FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

OFFICE OF ADMINISTRATIVE LAW JUDGES
601 New Jersey Avenue, N.W., Suite 9500
Washington, D.C. 20001

March 28, 2005

CUMBERLAND COAL RESOURCES, LP,	:	CONTEST PROCEEDINGS
Contestant	:	
	:	Docket No. PENN 2004-73-R
	:	Order No. 7067355; 1/24/2004
v.	:	
	:	Docket No. PENN 2004-74-R
SECRETARY OF LABOR,	:	Citation No. 7067356; 1/24/2004
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. PENN 2004-75-R
Respondent	:	Citation No. 7083200; 1/16/04
	:	
	:	Docket No. PENN 2004-85-R
	:	Order No. 7066999; 2/4/2004
	:	
	:	Docket No. PENN 2004-86-R
	:	Citation No. 7067000; 2/4/2004
	:	
	:	Docket No. PENN 2004-87-R
	:	Order No. 7067001; 2/7/2004
	:	
	:	Docket No. PENN 2004-88-R
	:	Citation No. 7067003; 2/7/2004
	:	
	:	Docket No. PENN 2004-104-R
	:	Order No. 7069906; 2/14/2004
	:	
	:	Docket No. PENN 2004-105-R
	:	Citation No. 7069907; 2/14/2004
	:	
	:	Cumberland Mine
	:	Mine ID 36-05018
SECRETARY OF LABOR,	:	CIVIL PENALTY PROCEEDINGS
MINE SAFETY AND HEALTH	:	
ADMINISTRATION (MSHA),	:	Docket No. PENN 2004-181
Petitioner	:	A. C. No. 36-05018-29162
	:	
v.	:	

	:	Docket No. PENN 2005-8
	:	A. C. No. 36-05018-38538
CUMBERLAND COAL RESOURCES, LP,	:	
Respondent	:	Cumberland Mine

DECISION

Appearances: Leon E. Pasker, Esq., U.S. Department of Labor, Office of the Solicitor, Philadelphia, Pennsylvania, and James B. Crawford, Esq., U.S. Department of Labor, Office of the Solicitor, Arlington, Virginia, on behalf of Petitioner; R. Henry Moore, Esq., Jackson Kelly, PLLC, Pittsburgh, Pennsylvania, on behalf of Respondent.

Before: Judge Zielinski

These cases are before me on Notices of Contest filed by Cumberland Coal Resources, LP ("Cumberland"), and Petitions for Assessment of Civil Penalties filed by the Secretary of Labor ("Secretary"), pursuant to section 105 of the Federal Mine Safety and Health Act of 1977 ("Act"), 30 U.S.C. § 815. At issue are four imminent danger orders, and five citations charging that the bleeder system on Cumberland's No. 49 longwall panel was ineffective.[1] A hearing was held in Pittsburgh, Pennsylvania. The parties entered into 51 stipulations prior to the hearing, and submitted briefs following receipt of the transcript. The Secretary proposes civil penalties totaling $3,874.00 for the violations. For the reasons set forth below, three citations and two orders are affirmed, two citations and two orders are vacated, and civil penalties totaling $2,496.00 are imposed.

Findings of Fact - Conclusions of Law

Background

Cumberland Coal Resources, LP, formerly RAG Cumberland Resources, LP, operates a large underground coal mine, the Cumberland mine, in Greene County, Pennsylvania. Cumberland uses the longwall as its primary mining method, and has successfully completed nearly fifty longwall panels. Toward the latter part of 2003, it was preparing to commence mining on a new panel, No. 49 ("LW49"), which was located in a new district of the mine, i.e., there were no other panels adjoining the new panel. Over the years, Cumberland's longwall panels had increased in size. LW49 was to be over 12,000 feet long and 1,250 feet wide, at the

[1] The petition in Docket No. PENN 2005-8 was filed after the hearing. The parties stipulated that all issues involved with respect to the alleged violations, including those related to the amount of any civil penalty, were to be litigated at the hearing. Two citations in Docket No. PENN 2004-181 were not at issue in the hearing and were settled. A separate Decision Approving Settlement was issued with respect to those citations on November 29, 2004.

time, the largest panel ever mined by Cumberland.

