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**PROPOSED RULE 30 CFR PART 75 RIN 1219-AB52
Sealing of Abandoned Areas; Final Rule May 22, 2007**

**Comments Presented by the Colorado Mining Association in Denver, Colorado
July 17, 2007**

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The Colorado Mining Association (CMA) appreciates the opportunity to comment on the Sealing of Abandoned Areas Emergency Temporary Standard (ETS), issued on May 22, 2007. CMA is an industry association, founded in 1876, whose more than 700 members include the producers of coal and other minerals in Colorado and throughout the west. All active coal mines in Colorado are members of the CMA. Colorado is also a significant underground coal producing state, with seven active underground mines.

The ETS, as written, does not give adequate consideration to the sealing requirements of western United States coal mines. In Colorado, mines are primarily longwall operations which, unlike most operations in the eastern United States, install seals on an almost continuous basis as the longwall retreats. This process of progressive sealing is utilized to reduce the potential for spontaneous combustion in the active gob and, upon completion of the panel, to isolate that gob from subsequent active gob areas. These seals, commonly referred to as "gob isolation seals", are necessary to ensure miner safety in mines that have a propensity for spontaneous combustion. There are serious issues with the ETS requirements for seal design, construction, certification, sampling, and inerting which affect most western underground coal mines.

None of the seals currently approved by MSHA are applicable to Colorado mines. These seals are approved for heights less than those typically mined in Colorado, or they are

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“designed for areas that will not be subject to significant convergence”. Gob isolation seals are certainly subjected to significant convergence.

Some mines in Colorado are electing to install 50 PSI seals and monitor the gob. Others are choosing to install 120 PSI seals and eliminate the need to sample the gob. In either case, with current longwall advance rates gob isolation seals are often installed every three days or less. Seal designs must consider the need to constructing seals in a timely manner to avoid longwall production delays. At times, delays in longwall advance have caused significant roof control issues. Complicated seal designs which take excessive time to install are infeasible for gob isolation seal applications. For example, the currently MSHA “approved” seals containing steel reinforcement cannot be built timely, will expose miners needlessly to side abutment loading as the longwall retreats, and will subject the longwall face to increasing ground pressures as the face waits for seal construction to be completed.

Pumped seals properly engineered are acceptable to the Colorado mines. However, it must be stressed that a proper engineering design does not include excessive thickness. Seal manufacturers report that MSHA’s Technical Support group and NIOSH have taken an excessive conservative approach in multiple design parameters. For example, Minova TekSeals are under consideration with a safety factor compounded with conservative material shear strength, conservative compressive strength, and ignoring the benefit of convergence on the plug seal. Combine these design factors to a seal strength that has been conservatively increased to insure its resilience to an explosion, and the result is a seal strength that far exceeds its intended purpose, an over-design which yields a seal thickness that is impractical for gob isolation seals. MSHA must approve seals that meet the 50 PSI or 120 PSI requirements without over-design that renders the seal impractical for gob isolation applications.

Section 75.337(a)(2) as written requires removal of metallic objects which includes roof and rib support materials at a seal location. Many Colorado mines with higher seam thickness have well established practices or roof control plans that require primary roof and rib support in the form of wire screen and bolts to adequately protect miners from the dangers of roof and/or rib sloughage. Removal of any of this protection not only exposes miners to potentially adverse ground conditions, but will likely reduce the integrity of the roof and ribs at the perimeter of the seal. The potential for serious injury is far greater in removing this support than the remote chance of an electrical current entering the gob through this grounded material. In fact, there has already been at least one accident at a Colorado mine involving the removal of wire mesh at a seal location. Further, the exclusion of sampling tubes, water traps, and metal form ties from this requirement is inconsistent in that the regulation does allow certain electrical conductors to penetrate the seal. The rule does not address de-gas, inerting, or pre-sealing ventilation pipes that may be needed to effectively control the gob atmosphere. It should also be noted that the Report of Investigation on the Sago Mine explosion stated that bolts and mesh “were well grounded at regular intervals to the roof of the sealed area, and therefore would not support a large voltage potential.” Section 75.337(a)(2) should be re-written to

prohibit only those metallic items not required for ground support, installation of seals, and monitoring and/or control of the atmosphere behind the seals.

The requirement of Section 75.335(d) to install at least two sampling pipes in each seal is excessive and impractical. First, since sampling is not required at every seal in a set of seals, there is no logical reason to require tubes in all seals. Second, gob isolation seals are installed in crosscuts immediately behind the longwall face. It is therefore impossible to meet the requirement to extend one tube “into the center of the first connecting crosscut in by the seal” as that intersection will no longer exist once the longwall mines pass the crosscut where the seal must be installed. Installing sampling tubes “near” the intersection is not practical as crosscut conditions often quickly deteriorate on the gob side of the seal. Clearly, this requirement does not consider gob isolation sealing applications in western mines and Section 75.335(d) should be re-written to eliminate sampling tubes from gob isolation seals.

