**New Mexico Coal**
**San Juan Coal Co.**
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Director Office of Standards, Variance & Regulations
Mine Safety & Health Administration
1100 Wilson Boulevard
Room 2350
Arlington, VA 22209-3939

RE: RIN 1219-AB46

Dear Director:

San Juan Coal Company has completed our review of the above referenced Emergency Temporary Standard and is submitting the following comments for the consideration of the Agency in determining the specifics of the Final Rule. Our comments will include some specific areas of interest or concern to us regarding the ETS as well as responses to the various areas that MSHA requested information.

**Immediate Reporting & Within 15 Minutes**

San Juan Coal Company agrees that prompt notification of critical events improves the ability to respond appropriately. The requirement that mine operators must immediately notify MSHA within 15 minutes after determining that each of the accident types listed in 30CFR Part 50.2 has occurred should be reconsidered.

Immediate reporting should only be for real life-threatening emergencies. Events that have resulted in serious injury that could result in death, fatalities, uncontrolled fires, explosions, inundations, or entrapment of miners should have this requirement. Accidents that do not present an immediate threat to the health and/or safety of the miners should not have this reporting requirement.

Events such as a roof fall that does not cut off escapeways or block ventilation and other such events that do not place miners at risk should not be included. The final rule should address only those situations where miners are at risk. Failing to make this adjustment will create a gross misallocation of MSHA resources and provide little or no value to the miners or the mines. We are not suggesting that these events go unreported, just that they should not include the requirement for immediate reporting within 15 minutes.

**MSHA Systems Not Adequate to Deal with Rule Requirements**

We are concerned that if this rule is implemented and enforced as has been described in the Preamble and the Compliance Guides, it will produce a system that MSHA does not have the resources to manage.

For example several operators have recently tried to utilize this new reporting system during training exercises and found inadequate if not missing components in the process. Lack of adequately trained personnel at the current call center resulted in delays in call backs by MSHA for as much as 4 hours.

The value of immediately reporting an event is very questionable if no immediate supporting action accompanies the call. The most logical solution to this dilemma would be to establish a single national call center for receiving all of these calls. This call center would need to be staffed with trained personnel that understand mining and the importance of rapid response. The call center personnel should receive all such accident reports from the operators. This would provide a single number to be called. Once notification is received by the call center personnel, they would notify the appropriate MSHA personnel for that particular mine. Taking this approach would provide a means for immediately reporting and then allow personnel at the mine to concentrate on a continued response to the emergency at hand rather than tying them to a telephone trying to locate the appropriate MSHA personnel.

**MSHA Questions:**

**MSHA is considering requiring that the following information be reported for each SCSR at each mine. The total number of SCSRs, the manufacturer, the model, the date of manufacture, and the serial number. Is it appropriate to require mine operators to report to the relevant MSHA district manager the total number of SCSRs in use at each underground mine? If so, should any additional information be reported?**

**Response:**

These records are currently collected at San Juan Coal Company and are frequently inspected during our regular MSHA inspections. Including a requirement to file this information with the District Manager will contribute to additional overloading of the MSHA systems.

**MSHA Questions:**

**Because in the past, MSHA did not always learn of problems associated with SCSRs, MSHA is considering a requirement that mine operators promptly report to the MSHA district manager in writing all incidents where an SCSR required by 75.1714 is used for an**

**accident or emergency, and all instances where such SCSR devices do not function properly.**

**Response:**
Overloading of the current system is compounded by the suggestion that MSHA would investigate all incidents where any SCSR, required by this section or existing Sec. 75.1714, is used for an accident or emergency and all instances where such SCSR device did not function properly. In addition, when any SCSR device has not functioned properly, the mine operator would retain the device, for at least 90 days, for investigation by MSHA.

We question whether this requirement is even necessary. The vast majority of the events that would trigger the use of these devices would already result in reporting to MSHA eliminating the need for this new requirement. If this new requirement is included the Secretary must provide additional resources to carry out the investigative activities.

If these reporting requirements are included in the Final Rule, an efficient system of reporting needs to be developed as well. One example that might be considered is to develop the system on the MSHA Web Site similar to the electronic filing of some of the other required forms.

The Final Rule should make it clear that the information in this system is not subject to citation. It is very likely that through putting in the statistics for thousands of SCSR devices, a number might be transposed or have been recorded wrong by the wearer. This increased reporting burden should not be compounded by exposure to meaningless record keeping violations. If an error is found, the expectation should be that it is corrected. Failure to make the correction after it is identified should be the only way to be cited under this requirement.