An important aspect of ventilating any longwall panel is its bleeder system. Bleeder systems, pursuant to regulation, must effectively and "continuously, dilute and move methane-air mixtures and other gases, dusts, and fumes from the worked-out area away from active workings."[2] Bleeder systems have evolved over time, as panels have grown larger. Most earlier panels used "wraparound" bleeder systems, in which fans located outby produced air flow for both face ventilation and the bleeder system. In wraparound bleeder systems, a portion of the main air flow moving inby in the headgate entries is split off at the face and routed into and around the worked-out area. Through a system of ventilation controls, a negative pressure differential is created at the back, most inby, corner of the tailgate side of the longwall, and methane in the worked-out area, the gob,[3] is drawn inby, away from the face, into bleeder entries which transport it to the surface. The methane is diluted as it moves out of the gob, such that by the time it enters the travelable bleeder entries, the outermost entries that surround the panel, its concentration is reduced to less than 4.5%. In more recent years, Cumberland and other operators have used bleeder fan systems, in which the bleeder entries are connected to a bleeder fan shaft located inby, or behind, longwall panels. Cumberland planned to use such a bleeder system for LW49. However, it encountered delays in developing the bleeder fan shaft, and anticipated a significant "problem," i.e., the longwall would be ready to begin production, but the bleeder shaft would be weeks or months away from being operational. Tr. 1308-09.

In October 2003, Cumberland abandoned development of the bleeder fan shaft, and determined to use a wraparound bleeder system for LW49. Air flow would be generated by existing fans located a considerable distance from the mouth of the panel. It performed computer simulations of the wraparound system and determined that it would be acceptable for mining the first 10,000 feet of the panel. Tr. 1317. Another ventilation shaft was scheduled to come on line in April of 2004, which was expected to enhance ventilation flow both at the face and in the bleeder system. Tr. 1318-21. It was proposed that the new shaft be connected to the LW49 ventilation system by a six-foot diameter shaft, referred to as the "shaft within a shaft." Cumberland prepared an addendum to its general ventilation plan, describing provisions specific to LW49, and notified miners' representatives of its plan to use a wraparound bleeder system. On November 7, 2003, it submitted the addendum to the Secretary's Mine Safety and Health Administration ("MSHA"). On December 9, 2003, MSHA approved the proposed ventilation plan addendum for mining the first 8,000 feet of the panel, by which time the additional

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[2] 30 C.F.R. § 75.334(b)(1); *RAG Cumberland Resources, LP*, 26 FMSHRC 639, 647 (Aug. 2004) (appeal pending).

[3] "Gob" is "[t]he space left by the extraction of a coal seam into which . . . the immediate roof caves." Am. Geological Institute, *Dictionary of Mining, Mineral and Related Terms*, 239 (2d ed. 1997).

ventilation from the new shaft was expected to be available.[4]

When notified about the proposed change to a wraparound bleeder system, officials of the United Mine Workers of America ("UMWA") expressed concerns. Timothy Hroblak, chair of the union's safety committee, had worked at Cumberland for 25 years, primarily on longwalls. He was concerned that the wraparound system would not have sufficient capacity. In his experience, earlier panels that had successfully used a wraparound system had been considerably smaller, 5,000 - 6,000 feet long and 600 - 700 feet wide. They also had been mined with four entries on the headgate and tailgate sides, whereas LW49 had been set up for use with a bleeder fan system using three entries. Jeffrey Mihalik, a safety committeeman, had similar concerns. The union's concerns were raised in meetings with Cumberland officials, but did not prompt a change in the plan.

LW49 was laid-out as a large rectangle, 12,000 feet long by 1,250 feet wide, oriented generally in an east-west direction. The panel connected with the main mine entries on its west side. Ex. R-1. Three headgate entries, including one each for the track haulage and conveyor belt, extended along the south side, which was also referred to as "40 butt." Three tailgate entries were on the north side, which was also referred to as "48 butt." The outermost of those entries, the #1 tailgate entry and the #3 headgate entry inby the face, were the travelable bleeder entries. At the east, or most inby, side of the panel, the headgate and tailgate entries were connected by two pairs of crosscuts, #86 and #87, and #88 and #89, which were referred to as the "ladders." The most inby of those entries, crosscut #89, was part of the travelable bleeder system, and connected with the #1 tailgate entry and the #3 headgate entry. The two outby entries, crosscuts #86 and #87, were referred to as the set-up ladder, i.e., longwall equipment was set up in crosscut #86 prior to the start of mining.

