipment to immediately initiate a drilling program to establish a borehole to an area immediately adjacent to the chamber for any emergency where miners may use the chamber. This would ensure that a life sustaining atmosphere and communications can be provided for an extended period of time if rescue is not immediately possible.
7. Refuge chambers should allow for designs that can be self-trammed as well as "towed" during underground placement.
8. The final rule should allow for a complete review and update after a specific period of application, possibly 5 years. This will allow for adoption of new methods as well as a hard look at what is in place that may no longer be acceptable or require changes for improved rescue and escape.
9. These are emergency life sustaining devices and should include as a minimum both essential comfort features and all of the requirements to ensure the sustenance of life for an emergency event.
10. All designs incorporating electrical apparatus should be explosion proof or intrinsically safe in their operation. The atmosphere after an event is unknown and operation of refuge chambers should not place the occupants or their rescuers in danger of creating another event.
11. For refuge alternatives, purging a contaminated space should not be an accepted practice unless the purging process can be proven totally effective at providing a safe, livable atmosphere for all of the occupants in every situation.
12. Refuge stations should be advanced regularly and maintained no greater than 1000 feet from the furtherest working face or working area where miners are routinely employed.
13. Refuge chamber access should be available from the primary intake air escapeway in all working sections. The location and ventilation controls should not deter quick, easy access for all miners in the area.

14. Refuge chamber testing facilities should be "world wide" since other countries are already using these chambers in their mines. Testing requirements should be developed and applied under strict control of MSHA.
15. Refuge chambers already in use in hard rock mines should be evaluated for data that can be allied directly to the coal mines in regards to safety and usability issues. Each time a chamber is used, its use should be completely examined and all results published for history and future changes that may be periodically required.
16. Refuge chambers advanced to a new location underground should be identified on the official mine map no later than the end of the shift that a chamber has been relocated.
17. The mine communication system should be tied to the refuge chamber so that communication is always available from the refuge chamber to the surface. Wireless two-way communication should be immediately placed in each shelter as soon as it becomes available. Every chamber must provide an emergency homing device.
18. The specific location of the mine communication system and its relationship to the location of each refuge chamber should also be identified on the official mine map every time that either is relocated within the mine. The specific location of each hardwired communication system should be known in the event of an emergency.
19. A detailed map (Scale of 1"=10') of the refuge shelter location should be posted no later than the end of the shift that a chamber has been relocated. This detailed map should identify the specific location from the nearest intersection or spad location and should provide adequate information to initiate a drilling program in an emergency.
20. Each refuge chamber should be examined as part of the pre-shift exam for that area. Additionally, direct responsibility for the detailed inspection and maintenance of all refuge chambers should be assigned a specific mine individual or job position at each mine. Every refuge should be inspected daily by this person and an official record made of that examination. All defects must be immediately corrected.
21. An over-pressure rating of 15 psi is inadequate. Recent events show that events create pressures greater than 20 psi.
22. The 10 minute construction time defeats the primary protection in an emergency. Travel to a chamber can take over 10 minutes thus exposing miners for periods in excess of 20 minutes.
23. Outby refuge chambers should be adequate to house all personnel that are working in that area, not just those who are regularly assigned to that area. A major spill on a belt may require a much larger number of people to clear than can be housed in a chamber. This is unacceptable.