## Disconnect Between Law Authors and Law Enforcers

There is an obvious disconnect between how the authors of the law viewed its application and the view of the law enforcers. The cost estimate listed in the Federal Register suggests that the total SCSR costs for all underground mines would reach $10.5 million. After reviewing the Compliance Guides and applying that information we have determined that the cost of implementing at San Juan Coal Company will exceed $1.2 million just for additional SCSR devices and just for this one underground mine. To miss the actual cost of implementation is somewhat understandable; to miss it by factors of this magnitude suggests that the intent of the rule has not been clearly communicated to those who will enforce it.

**MSHA Questions:**
**We are considering including a requirement in the part 48 training program for new miners that new miners travel, at least in part, both escapeways. Would this training be appropriate, and should the training include walking part or all of the escapeways?**

**Response:**
San Juan Coal Company includes this escapeway travel in training for Inexperienced Miners and Experienced Miners. It is already a component of our Part 48 Training Plans.

San Juan Coal Company also supports the addition of SCSR training in the various curriculums of Part 48 Training Plans. The mine included that requirement in the original Part 48 Plans when the mine opened 6 years ago.

The importance of assuring that all miners receive hands on training for SCSR devices cannot be overstated. Each miner must be competent in their ability to don the devices used at that particular mine.

Because it was already in our Part 48 curriculums the net effect of this requirement on San Juan Coal Company has been the addition of 4 pages to our plan that use the MSHA Training Plan Templates and simply restate what was already contained in the currently approved Part 48 plan. It would be helpful to eliminate those redundant pages.

## Self-Contained Self-Rescuers (SCSR)

**MSHA Questions:**
**In the preamble to the ETS, we discuss a method to locate additional SCSRs, based on a joint MSHA-NIOSH heart rate study. MSHA solicits comments on the heart rate method; whether this is the most appropriate method to determine location, whether it is realistic, and any other comments you may have on the heart rate method. What other reliable alternatives exist for determining where to position additional SCSRs in the mine.**

**Response:**
We do not believe the heart rate method is the most appropriate method to determine the distance between SCSR caches. We are not suggesting that it not be allowed. Our experience with regard to this issue is that depending on the individual, the grade of the area being traveled and other stress related factors, the distance covered while wearing an SCSR can vary greatly.

Prudent mine operators will on occasion, activate and don an actual SCSR and travel the escapeways to verify that the spacing in effect is adequate. That method should be allowed by the Final Rule.

**MSHA Questions:**
**MSHA is considering a requirement that additional SCSRs under new paragraph 75.1714-4(c) be stored in all escapeways at intervals of 5,000 feet for mines where the escapeway height is above 48 inches, and 2,500 feet for all other mines. Would such a specification standard be more appropriate than the performance oriented heart rate method provided in this ETS?**

**Response:**
The Final Rule should not attempt to apply a standard distance for all mines. This should remain a component of the SCSR Storage Plan specific to that mine. The conditions that exist from one mine to another are much too variable. Attempting

to standardize this distance will no doubt result in deficiencies and diminish the safety of miners. The distances should be left to the District Managers to review and approve on a mine by mine basis, with input from the labor force and the local inspectors who are traveling in each mine. That method will help assure that the spacing for a given mine is appropriate for that mine's conditions and miners.

**MSHA Questions:**
**Regarding such a specification oriented standard, what would be more appropriate? 5,000 and 2,500 foot intervals for heights greater than 48 inches, and heights 48 inches or less, respectively, or some other specific interval?**

**Response:**
See previous response.

**MSHA Questions:**
**When should a miner don an SCSR during an evacuation? MSHA is considering requiring that at least one miner in a group of miners, and an individual miner when working alone have at least one multi-gas or air quality detector with them.**

**Response:**
The miners at San Juan Coal Company have been instructed to don an SCSR if smoke is visible, if elevated carbon monoxide is detected, if low oxygen is detected or if directed to do so by a Supervisor. The gas detection doesn't always rely on handheld gas detectors. The mine-wide Atmospheric Monitoring System, coupled with an effective communications system can also provide this information.
If this issue is addressed in the Final Rule, it should allow for more than one method of complying with the requirement. Such a rule should allow for use of an Atmospheric Monitoring System to provide this information to miners.

**MSHA Questions:**
**Should all underground coal miners be required to use SCSRs exclusively?**

**Response:**
Prior to starting its underground operation San Juan Coal Company chose to use SCSRs exclusively. We are not in a position to make that choice for other mines.