Mining of LW49 commenced on December 28, 2003. Stip. 15, 17. On December 30, 2003, the roof had not yet fallen behind the shields, and it was necessary to place canvas along the shields to channel the ventilation along the face, an occurrence that is not unusual. Stip. 18. In early January 2004, the panel experienced a number of "gas-outs," i.e., mining was halted because of a high methane level at some monitoring point. Monitors on the face were set to deenergize the longwall when the methane concentration reached 2%. Most of the gas-outs were caused by high methane readings at a monitor on the tailgate. Ex. R-43. Cumberland's mine, like others located in the "Pittsburgh Coal Seam," is a very "gassy" mine and liberates large amounts of methane. It is subject to spot inspections every five days, pursuant to section 103(i) of the Act. Tr. 135.

On January 4, 2004, Cumberland made a change to the LW49 ventilation system, coursing return air out the #3 entry on the tailgate, which had been on intake. The #3 tailgate entry was the entry immediately adjacent to the block of coal being removed. Cumberland did

[4] In addition to the panel-specific plan, Cumberland had an approved ventilation plan, dated March 3, 2003, for the overall mine and longwall panels in general. Ex. Jt-2.

not seek, or obtain, MSHA's approval before implementing the change. Stip. 19. On January 7, 2004, another air change was made. The belt entry, the #1 entry on the headgate side, which had been an intake air course, was changed to neutral or outby air flow, and the #3 headgate entry was switched from return air to intake air.[5] Cumberland did not seek, or obtain, MSHA's approval before implementing the change. Stip. 20. On January 8, Cumberland sent a letter to MSHA requesting approval of the changes. The request was eventually withdrawn because of intervening events. Stip. 21.

A third air change was made on January 11. A regulator was moved on the tailgate side to move pressure from outby to inby. Cumberland did not seek, or obtain, MSHA's approval before implementing the change. Stip. 22. On January 12, Cumberland submitted a proposed addendum to its ventilation plan, incorporating the changes that had been made. Stip. 23; ex. Jt-4. The proposed addendum was eventually withdrawn because of intervening events. Stip. 23. On January 12, Robert Kimutis, Cumberland's senior mine engineer, was told that MSHA planned to conduct an evaluation of the bleeder system. Stip. 23. After January 12, methane delays were significantly reduced and production was significantly increased. Ex. R-43.

As a new longwall starts up, it is not unusual to experience ventilation problems, particularly until there is a substantial roof fall behind the shields. The system is dynamic, and may remain so until mining "completes a square," i.e., mining proceeds as far as the panel is wide, here 1,250 feet. Tr. 1654-55, 1912-14. However, the number of air changes made to LW49 was unusual.

Because of concerns expressed by miners' representatives, MSHA inspector Anthony R. Guley, Jr., and assistant district manager Thomas E. Light, Jr., inspected LW49 on January 13, 2004. They were accompanied by Robert Bohach, Cumberland's manager of safety, and miners' representative Hroblak. Guley and Light were not aware of the ventilation changes that had been made by Cumberland, or the revisions to the ventilation plan that had been submitted. They reviewed records and were surprised to learn that a methane concentration of 4.2% had been recorded at one of the bleeder evaluation points. After going underground, they found the changes that had been made to the ventilation system, and realized that the December 9 ventilation plan that they had reviewed prior to coming to the mine was no longer being followed. Cumberland's failure to obtain approval before implementing the changes was a violation of a safety standard, for which a citation was issued by Guley.[6] Stip. 24; ex. Jt-5.

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[5] The January 7 change was significant because, when the belt entry was on intake air, methane given off by the freshly cut coal on the belt and the adjoining coal block was swept inby and along the face. Consequently, fresh air intended to ventilate the face already had as much as 0.3% methane, which substantially reduced the amount of methane that could be generated by mining activity before production would be shut down.

