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# Approval and Certification Center

MSHA -Technical Support

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## From the Center Chief's Desk



I'm pleased to report that proximity detection technology appears to be gaining momentum. Proximity detection systems send warning alarms

and stop machines when miners are detected in hazardous areas. The A&CC continues to assist interested stakeholders in evaluating the technology and have noted an increase in demand for the products. We have recently been invited to assist the West Virginia Task Force and the WV Coal Association in their initiative to evaluate and deploy this technology on remote control continuous mining machines. We believe that proximity detection has the potential to significantly reduce mobile machinery accidents.

In this issue, you will be updated on our MINER Act - related activities, new diesel approval updates and a change in our approval cancellation policy. You will also learn about a new initiative called the "Safety Target Package Program." We believe that this program will have a positive impact on accident reduction trends for our U.S. miners.

Finally, we are working to conserve our nation's energy resources and taxpayers' dollars. You will read about how our new infrastructure improvements are helping us achieve both goals.

We look forward to the results of current proximity detection initiatives and expect to share more information on this and other emerging mine safety technologies in upcoming newsletters. Best wishes for a safe & healthy 2009.

Kind regards,

*John*

John P. Faini

**A&CC: More, Better, Sooner for the Miners.**

## Conveyor Belt Testing and Approval Process and Part 14

On June 15, 2006, President Bush signed the Mine Improvement and New Emergency Response (MINER) Act into law. The MINER Act established the **Technical Study Panel on the Utilization of Belt Air and the Composition and Fire Retardant Properties of Belt Material in Underground Coal Mining**. The Technical Study Panel recommended that MSHA improve the fire resistance standards for conveyor belt used in

underground coal mines. To implement the recommendations of the Technical Study Panel, MSHA has replaced the venerable “2G” flame test for conveyor belts (30CFR§18.65) with more severe requirements for approval of flame-resistant conveyor belts under 30CFR§14.

A manufacturer or someone who controls the production of a conveyor belt can apply to the A&CC to approve conveyor belt for use in underground coal mines. Applicants must identify their representative, describe the construction of the conveyor belt, specify the materials used, and point out any similar conveyor belt for which the applicant already holds an approval.

Once the A&CC has decided which constructions require testing, the A&CC will request that the applicant submit at least three, unrolled belt samples for flame testing. Each sample must be 60 inches long by 9 inches wide. The A&CC will determine the flame-resistance of the conveyor belts by applying the rigorous Belt Evaluation Laboratory Test. All three samples must pass for approval. Periodically, MSHA may test approved belts to determine continued conformity with the flame resistance requirements.

Please contact Ken Sproul at 304.547.2038 or [sproul.kenneth@dol.gov](mailto:sproul.kenneth@dol.gov) for more information.

## **New Refuge Alternative Regulations**

MSHA published a final rule on December 31, 2008 that requires underground coal mine operators to provide refuge

alternatives to protect miners when a life-threatening event occurs that makes escape impossible. The final rule has an effective date of March 2, 2009.

The final rule requires that the manufacturer or third party test a refuge alternative and its components -- structural, breathable air, air monitoring, and harmful gas removal -- prior to obtaining MSHA approval, issued by the A&CC. The approval requirements for refuge alternatives are set out in 30 CFR Subpart L of Part 7 – Testing by Applicant or Third Party. In accordance with the March 2, 2009 effective date, for any approval consideration by MSHA in the first year, an application for approval of a refuge alternative or component shall be submitted no later than April 30, 2009.

The rule requires that an applicant or a third party must test the refuge alternative or component according to the new Part 7 Subpart L provisions. The applicant, usually a manufacturer, provides the required information and test results to A&CC to demonstrate that the refuge alternative or component meets the applicable technical requirements and test criteria. The A&CC will issue an approval for a refuge alternative or one of its components based on the Agency’s evaluation of the information and test results submitted with the approval application. The approval under Part 7 assures operators and miners that the refuge alternative can be used safely and effectively in underground coal mines and that the components can be used safely with each other.

To assist in the approval process, the A&CC will observe initial testing once the manufacturer provides advance notice of the dates and times of the tests. In addition, existing § 7.8 addresses post-approval product audits.

Manufacturers may request preliminary meetings with the A&CC Applied Engineering Division to discuss potential application content and procedures. A workshop to discuss application procedures will be held at the A&CC on Monday, February 23, 2009.

For more information, please contact Michael Getto at 304.547.2303 or [getto.michael@dol.gov](mailto:getto.michael@dol.gov).

## Communications and Tracking Update

Additions to the list of communications systems available to underground coal operators in the second half of 2008 include wireless mesh and mesh network over fiber systems. The first RFID tracking system approval was issued as well. At this time, there are 35 approval applications for communications and tracking products in house.

The performance criterion for the communications and tracking systems required by the MINER Act was released as a Program Policy Letter (PPL) for comment on 12/12/08. MSHA enlisted the assistance of NIOSH, who concurred with the content of the PPL. A&CC personnel have scheduled several dates on which they will present an overview of the performance criteria to industry over the next few months. In addition, A&CC

personnel continue to work with NIOSH on their effort to draft an instructional booklet and accompanying tutorial document to provide assistance for mine operators when drafting the communications and tracking portion of their Emergency Response Plans.