**MSHA Questions:**
**If so, is it appropriate to prohibit the use of filter self-rescuers in all underground coal mines.**

**Response:**
The Governor of New Mexico determined there was a need to require SCSR devices in all underground mines, including Metal/Nonmetal mines. The NM Legislature agreed and that requirement was enacted without debate in March of 2006.

During a fire the combustion by-products contain more contaminants than just CO. Equipment fires inevitably involve tires, fuels, other rubber components, each of which produces toxins during combustion. This would be true in any underground mine.

One cannot deny that isolating the body from a toxic atmosphere through the use of a self-contained device provides a higher degree of protection than simply filtering carbon monoxide.

**MSHA Questions:**
**In addition, MSHA is considering adding a new provision to 75.1714-4 that would allow the use of new SCSR technology to comply with the standard, such as SCSRs that have the ability to provide up to two more hours of oxygen per unit. Is such a provision appropriate?**

## Response:

In every way possible this Final Rule should encourage the means to implement this new technology as it becomes available. The haste at which all of these requirements have been produced causes us substantial concern.

San Juan Coal Company is concerned that our industry is being forced to react to the headlines rather than respond and really improve safety in the mines. Our concern is not with the cost of purchase of additional devices. It is not the cost of the additional lifeline material. It is not the increased cost of the evacuation drills.

What we see as the concerning issues are as follows. The recent increased demand for SCSR devices and the increase in the size of the market has already resulted in the possibility of new technology being made available very soon. This is something that hasn't been talked about for many years.

The shrinking size of the underground coal industry over the past 10-15 years, coupled with the loss of the Bureau of Mines has drastically reduced the research and development of new safety products for the mining industry. The size of our market now appears to be changing. This improvement has prompted some new companies to become interested and new technology to be considered.

SCSR devices that last for much more extended periods are expected to become available in a very short period of time. If this new technology proves to be more effective, mines that have already purchased the old style units would be unlikely to turn around and immediately purchase the new ones. This would result in extending the use of technology that is some 20 yrs old and has recently been called in to question regarding its reliability.

It is our concern that should these new devices become available after the huge investment required by these new rules, as currently written and enforced, the ETS will have the net effect of delaying this improved technology from being implemented into the mines.

Prior to publishing the Final Rule, the Secretary of Labor should reconsider the deployment strategy for additional self-rescuers at each underground mine. If a mine operator does not already provide additional units, they should be required

to do so. If there are already additional units in place the urgency is much less at that particular mine and additional time should be allowed for development and deployment of improved devices.

**MSHA Questions:**
**SCSR storage locations in escapeways may not be readily accessible to all persons underground, such as pumpers, out by crews and examiners. Are there other ways to provide readily accessible SCSR coverage for these miners? Are there other storage locations that would be readily accessible to such persons?**
This issue should be addressed in the Outby Storage component of SCSR Storage Plans. Methods that can be used are to store additional rescuers such that examiners, pumpers and outby crews are always within a specified distance or specified time walking from their additional devices. At San Juan Coal Company we have installed small SCSR caches in escapeways and along belt lines to provide this coverage.

Other methods should be allowed in the Final Rule to provide additional breathable air such as through the use of escape shelters, barricade chambers or other methods deemed effective by the District Manager.

## Standardized SCSR Storage Locations

The locations for storing SCSR devices need to be specific to a particular mine's needs. One mine may decide to store them at specifically numbered crosscuts. Another may build special structures at specific intervals that provide a safe place to rest and prepare for continuing escape. Standard locations should not be a component of this regulation.

## Specificity of language on signs.

**MSHA Questions:**
**MSHA sought comments on the appropriateness of requiring that signs to help locate SCSR storage areas be made of reflective material. MSHA also asks whether there are alternative methods available for making SCSR storage locations easy to locate when conditions in the mine might obscure storage location. What methods exist that would make SCSR storage locations readily visible.**

In response to the MSHA request for comments on the appropriateness of requiring signs to be made of a reflective material and whether there are alternative methods available for making storage locations easy to locate when conditions in the mine might obscure the storage location.

San Juan Coal Company agrees with the Secretary that signs made of a reflective material do enhance miner safety by making SCSR storage locations easier to locate. Such signs have been in place here at SJCC since 2001. We do not agree that the signs must specifically state Self-Rescuer or Self-Rescuers. Miners refer to these devices as SCSRs.

