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MSHA/OSRV

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

Attention: To Whom It May Concern

Subject: MSHA and RIN 1219-AB44
D. Rescue Chambers

I am writing in regard to the public Request for Information put out by MSHA because our company can provide assistance and solutions.

The mine tragedies that recently occurred in the U.S. affected anyone that stayed close to their radios, televisions, and internet news sites praying for the safe rescue of trapped miners. The agony those miners suffered must be on the minds of every miner that works in that dangerous environment every day to support their families and themselves. These unfortunate events were later compounded by confusion and anger when a similar tragedy occurring in Canada led to the rescue of all their trapped miners. These trapped miners were able to communicate with their rescuers, breathe fresh oxygen, eat, drink, sleep, and were playing checkers in the moments they were finally rescued. I thought to myself, "How do two similar events result in such a huge difference of human emotion?"

I later read reports and heard news programs about how different U.S. coal mines are from the mineral mine where the accident occurred in Canada, and the success experienced there is not possible here because of those differences. From my research, I acknowledge there are differences of environment. However, there are also differences of regulation. One of those regulation differences is the requirement of Rescue Chambers. On one program I listened to, the interviewer asked why these chambers did not exist in the U.S. The response was the environment is so different in coal mines where you have fire raging for hours, extreme heat, and explosions. "There was no technology in existence to protect against this." That's when I decided to act upon that statement.

Transco Products, Inc. is a problem solving company. Our clients include the nuclear power industry, petroleum industry, chemical industry, U.S. Department of Energy, and the U.S. Department of Defense. Our focus is protecting people and infrastructure from unimaginable disaster. Transco Products designs and constructs solutions for defending against fires, blasts,

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extreme heat, radiation shielding and environmental habitability enabling a human life to survive the unthinkable. Though we have not worked with the mine industry on these types of issues, we have extensively tested materials and design capabilities that could change the outcome of a similar Sago Mine incident.

I reviewed all the responses to the MSHA RFI. Obviously, most responses come from companies with considerable expertise in specific areas. However, only a few have addressed Rescue Chambers. I don't believe it is possible to adapt what works in a mineral mine and apply it to a coal mine with a few modifications. My impression is a coal mine is a constant fuel source for fires and explosions. Coal mines are also not exactly the same from one to another so custom solutions may be required. To properly address such a volatile environment requires materials that can withstand many, many hours of heat exposure on one side of a barrier while protecting human life on the other side. Materials that can withstand multiple blast events and still remain intact. Barriers that can absorb extreme heat yet not transfer that heat just a few inches of thickness to the inside of the Rescue Chambers.

Canada's mine industry has national safety requirements for Rescue Chambers in all of their mines. These chambers are located up to 300 meters apart throughout a mine. In times of incident disorientation, a miner only has to worry about finding their way to the nearest chamber to be safe and secure, not try to navigate totally out of the mine. Once they reach Rescue Chamber, they will have air to breath, food to eat, water to drink, and communication with the outside. The confidence those miners must feel having such logical safety steps in place versus the cautious uncertainty of miners in the U.S.

Transco Products believes we have solutions for the construction of Rescue Chambers in U.S. mines. Mines having vastly different configurations cannot all use the same solution. The answer is to start with the materials that have the capability to withstand the most adverse conditions encountered in a mine incident. Transco Products designs and installs several different materials that can be used separately or in combination to create Rescue Chambers capable of protecting its occupants from the worst of external forces.

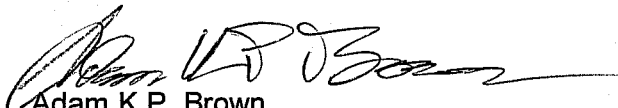
- **BLASTEK** is a blast resistant fiber reinforced polymer that can absorb the impact of a blast several times with a thickness of little more than a ¼". It can be applied to almost any type of surface to increase its strength many, many times. A product like this can be applied over a simple block wall changing it into a blast resistant barrier. A hollowed out tunnel or chamber to prevent cave in as a result of a blast. It can even withstand seismic events.
- **Thermo-Lag 3000** is a fire resistant coating that was designed to resist blasts that occur on gas and oil platforms at sea. It is typically coated on the blast side of a ¼" steel plate that is the only thing that separates the crew quarters from a raging inferno on the other side. Coating this material on top of BLASTEK results in a blast resistant, fire resistant, barrier.
- Any Rescue Chamber constructed in a mine will require an entry and exit door that can also withstand blast, fire, and prevent the transfer of extreme temperature into the chamber. It needs to be functional after a seismic occurrence caused by natural or explosive events. It also needs to be functional after years of no use in potentially corrosive or age accelerating environments. **Mirror Reflective Insulation (MRI)** is a light, stainless steel panel with high temperature insulating material inside. When coated with BLASTEK and Thermo-Lag 3000, it becomes a blast resistant, fire resistant, heat

- shield protecting the occupants of the chamber. The MRI door has a gasket of fire resistant silicone material that remains flexible for over 40 years of heat aging and will allow the door to seal tight AFTER a seismic event.

These are a sampling of unique materials that have undergone rigorous testing for approved use in the nuclear, petroleum, DOE, and DOD industries where protection of human life is paramount. We believe these materials, and combinations of others we market, can be utilized to provide the safe solutions MSHA and the mine industry are seeking. Transco Products would appreciate the opportunity to explore this further with the mine industry.

If you have any questions, I can be contacted at the above listed numbers. I also plan to attend the workshop in Washington DC on April 18th, 2006. I personally wish the mine industry much success in finding safe solutions for our country's miners and their families.

Sincerely,



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