Agency Receives Certification Applications for Emergency Shelter

The West Virginia Office of Miners’ Health, Safety and Training received the first certification applications for emergency shelters and chambers for underground mines in West Virginia. These applications, presented to Director Ron Wooten, are from two firms with West Virginia operations and offices.

“We are excited to receive these applications, which represent a significant step forward in providing underground mine operators and miners with last-resort shelters if they are needed in a mining emergency,” said Director Ron Wooten. “And, with two models to review, the agency will be able to encourage mine operators to select the shelter that best fits their operation needs.”

Wooten met with representatives of the two companies, Strata Products (USA) Inc. and Engineering Consulting Services, Inc., Jan. 19. The companies demonstrated both the rigid and inflatable shelter models before submitting the certification applications.

The requirement for all underground mines to provide these shelters for miners is a result of the ground-breaking legislation directed by Gov. Manchin in February 2006 following accidents at the Sago and Aracoma mines.

The next step for certification is for the Office of Miners’ Health, Safety and Training staff to review the certification package and make recommendations to Wooten on the viability of using these shelters in West Virginia mines.

For mine operators, this certification information will be important because each operator must submit plans for the use of emergency shelters/chambers in mines by April 2007.

The criteria for certification was developed by the Safety Technology Task Force, a team of labor and mine operator representatives that developed guidelines and standards for emergency shelters and chambers as well as self-contained self-rescuers and communications/tracking equipment. The task force took into considerations standards and guidelines from the state agency and federal Mine Safety and Health Administration, National Institute for Occupational Safety and Health, other federal agencies and recommendations from Canada, Australia and the United Kingdom.
In reviewing the applications, the agency will consider such criteria as:

- Protection in the shelters must be available within minutes and last at least 48 hours
- Shelter must be designed to survive an initial event (i.e. fire, explosion or roof fall)
- Shelter must be large enough to support a number equal to or exceeding the number of miners expected to be working in an area
- Shelter must meet standard pressure and temperature thresholds
- Interior environment must support miners and meet standards for oxygen, carbon dioxide and carbon monoxide
- Miners should be able to enter and exit the shelter as needed
- Shelter must be readily identified as occupied or unoccupied
- Shelter must provide a system for monitoring air quality inside and outside of the shelter and a method for signaling the surface

In its recommendations for the emergency shelters/chambers, the Safety Technology Task Force recognized that there is no one standard that will meet the needs of every West Virginia mine.

“We are mindful of the need to be flexible in accepting the plans from our underground mines,” Wooten said. “We hope that the submission of these two models will be followed quickly by certification applications from other companies that have shelters available.”

The models submitted for review were manufactured by Strata Produces (USA) Inc. which has corporate offices in Marietta, Ga., and production facilities in Sutton, W. Va. The company is a provider of innovative roof support, ventilation and safety products to underground mining operations around the world. Engineering Consulting Services, Inc., of Williamson, W. Va., performed the independent professional engineering review of the models as required by West Virginia mine safety rules. The company also has offices in Lexington, Pikeville and Corbin, Ky., and provides mining civil and general engineering support to companies throughout central Appalachia.

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