There would be no confusion caused by allowing signs to use this term. The Final Rule needs to allow for this alternative language on the signs used to

identify storage areas for Self-Contained Self-Rescuers. A sign reading SCSR Storage is equally effective. This is the language currently required by our MSHA Approved Self-Contained Self-Rescuer Storage Plan. That plan has been in effect since 2001. In order to comply with that plan, we would be forced to violate the Emergency Temporary Standard. This component of the rule should be amended to allow for such equivalent language.

**Additional SCSR Comments:**
San Juan Coal Company does not dispute the need for sufficient self-rescue devices. In fact we dispute the statement in the Emergency Temporary Standard regarding, quote "The current lack of available supplemental SCSRs, the lack of training in deploying a supplemental SCSR in irrespirable mine atmosphere," end quote, at least as far as this mine is concerned.

The mine has employed an Approved SCSR Storage Plan since early 2001. The total number of employees is just under 300. This total includes the office staff, some who never go underground.

Each of our underground miners wears a 10-minute device and we use a series of cached 1-hr devices. The total number of employees that are underground at any one time is around 200 during shift overlaps of roughly 40 minutes. At times other than those shift overlaps the total number of miners in the mine at one time is under 70. Prior to the ETS being published we had in excess of 600 1-hr units in the mine meaning that there were 8 SCSRs available for each miner in the mine on a typical shift and 3 per miner during the largest overlaps.

After reviewing the ETS as well as the Compliance Guides that explain how the rule will be enforced, we have determined that an additional 1400 SCSR units will be necessary. The total number of employees has not changed. Those additional SCSRs are now on order.

At present every SCSR in use at San Juan Coal Company receives a visual inspection each shift that miners are underground. At 90-day intervals the 1-hr units are inspected in accordance with the manufacturer's guidelines. This inspection uses a listening device that can determine if the chemical bed inside the unit has degraded. This is a condition that can occur in units that are worn, carried or stored on mobile equipment. When the new units required by the ETS are placed in service the majority will be inside various Outby Storage Caches. These units will not see any more potential for degradation than those that might be stored in a box in the warehouse. If the Final Rule retains this requirement for massive outby storage, these units should be subject to an annual shake test not one every 90-days.

Another concern of ours is that there does not appear to be an understanding that these devices actually pose a fire hazard for mines. We have attached an accident report that clearly describes this hazard. This was one damaged unit on

the belt of a miner and was quickly taken care of. If this had been damage to an unattended, outby storage area containing several hundred devices, this could have placed the entire work force at risk by setting a fire outby. This could happen if a cache were to be damaged by a roof fall, rib fall or collision with mobile equipment.

**MSHA Questions:**
**Under new paragraph 75.1714-4(c), operators are required to have separate SCSR storage in search (each?) escapeway. Where a mine has parallel and adjacent escapeways, under what circumstances would it be appropriate to allow a hardened room, or a "safe haven" to serve both escapeways with one set of SCSRs?**

**MSHA Questions:**
**A hardened room is a room constructed with permanent seal techniques, submarine type doors opening to both escapeways, and positive ventilation from the surface through a borehole. Is a safe haven an acceptable alternative? If so, what should be the minimum criteria for MSHA to accept a hardened room or safe haven?**

## Response:

San Juan Coal Company has established a system of escape shelters. These shelters are located in crosscuts out of what would be the main blast path from an explosion. These shelters are not constructed using permanent seal techniques. The shelter walls are constructed using solid concrete block and utilize a substantial metal door. They do not utilize submarine style doors. By being located out of the direct blast path, they would be very likely to be undamaged by an explosion. If the walls were damaged, there are materials stored in each shelter that can be used to repair them. If the walls were damaged, the borehole would still remain functional and the location would continue to be supplied with breathable air from the surface. A backup ventilation system is available on the surface and could be used to blow air down the borehole if the main fan were to shut down.

These shelters are ventilated by the main exhaust fan’s ventilating pressure pulling air down a borehole. The shelters are provided with a communication system tied to the mine’s system as well as a phone line up the borehole to the surface. The shelters also contain additional SCSR units, food, water and medical supplies.

These emergency escape shelters are installed to provide escaping miners with an area where they can stop, communicate to the surface, re-hydrate, rest, obtain additional SCSRs and then continue to the next shelter. The shelter provides a fresh air area for exchanging SCSR devices and provides a protected communication system that allows for an exchange of information between the escaping miners and the surface. Miners can get information updates as they proceed from shelter to shelter.