[6] Operators of underground coal mines are required to "develop and follow a ventilation plan, approved by the [MSHA] district manager," and material changes to the plan must be

That citation is not at issue in these proceedings.

Other conditions encountered in their travels concerned Guley and Light. A battery charging station near the #80 crosscut on the headgate was being ventilated by air from the #3 entry, which then flowed into the #2 entry, an intake entry. This violated a ventilation standard that required venting to a return entry.[7] The air flow had been reversed because a ventilation curtain had been taken down. Guley became concerned that the wraparound bleeder ventilation system was not working correctly. In his experience, systems operated with a bleeder fan developed large enough pressure differentials that ventilation of a battery charging station would have been routine.[8] He then traveled to the face, and found that the volume of air was considerably less than had been recorded on the preshift book that he had examined on the surface. He measured methane concentration near the third shield, i.e., at the beginning of the longwall face, and was surprised to find it was 0.3%. He was again surprised to find a higher than expected methane concentration, 0.9%, near the tailgate side of the longwall.

When the face ventilation air reached the tailgate entry, the #3 entry on the tailgate side, a portion of it was supposed to flow outby into the return, and a portion was supposed to flow inby. This was referred to as the "T-split." The flow into the gob along the #3 entry was very important, because it kept methane in the #3 entry from flowing out onto the face. It also played a significant roll in diluting methane within the bleeder system. The inby T-split flow proceeded along the #3 entry to the first crosscut, entered it and flowed into the #2 entry. At that point it split again. Part of it flowed outby through a regulator designated as bleeder evaluation point 30A ("BEP 30A"), into the travelable bleeder entry. The remainder of the T-split air flowed inby in the #2 entry, and mixed with air flowing out of the #3 entry and adjoining rubble zone through crosscuts inby the face. That air eventually passed through a bleeder evaluation point at the inby corner of the panel, BEP 30, into the travelable bleeder entry, crosscut #89.[9] On the headgate side, some of the intake air was routed into the #1 and #2 entries, and eventually flowed into the travelable bleeder entry through BEP 31, located at the most inby corner of the panel.[10]

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approved before being implemented. 30 C.F.R. § 75.370(a)(1), (d).

[7] 30 C.F.R. § 75.340(a)(1)(i).

[8] Cumberland contends that the charging station ventilation violation had little to do with the bleeder system, which may have been the case. The incident is related only for background purposes.

[9] Another bleeder evaluation point, BEP 30B, was located immediately outby BEP 30. However, it was of comparatively little significance to the enforcement actions at issue.

[10] This description of bleeder system air flows conforms with MSHA's expectations of the system. Cumberland disputes certain aspects of MSHA's position. Most significantly, Cumberland points out that the December 9 ventilation plan does not specify volumes of air flow, or the direction of air flow in the #2 tailgate entry between crosscuts #84 and #87. MSHA

When Guley and Light reached the tailgate, they were unable to determine whether the T-split was working properly, because there was limited flow inby. Tr. 348. They proceeded to BEP 30A, then into the #1 tailgate entry, and discovered another of the ventilation changes that had been made, i.e., the air in the bleeder entry flowing in a direction opposite to that shown in the December 9 ventilation plan.

They proceeded inby to the back corner of the panel and entered the #2 entry at BEP 30. Just outby BEP 30 in the #2 entry, they used a smoke tube to determine the direction of air flow, and found that it was flowing outby, toward the face, the opposite direction that they felt it should have been flowing. They took methane readings and proceeded outby in the #2 entry to the area of the face, where they were able to determine that there was air flowing from the #3 entry into the #2 entry and then outby to BEP 30A, which demonstrated that the T-split was working.

Guley questioned the adequacy of the bleeder system. He did not feel that the pressures were sufficient to generate adequate air flow, and he sensed similarities between the LW49 system and ineffective bleeder systems that he had seen in the past, especially wraparound systems. Tr. 354. Bohach disagreed with his concerns, noting that there were no excessive methane concentrations at the face, and that the ventilation plan did not specify particular pressure differentials or volumes of air flow within the bleeder system or at BEPs.

