

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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October 16, 2007

SECRETARY OF LABOR,	:	EMERGENCY RESPONSE PLAN
MINE SAFETY AND HEALTH	:	DISPUTE PROCEEDING
ADMINISTRATION (MSHA),	:	
Petitioner	:	Docket No. WEST 2007-892-E
	:	Citation No. 7284469; 9/18/2007
v.	:	
	:	Mine ID 05-03836
TWENTYMILE COAL COMPANY,	:	Foidel Creek Mine
Respondent	:	

DECISION

Appearances: Stephen Turow, Esq., Office of the Solicitor, U.S. Department of Labor, Arlington, Virginia, and John Rainwater, Esq., Office of the Solicitor, U.S. Department of Labor, Denver, Colorado, for Petitioner;
 R. Henry Moore, Esq., Jackson Kelly, PLLC, Pittsburgh, Pennsylvania, for Respondent.

Before: Judge Manning

This case is before me on a Referral of Emergency Response Plan Dispute, by the Secretary of Labor (“Secretary”), pursuant to section 316(b)(2)(G) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 876(b)(2)(G) (“ Mine Act”). At issue is a citation issued on September 18, 2007, charging Twentymile Coal Company with a violation of the Act by failing to adopt an emergency response plan that provided for a refuge area about halfway between the mine portal and the 6 Main North (“6 MN”) intake air shaft.¹ An evidentiary hearing was held in the Commission’s courtroom in Denver, Colorado, on October 2, 2007. The parties filed post-hearing briefs.

I. BACKGROUND WITH FINDINGS OF FACT

Congress enacted the Mine Improvement and New Emergency Response Act of 2006 (“MINER Act”) in response to recent fatal accidents at underground coal mines. The MINER Act amended section 316 of the Mine Act to require, *inter alia*, that each underground coal mine

¹ I use the term “refuge area” in this decision to refer to an area where emergency supplies of breathable air must be provided under an emergency response plan. The map at Joint Exhibit 7 (“JE-7”), shows the configuration of the mine portal, the 6 MN, and the main entries between these two points.

operator develop and adopt an Emergency Response Plan (“ERP”) and submit it to the Department of Labor’s Mine Safety and Health Administration (“MSHA”) for approval and periodic review. The MINER Act became effective on June 15, 2006.

Twentymile developed an ERP and, after discussions with MSHA, submitted several revisions of the plan to MSHA. The final revised plan was submitted on August 7, 2007. Section 316(b)(2)(E)(iii) of the Mine Act, as amended by the MINER Act, includes the following language: “The plan shall provide for emergency supplies of breathable air for individuals trapped underground sufficient to maintain such individuals for a sustained period of time.” It is the portion of Twentymile’s ERP dealing with this requirement in the outby area of the mine that is in dispute in this proceeding.

Rather than engaging in rulemaking, the Secretary elected to provide guidance to the underground coal mining community with respect to the development of ERPs through a series of three Program Policy Letters (“PPLs”) and a Program Information Bulletin (“PIB”). MSHA’s first PPL, PPL 06-V-8, merely stated that an operator’s ERP must address the requirement to establish an emergency supply of breathable air and it indicated that MSHA is evaluating alternatives to meet this requirement and is soliciting further information on the requirement. (Stip. 13; Ex. R-50).² On August 4, 2006, MSHA issued PPL 06-V-9 which indicated that the agency needed more time to gather information on the issues of post-accident breathable air. (Stip. 14; Ex. R-52).

On October 24, 2006, MSHA published Program Policy Letter PPL 06-V-10 which states in part:

For an ERP to be approved, it must specifically address the type, amount, and location of post-accident breathable air necessary to maintain individuals trapped underground for a sustained period of time. Oxygen, compressed air, or other alternatives may be used to meet this requirement.

On August 30, 2006, MSHA published a Request for Information (RFI) in the Federal Register seeking further information from the mining community on “topics related to post-accident breathable air that would be sufficient to maintain miners trapped underground for a sustained period of time.” Once MSHA is able to review the information received, the Agency will provide additional guidance. In the meantime, however, mine operators shall gather information from available resources and provide for emergency supplies of breathable air.

² The parties submitted 44 Stipulations, which are referred to as “Stip.”

(Stip. 16; Exs. R-53, R-54).

Twentymile submitted its initial ERP on August 11, 2006. (Stip. 10; Ex. R-1). In October and November 2006, MSHA responded to Twentymile's initial ERP and a meeting was held at MSHA's Coal Mine Safety and Health District 9 headquarters ("District 9") to discuss the plan. (Stips. 17 & 18; Ex. R-2). Twentymile submitted a revised plan on February 1, 2007. (Stip. 19; Ex. R-3).

On February 8, 2007, MSHA issued Program Information Bulletin P07-03 which provided operators, for the first time, with specific, detailed guidance concerning MSHA's understanding of various ways in which operators could provide breathable air for individuals who may be trapped underground. (Stip. 20; Ex. R-55). MSHA subsequently developed three additional guidance documents and made them attachments to the PIB. (Stip. 20; Exs. R-57, R-58, R-59). The PIB required all operators to submit revised ERPs for MSHA's review by March 12, 2007.³ (Stip. 21).