The spacing on the shelters has been established to match the spacing in our Approved Self-Rescuer Storage Program. Ironically, the Compliance Guide for

the ETS now determined that it is illegal for us to deploy the SCSRs in this manner because you have to go through a door to reach the stored units. Therefore the doors are currently kept open. That enforcement position needs to be corrected in the Final Rule to allow such shelters to be used for SCSR storage.

The final rules need to provide other options for the additional breathable air that a miner might need in the event of an emergency. There should be some allowance for installation of such emergency shelters, refuge chambers or barricade chambers that could provide the same or even greater availability of breathable air in lieu of thousands of SCSR devices. The construction requirements should not be part of the Final Rule. Trying to make a one size fits all solution will result in such onerous requirements that no one will choose to provide this option. This option should be made available for an operator to choose not required by the rules.

## Training

**MSHA Questions:**

**Should a training record under new paragraph 75.1502(c)(3) not only include a requirement that mine operators certify all miners who participated in each emergency evacuation drill, but also additional information such as a checklist.**

### Response:

The method used here at San Juan Coal Company to record the emergency evacuation drills has always incorporated a checklist as well as documenting which miners participated. We have found that the use of such lists helps assure that each drill, regardless of who conducts it, includes the same topics that are required by the standard. We have always recognized the usefulness of such checklists. It is an effective tool that can be used to itemize the successful completion of each step of the training.

## Training UG or Surface

Any rules regarding a specific location requirement for the SCSR training needs to take into consideration the safety of the miners and the protection of the training units themselves. This training needs to be done in an area where these two considerations can be managed.

SCSR training provided in a classroom on the surface is effective if it includes the hands on component. Simulations of the underground environment, i.e. darkness or limited visibility can be performed in such locations. The training should not be required to be in one location or another.

**MSHA Questions:**

**A more instructive emergency evacuation practice may be provided by using realistic drills. For example, conducting a drill in smoke, or using a realistic mouthpiece that provides the user with the sensation of actually breathing through the SCSR, commonly referred to as expectations training, are more realistic than simulation training. What**

**other realistic emergency evacuation practices and scenarios would ensure that miners are better prepared to act quickly and safely in an emergency?**

## Training in Smoke

We believe it is important to provide what we also call 'Expectations Training'. This means that we provide training scenarios that simulate the actual experience. This has included the use of training mouthpieces as well as training in smoke. This can be accomplished in many other ways as well
Training in dark or smoke filled rooms on the surface or smoke filled areas underground work well. Other methods of simulating this could be to paint the lenses on a pair of glasses, using blindfolds, cutting goggles etc. The rule should not specifically call for training in smoke.

If this type of expectations training is included in the Final Rule, the specifics of the training should be left to an operator's discretion.

## Lifelines

**MSHA Questions:**
**Should miners have the ability to tether themselves together during escape through smoke-filled environments? If so, what length of tether between miners should be required?**

### Response:

The line/rope if provided must simply be long enough to allow an entire crew to hold on to the rope or attach themselves to the rope if they choose. It should also allow them to walk along without stepping on one another. The method chosen by a given mine will have the opportunity to be tested 4 times a year and the most effective method for that crew or mine can be determined. A prescriptive, one size fits all solution will not be successful. It will only be a source of meaningless citations as the various inspectors are left to interpret such a rule.

**MSHA Questions:**
**Should a miner's tether be capable of clipping easily to another's, so that any number of miners could be attached together to work their way out of a mine?**

### Response:

Miners have the ability now to hold on to one another's mine belts if they wanted to link together. This can be done even when a linkline is not provided. There is no need to make this a part of the Final Rule.

**MSHA Questions:**
**How should the tether be attached to the miners' belts, or should there be a place other than the miners' belt to attach the tether to the miners?**

### Response:

We would be concerned that an additional attachment added to a miner's belt may present a hazard to the miner. The Final Rule should not prescribe the use of tethers, or attachments.

**MSHA Questions:**
**Should the tether be constructed of durable and/or reflective material?**

## Response:

There should not be a prescriptive rule regarding tethers. Who would determine what constitutes durable material? One inspector may like nylon rope. The next may decide it must be something else. As stated previously, miners can always link together by holding on to one another's belts. There is no need to include these requirements in the Final Rule.

**MSHA Questions:**
**Where should the tether be stored on the section, or could it be a part of the miner's belt? Should it be stored with additional SCSRs in a readily accessible and identifiable location, or in a separate location?**

## Response:

The Final Rule should not include prescriptive requirements for the use, construction or storage of linklines or tethers.

