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To: Whom It May Concern

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URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

Message: Subject: RIN 1219-AB58,

Comments on 30 CFR Parts 7 and 75 "Refuge Alternatives for Underground Coal Mines"

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AB58-COMM-16

Comments and Questions on Refuge Alternatives

Page #34142, A Part 7 Approval states that for refuge alternatives that are not pre-fabricated, i.e. constructed in place or materials pre-positioned, the structure would be approved by the District Manager in the Emergency Response Plan. Consistent with this requirement, the approval-holder must provide a refuge alternative or component to MSHA for audit.

Comment: Rather than have another lengthy approval process I think it would better serve the miners and the agency if there was a specific list of requirements for contents of any refuge, a set standard for strength of the protective structure which could either be submitted for MSHA to approve or be certified by a professional engineer to meet the strength standard? The industry could then choose how to comply with clear guidance to how MSHA would audit the chambers and MSHA could audit the strength requirement in much the same way they do other MSHA requirements such as A.T.R.S. systems.

Page #34142, Section 7.501 paragraph 2 states that refuge alternatives that states have approved and those that MSHA has accepted in approved ERPs would meet the requirements of this proposed rule. When mine operators replace these refuge alternatives or components, the new refuge alternatives or components must meet the requirements of the proposed rule. Based on preliminary discussions with manufacturers, MSHA used the estimated service life of the pre-fabricated self-contained refuge alternative. This would allow refuge alternatives to be used until replaced or 10 years maximum. This would allow refuge components to be used until replaced or 5 years maximum. MSHA solicits comments on the estimated service life of the pre-fabricated self-contained units. Comments should be specific, including alternatives, rationale, and supporting data.

Comment: Many components of individually established "Safe Havens" have shelf-lives which exceed 5 years and in some cases 10 years. Some survival companies are providing sterile water and M.R.E. food packets with shelf life of as much as 12 years. These items should be allowed to be used for their entire service life.

The breathable oxygen that we have stored in our refuge alternative will be required to be replaced in 5 years due to the expiration date on the cylinders. At this time would we be required to comply with all of the final rule requirements or just the requirements concerning oxygen in the final rule? This same question would apply to the "purge air", and other components stored in our Safe Havens.

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Comments and Questions on Refuge Alternatives

Page #34146, Section 7.504 Paragraph (c)(3) would require that refuge alternatives include a means to effectively contain human waste and minimize objectionable odors. Information regarding the sanitation would assure that the manufacturer or approval holder has included an adequate means for containing waste.

Comment: Porta toilets as shown below should be acceptable if plastic bags are provided to catch the waste, a separate storage container is utilized to store the waste, and deodorizer is utilized to control the objectionable smell.



Page #34146, Section 7.504 Paragraph (d) would require that containers used for storage of refuge alternative components be airtight, waterproof, and rodent-proof; easy to open and close without the use of tools; and conspicuously marked with an expiration date and instructions for use of the component. This requirement would assure that the containers' contents are useable when needed. Some contents should be individually packaged and stored in containers. For example, food and water should be provided in individual, disposable packages and stored in a container.

Comment: I would request clarification that when pre-fabricated boxes used for storage of oxygen cylinders, tools, and other "components" within a constructed Safe Haven will not have to meet the air tight waterproof standard. The requirement to be waterproof and air-tight would in the case of a constructed Safe Haven apply only to items which would be degraded by failure to maintain them in air tight, waterproof storage compartment if their individual packet packaging material would provide those protections i.e. an M.R.E. meal in a plastic packed airtight, waterproof package stored in a rodent proof metal storage box which can be easily opened.

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Page #34146, Section 7.505 Paragraph (a)(2) would require that refuge alternatives include storage space for securing and protecting the components during transport and that permits ready access to components for inspection, maintenance, and activation.

The proposed rule is intended to provide adequate storage space in addition to the usable space required for persons occupying the unit. The storage space is required for the supplies in containers. The containers need to be secured to prevent movement during transport. The supplies should be located to provide usable space for miners and to be accessible for inspection while the refuge alternative is stored. The components should be positioned to allow for visual checks for availability, readiness and shelf life dates.