On March 2, 2007, MSHA responded to Twentymile's ERP submission of February 1, 2007. (Stip. 23; Ex. R-4). MSHA addressed the issue of post-accident breathable air, in part, as follows:

(I) Emergency supplies of breathable air for individuals trapped underground.

In accordance with Program Policy Letter No. P06-V-10 and PIB P07-03, the type, amount and location of oxygen must be specified for the ERP to be approved. Relevant variables used in your mine specific analysis should be identified. If an approach other than boreholes or protected airlines that include sufficient volume of air for both breathing and purging is used, the approach for scrubbing carbon dioxide is necessary. Please include the parameters (e.g., number of persons, length of time, amount of oxygen per person per unit time, type of generation, delivery/conservation system, etc.) that were used to determine the quantity of breathable air. Air, food and water are to be provided for periods represented in one of the options presented in PIB P07-03 for the expected number of miners on the section; and, for sections using hot-seating during shift changes, the provisions should be doubled.

³ The PIB was challenged as improper rulemaking in the United States District Court for the District of Columbia, No. 07-1068. The challenge was resolved on August 22, 2007, pursuant to a settlement in which the National Mining Association withdrew its claim and MSHA re-affirmed that the PIB was a non-binding guidance document. (Stip. 22; Ex. R-56).

Id. On March 12, 2007, Twentymile submitted a revised ERP that contained a statement detailing the manner in which it intended to provide breathable air for trapped miners. (Stip. 25; Ex. R-5). On March 22, 2007, District 9 Manager Allyn Davis, responded to this revised plan and stated that it does not meet MINER Act requirements regarding the provision of breathable air for trapped miners. (Stip. 26; Ex. R-6). The letter sought additional clarification on this issue.

On March 28, 2007, Twentymile submitted a revised ERP. (Stip. 28; Ex. R-7). With respect to providing breathable air in outby areas, the plan provided under the heading “Additional possibilities outby the section”:

The recently completed intake ventilation shaft can be easily isolated from the main air courses with equipment doors and is accessible. This location is currently outfitted with emergency food supplies and water. The greater area can be quickly isolated with another installed open equipment door. Page phone communication to the surface is available. Additional utility pipes are installed at this location that can be utilized in an emergency.

Id. In its response of April 13, 2007, District Manager Davis asked “how the breathable air requirements will be met for outby personnel.” (Stip. 29; Ex. R-8). On April 23, 2007, Twentymile submitted a revised ERP that, with respect to Mr. Davis’s inquiry, stated:

Personnel working in outby areas can readily access the recently completed intake ventilation shaft should escape from the mine be impossible.

This shaft will be outfitted with an emergency escape hoist later this year.

Personnel working outby the working sections, either inby or outby the shaft, will have access to the shaft or access to one of the two intake escapeways to the portal.

Other means of escape are available to outby personnel, depending on their location, including the 18 Right intake bleeder shaft.

(Stip. 31; Ex. R-9).

In late May, a representative from Twentymile discussed the issue of outby personnel with Hillary Smith of MSHA’s District 9. Twentymile pressed Ms. Smith to explain why its ERP has not been approved when MSHA District 2 has approved ERPs at several mines that have provisions that are quite similar to Twentymile’s proposed ERP with respect to breathable

air in outby areas. Ms. Smith raised differences that she perceived between the situation at the Foidel Creek Mine and the mines in District 2. (Stip. 32). She advised Twentymile that, given the responses that MSHA provided in the Questions and Answers attached to PIB 07-03, she did not think that District Manager Davis would accept an ERP from Twentymile that failed to provide breathable air in the main entries at Foidel Creek for travel distances exceeding 15,000 feet. (Stip. 32; Ex. R-57). The representative for Twentymile told Ms. Smith that he did not believe that MSHA's position was correct. (Stip. 32).

On June 14, 2007, Twentymile submitted another revised ERP which provided in relevant part:

Personnel working in outby areas can readily access the recently completed intake ventilation shaft should escape from the mine be impossible. Currently, the eighteen foot intake shaft is regulated through a pair of equipment doors leading from the shaft bottom, providing additional intake air to continuous miner sections through one of the intake splits/primary escapeways from the portal. If necessary, the shaft bottom can be isolated by closing the equipment door regulators. The return entries around this shaft area are separated from the intake entries with Kennedy panel/Tekseal near zero leakage stoppings. In case of emergency barricading in this location, the intake pressure should minimize leakage of mine gasses into the area. If necessary, the drain pipe can be outfitted to provide additional air to the bottom of the shaft.

The greater area at the shaft bottom (approximately 100,000 cubic feet of space) can be closed off by closing and sealing a single equipment door. This area contains four cased drill holes from the surface. A mine page phone at the bottom is connected to a page phone on the surface and could be used for communications if this area is isolated off. One hole in this location is used for supplying aggregate material to the mine. Another is used for and connected to the mine compressed air system. These boreholes could be utilized to provide additional emergency supplies, including breathable air if necessary.