**MSHA Questions:**
**Currently, cone systems on lifelines vary, some with the cones pointing toward the face, and others pointing away from the face. Miners may become confused in an emergency as to the direction of escape.**
**Should cones, or other directional indicators on lifelines be standardized? Following a NIOSH recommendation, and for ease of movement, should the point end of the cone be toward the face?**

## Response:

The rule currently contains enough specifics regarding the lifeline requirements. We do not believe there is benefit or need to be any more specific. Mines will have spent tens of thousands of dollars to purchase and install these systems by the time the Final Rule is issued. Modifications to the ETS could potentially make the systems that have been installed illegal. If the lifeline is available, has directional devices installed, has reflective material installed, is made of durable material, leads you to the portal or shaft bottom, and is undamaged, that is all the rule needs to address.

Specifics about how the cones should be installed should not be part of this rule. Regardless of how a mine chooses to install them, the miners will be trained on their installation at least 4 times per year. That amount of training will provide sufficient competency with regard to how the cones are designed to function. There is no need to put such requirements in this Final Rule.

The specific installation of the lifeline materials should not be a component of this regulation. If the lifeline is accessible, made of durable materials, leads you to the portal or shaft bottom, is equipped with cones, has reflective material as required and is in good repair that should be sufficient.

The rule should not include specifics regarding how high the lifeline hangs, how frequently it is attached to the mine roof or anything like that. This should be a performance based rule. The requirement should be to meet what is described in the preceding paragraph.

**Installation Problems**

Installation of lifelines in the Primary Escapeway will present significant problems and maintenance of the lifeline will be a challenge. Large mining equipment reduces the clearance available and will result in the lifeline being damaged. This is especially true during longwall moves or when relocating belt components and other larger pieces of equipment.

The lifeline could become damaged by a piece of equipment and the operator of that equipment could easily be unaware of having caught the lifeline. As the lifeline is being pulled down, it could potentially become a hazard to other miners.

Installation should be such that this risk is as limited as possible. The use of breakaway connectors, rubber tubing etc can help. If the lifeline is damaged, the regular preshift examination schedule will help identify the issue at least every 8 hours.

If lifeline damage is reported during one of these examinations, repairs of the lifeline should begin no later than the following shift. If those repairs are undertaken, there should be no violation issued for the damage to the lifeline. Violations under this standard should only be issued if there is a failure to take action to correct the damage.

**Describe Experience with Lifelines**

In my experience lifelines have been used in the alternate escapeway for the past 15 years. They have been effective during evacuation drills in allowing miners to find their way out of the mine even without lights or when blindfolded.

Even lifelines installed in the alternate escapeway have been a challenge to keep them from being damaged by equipment maintaining these entries or during construction periods.

Because of this type of damage, the lifelines were not installed in the Primary escapeway because the equipment traffic was much higher in those entries making damage too likely and putting miners in that entry at risk of being injured when the line gets pulled down. Because of that risk the lines were not installed in the Primary escapeway in the past.

**Linkline Use**

My experience with the use of linklines began in 1985. These have been provided on each working section I’ve been involved with since that time. The line/rope provided was long enough to allow an entire crew to hold on to the rope

or attach themselves to the rope if they chose. It also allowed them to walk along without stepping on one another. Miners have always been able to hold on to one another's mine belts to link together as well even when a linkline is not provided. There is no need to make this a part of the Final Rule.

The Final Rule should not contain specifics about how far apart connections should be, overall length of the line or what the line should be made from. Such requirements add no value to the safety of miners and simply result in a source of meaningless violations when a link is an inch too close or far apart.

Each mine should determine their standard for lines. The miners will then revisit this standard every quarter during their evacuation drill. During this use the performance based questions will be tested 4 times per year.

This rule must be performance based. Violations should be based on some simple questions. Is the line there and accessible? Is it durable? Is it effective? Is it in good repair?

**Emergency Evacuation, Requirement for emergency scenarios in plans.**

The use of scenarios in evacuation drills is an effective way to prepare miners to respond in an emergency. The requirement to use the four specific scenarios needs to be reconsidered. San Juan Coal Company operates the only underground coal mine in New Mexico. We do not have the risk of mining in to an old mine that is filled with water. We do not have the risk of mining in to a huge underground aquifer. The only risk of water inundation would be if one of our sealed areas filled with water and then blew out two sets of seals. The likelihood is extremely rare. The layout of the mine has the portals at the highest point with the faces of the Mains being the lowest point. It really doesn't provide a great deal of value for our miners to spend a great deal of time on a water inundation scenario. The Final Rule should allow for more individualization of the MEE programs so that mines can better utilize the drills to address the more significant risks.

