



Approval and Certification Center

Promoting America's Mineral Resources

Protecting America's Most Precious Resource

MSHA

Vol. 7 No. 1 July 2006

MSHA Emergency Communication and Tracking System Technology Evaluation

The Mine Safety and Health Administration formed a committee to evaluate the existing MSHA-approved communication and tracking systems and to evaluate other communication and tracking system technology that could be adapted for use in underground mines. This effort was in response to the recent mine accidents in which the absence of reliable communication and tracking systems compromised the ability of the affected miners to reach safety.

The committee conducted a survey of the two MSHA-approved Mine Site Technologies products that have been discussed as potential solutions to the problem. These products included the PED Cap Lamp / Paging System and the Model TRACKER IV Tagging System. The committee visited PED installations at five mines in the United States and four mines in Australia.

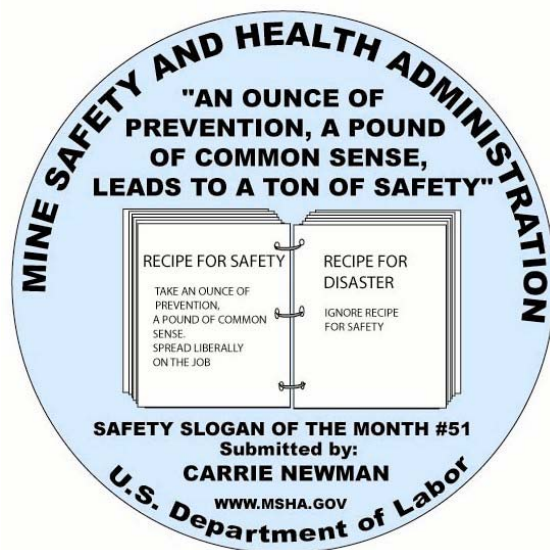
Because the TRACKER IV Tagging System is not in use in the US, the committee visited a TRACKER IV installation in Australia. As a result of the survey, MSHA developed and published on www.msha.gov a list of pros and cons on the potential effectiveness of the two systems in emergency situations.

MSHA solicited input from the public through its website for technology that could be applied to the underground mine environment to improve communications or could provide tracking ability. MSHA has received more than 100 proposals in response to the solicitation. The committee reviewed these proposals and selected seven systems for further evaluation. These systems were selected based on the capabilities to provide either two-way voice communication or precision tracking and because they were relatively advanced in their state of development. The systems selected represented a cross-section of the different technologies proposed including wireless mesh network;

ultra-wide band radar; and low frequency, through-the-earth. Consol Energy offered to assist in the evaluation of this technology by providing a local mine in which to test the technology.

The purpose of the underground field tests was to evaluate how well the signals propagate; how much overburden through-the-earth systems could penetrate; how interference affected system performance; and to determine the accuracy and precision of tracking systems.

All selected systems have completed underground field testing, and MSHA is currently studying the field test results. Upon completion of the study, MSHA will publish results of the technology evaluation.



Slogan of the Month

In 2001, the newly formed Accident Prevention Program (now the Applied Engineering Division) developed several contests as a method to get

miners to participate in safety. It was based on the premise that if miners will *think safety*, they will *work safely*. One such contest was the Slogan of the Month Contest. Since the first Slogan of the Month winner was selected and published on the www.msha.gov website in August, 2001, nearly 2000 entries have been submitted from miners from all over the country and even internationally.

Each month a winner is chosen by a panel of the agency's leaders from a selection of ten of the best slogans in the data base. The winner receives a safety award item and a letter of thanks. A hardhat sticker is then designed around the slogan. After the hardhat sticker is designed, it is sent to the Accident Prevention Committee for review and comments. The committee is a group of MSHA officials who review web products to ensure conformance with mining laws and agency policies. After the comments are received and adjustments made as necessary, the design is placed on MSHA's shared computer drive under W:ALLMSHA/Approved Sticker Designs.

Anyone in MSHA can have the designs printed for distribution. If any mine, state, or other safety organizations wish to print stickers for their own distribution, they can contact Duane Wease of the Approval and Certification Center at 304.547.2032 for the design(s) they want. Miners who wish to submit a slogan can do so by e-mailing their entry to zzMSHA-MinersTips@dol.gov or by going to www.msha.gov and clicking on CONTESTS/SLOGANS located on the

left side under Technical Assistance.



Rigging, Hoisting and Towing Toolbox

The Mine Safety & Health Administration, Applied Engineering Division recently developed a “Rigging, Hoisting and Towing” CD designed to enhance the awareness of industry guidelines for towing, rigging, and hoisting safety. It was developed for both experienced and inexperienced miners and provides information related to the various aspects of material handling. This CD stresses that employees must exercise intelligence, care, and good sense when performing these tasks.

The CD starts with an introduction on how to navigate through the presentation and thanks the companies and branches of MSHA and OSHA that provided valuable information and videos to build the Toolbox. Once the reader gets to the Table of Contents, the main navigational point, one simply clicks on particular topics and a customized show immediately begins

for that subject. Upon completion of each topic, the show automatically returns to the Table of Contents.