Comment: Individually removing each component, when necessary, for examination to verify dates of service and condition should be acceptable. It is an unreasonable requirement to require components be able to be examined without any unpacking of a storage box or container.

Page #34147, Section 5.505 Paragraph (b)(1) would require that tests be conducted to determine or demonstrate that the refuge alternative can be constructed, activated and used as intended. Under this provision, trained persons would need to be able to fully activate the structure, without the use of tools, within 10 minutes of reaching the refuge alternative.

This provision would assure that miners can use the refuge alternative upon reaching it. Following an accident, the first actions of the miners are to attempt to evacuate wearing SCSRs. In a worst-case scenario, only one SCSR may be available to provide 60 minutes of breathable air. The first 30 minutes would enable the miner to attempt to evacuate and return to the refuge alternative if escape is impossible. If the miner cannot escape, and returns to a refuge alternative, the miner would have 10 minutes to establish a barrier between the interior and exterior atmospheres. The remaining 20 minutes of breathable air provided by the SCSR will allow refuge alternative purging to establish a breathable air atmosphere. It is expected that the testing under this paragraph would be conducted using simulated real-life situations and conditions, such as smoke, heat, humidity and darkness using SCSRs.

Comment: This training should be able to be conducted on the surface utilizing a refuge alternative training units at least annually. The training, if SCSR "Expectations" training equipment and guidelines is used, should be permitted to meet the "Expectations Training" requirement and other requirements as well

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Page #34147, Section 5.505 Paragraph (b)(2) would test that an overpressure of 15 psi applied to the pre-activated refuge alternative structure for 0.2 seconds would not allow gases to pass through the barrier separating the interior and exterior atmospheres.

Comment: Typically methane explosions occur at the working face so an overpressure requirement for the refuge alternative at or closest to the working face sounds reasonable. When other "Safe Havens" have been constructed out-by (greater than 2000 feet) it would be logical that the 15 p.s.i. overpressure requirement not be applied rather the standard for a typically constructed air tight brattice should apply if the working faces are protected by a structure or refuge alternative within 2000 feet which meets or exceeds the 15 p.s.i. standard.

Page #34148, Section 7.505 Proposed § 7.505(d)(1) would require that refuge alternatives be designed such that pre-shift examination of the components critical for activation can be conducted without entering the structure.

Comment: I would request clarification that this does not preclude the opening of a door to observe gauges of tanks, or read chemical indicators is to be considered as "entering the structure". Also a clarification that this section does not apply to entering a pre-constructed Safe Haven area used as a refuge alternative.

Page #34148, Section 7.505 Paragraph (d)(2) would require that a refuge alternative be designed to provide a means to indicate unauthorized entry or tampering.

Comment: The installation of security plastic or metal tie wraps should be permitted to fulfill any security requirement.

Page #34152, Proposed § 7.507(a) would include requirements for an air-monitoring component that provides persons inside the refuge alternative with the ability to determine the concentrations of carbon dioxide, carbon monoxide, oxygen, and methane, inside and outside the structure, including the airlock. This proposal would assure that breathable air is properly monitored and that air-monitoring equipment is properly inspected, tested, maintained, and stored so that it is fully charged and available for immediate use.

Comment: The detectors installed as a component of the refuge alternative should be portable and permit their use to determine the atmosphere inside and outside the refuge.

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Page #34153, Section 7.508 Paragraph (a)(1) would require purging or other effective methods be provided for the airlock to dilute the carbon monoxide concentration to 25 ppm or less and the methane concentration to 1.5 percent or less as persons enter, within 20 minutes of miners activating the refuge alternative. The NIOSH recommended value of maximum concentration of carbon monoxide is 25 ppm. This provision is intended to address evacuating contaminated air by forcing the contaminated air out of the refuge alternative environment. Airlocks are intended to speed up the process of ingress and egress, because this is a smaller volume as compared to the interior space to purge. MSHA believes that following the miners' attempt to escape and time required for constructing and activating the refuge alternative, the SCSRs would allow 20 minutes for purging the airlock to establish a breathable air atmosphere.

