

September 17, 2007

Patricia Silvey
Acting Director, Office of Standards, Variance & Regulations
Mine Safety & Health Administration
1100 Wilson Boulevard
Room 2350
Arlington, VA 22209-3939

RE: RIN 1219-AB52 Sealing of Abandoned Areas

Dear Ms. Silvey,

I appreciate the opportunity to provide comments regarding this Emergency Temporary Standard.

MSHA states that the agency published the Emergency Temporary Standard in response to the grave dangers that miners face when underground seals separating abandoned areas from active workings fail. It goes on to state that seal failures at the Sago mine and the Darby No. 1 mine in 2006 raised awareness of the problems with construction and design of alternative seals. MSHA investigated these and other failures of alternative seals and conducted in-mine evaluations of these seals.

These reports clearly indicate that MSHA did not identify a problem with 'alternative seals' in general. These investigations clearly identify problems with one particular alternative seal. According to these same reports, no problems were identified with regard to such seals that were properly constructed. Given this information, one must question if the approach taken was the appropriate response.

Seals of all types have been installed in US coal mines for over 30 years. When one examines the numbers of seal failures that have occurred during this period, few events can be cited. This calls in to question the logic behind the ETS in general. Given the number of seals that have been installed and remained in place during this period, an extensive number of seal years can be extrapolated. This history would lead one to believe that seal strengths as provided by the Mine Act, have provided adequate protection to miners over this period.

Recently NIOSH issued a draft report titled "Explosion Pressure Design Criteria for New Seals in U.S. Coal Mines." The report makes recommendations for seal design criteria which would reduce the risk of seal failure due to explosions in abandoned areas of underground coal mines. This is based on certain worst-case-scenarios. This report clearly identifies that if no actions are taken, atmospheric conditions behind the seals, provided with an ignition source, could produce explosive forces approaching 600 psi.

Given the content of that report, one must agree that if no steps are taken to monitor or manage this atmospheric content and take appropriate actions with regard to personnel in the mine, stronger seals would be necessary. The report goes on to state that if such steps are taken, seal strength could be reduced.

Since this atmospheric monitoring and management could reduce the likelihood of an explosive mixture being produced, it would seem that the best approach on the part of the agency is to find ways to provide incentive for mine operators to take this monitoring and management approach. One method that could be used is to allow for seal strengths of 20 psi to be continued provided this monitoring, management and action response plan approach is employed. This could provide the incentive for operators to install systems to monitor and manage these atmospheres, thereby preventing the conditions that resulted in both the Sago and Darby disasters.

Some mines have been using such approaches for years. If a mine maintains inert atmospheres in sealed areas the strength of the seal is far less of an issue. In such mines, increasing seal strength requirements actually results in a diminution of safety for the miners in that mine due to the tremendous increase in material handling exposures caused by the increase in seal strength requirements across the board. Material handling is the highest cause of injury in the US coal industry. At mines where winterization is employed, the net effect of these new seal rules is to increase their likelihood of injury due to this increased risk.

When applying the Hierarchy of Controls regarding Risk Management, Elimination is the very top of that Hierarchy. Winterization provides that elimination step. Continuing monitoring of these areas allows for appropriate actions and responses to be taken should the area approach the explosive range. The agency should provide incentive for an increased use of such techniques as the Final Rule is developed.

MSHA requested comments on whether there should be a requirement that existing seals be removed and replaced with a high strength seal. This should not be a requirement provided the area behind said seal is monitored and appropriate action response plans are implemented to protect miners. Should a mine operator wish to avoid such monitoring and response plans, they should be

allowed to reinforce these seals. Testing at Lake Lynn has proven that seals can be reinforced.

MSHA is misguided or misinformed by its belief that the sampling strategy in the ETS will yield results that reflect a reasonable representation of the atmosphere in the sealed area. The reality associated with sealed areas is that at least at the perimeter of a sealed area, the atmosphere continues to change. In some parts of the country this change occurs on a daily or even more frequent basis. Barometric pressure changes can exceed the ventilating pressure produced by the mine's main fan. This can and will cause sealed areas to go from in gassing to out gassing and back to in gassing every day.

The use of balance chambers can reduce this problem. The Agency should include incentives for mine operators to utilize such chambers. Allowing lower strength seals where such chambers are used would be one example.