Requiring a professional engineer to “conduct or have oversight of seal installation” is impractical in most mines, especially mines utilizing gob isolation seals. A professional engineer would need to be at the construction of every seal to insure that all parameters are met before certifying the seal. Colorado mines utilizing progressive sealing may install over 100 seals annually, with the seals being installed on every shift. The number of seals and the timing of seal installation make this requirement impractical. In addition, many mines, especially smaller operations, do not have a professional engineer on staff. Further, the certification of the seal construction by a certified person supervising the construction, the countersigning of seal installation and repair inspections by the mine foreman, and the certification by a senior mine management official make a professional engineering certification redundant and unnecessary. Section 75.336(b)(2) should be eliminated.

Section 75.335(b)(1) requires daily examinations and, if necessary, an alternative plan when seals ingas on a regular basis. However, seals can be ingassing without being a concern when the pressure differential across the seal is small, the seal is in good condition, the leakage is minimal, and the gob remains inert. Slight leakage, assumed only by the measured pressure differential, may not be sufficient to affect the inert nature of the gob behind the seal. In these cases, neither increased sampling or examinations, nor an alternative plan, are necessary. Section 75.335(b)(1) should be amended in the third sentence to begin: “If a seal is ingassing during the weekly examination, and the sample collected shows a change in the inertness of the gob atmosphere,…”

The concentrations for an inert atmosphere as defined in Section 75.335(b)(3) include a safety factor to allow for inaccuracies in certain detection equipment. While this may be appropriate for hand held devices, it is unnecessary for gas chromatograph sampling. The regulation should provide for a tighter range when gas chromatograph samples are taken. The atmosphere should be considered inert when the oxygen concentration is less than 12.0%; the methane concentration is less than 5%; or, the methane concentration is greater than 15%. Given that methane concentrations of up to 4.5% have been allowed in

bleeders without the need for an action plan, there is no need to require an action plan for concentrations as low as 3%.

Section 75.336(b)(3)(iii)(B) requires the operator to provide information for approval in the ventilation plan for safety precautions taken prior to seals achieving full design strength. NIOSH has recommended miners be withdrawn from the affected area until seals reach design strength and the gas mixture in the sealed areas reaches an inert status. MSHA concurs with this in its June 11, 2007 issuance of “Seal ETS Compliance Assistance Questions and Answers” by requiring withdrawal from the affected area. Accordingly, even if nitrogen is injected to accelerate getting the sealed atmosphere to inert status, there remains the issue of cure time on concrete, mortar, and/or lightweight cement. At least twice each year in most Colorado mines when longwall panels are sealed, a suspension of production for up to 28 days may be inevitable with this constraint. Considering the volume of longwall coal produced in Colorado and across the United States where progressive sealing is utilized, the halting of production mine-wide for multiple moves annually will have a substantial negative impact on our nation’s energy supply. Additionally, the economic burden placed on mine operations while mines are idled for extended periods will negatively affect the economic well-being of employees, suppliers, and entire communities.

This approach by MSHA treats a non-inert atmosphere and uncured seals as an imminent danger by requiring the withdrawal of miners. For an actual imminent danger to exist, in addition to an explosive mixture of methane there must be an ignition source present with a *reasonable expectation* of the ignition source creating an explosion. Sealed areas contain no *likely* ignition sources, thus an imminent danger is not present and miners should not be required to withdraw. Also, if an inert mixture is present, uncured seals do not present an imminent danger as there is no explosion potential. Therefore, MSHA should not require withdrawal of miners during the inerting and curing processes.

The prohibition of welding, cutting, and soldering with an arc or flame within 150 feet of a seal as stated in Section 75.335(c) is unreasonable and should be eliminated. With progressive sealing, the longwall face and associated equipment is frequently within 150 feet of the adjacent gob isolation seals. Repairs to this equipment sometimes requires the use of welding or cutting. The existing statutory provisions of Section 75.1106, along with the requirements of PPL P06-V-1, provide adequate protection for miners conducting welding and cutting on the longwall face. In addition, the significant quantity of air ventilating a longwall face is sufficient to prevent any tailgate gob isolation seal leakage from ever reaching the welding or cutting operations on the face.

In the preamble to the ETS, comments were solicited regarding replacement of existing seals. Replacing existing seals is often impractical due to access constraints. It can also be extremely unsafe with miners exposed to inert gob air mixing with fresh air, roof control problems brought on by increases in abutment pressures in the seal areas, and substantial hand carrying of seal construction materials to remote locations. Unless a seal is in disrepair, replacing of seals should be discouraged.

In closing, the ETS as written attempts to standardize the installation of seals throughout the industry. An unintended consequence is that it removes all flexibility of MSHA District Managers to deal with local mines on a case-by-case basis and using the district's knowledge of the mining operations to best handle mine conditions and operating systems to authorize the most effective sealing program.

Thank you for the opportunity to speak on behalf of the Colorado Mining Association and its member mining operations. CMA will be preparing additional written comments and will submit them prior to the August 17, 2007 deadline.