



# Approval and Certification Center

MSHA –Technical Support

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## From the Center Chief's Desk



Greetings from the MSHA Approval & Certification Center! Thank you for taking the time to read about the A&CC's activities.

My name is John Faini and I am the new Center Chief. Steve Luzik, our former chief, recently retired and he will be missed. Steve did an outstanding job leading our center into the new century.

Just a few things about myself . . . I have worked for MSHA since 1989 and have management experience in both the private and public sectors. I have served in MSHA's Triadelphia WV, Denver, and Arlington VA Offices. Prior to joining MSHA, I specialized in manufacturing engineering and quality control.

Our primary focus is on the health and safety of our nation's miners. We have a new slogan at the A&CC: "**More, Better, Sooner, for the Miners.**" We are placing particular emphasis on "Sooner," so that we can get new technologies underground

as soon as possible for the benefit of the miners. Every employee has heard my message that we do not have the luxury of performing unnecessary, non value-added, and overly bureaucratic steps in our approval process.

It is an exciting time to be working in the mining industry and the dedicated A&CC employees are up for the challenge. If you have ideas that could help us improve our processes, please call me at 304.547.2029. Thank you for your interest in mine safety and health.

Sincerely,

*John*

## Emergency Communication and Tracking Committee

Emergency Communication and Tracking Committee personnel continue their effort to research the capabilities of currently available mine communication and tracking products and explore technology that is being used or developed in other industries for application in underground mining and the ability to meet the requirements of the MINER Act. Since the July newsletter, a report detailing the results of underground tests

at McElroy Mine has been posted on [www.MSHA.gov](http://www.MSHA.gov). This report highlights the performance of several technologies including mesh network systems, through-the-earth communication, ultrawide band radio, and medium frequency.

Committee members have also made presentations to several outside organizations detailing their findings and outlining MSHA's continued efforts to help move more advanced communications and tracking technology into the mining industry. These organizations include state agencies, universities, and industry gatherings, as well as MSHA District and Headquarters personnel and NIOSH.

Committee members actively participate in the NIOSH-led Emergency Communication and Tracking Partnership that includes representatives from industry and labor. Members have attended several demonstrations of systems that have been held at the Pittsburgh Research Laboratory Experimental Mine and Lake Lynn Laboratory, as well as active underground coal mines. These demonstrations have helped Partnership members understand system capabilities and have helped manufacturers gain insight into the type of environment in which their products are expected to perform.

NIOSH will also be funding research in four areas related to communications and tracking. These are Hardening of Legacy Systems (such as Leaky Feeder), Mesh Networks, Tracking Systems, and Communication Standards Development. Emergency Communication and Tracking Committee members will assist in

evaluating these proposals.

For more information, please contact Wesley Shumaker at 304.547.2081 or [shumaker.wesley@dol.gov](mailto:shumaker.wesley@dol.gov).



## Part 6 News

Part 6 has been in effect for three (3) years (since August 18, 2003). It established alternate requirements for testing and evaluation of products MSHA approves for use in gassy underground mines. Manufacturers of certain products may now use an independent laboratory to perform, in whole or part, the necessary testing and evaluation that was previously performed by MSHA for approval. Applicants may also have their products approved based on non-MSHA product safety standards that MSHA has determined provide at least the same degree of protection as existing MSHA approval requirements or can be modified to provide at least the same degree of protection as those MSHA requirements. The resultant advantage of the program is a potential cost saving in that

manufacturers can produce only one product to comply with MSHA as well as other domestic and international certification requirements.

Prior to Part 6, some manufacturers had to maintain separate product lines for each different approval organization. The Part 6 program is becoming better known throughout the industry and more manufacturers are taking advantage of its benefits as demonstrated by the increased number of applications. The A&CC has processed four applications over the last 10 months in which independent laboratories have conducted testing according to MSHA's regulations and requirements. The approved products range from explosion proof enclosures to intrinsically safe electrical instruments.

This newsletter will post further updates as the industry continues to benefit from the program's advantages. For more information or questions, please contact David Chirdon at 304.547.2026 or [chirdon.david@dol.gov](mailto:chirdon.david@dol.gov).



## Belt Conveyor Fire Protection

The MSHA Mechanical and Engineering Safety Division has recently been involved in numerous issues regarding fire protection on belt conveyor systems in underground coal mines. As coal mines produce more coal due to improved mining-related technology, the belt conveyor systems have become proportionally wider. The increase in belt widths, larger capacity longwall belt storage units, and recent conveyor belt fires have all led to research on fire protection related projects which include full scale fire testing and the issuing of related Program Policy Letters (PPL).