The hazardous atmosphere that existed in the sealed area at Sago and at Darby was not due to methane. It was due to oxygen. The presence of oxygen produced the explosive mixture. The ignition source provided the third point in the triangle. Since there is no way to control the methane level in a sealed area, and the ignition source could not be controlled, the only remaining element is to manage the oxygen level. If the oxygen content had been lower, no explosion could take place. The Agency should take steps to provide incentive for mine operators to implement systems to manage the oxygen content in such sealed areas. If such incentives are not provided, mine operators will be more likely to choose stronger seals and then that operator and MSHA can simply hope they are strong enough.

The sampling protocol described in the ETS suggests that a mine operator can develop a sampling protocol suited for their mine. That is a farce. Our mine has been successfully utilizing a sampling protocol that has been in the ventilation plan for 6 years. In spite of that history, the mine must now submit a protocol to meet the cookie-cutter approach now required. The only thing to be gained by this protocol is an increased ability for MSHA inspectors to issue technical citations for simple violations of the protocol. Things that have no effect on mine safety.

The ETS also requires the mine operator to implement an action plan to withdraw persons from affected areas when specified concentrations are encountered. This too has been in our plan for 6 yrs.

MSHA has asked for comments regarding the approach of requiring miners to be withdrawn if methane levels reach 4.5%. This again ignores the fact that it is the presence of oxygen that makes methane hazardous. Rules should allow and even encourage systems that take steps to manage the atmosphere to prevent explosive mixtures.

In many parts of the ETS, the Agency has not addressed the bleederless longwall systems. In such systems sampling has been going on for years and has proven effective in managing the risk of spon com as well as managing methane/air mixtures. In such systems, each crosscut is closed off with an approved seal structure as the longwall retreats. These structures don't become seals until the panel mouth is closed off. The Agency is expecting to then obtain a 14 day baseline from as many as 75 seals. This is a ridiculous requirement that offers no value. The ETS also discusses these areas reaching a state of equilibrium. This is something that is never achieved. Barometric pressure changes will cause these sealed areas to at least try to breathe on a daily basis. The Final Rule needs to have this requirement removed. It provides no safety value. Sampling is necessary, whether or not the seal is out gassing. At our mine, a greater concern exists when the seal is in gassing and providing oxygen to an already fuel rich environment.

Alternatives to the prohibition of flames, cutting, welding or soldering within 150 ft of the seal should be included. Such alternatives could be to allow for the use of a "hot work permit" system when performing such tasks in these areas. Such systems have proven effective in many other industries, including the oil and gas industry.

The ETS requires the use of two sample pipes. It goes on to state that the second sampling pipe must extend into the middle of the intersection with the first connecting crosscut. This is another disconnect with bleederless systems since there is no open crosscut inby the seal structure. This requirement needs to be removed. A single sampling pipe extending 15 ft inby will provide the information necessary. Specifying the specific location of the pipes in the sampling protocol will be impossible to verify. There is no means to evaluate that position once the seal is built. The current requirement to certify the pipe location is all that is necessary. A company official must certify that location. No further requirements should be included.

The current ventilation plan requirements are adequate. No further information should be included in the plan, including the new sampling protocol requirements.

One can understand the ETS requirement for removal of insulated cables from the area to be sealed. It is less clear what is to be gained by the requirement for removal of metallic objects through or across seals. Objects such as roof mesh or roof mats are already grounded. It is a complete mystery how such materials could be considered hazardous. The main hazard I would see is that mesh or might increase leakage potential. If removal of such materials results in roof hazards to miners, it should not be required.

Some mines have inspectors on site over 150 days per year. The value of requiring notifications to the Agency regarding construction and repair of seals

has no value. It simply results in an increase in paperwork on the part of the operator and the Field Office and will result in no benefit to miner safety.

When MSHA issued its PIL placing a moratorium on all alternative seals that were less than 50 psi, our mine contacted a supplier for a seal design. When that design was reviewed, it was clear that it would result in a substantial diminution of safety for miners. This opinion was based on the fact that the atmospheres behind the seals was monitored and managed to keep it inert. The vent plan also contained action response plans that would remove miners from the mine prior to an explosive mixture being developed.

Since this system was already in place, the net effect of the PIL was a diminution of safety for our miners. At that point we filed petitions for modification to try and protect the miners. These petitions were investigated and never acted upon by the agency. This inaction has perpetuated this diminution.

We were encouraged to see that the uses of such techniques were recognized by NIOSH. Such preventative systems should be encouraged through this final rule by allowing mines using such techniques to continue to install 20 psi seals. Managing the atmospheres will provide prevention of the conditions that produced the accidents at Sago, Darby and McClain Canyon.

I appreciate the opportunity to comment on this ETS.

Sincerely,

David Hales
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