**MSHA Questions:**

**Miners should be able to safely evacuate a mine without the use of mechanized transportation. There may be unique escapeway conditions, including ladders, man doors, airlocks, and overcasts, where hands-on experience of these conditions is required in order to quickly and safely escape the mine. It is reasonable to require that miners walk the escapeways at least under these unique escapeway conditions.**

**Should all miners be required to walk the escapeway in its entirety rather than use mechanized transportation during the drills required by new paragraph 75.1502 (c)?**

**Response:**

San Juan Coal Company agrees with the Secretary that underground coal mines are dynamic work environments where the working conditions change rapidly and sometimes without warning. Diligent compliance with safety and health standards and safety conscious work habits provide a substantial measure of protection against the occurrence of mine accidents and emergencies.

This is also true during an emergency evacuation. We agree there is value in having every miner travel an escapeway in its entirety. We question the value of a specific requirement for doing it this way each of the four times per year and in each escapeway.

It is our opinion that miners would be better prepared to cope with the stresses of an emergency evacuation and the dynamic conditions they would face, if they had been trained to develop alternatives when situations change. We believe it would be far better to change up the evacuation routines during these drills.

During all but one of the quarterly drills the miners should be stopped, informed that their chosen escape route has become impassable for one reason or another and have them select alternative routes. This exercise would help train them to adapt to the situation and provide an opportunity for them to come up with these alternatives. This process would help them become more familiar with the entire mine and the overall escape options. The final rule should allow for this approach.

San Juan Coal Company does not believe there is added value to having miners walk both escapeways. We believe that evacuation training should imbed in each miner's mind that they should be finding the most expeditious way to get out of the mine. Training should not imply that they must walk out in order to evacuate. If an evacuation is being conducted using mobile equipment, the evacuating miners could still be stopped and the adaptation exercise described above could be implemented. Teaching miners to consider alternatives could be critical to improving their chances of getting out of the mine in the event of a fire, inundation or explosion. This approach will teach miners about the specific features of their mine, its ventilation system and its escape alternatives. The Final Rule should allow for use of mechanized transport during evacuation drills if that transportation is available.

**MSHA Questions:**
**MSHA is requesting comments on incorporating all evacuation drill requirements in 75.1502.**

## Response:

San Juan Coal Company supports incorporating all of the escapeway and evacuation drill requirements into 75.1502 provided the six-week drills currently required in 75.383 do not also incorporate a become a requirement for walking the escapeways all the way to the portals. At most every other drill in a given escapeway should include traveling to the surface. The Final Rule should allow for transportation equipment to be used when available and should allow for escape scenarios that require miners to consider other escape alternatives during the evacuation drills.

**MSHA Questions**
**We are also considering requiring section bosses to travel both escapeways in their entirety, prior to acting as a boss on any working section or at any location where mechanized mining equipment is being installed or removed.**

**Response:**
San Juan Coal Company agrees that supervisors should be familiar with the escape routes from their assigned work area. If a supervisor is moved to a new location and has not traveled the escapeway from that new working section, the supervisor should travel that portion of the escapeway that has not been previously traveled. There should not be a requirement for them to travel all the way to the surface each time included in the Final Rule

**MSHA Questions**
**We are also considering requiring that all mine fires be reported to MSHA, including fires shorter than 30 minutes duration.**

**Response:**
We believe the current reporting requirements for fire are adequate. The definitions in 50.2 should not be modified to include even short duration fires. There should not be a requirement to report fires that are extinguished in less than 30 minutes.

Such a requirement would be one more way that the overall MSHA system would be overextended if they had to investigate every occurrence of flame in a mine. If they aren't going to investigate, what is the purpose of a requirement for reporting the event?

This concludes our comments regarding the Emergency Temporary Standard. San Juan Coal Company is pleased to have the opportunity to provide these comments and request that they are considered carefully in developing the Final Rule.