The intake shaft will be outfitted with an emergency escape hoist later this year. The equipment procurement and permitting are in progress and installation should be completed by late August 2007. Once in place, personnel could be removed from the mine at a rate of six persons every ten minutes. If necessary to provide additional breathable air to miners at the bottom, SCSRs delivered to the top

from the warehouse could be delivered to the bottom in the hoist cage.

Personnel working outby the working sections, either inby or outby the shaft, will have access to the shaft or access to one of the two intake escapeways to the portal. Personnel working in these areas will at no time be more than 10,000 feet from either the portal or the 6 Main North intake shaft. The main entries are outfitted with two separate intake escapeways, each travelable with diesel pickup mantrips, each containing caches sufficiently spaced for individuals walking and for the number of personnel working inby that point.

Other means of escape are available to outby personnel, depending on their location, including the 18 Right intake bleeder shaft. The cage is capable of handling four individuals at a time [and] a round trip from the surface to the bottom and back is less than 30 minutes. Two crews of twelve persons could be recovered to the top in less than three hours. If necessary to provide additional breathable air to miners at the bottom, SCSRs delivered to the top from the warehouse could be delivered to the bottom in the hoist cage.

(Stip. 33; Ex. R-10).

On June 22, 2007, MSHA responded by letter to Twentymile's revised plan. The letter states, in part:

The post-accident breathable air portion of the ERP that you have submitted does not meet the MINER Act requirements regarding the provision of breathable air for trapped miners. Given the conditions at the Foidel Creek Mine, the current version of the ERP cannot assure quantities of breathable air sufficient to maintain individuals trapped in the mine, unless it contains provisions that:

Post-accident breathable air needs to be addressed in the main entries an approximate distance of 10,000 to 15,000 feet from the portal. The distance from the portal to the intake shaft is too great a distance not to maintain some sort of post accident breathable air, and two isolated intake escapeways

to the same portal locations do not provide the same amount of protection as breathable air.

(Stip. 34; Ex. R-11).

On June 28, 2007, Dick Conkle, the Safety Director with Twentymile, informed Bill Reitze of MSHA that the revised ERP plan that Twentymile would be “submitting would not include refuge chambers in the mains entries and indicated that miners could not be trapped in this area because of multiple ways out of the mine.” (Stip. 36). Twentymile submitted this revised plan that, as relevant here, was substantially similar to the plan submitted on June 14, 2007. (Stip. 37; JE-1).

On July 31, 2007, Mr. Davis advised Twentymile that its ERP was approved, except for the part dealing with breathable air for outby miners. (Stip. 38). With respect to that portion of the plan, Mr. Davis stated:

Specifically, we cannot approve an ERP in full for the Foidel Creek Mine unless post-accident breathable air is provided at some point in the main entries at a distance of between 10,000 to 15,000 feet from the portal. Breathable air is necessary within this area to maintain miners who are traveling or performing maintenance/examination activities in the main entries and who could be trapped within the approximately 20,000-foot, and often significantly sloped, expanse between the portal and the intake air shaft, if an event (e.g., fire or explosion) compromises the intake escapeways and the intake air shaft. In such an instance, breathable-air would be necessary in the area that we have identified to permit miners to survive for a sustained period of time prior to rescue.

(Stip. 38; JE-2).

On August 7, 2007, Twentymile submitted the revised ERP that is the subject of the dispute in this case. The cover letter to the plan states:

We consider the Twentymile Mine configuration unique in that multiple directions are available for personnel working underground to use if an event required evacuation from the mine. We feel the requirement of a rescue chamber for the area in question, from the portal to the intake shaft, is not applicable because of the multiple directions available as described above and in the body of the Emergency Response Plan. Wording changes have been made to the Post-Accident Breathable Air, Outby the

section, page 3, fourth paragraph concerning personnel working outby the working sections. Added are the two sentences; “Therefore, these individuals would not be trapped by an event occurring in the mine. If changes are made to the mining plan that alters this configuration in a fashion that could result in entrapment, this plan will be modified to address those changes and provide the necessary facilities.”

(Stip. 40; JE-3). With respect to breathable air for outby areas, the plan submitted on August 7 was the same as the plan submitted on June 14 except for the changes highlighted in the above letter, some minor wording changes, and provisions that Twentymile will supply foam packs for ensuring a good seal around equipment doors in the area of the 6 MN shaft as well as food, water, first-aid kits, blankets, and emergency light sources in that area. (JE-4).

On September 10, 2007, District Manager Davis responded to Twentymile’s submission by stating, in part, that if Twentymile continues to refuse to establish a refuge area between the portal and the 6 MN intake air shaft, the Secretary will “conclude that the parties are at an impasse and will initiate proceedings pursuant to section 316(b)(2)(G) of the Mine Act to resolve the dispute.” (Stip. 41; JE-5). Twentymile responded to Mr. Davis’s letter by reiterating that the Foidel Creek Mine has a configuration that is “unique in that multiple directions are available for personnel working underground to use if an event required evacuation from the mine” with the result that “the requirement of a refuge chamber for the area in question, from the portal to the intake shaft, is not applicable. . . .” (Stip. 42; JE-6). The letter further states that “[i]f changes are made to the mining plan that alters this configuration in a fashion that could result in entrapment, this plan will be modified to address those changes and provide the necessary facilities.” *Id.*

On September 18, 2007, Hillary Smith of MSHA issued Citation No. 7284469 under section 104(a) of the Mine Act, alleging the following violation:

The Foidel Creek Mine violated § 316(b)(2) of the [Mine Act] by failing to develop, adopt, and submit to MSHA an emergency response plan . . . that effectively provides for the maintenance of individuals trapped underground for a sustained period of time. Specifically, the August 7, 2007, emergency response plan (ERP) does not provide materials and equipment necessary to supply breathable air for miners who may be trapped in the main entries of the mine in the approximately 20,000 foot distance between the portal and the intake air shaft near the 6 MN section.