In conjunction with NIOSH, A&CC personnel are currently researching the effects of high velocity belt air ventilation on fire suppression systems installed on belt conveyor drives in underground coal mines. This testing should give MSHA a better understanding of how the use of high velocity belt air will affect the discharge and suppression capabilities of fire suppression systems.

MSHA has issued two PPL's which are intended to answer questions, eliminate inconsistencies, and provide guidance to enforcement personnel and to the mining industry. PPL P06-V-2 provides the industry with MSHA's interpretation of 30 CFR §75.1100-1 and 2 regarding water delivery capability of coal mine waterlines, which states that waterlines shall be capable of delivering at least 50 gallons of water per minute at a nozzle pressure of 50 pounds per square inch, and is commonly referred to as the "50/50

rule.” PPL P06-V-5 reinforces MSHA’s position that belt conveyor storage units are considered a type of “takeup” and thus require fire suppression under the law. The PPL also provides guidance on the installation requirements for water sprinkler systems and arrangement of sprinklers on underground belt conveyors and belt takeup storage units. For more information, please contact Derrick M. Tjernlund at 304.547.2301 or [tjernlund.derrick@dol.gov](mailto:tjernlund.derrick@dol.gov) or Michael A. Hockenberry at 304.547.2075 or [hockenberry.michael@dol.gov](mailto:hockenberry.michael@dol.gov)



## Product Audits and Approvals Conducted by QA&MTD (Quality Assurance & Materials Testing Division)

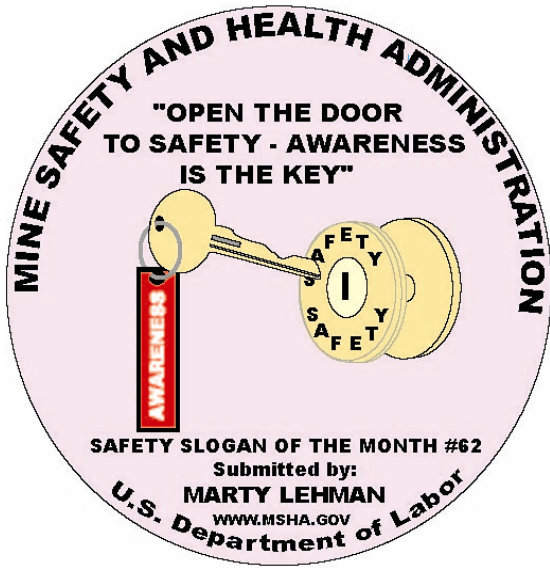
30 CFR Part 7 provides requirements for MSHA approval of certain equipment and materials for use in underground mines whose product testing and evaluation may be conducted by the applicant or a third party and the results submitted for approval. A product approved under Part

7 is subject to periodic audits by the A&CC for the purpose of determining conformity with the technical requirements upon which the approval was based. QA&MTD annually conducts audits of products approved under Part 7, Subpart B (Brattice Cloth and Ventilation Tubing) and Subpart K (Electric Cables, Signaling Cables, and Cable Splice Kits).

QA&MTD evaluates the flammability resistance of products such as conveyor belts, hose conduit, fire hose, cable reel insulation, and other solid products proposed for use in underground mines for approval. The test procedures are outlined in 30 CFR 18.65.

Hydraulic fluids are also tested for approval. The tests described in 30 CFR Part 35 Subpart B are designed to measure the flammability characteristics of the various types of hydraulic fluids. The flammability tests described in this regulation are the auto-ignition temperature test, the temperature spray ignition tests, and the test to determine the effect of evaporation on the flammability of a hydraulic fluid.

A CD is available that demonstrates the audit and approval tests conducted by the QA&MTD. For more information or to receive a CD, please contact Donald Peiffer at 304.547.2045 or [peiffer.donald@dol.gov](mailto:peiffer.donald@dol.gov).



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Individuals who wish to submit a suggestion to the Slogan of the Month Contest can do so at: <http://www.msha.gov/techsupp/safetycontests/safetycontests.htm>.

The MSHA A&CC Newsletter provides information of general interest to the mining industry. It is published twice yearly in January and July and can be accessed at <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>) to be notified when a new issue is published.