Sincerely,

David C. Hales

David C. Hales CMSP
Health & Safety Superintendent
San Juan Coal Company

# HSEC Significant Incident Report

bhpbilliton

## SELF RESQUE APARATUS STARTED BURNING

**PART 1 NOTIFICATION - REQUIRED WITHIN 24 HOURS OF THE INCIDENT**

| | | |
|---|---|---|
| **Incident Date:** *(eg 1 January 2000)* 22 April 2005 | | **Incident Time:** *(eg 0915 or 2115)*: 01:20 |
| **CSG:** Carbon Steel Materials | **Site**: Hotazel Manganese Mines (Wessels Mine) | **Country**: South Africa |

**Description of Incident:** *(Who, what, how, when)*
At about 01H20 on the night of 22 April a personnel carrier operator (Mario Beukes) was busy stepping out of the vehicle when his self rescue apparatus, an AFROXPAC 35, came loose from his belt and fell to the ground. On contact with the hard ground surface the apparatus started to smoulder and set alight. The operator took the fire extinguisher from the personnel carrier and extinguished the flame.

**Details of Injury/Damage/Impact:** *(Nature and extent of injuries/damage/impact)*
The self resque apparatus was melted beyond repair. One x 9kg fire extinguiser was used to extinguish the fire.

**Actions Taken by Line Management following Incident:**
Line management was informed, and an investigation was launched. The equipment supplier and SABS to be informed and involved in the investigation.

| | |
|---|---|
| **Employee, Contractor and/or Third Party Incident?** | Contractor |
| **Is Activity Controlled or Monitored?** | Controlled |
| **Has a risk assessment been conducted for this task? Yes/No** | Yes |
| **Does a site standard or procedure exist to control this risk? Yes/No** | Yes |

| **ACTUAL** | **POTENTIAL** |
|---|---|
| **Incident Type and Consequence Severity Rating:** | **Incident Type and Consequence Severity Rating:** |
| ☐ H ☒ S ☐ E ☐ C Select … Level 1 | ☐ H ☒ S ☐ E ☐ C Select … Level 4 |

**Fatal Risk Control Protocol (where/if relevant):**

| | | |
|---|---|---|
| ☐ 1 Light Vehicles | ☐ 5 Hazardous Materials Management | ☐ 9 Working at Heights |
| ☐ 2 Surface Mobile Equipment | ☐ 6 Molten Materials Management | ☐ 10 Lifting |
| ☐ 3 Underground Mobile Equipment | ☐ 7 Equipment Safeguarding | Other *(please specify)* |
| ☐ 4 Underground Ground Control | ☐ 8 Isolation | (Self resque apparatus) |

**PART 2 INVESTIGATION DATA AND FINDINGS FOLLOWING THE ICAM METHOLODOGY**

**Status of Investigation?** Final

**Absent or Failed Defences:**
- Mario did not know the procedure to follow upon finding a colour change on the SCSR indicator
- Although new employees do Site Inductions, Mario worked on the Mine for two months without having completed the full Induction.

**Individual/Team Actions:**
- SCSR units were not inspected on a daily basis prior to going underground.
- Leak testing not done on units lately.(Leak testing machines not in working order because of damaged rubber seals)

**Task/Environment Conditions:**
- Inadequate knowledge of Lamp Room staff and other employees and contractors to identify external damage to SCSR's.

**Organisational Factors:**
- Inadequate task observations to ensure that people are adequately trained in the use of SCSR's and complying with the procedures. (RM)

**Description of Incident FOLLOWING the ICAM investigation:**

As initial. The damaged SCSR was sealed and sent to the OEM to be analysed. The OEM inspected all SCSR's on the mine during August 2005 and identified 9 out of a total of 594 SCSR's have signs of being burnt.

**Permanent Corrective Actions to be Taken:** *(Actions should relate back to ICAM investigation findings)*

- That all units are to be opened and inspected internally by the OEM as soon as possible, as the SCSR units have never before been serviced or inspected by the OEM.
- In future the OEM to do a three monthly leak test on all the units.
- All the lamp room staff to be retrained to conduct daily inspections of the SCSR units.
- Order training equipment and a video to train employees,contractors and visitors on how to use the SCSR.
- Conduct safety talks to increase awareness on the treatment of the SCSR.

**Key Learnings:** *(Summary of principal learnings from incident)*

- Daily SCSR inspections by the Lamp Room staff is extremely important.
- It is a regulatory requirement that all units be inspected prior to going underground.
- Treat your SCSR with respect as it may save your life in an emergency.

| | | | |
|---|---|---|---|
| **Responsible Line Manager and Title:** | Hannes Cronje<br>Mine Manager | **Telephone:** | +27537422500 |
| | | **Email:** | hannes.cronje@bhpbilliton.com |

**Photographs:** *(Insert photographs below)*