The citation summarizes the negotiations that occurred and states that MSHA “notified the operator of its obligation to make the specific modification to the ERP in order to come into compliance with § 316(b)(2) of the Mine Act.” The citation then states that this “modification

would require the installation of an established refuge area/rescue chamber at a midpoint between the portal and the intake air shaft, which has the capability to maintain the maximum number of persons who may be trapped in this area for a period of at least 72 hours.”

The Secretary filed her referral of an ERP dispute with the Commission on September 20, 2007, in accordance with 29 C.F.R. § 2700.24(a). Twentymile timely responded to the referral and requested a hearing.

II. DISCUSSION WITH FURTHER FINDINGS AND CONCLUSIONS OF LAW

Twentymile describes the issue in this case as whether the citation should be vacated as improperly issued because Twentymile’s ERP should have been approved without a requirement of a supply of post-accident breathable air, other than SCSRs, in the main entries between the mine portals and the 6 MN intake air shaft. The Secretary agrees with this description of the issue with the caveat that the citation must be affirmed if MSHA’s decision to reject the disputed provision of the ERP was not arbitrary or capricious.

A. Summary of the Parties’ Arguments

1. Secretary of Labor

The Secretary contends that the district manager did not act in an arbitrary or capricious manner when he refused to fully approve Twentymile’s ERP without including a provision for post-accident breathable air for miners who may be trapped underground in the mine’s main entries. The Secretary takes the position that, in the event of a fire in the belt entry or a fire associated with diesel equipment, or in the event of another incident produced by a confluence of unforeseeable events, miners may be prevented from escaping through the mine portal and may be driven deeper into the mine. Although the Secretary recognizes that miners may be able to travel the three and a half miles to the 6 MN air shaft and escape, some miners may not be able to reach that air shaft due to factors such as exhaustion, injury or disorientation from smoke and gasses.

She argues that the MINER Act does not limit the scope of protection by mandating the establishment of refuge areas only in areas where miners are “likely” to be trapped. Rather, the Act recognizes the possibility that miners may be trapped at any underground coal mine and requires each operator to provide breathable air sufficient to maintain miners who may be trapped underground. The evidence presented at the hearing establishes that there is a reasonable possibility that miners may be trapped in the main entries at the Foidel Creek Mine and may need a refuge area capable of providing breathable air to maintain them until they can be rescued. The district manager considered two specific scenarios when he determined that a refuge area was required: the possibility of a belt fire or an equipment fire. Because the evidence presented at

the hearing established that such events were reasonably possible, the district manager's determination was neither arbitrary nor capricious and the citation should be affirmed. While the Secretary recognizes that Twentymile has a number of measures in place that are designed to prevent or contain a fire in the mains, such measures are not fool-proof.

2. Twentymile

Twentymile contends that the Secretary's case rests on the "reasonable possibility" that a belt fire, equipment fire, or explosion would block miners working in the mains from escaping to the mine portal. With respect to emergency supplies of breathable air for miners trapped underground, the Senate Report states that "with regard to entrapment, the act requires that emergency plans analyze the *likely* risks to determine if breathable air beyond increased stores of SCSRs is necessary" (Ex. R-60. p. 6) (emphasis added). As a consequence, Twentymile contends that the provision in the MINER Act requiring the provision of supplies of breathable air is not triggered by a mere "reasonable possibility" that miners could be trapped. An ERP must consider possible risks and provide for supplies of breathable air for risks that are "likely." This approach is consistent with the "reasonably prudent person" test used by the Commission to avoid due process problems. (T. Br. 16).

Twentymile also contends that the Secretary failed to establish that there was a "reasonable possibility" that anyone would become trapped in the mains at the Foidel Creek mine and would thereby need to seek refuge. Twentymile argues that the record in this case makes clear that the risk of miners becoming entrapped in the mains at the mine is extremely unlikely. Indeed, the Secretary admitted in her opening statement that it was unlikely that anyone would be trapped in that part of the mine. As a consequence, MSHA's district manager was required to approve Twentymile's ERP as a matter of law.

Although Twentymile does not believe that the use of an "abuse of discretion" or "arbitrary and capricious" standard is appropriate, application of such standard to the facts in this case must result in a finding that the decision of the district manager was arbitrary and capricious. Congress clearly required the Secretary to review each plan taking into consideration the "specific physical characteristics of the mine." (§ 316(b)(2)(C)(iii)). The district manager failed to recognize that there are multiple ways out of the mine that would preclude entrapment in the mains. In addition, he failed to recognize that, unlike most mines, Twentymile provides two isolated intake escapeways with air from different sources. He also failed to recognize that a miner could move easily from one intake escapeway to another without entering belt entries. He failed to recognize that miners working in the mains have vehicles and that they could drive to a mine exit. He also failed to take into consideration the enhancements with respect to fire protection that Twentymile had in place.