Comment: NIOSH's 25 ppm CO limit is looking at a person in a "normal" work environment. What MSHA should and I feel must consider is that in the event that a refuge is needed a true survival situation may be at hand. The agency must realize that each individual component requirement or enhancement of a requirement decreases available space as well as adds weight to the refuge alternative, both of which can and most likely will decrease miner safety. Space is critical for the obvious reasons some of which the agency has spoken to directly within this proposed regulation. The weight factor adds not only the increased problem of portability but the probability of injury to healthy miners as they move and physically handle these structures prior to any need for the structure. A more realistic number is the 50 ppm OSHA PEL.

Page #34155, Paragraph 75.360(d) would require the person conducting the preshift examination to check the refuge alternative for damage, the integrity of the tamper-evident seal and the mechanisms required to activate the refuge alternative, and the ready availability of compressed oxygen and air. Refuge alternatives may be damaged by persons, mining equipment, or the mine environment. Compressed gas storage systems may leak. Due to the critical nature of refuge alternatives, each refuge alternative must be examined as part of the preshift examination. Visible damage to the refuge alternative and damage to the tamper-evident seal would be checked during the preshift examination. The preshift examination would reveal loss of compressed gas pressures, electrical charge, or communications system.

Comment: A pre-shift of the refuge nearest the working section may be appropriate for the first week after it has been "relocated" to determine if any damage has occurred during the moving procedure. During other times a weekly examination should be sufficient.

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Page #34157, Section 75.1506(a)(2) states that the refuge alternatives for the working sections would need to include space to accommodate all persons working near the section. It should accommodate all miners that join those working at the section during a shift change. For example if a mine has a practice of "hot seat" change-out of crews at the face, the refuge alternative would need to accommodate both crews; any other persons who would routinely work near the section, such as managers, surveyors, vendors, and state and Federal inspectors.

Comment: It is impossible to be able to determine, in advance, how many inspectors, vendors, or other persons such as visitors may be present. Each additional space/person that is to be accommodated adds to the problems of lack of available space and additional weight for the refuge. The "normal number of miners" exposed should be the standard.

Page #34158, Section 75.1506 Paragraph (a)(3) would require that refuge alternatives for outby areas accommodate persons assigned to work in the outby area. The proposed rule would not require that outby refuge alternatives be able to accommodate all persons working inby its location. Refuge alternatives are used to shelter in-place only when evacuation is not feasible. Under the proposal, outby refuge alternatives would have to accommodate supply persons, locomotive operators, examiners, state and Federal inspectors, pumpers, maintenance persons, belt persons, and other persons who may be working in the outby areas. A refuge alternative must be sufficient to maintain the miners who can reasonably be expected to use it.

Comment: It is impossible to be able to determine, in advance, how many inspectors, vendors, or other persons such as visitors may be present. Each additional space/person that is to be accommodated adds to the problems of lack of available space and additional weight for the refuge. The "normal number of miners" exposed should be the standard.

With this requirement for out-by areas MSHA permit these refuge alternatives that are positioned in the outby areas replace the requirements for emergency materials currently required in 75.1100-2(i) and take this section of the law out of the regulations due to nobody would utilize the emergency materials when refuge alternatives are available.

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Page #334158, Section 75.1506 Paragraph (b)(1) would require that refuge alternatives be located between 1,000 feet and 2,000 feet from the working face and from areas where mechanized mining equipment is being installed or removed. MSHA is proposing these distances to accommodate the periodic advancement of the working section, to recognize the potential for damage from an explosion, and to limit travel time from the working section to the refuge alternative.

