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Mr Marvin W. Nichols, Jr.
Office of Standards, Regulations and Variances
Mine Safety and Health Administration
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RE: Comments on ETS on Emergency Evacuations

Dear Sir,

As the Emergency Temporary Standard (ETS) on Emergency Evacuations, recently implemented by MSHA, may impact on communication technologies supplied by our company, and are in fact specifically referred to in the ETS, we would like to make the following comments about our experiences in other mining countries, particularly Australia.

We understand the ETS stems from the investigations into the Jim Walter Resources No. 5 Mine explosion in 2001 and fire/explosions at Willow Creek Coal mine in July 2000, which resulted in the death of 14 miners. In both instances MSHA's investigations concluded that an immediate evacuation of all personnel would have reduced the number of lives lost. The fact that rescue efforts had led other people into danger is true, but reading the accounts of the efforts of miners to rescue their work mates and/or extinguish fires is remarkable reading, and an indication of their bravery. Though, as the introduction to the ETS notes, these brave efforts were under planned and under equipped.

The ETS has called for mine operators to address some key areas in Emergency Preparedness, including:

- Appointing a Responsible Person on each working shift at the mine.
- Set up approved Emergency and Fire Fighting Plans.
- Ensure all personnel are adequately trained.

This is not unlike what happened in the Australian coal industry following mining disasters in 1986 and 1994. What has emerged is the principle of Duty of Care, being the provision of a safe working environment for all employees. One part of this Duty of Care is that all coal mines have established Emergency Preparedness Procedures, a key part of which is Evacuation Systems.

It is to meet the specific requirements of evacuation that the PED Communication System was developed (PED standing for Personal Emergency Device). In fact, the need for such a device was identified by the US Coal Industry in the mid-1980's, where the former US Bureau of Mines undertook some development work on a "through-the-earth" fire warning device. Whereas the USBM system was never commercialized, PED was; and to date has been installed in 106 mines, having been used in coal mines in Australia since 1990 and the USA since 1995.

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PED first came to more general notice in the US after the 1998 Willow Creek fire. In this incident a fire began in the gob that quickly grew and began filling the mine with noxious fumes. Willow Creek had installed a PED System six months earlier, hence a mine wide evacuation message was immediately transmitted to personnel. The result was that all 45 miners underground at the time were able to get out of the mine before it filled with smoke and fumes. Both mine management and MSHA have acknowledged PED as potentially saving a number of lives. In the words from MSHA's report:

"The mine manager ordered an evacuation using a unique system which operates like a pager and is worn by most miners. This "PED" system (Personal Emergency Device), allows for constant contact with the miners, even those working in remote areas. After the accident, a message was sent to the miners -- "mine fire-evacuate". The miners were safely evacuated in about 45 minutes".

Why bring this to the attention of US mining industry? Though a supplier of equipment, and risk being seen as just doing a "sell job" or hitting on a "sales opportunity", our comments are more than this. We have been involved in the development of mine evacuation procedures with a large range of mine types and sizes, and as such the unique position of seeing a wide range of systems. We have strong opinions about mine safety and the role of technology in assisting in safety improvements. Hence our large investment into the initial and on-going development of the PED System as well as other safety related technologies, such as the TRACKER Tagging System for locating personnel underground. This investment not only ensures products are fit for purpose, but the support infrastructure is in place for mines to gain optimum use of the systems. It may be of interest for the US industry to note that PED has been almost universally adopted in Australian coal mines, and is also in a large number of Australian metalliferous mines. Not through mandatory legislation, but through choice, which would not have occurred if there wasn't tangible safety and cost benefits associated with the installation of PED.

After the Willow Creek fire of 1998, there was an increased level of interest in PED. The latest ETS from MSHA is a timely reminder of what the US industry had previously acknowledged about mine wide warning systems and remains relevant.

We thank you for the opportunity to comment on the ETS for Emergency Evacuations, and trust our differing experience and point of view may assist some mine operators undertaking a wider analysis of their requirements than they may have originally envisaged.

Yours faithfully
MINE SITE TECHNOLOGIES PTY LIMITED

DENIS KENT
Mining Engineer

Dear Sir

Please find attached a letter commenting on the ETS on Emergency Evacuations, in particular relating to our experiences with Australian coal mines and the use of communication technology in evacuations.

We trust you find the comments of interest.

Best regards
Denis Kent

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