The district manager's rejection of the disputed provision of the ERP was made on an *ad hoc* basis rather than in accordance with "ascertainable standards." Such decision-making is itself arbitrary and capricious. The district manager failed to examine the relevant data and

articulate a satisfactory explanation for his action that sets forth a rational connection between the facts and the choice made. (T. Br. 19-20) (citations omitted). The district manager's decision was also internally inconsistent. The approved portion of the plan does not require a supply of breathable air for the longwall section because there were two isolated escapeways available. (Tr. 60; JE-4). The same logic applies to the mains because there are two isolated intake air escapeways in the mains in the direction of the mine portal. (Tr. 61; Ex. S-2). In addition, there were other escapeways in the direction of the portal, including the belt entry. Miners could also escape by traveling inby to the 6 MN intake air shaft where there is a hoist for use to escape during an emergency. Finally, Twentymile outfitted the 6 MN intake air shaft area with a refuge area that can be barricaded. Miners could barricade themselves and have breathable air supplied through boreholes from the surface.

It is clear from William Reitze's testimony that the district manager was concerned that the intake escapeways would become blocked near the mine portal in the event of a fire or explosion. Even if such a blockage occurred, which is highly unlikely, miners in the mains could drive or walk to the 6 MN intake air shaft and exit the mine. This route is primarily downhill. These facts undercut the district manager's rejection of the plan and the Secretary's argument that a refuge area is necessary in the vicinity of the 3 MN. Twentymile also notes that there are over 1,500 SCSRs stored in caches in the mains that are spaced no more than one half hour travel time apart. (JE-4; JE-7).

B. Summary of the Evidence

William Reitze, an MSHA supervisory mining engineer in District 9, reviewed emergency response plans for the district manager. (Tr. 25). Hillary Smith, who works for Mr. Reitze, was the point person in the review process. (Tr. 58-59). Reitze testified that "we felt that the distance between the portals and the 6 Main North . . . intake shaft escape facility was too far to allow either exhausted individuals or injured individuals to escape should there be an incident that occurs just inby the portals in the First Main North, Second Main North area." (Tr. 26). As a consequence, the district manager wanted a refuge area "somewhere roughly halfway between the main portals and the Six Main North intake escapeway," which would place it in the 3 MN area. *Id.* The district manager was seeking a facility that was "prebuilt" rather than having materials present that miners could use to barricade themselves. (Tr. 27, 59).

Reitze testified that an accident just inside the portal area may create a situation where a refuge area may be needed. Specifically, he testified that if miners cannot escape through the mine portal, they would have to travel, by one means or another, to the 6 MN escape shaft. (Tr. 28, 49). If there were an equipment fire and miners worked to try to put the fire out, they might become extremely exhausted and just might not be able to travel the over three mile distance to the 6 MN shaft. *Id.* He admitted that it would be a better practice to fight a fire near the portal from an outby direction and did not know whether the miners were so trained. (Tr. 66).

Reitze testified that an equipment fire could generate a significant amount of smoke and contaminate the air. Hydraulic fluid or diesel fuel could help propagate a fire. (Tr. 52-54). He admitted, however, that all underground vehicles were equipped with automatic fire suppression systems and fire extinguishers. (Tr. 71-72). Frictional heating from a belt moving against the metal frame could ignite float coal dust, coal dust, belt string, or loose coal. (Tr. 44-48, 68-69). Such a fire, if it became hot enough, could compromise stoppings separating the belt entry from one of the intake escapeways. *Id.* Reitze admitted that Twentymile has carbon monoxide (“CO”) sensors along the belt entry. (Tr. 67). MSHA’s requirement for a refuge area in the 3 MN is predicated on the assumption that both intake escapeways are contaminated with smoke. (Tr. 48). Although unlikely, Reitze testified that it is possible to have an explosion in the mains near the portal. He testified that for an explosion to occur “you would have to have float coal dust in the right proportions in suspension in the air stream and then subject that to some sort of ignition source or fire. . . .” (Tr. 55, 69-71). He said a hot fire can cause a roof fall which in turn can put float coal dust into suspension. *Id.* An explosion could damage stoppings or other ventilation structures that separate the air courses. (Tr. 56).

Reitze acknowledged that these events were not likely to occur. He stated:

This mine is a fairly progressive mine in many ways, so the likelihood would be very unlikely that [such events] could occur. But there is a reasonable possibility that they could occur.

(Tr. 30, 48, 57). He stated that this “reasonable possibility” was based on the fact that:

you cannot say that any type of incident will never happen. The history of the mining industry over the years over many hundreds of years has shown that you cannot rule out anything.

Id. He also testified that MSHA’s conclusion was based on specific factors in the mains at the Foidel Creek Mine. (Tr. 57-58). If the emergency event were to occur near the portals and miners could not exit the mine at the portals, they would have to travel about three and a half miles. Most of the travel distance would be downhill, but the grade in some places would be 15 to 17 percent. (JE-7). These steep grades could hinder travel for injured miners, especially if they were wearing a SCSR and the entries were filled with smoke. (Tr. 50).