For more information, please contact Dave Chirdon at [chirdon.david@dol.gov](mailto:chirdon.david@dol.gov).



## Part 7, Subpart E Diesel Engine Approval Update

The A&CC recently received approval to allow the use of certified ultra low sulfur diesel fuel for diesel engine approval testing conducted in accordance with 30 CFR Part 7, Subpart E. The engine manufacturer and third-party testing facilities now have the option of testing the engines using either certified **ultra** low sulfur diesel fuel, which has a maximum sulfur content of 15 ppm, or certified **low** sulfur diesel fuel, which has a sulfur content range of 300 ppm to 500 ppm. The technical requirements for diesel engine approvals have not changed, but the option of test fuels now allows the testing of new technology diesel engines with exhaust system after-treatment

devices that may be adversely affected by the higher sulfur content in the certified low sulfur diesel fuel.

This change permits the applicant to substitute certified ultra low sulfur diesel fuel for certified low sulfur diesel fuel during approval testing through A&CC policy letter APOL 3049. The lower sulfur content in the ultra low sulfur diesel fuel decreases the sulfur emissions from the engine, resulting in a healthier working environment for the miners.

This revision to the diesel engine approval testing program was considered necessary to accommodate testing of the new diesel engine technologies that are being developed to meet the EPA emission standards. Nonroad diesel powered vehicles will be required to use only ultra low sulfur diesel fuel in their engines beginning June 2010. With the new EPA requirements quickly approaching, the A&CC revised the test fuel specifications to meet the upcoming demands of the mining industry.

For more information, please contact Jeffrey Moninger at 304.547.2324 or [moninger.jeffrey@dol.gov](mailto:moninger.jeffrey@dol.gov).



## New Approval Application Cancellation Period Change: From 6 to 3 Months

The A&CC places a high priority on processing product approval requests as expeditiously as possible. The efficient processing of approval applications insures that the latest available technologies and safety enhancements are being introduced as quickly as possible to improve the health and safety of our nation's miners. To that end, the A&CC has been working to streamline its internal procedures to minimize delays in completing the approvals.

One area where continued improvement is possible is through the cancellation of applications for which the requestor is unable to commit to addressing corrections or providing additional information or samples for testing necessary to complete the approval. A&CC experience has shown that a majority of applicants are able to respond to discrepancy letters in a timely manner. A number of stakeholders have also commented that a reduction of time to respond to discrepancy letters from six to three months is feasible and should result in greater attention being given to those applicants who are most serious about completing the process.

The internal policy is currently in effect for all new discrepancy letters. If an approval applicant holds a discrepancy letter that was issued under the previous policy, the A&CC will honor the cancellation date as stated in the letter. However, manufacturers in this situation are encouraged to expeditiously resolve

all existing discrepancies.

We thank you in advance for your help in moving new technology products through our approval process as efficiently as possible for the benefit of our nation's miners.

For more information, please contact Ken Sproul at 304.547.2038 or [sproul.kenneth@dol.gov](mailto:sproul.kenneth@dol.gov)

## **MSHA Safety Targets**

The mining industry continues to be plagued by a significant number of fatalities that are NOT the result of major disasters. To combat this disturbing trend, a Safety Target Packages program has been put in place. The Applied Engineering Division reviewed every mining fatality that occurred since 2000. They identified the 10 leading categories for Coal and the 10 leading categories for M/NM Mines and found that these accidents account for 75% of all mining fatalities. Safety Target Packages will be developed that contain specific hazard awareness information to address the leading causes of fatalities for each specific category. The packages will be developed and sequentially mailed to the appropriate mining operations throughout 2009 and 2010. They are being sent to mining operations' Safety Directors to be shared with every miner who performs this specific activity within the categories.

Three packages dealing with Roof Bolters, Surge Piles, and Continuous Mining Machines have been updated from previous versions. The Continuous Mining Machine Package was sent out at

the end of September and the Surge Pile Package was sent in December. The Roof Bolter Package is currently under final review and will be mass mailed in the near future.

MSHA believes that by increasing awareness and education in these subject areas, similar fatalities that are constantly being repeated throughout the industry can be eliminated. MSHA also believes that hazard awareness should be a continual focus for all mining operations, as the information and recipients are dynamic, as miners move into and out of positions and as the work force continually evolves. These packages are designed to provide the hazard awareness information to educate these miners.

For more information, please contact Michael Getto at 304.547.2303 or [getto.michael@dol.gov](mailto:getto.michael@dol.gov) .

## **"Going Green and Saving Green"**

The A&CC has replaced some of the antiquated systems that make up our infrastructure. New, high efficiency systems have been installed that are saving money and helping to save our environment. We are also effectively saving our approval applicants money since the utility costs are lower and they play a role in the overall calculation of our approval processing fees. The A&CC has replaced heating systems, air conditioning systems, roofs, phone services, and other systems over the last few years. Energy and cost savings are approaching \$100,000 annually. We like to think that by "going green" we are saving the taxpayers' "green."

For more information, please contact Dave Diegmiller at [diegmiller.david@dol.gov](mailto:diegmiller.david@dol.gov).



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