Comment: Having to maintain the Refuge Alternative at the specified distances would require the Refuge Alternative to be moved more often and would increase the chances that the breathable air components would be damaged and therefore would diminish the safety of our miners. Having the refuge alternative placed within 2,000 feet of the face is a safe distance that could be traveled safely in a smoke filled atmosphere utilizing the 2 SCSR that are provided to each miner while following the lifeline which is attached to the refuge alternative. The SCSR donning and transfer training, the expectation training that was conducted utilizing theatrical smoke that has been conducted at our mines and the Mine Emergency Evacuation and Firefighting Drills that were conducted has been a great learning tool for us and we feel comfortable that our employees could travel a 2,000 feet distance to reach the refuge alternative. We have also informed our employees that if the escapeways are not blocked to travel through smoke utilizing the lifeline and the SCSR's that are stored in the caches located in the Escapeways that are attached to the lifeline and to only utilize the refuge alternative as a last resort.

NIOSH added that locating the refuge alternative closer to a possible explosion source will increase the chance it is damaged by overpressure or flying debris from the initial explosion.

We have our refuge alternatives placed in crosscuts and therefore if an explosion did occur at the working face they would not be affected by flying debris.

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Page #34159, Section 75.1506 Paragraph (d) would require that the operator protect the refuge alternative and contents from damage during transportation and storage. The proposed provision is intended to assure that care will be taken to avoid damage to the refuge alternative at all times. Mine operators need to assure that miners follow all safe procedures when transporting a refuge alternative from one location to another. Attention needs to be paid to procedures such as the use of proper connections for transportation and devices such as tow bars, clevises and hitches. Refuge alternatives that have materials and components stored on transportable equipment, such as a skid, would require care to assure that they are not damaged while in storage.

Comment: Why does MSHA even need to address this when the proposed regulation clearly states that all components must meet the standards. Would a component damaged warrant a second citation because it was damaged during transport; or would the standard requiring the component be the violative condition; or both? The end result is the same - the damaged component must be replaced to meet the standard. It is redundant to impose a separate transport requirement.

Page #34159, Section 75.1506 Paragraph (e)(1) would require the operator to withdraw all persons from the area serviced by the refuge alternative if the refuge alternative is removed from service, except those persons referred to in § 104(c) of the Mine Act. Under the proposal, if an inoperable or damaged refuge alternative would not provide the protection intended, all persons would have to be withdrawn from the area serviced by the refuge alternative. This would not include persons performing the repairs, who should be provided with additional SCSRs to assure that they can reach another refuge alternative.

Comment: If the refuge alternative was deemed inoperable or damaged the operator should be given a maximum time frame to repair the refuge alternative prior to withdrawing all persons from the area serviced by the refuge alternative due to additional SCSR's are stored on the working section and are spaced out in the Escapeway at 30 minutes intervals which would provide a sufficient amount of oxygen to assure that they can reach another refuge alternative.

Page #34159, Section 75.1506 Paragraph (g)(1) would require that a sign or marker made of reflective material with the word "Refuge" be posted conspicuously at each refuge alternative. Reflective material greatly increases the visibility of these signs. This requirement is the same as the existing § 75.1714-4(f), which requires reflective signs on SCSR storage locations.

Comment: We have had the Refuge alternatives installed at our mines for over a year and we have trained our employees on their location and have posted reflective signs that read SAFE HAVEN. Our employees

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recognize that when they see a SAFE HAVEN sign that a refuge is in place and ready to be utilize and by changing the sign name we may confuse some of our employees and therefore having to change our signs would diminish the safety of our employees. MSHA =should accept a sign that reads SAFE HAVEN in place of a sign that reads "REFUGE".

Page #34159, Section 75.1506 Paragraph (g)(2) would require that a directional sign, made of reflective material, be posted leading to each refuge alternative location. Miners may not be located in escapeways when an emergency occurs. For these miners, a clear system of signs may be critical during an emergency. Persons traveling in adjacent entries would have signs directing them to the refuge alternative.

Q. Is MSHA interpretation of adjacent entries as the immediate entry to the left and right of each Escapeway?

Page #34159 & 34160, Section 75.1507 Paragraph (a)(1) would require that the mine operator specify the types of refuge alternatives and components used in the mine. There are three types of refuge alternatives envisioned in the proposed rule. The proposed rule would provide flexibility in the type of refuge alternatives that will meet the requirements. The type of alternative is not specific to the seam heights.