The entries in the mains are about 18 feet wide and 8 feet high. (Tr. 32, 160). As stated above, the mains are on a downhill grade as one travels from the portals to the 6 MN intake air shaft, except that the entries go up again at an 8 percent grade close to the 6 MN air shaft. (Tr. 162). The grades are shown on the map submitted as part of the ERP, and range between 0 and 17 percent. (Tr. 34, 162; JE-7). These grades were taken into consideration when establishing the distance between SCSR caches for the ERP in the mains. There are five to eight parallel entries in the mains, including two intake air escapeways and a belt entry. The air for the No. 2 intake entry and the No. 5 intake entry originate from two distinct points outside. (Tr. 61). The

belt entry, which is between these two intake entries, was constructed with overcasts and undercasts to allow miners to travel from the No. 2 entry to the No. 5 entry without traveling through the belt entry. (Tr. 65, 165-66). Diesel pickup trucks and other equipment are used to transport miners through the mains. Twentymile has about 140 pieces of mobile diesel equipment for use underground. (Tr. 40; Ex. S-31).

Derrick Tjernlund, a senior fire protection engineer at MSHA's approval and certification center in Triadelphia, West Virginia, was the fire investigator for MSHA with respect to the January 2006 belt fire at the Aracoma Alma Mine. (Tr. 121; Ex. S-32). He testified in this proceeding, as an expert witness, about how belt fires and equipment fires can start and propagate in an underground coal mine and about explosions in underground coal mines. (Tr. 123-52). He was present during Mr. Reitze's testimony, but he has never been to the Foidel Creek Mine. He testified that, based on his own expertise and the testimony of Reitze, he believes that it is "probably not that likely" that a fire or explosion in the mains between the portal and the 6 MN intake air shaft would trap miners or prohibit them from escaping from the mine. (Tr. 142-43). He went on to testify that "if you do get a belt fire, the potential for a serious fire is definitely there." *Id.* He does not question the wisdom of requiring a refuge area in the 3 MN because the scenarios described by Reitze are "credible event[s]." *Id.*⁴

Robert Johnson, the technical safety coordinator for Twentymile, testified that he was involved in the submission of the ERPs by Twentymile. (Tr. 156-57; Ex. R-18). He testified that miners would not get trapped in the mains at the mine because of "the multiple ways that [miners] can [use] to get out of the mine" and the "multiple directions they could go." (Tr. 158, 165). If there were a problem "outby, they could go inby and escape from one of the escape facilities; or if the incident [were] inby, they could go to the portal." *Id.* On the inby side, the mine has the 6 MN air shaft "which is now equipped with an automatic hoist – you get in and push the button and evacuate the mine." *Id.* This shaft has a diameter of 18 feet. (Tr. 163). There are also two other intake shafts further inby that can also be used for escape. One contains an automatic elevator and the other an escape capsule. (Tr. 158-59). Johnson concluded that, in order to have miners trapped in the cited area, there would have to be multiple "incidents inby and outby the individuals' location." (Tr. 169).

During a typical shift, there are about five miners shoveling along the belts, two miners rock dusting, two or three miners performing belt maintenance, and two fire bosses performing the preshift. These miners generally have pickup trucks at their disposal. (Tr. 161). He testified that in most instances, miners working in the outby areas of the mine would exit the mine in an emergency using a pickup truck or other vehicle. (Tr. 162). Johnson admitted that it would be difficult to drive through the intake entries if they were filled with smoke. (Tr. 168).

⁴ MSHA Inspector Donald Gibson also testified for the Secretary. He testified concerning citations that have been issued at the Foidel Creek Mine alleging that there were accumulations of loose coal, coal dust and float coal dust along the belt entry and openings in ventilation controls. (Tr. 93- 116; Exs. S-10, S-11, S-12, S-14, S-16, S-21, S-34, and S-35).

The area around the 6 MN air shaft is also outfitted with emergency supplies of food, water and sealant. (Tr. 62, 165). In addition, there are other bore holes that can be used to supply fresh air to miners who have barricaded themselves in that area. (Tr. 163-65; Ex. R-20).

R. Lincoln Derick, an owner of Derick Mining & Safety, was the safety manager and technical safety coordinator with Twentymile for about 15 years. (Tr. 173; Ex. R-17). He has extensive experience and expertise in mine safety, mine fires, and mine rescue. (Tr. 173-77; Ex. R-17). He testified about the extra measures that have been taken at the Foidel Creek Mine to enhance the safety and health of miners. These additional measures include protections that are not required under MSHA's standards and are generally not found in other underground coal mines. The mine has two intake escapeways to the portal, for example, that provide outside air from different sources. (Tr. 178). The mine also has several other ways to escape the mine, other than through the portal, that are on intake air, including the 6 MN shaft, the 18 Right intake shaft, and the 9 Right intake shaft. (Tr. 178-79). The mine is equipped with an atmospheric monitoring system that measures the mine atmosphere at numerous locations for methane and CO levels. (Tr. 179-80). Derick testified that Twentymile has more CO sensors along the belt entry than most mines. In addition, the mine has installed tachometers and other devices along the belt that will shut down the belt in the event it is slipping against a drive. (Tr. 180-83). The belts are equipped with other safety features, which are not typically found in underground coal mines, that will shut down the belts if everything is not operating correctly. *Id.* Finally, the sprinklers along the belt are high-pressure, high-flow sprinklers that will flood the area to put out a fire. (Tr. 184-86). The sprinkler lines are under pressure at all times and will activate automatically in the event of a fire. *Id.* In addition, the mine has a fully equipped fire brigade that would fight any fire in the mine from the outby side. (Tr. 186-87).