A topic on fatalities specifically discusses past accidents related to rigging, hoisting and towing. The statistics topic is a brief follow-up to fatalities which shows the number of accidents related to rigging, hoisting and towing over the past 5 years.

The topic of Chains & Slings includes videos on sling inspection, hook inspection and chain inspection. This topic also provides additional information on when it's time to remove rigging hardware and how to determine sling loads.

Two other topics, Blocks and Hoisting & Cranes, include videos on block loads and block inspection. It shows pictures of crane accidents and improper crane positioning. Although a list of certified crane training is provided, MSHA does not specifically endorse any companies. Our desire is to make interested parties aware of products or technologies that may improve safety and health. Often more than one company has similar products which may be found by conducting detailed searches.

Finally, a short quiz is provided to test an individual's skill on what was covered in the CD. As the main part of the presentation concludes, a short humorous crane video is included to lighten the mood of the viewer. However, in no way is it intended to make light of the seriousness and gravity of working safely when rigging, hoisting and towing.

It is the hope and desire of MSHA that this information will be a useful tool for safety meetings, training personnel and miner's involved with such activities. The information in the presentation, including the videos, is not intended to supersede or circumvent MSHA Regulations in any way.

If you would like to request a copy of the CD, or if you have any questions, contact Andy Yanik at 304.547.2305 or email yanik.andrew@dol.gov.

Solaris Multigas Detector

The Solaris Multigas Detector, MSHA Approval No. 22-A040001, manufactured by Mine Safety Appliances Co. (MSA) is designed to continuously detect and monitor methane and other gases. When methane or other gases are detected at pre-set levels, an alarm horn will sound and visual indicators will flash.

The alarm horn is contained in a chamber which is protected by a black plastic cap. On instruments manufactured prior to January 2006, the protective cap was glued into place. It was reported to MSHA, Approval & Certification Center (A&CC), Quality Assurance & Materials Testing Division (QA&MTD), that the protective cap can dislodge from the instrument and was difficult to re-attach.

The ability of the instrument to detect gases is not affected by the loss of the cap. Also, the horn chamber is isolated from the inner parts of the detector so the insert is not needed to maintain the unit as intrinsically safe. MSHA

approved instruments must be maintained in strict conformance with the approved documentation. The approval requires the protective cap be present and firmly attached to the instrument.

MSA with QA&MTD's concurrence took two steps to remedy the problem. First, the manufacturing process was changed to ultra-sonically bond (weld) the cap to the chamber. Second, a repair kit was developed to provide a new black plastic cap and those repaired with means other than that contained in the repair kit will result in the unit not being in approved condition. For additional information, contact Lynn Huggins at 304.547.2073 or huggins.lynn@dol.gov.



Tracking Your Applications on the Internet

Did you know that you can go to the MSHA website to check the status of all the approval applications you have open with the A&CC?

Application Status Search can be found in Product Approval under the Technical Assistance heading (<http://www.msha.gov/TECHSUPP/ACC/DBsearch/PARlook.htm>).

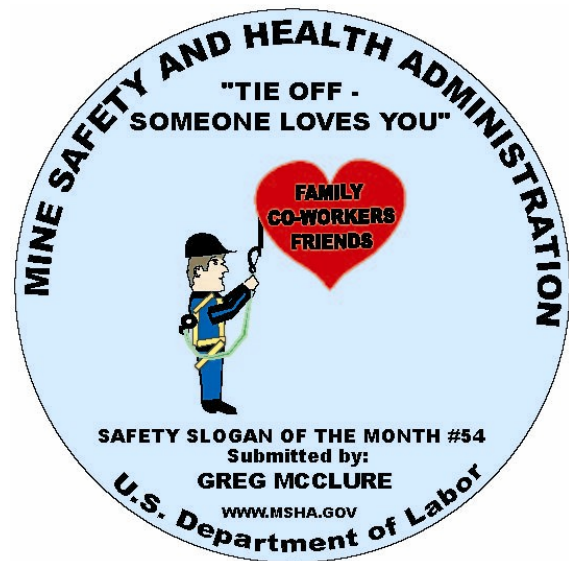
Just enter your 4-digit manufacturer code to see the status history of all open applications.

Follow your applications from when the fee estimate is prepared until the invoice payment is received. All jobs are identified by Par Number and Company Application Number. See the assigned investigator and a chronological status history. For your convenience, a quick reference of status codes is located at the top of the page. And, if you need to speak with the investigator, the A&CC telephone directory is just a click away. Take a minute to check us out.

Don't remember your code? Call the Information Processing Services Office (IPSO) at 304.547.0400 for assistance.

Printed Copies of the Newsletter No Longer Available

The Approval & Certification Center newsletter is published twice yearly – in January and July. This is the last issue that will be provided in printed copy. Future issues will be available on the A&CC homepage, <http://www.msha.gov/techsupp/acc/newsletters/newsletters.asp>. You can subscribe to the "Safety and Health Information" mailing list (<http://www.msha.gov/subscriptions/subscribe.aspx>) if you want to be notified when a new issue is published.



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