One type is a pre-fabricated self-contained unit. The unit is portable and may be used in outby applications as well as near the working section. This unit has all the components built-in.

A second type is constructed in place. Typically, the components of this unit are placed in a cross-cut or dead-end entry and stoppings are built to create a secure area with an isolated atmosphere. The components, including breathable air, removal of harmful gases, and air monitoring should be approved components and placed such that they are ready to be activated when miners reach the secure area. The stoppings and doors would have to be designed to resist a 15 psi overpressure. This refuge alternative would typically be used outby. If used near the working section, the stoppings could be removed to allow the components to be moved periodically to the next location and new stoppings would have to be built. A method and materials, if needed, would be necessary to provide breathable air for the miners while this type is being moved.

Comment: We utilize the constructed in place refuge alternative and when we move it we perform this task on an idle shift. The move consists of knocking a brattice located in a crosscut, hooking to the refuge alternative sleds and pulling them up the entry with a scoop to the desired crosscut which already has one brattice constructed in place and we only have to build one more stopping with a regulator, door and pressure relief valve installed and the move is completed at this point. We also store barricading material with the refuge alternative and we could construct a quick barricade if needed in an emergency. It is a

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very effective way to move our refuge alternative and takes very little time and therefore we feel that we should not be required to providing breathable air for the miners while this type is being moved. We move the refuge alternative periodically to maintain the required distance from the face, can it be conducted on a idle shift that no coal is being produced without providing additional breathable air for the miners while the refuge alternative is being moved?

Page #34160 & 34161, Section 75.1507 Paragraph (a)(9) would require that the ERP include methods for monitoring gas concentrations, and charging and calibrating equipment. This information is essential for MSHA to determine that persons inside the refuge alternative will be aware of the concentrations of carbon dioxide, carbon monoxide, methane, and oxygen inside and outside the structure, including the airlock. This information assists MSHA in evaluating whether the air-monitoring component meets the requirements for sustaining persons for 96 hours. Different types and combinations of instruments may be used to comprise an air-monitoring component. The proposal allows MSHA to determine that discrete components are appropriate, available, and functional for monitoring breathable air.

Comment: If the atmosphere immediately outside the refuge alternative is safe due to the monitor readings we would be giving our employees inside the refuge alternative a false sense of security due to 50 feet away from the refuge alternative we may have an irrespirable atmosphere present. My understanding was that once inside the refuge alternative it stayed sealed until the mine rescue team arrival. If our employees inside the refuge alternative went outside the refuge prior to the mine rescue team arrived due to the monitoring showed a safe atmosphere outside the refuge our employees may encounter an unsafe atmosphere and by going outside the refuge they would be exposed to a irrespirable atmosphere and may have also jeopardize the integrity of the refuge by contaminating it with an irrespirable atmosphere. Due to these statements it would be ill-advised to monitor the atmosphere outside the refuge and would not enhance the safety of our miners.

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Page #34161, Paragraph (a)(11)(i) and (ii) would require that the ERP specify that refuge alternatives are not within direct line of sight of the working face and, where feasible, not in areas directly across from, nor closer than 500 feet radially from, belt drives, take-ups, transfer points, air compressors, explosive magazines, seals, entrances to abandoned areas, and fuel, oil, or other flammable or combustible material storage. The proposed rule addresses the potential damage from a working face explosion and, additionally, the potential of a fire at certain areas or equipment. Locating refuge alternatives away from these areas would minimize the heat or explosive forces that could occur and affect the safety of persons in the refuge alternative.

Comment: In certain situations this requirement will be impossible to meet. MSHA stated that the agency would consider exceptions to this requirement when it is not feasible to locate the refuge alternative according to this provision.

AUTOMATIC COVER SHEET

DATE :AUG-18-2008 MON 07:31 AM

TO :

FAX #:912026939441

FROM :TECO SAFETY DEPT CORBIN

FAX #:6065234240

13 PAGES WERE SENT

(INCLUDING THIS COVER SHEET)