Mr. Derick testified that because of the safety features in use at the mine, set forth above, the scenarios described by Messrs. Reitze and Tjernlund for a belt fire, equipment fire, or an explosion are highly unlikely. (Tr. 188-189). Although one can imagine "simultaneous events that are . . . improbable," the likelihood of people being trapped is very low because there is "fresh air" available to escaping miners in either direction. (Tr. 196). He opined that having a refuge area in the 3 MN is putting a "dangerous carrot" out there. *Id.* He believes that people should get themselves to the 6 MN intake shaft and that any injury that would slow them down getting to this air shaft would also slow them down getting to the refuge area. (Tr. 199).

C. Analysis of the Issues

I agree with the Secretary that the issue here is whether her decision to require the construction of a refuge area along the mains near the midpoint between the portal and the 6 MN intake air shaft was arbitrary and capricious. Twentymile argues that section 316(b)(2) is unconstitutionally vague, that the Secretary's use of PPLs and the PIB to evaluate ERPs is contrary to law because they were not subject to notice and comment rulemaking, and the Secretary's refusal to approve the ERP was contrary to law. These general legal issues were also

raised by the Respondents in *Emerald Resources/Cumberland Coal Resources*, 29 FMSHRC 542, 550 (June 2007). Commission Procedural Rule 24(e)(2)(iii) specifies that the “scope of [a hearing on an ERP dispute] is limited to the disputed plan provision. . . .” This rule implemented the requirement in the MINER Act for expeditious resolution of disputes concerning the contents of plans so that the “benefits of the Act could be realized by miners.” *Id.* I agree with Judge Zielinski’s analysis of the general legal issues set forth in his decision in *Emerald Resources/Cumberland Coal Resources*. *Id.* at 550-52. See also *C.W. Mining Co.*, 18 FMSHRC 1740, 1746 (Oct. 1996); *Monterey Coal Co.*, 5 FMSHRC 1010, 1019 (June 1983). As discussed below, I also reject Twentymile’s argument that the arbitrary and capricious standard is not applicable because the Secretary clearly violated the MINER Act when she required Twentymile to install a refuge area where it is unlikely that miners will be trapped.

The Secretary bears the burden of proving that her refusal to accept Twentymile’s plan provision concerning breathable air in the mains in favor of her requirement for a refuge area was not arbitrary and capricious. I credit the testimony of Reitze and Tjernlund and I find that the Secretary met her burden of proof.

It is about four miles between the portal to the 6 MN air shaft. Twentymile focuses on the fact that it was not likely that miners would ever become trapped in the outby areas of the mine. Twentymile is correct when it argues that it is unlikely that a refuge area in the outby area of the Foidel Creek Mine will ever need to be used. It must be kept in mind, however, that it is unlikely that refuge areas in any underground coal mine will ever need to be used. Although the events at the Sago Mine in January 2006 generated a great deal of publicity, there have actually been very few instances since the Mine Act became law in which miners needed to barricade themselves underground because they were unable to exit the mine in an emergency. Escape from the mine is always the most desirable outcome and the MINER Act addresses that issue. Thus, although the legislative history indicates that a plan must evaluate the “likely risks,” the MINER Act cannot be interpreted to require the Secretary to prove that the use of a particular refuge area is likely, that the catastrophic events that could lead to its use are likely, or that escape from the mine is unlikely in order to legally include the refuge area in an ERP. The vast majority of refuge areas that are being established under the MINER Act will never be used because either the catastrophic events that could necessitate their use will never occur or because the affected miners will be able to escape the mine. Although it may be less likely that anyone would be trapped in the outby areas of this mine than in active workings in an underground coal mine, it was not unreasonable for the district manager to be concerned and require the inclusion of an outby refuge area.⁵

⁵ The Secretary argues that the requirement for refuge areas in underground coal mines is similar to the provision for oxygen masks on commercial airplanes. Although it is highly unlikely that anyone, including frequent flyers, will ever have to use an oxygen mask, every commercial airline must equip its planes with oxygen masks for all passengers and must instruct passengers on their use.

It is important to understand that Twentymile is an exemplary underground coal mine operator. Twentymile's management is obviously very interested in the safety of its employees and the company has committed a considerable amount of its resources to provide a safe working environment. Many of the safety initiatives instituted at the Foidel Creek Mine, as described by Robert Johnson and Lincoln Derick, provide a higher level of safety than is required by the Mine Act and the Secretary's safety standards. I credit their testimony. Indeed, Reitze referred to Twentymile as a "progressive" operator. It cannot be denied that the presence of these safety initiatives makes it less likely that the refuge area will need to be used in an emergency. Nevertheless, I find that the Secretary established that there is a "reasonable possibility" that a major accident or multiple accidents could trap miners, especially injured miners, between the portal and the 6 MN air shaft. In such an instance, miners may need to use the refuge area that the Secretary is seeking to include in the plan.

Twentymile argues that the district manager failed to consider the mine specific conditions when he rejected its proposal for miners working in outby area. This argument is not compelling because it is clear that the district manager did consider the specific conditions. He evaluated the need for a refuge area taking into consideration the distances involved and the possibility of a belt fire, an equipment fire, or another unexpected event near the portal. These types of events have occurred in mines, as evidenced by the belt fire at the Aracoma Alma Mine, for example. I do not have the authority to substitute my judgment on this issue for that of the district manager. I find that the district manager considered the specific conditions present in the outby areas of the mine when he reached his decision to reject the proposed language in the plan dealing with breathable air in outby areas. The fact that District Manager Davis reached a different conclusion than Twentymile on this issue does not establish that he failed to consider the facts.

Twentymile also relies on the fact that the district manager approved a similar provision for the active longwall section. A refuge area for the longwall section was not required to be included in the plan because there are two distinct escape routes out of that area. The evidence establishes that the district manager did not require a refuge area for the longwall because that section receives intake air from two independent sources. (Tr. 87). The intake air in the longwall comes from opposite directions while the air in the mains travels down parallel intake entries.⁶ (Tr. 61, 87-88). The Secretary believes that a single event could contaminate both intake airways in the mains but that a single event could not contaminate both air courses in the longwall section. The intake air courses in the mains are parallel to one another and are separated by the belt entry and ventilation controls. These ventilation controls could be damaged in the event of a major accident. Thus, it was reasonable for the district manager to accept Twentymile's proposal for breathable air on the longwall section and reject its proposal for the mains. The ERP does require a refuge area for the conventional mining sections.

⁶ The fresh air from the 6 MN shaft is used to ventilate active mining areas, not the mains. The air in the intake entries in the mains enters the mine at the portals.

Twentymile sought to introduce evidence at the hearing to show that other MSHA district managers approved ERPs for other mine operators that contained provisions that were similar to Twentymile's proposed ERP with respect to breathable air in outby areas. The Secretary filed a motion *in limine* to exclude such evidence. Twentymile opposed the motion and the parties provided further argument on this issue at the hearing. (Tr. 72-82). I granted the Secretary's motion at the hearing. *Id.* I determined that the scope of this proceeding is limited to whether the Secretary's rejection of the disputed plan provision was arbitrary and capricious. I held that the evidence Twentymile sought to introduce would be of little probative value. (Tr. 80-81). It is unlikely that two underground coal mines would present exactly the same factual situation. Even if two mines were similar, the only issue in the present case would be whether District Manager Davis acted reasonably. Twentymile's evidence on this issue really concerns its larger argument that the Secretary's process of using PPLs and the PIB to evaluate ERPs was unlawfully *ad hoc* and produced inconsistent results. I permitted Twentymile to make an offer of proof on this issue. (Tr. 82; Exs. R-70 through R-75).

It is worth noting that the subject of refuge areas in outby sections of a mine was addressed by the Secretary in the "Breathable Air Questions and Answers" that was attached to PIB P07-03. The attachment provides:

As with air provided to miners at the working section, breathable air should be provided to outby miners working in established work positions within an inflatable chamber, barricade or other alternative that isolates miners from contaminated environments. Air may be provided through compressed air or oxygen canisters, chemical oxygen generator, a bore hole, or compressed air lines. To increase the chances that outby miners could reach breathable air supplies after an accident, District Managers generally will be looking for breathable air locations to be located not more than one hour travel distance from each other. This will help assure that miners would not need to travel more than 30 minutes in either direction to reach a refuge area.

(Ex. R-57). The district manager's insistence on the establishment of a refuge area in the mains between the portal and 6 MN is consistent with this guideline. If miners were working inby the portal and an accident prevented them from exiting the mine at the portals, they could be required to travel as much as three and a half miles to the 6 MN intake air escapeway. I find that the Secretary established that, in such an instance, there is a reasonable possibility that miners will need to seek refuge before they can reach the intake air shaft. The district manager took into consideration all of the safety features described above as well as the presence of caches of SCSRs located along the intake entries and the availability of vehicles in the entries.

To summarize, I find that the Secretary carried her burden of proving that her refusal to accept Twentymile's proposal on breathable air in the outby area of the Foidel Creek Mine was

not arbitrary and capricious. The record demonstrates that the Secretary engaged in substantial negotiations with Twentymile over the course of many months. The record also establishes that the district manager's position on this issue was made in good faith and is reasonable.

III. ORDER

Citation No. 7284469 is **AFFIRMED**. Twentymile must include a provision for post-accident breathable air in the main entries somewhere near the 3 MN as required by the Secretary. Further negotiations between the parties will be necessary to map out the details.

Richard W. Manning
Administrative Law Judge

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