On January 14, 2004, a meeting was held at the mine. Officials from Cumberland, MSHA and the UMWA participated. Stip. 25; ex. Jt-6. The meeting had been scheduled previously, but the agenda was expanded to include the LW49 ventilation system. MSHA decided to conduct a comprehensive ventilation survey of LW49. A ventilation survey involves a considerable amount of data collection. Three or four person teams, each comprised of at least one representative of MSHA, Cumberland and the union, took various instruments into the mine and measured altitude, pressure differentials, air flow and methane and oxygen content at numerous points. Despite the logistics involved, the survey was scheduled for January 16.

On January 15, Cumberland performed its own evaluation of the LW49 bleeder system, with the assistance of UMWA officials Hroblak and Mihalik. The results of that ventilation survey were recorded on a map of LW49. Ex. R-2. Cumberland contends that its survey showed that the LW49 bleeder system was working effectively on January 15, because there was an ample volume of face ventilation, 53,000 cubic feet per minute ("CFM"), methane concentrations at the face were low, 0.5%, there was air flow out the BEPs at the back of the panel, and methane concentrations in the walkable bleeder entries were less than 4.5%. Tr. 1350.

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counters that air flow volumes are not specified on ventilation plans because the quantities change as the panel is mined out. Tr. 1132-33.

The participants in the January 16 survey included MSHA inspectors and technical support personnel, Cumberland management officials and officials of the UMWA. Stip. 27; ex. Jt-7. Information collected by the various teams was noted on a map of the longwall panel. Ex. G-26. MSHA's representatives determined that the bleeder system was ineffective. Robert Penigar, an MSHA inspector who participated in the survey, issued Citation No. 7083200, pursuant to section 104(a) of the Act, 30 U.S.C. § 814(a). It alleged that Cumberland was in violation of 30 C.F.R. § 75.334(b)(1), which requires that a bleeder system effectively and "continuously, dilute and move methane-air mixtures and other gases, dusts, and fumes from the worked-out area away from active workings."

Cumberland agreed not to operate LW49 until the ventilation issues were resolved. Stip. 30. On January 18, Cumberland officials, MSHA personnel and UMWA personnel met at the MSHA field office to discuss changes to Cumberland's ventilation plan. Stip. 31; ex. Jt-8. On January 19, MSHA inspectors and technical support personnel again evaluated the LW49 ventilation and bleeder system. Stip. 32. The system was improved, with an increased pressure differential at the back tailgate corner and positive inby air flow in the #2 entry. Ex. G-28. However, MSHA believed that the bleeder system remained ineffective. Stip. 33. Additional changes were made, and another evaluation was performed on January 20. Air flows and pressure differentials were markedly improved. Ex. G-30. However, MSHA believed that the system was still fragile and had limited capacity. The results of the survey were discussed at a meeting that lasted until approximately 1:15 a.m., on January 21. Stip. 34, 35; ex. Jt-9.

Cumberland had not operated LW49 since the initial ventilation survey on January 16, and changes to the ventilation plan had to be approved to terminate outstanding citations. During the lengthy meeting on January 21, MSHA officials made clear that in order to secure approval, any ventilation plan would have to contain certain provisions. MSHA believed that the air flows measured in the ventilation surveys indicated that the BEPs on the tailgate did not provide accurate information on conditions in the #2 entry. Consequently, they insisted that additional monitoring points be established at crosscuts #82 and #85. MSHA wanted steel pipes installed through the stoppings between the #1 and #2 entries at those locations, extending into the middle of the #2 entry. Sampling of the air in the #2 entry could then be done by testing the methane content of the air flowing out of the pipes into the #1 entry. A methane limit of 4.5% was specified for those monitoring points. MSHA also sought to establish a monitoring point with a 2% methane limit in the #1 tailgate entry between the #73 and #74 crosscuts.

Cumberland objected strenuously to those provisions, and continues to maintain that they were unprecedented and unreasonable. It considered that the #2 tailgate entry was part of the gob where high methane concentrations are to be expected, and that the bleeder system performed effectively if methane in the gob was diluted by the time it passed through any of the previously established bleeder evaluation points into the travelable bleeder entries. As to the #73/74 monitoring point, it argues that that was an inappropriate location to apply a 2% methane limitation, because the air in that entry did not enter another split of air until it reached the mouth of the panel, over 10,000 feet further outby. The regulations do not impose any required methane content for a bleeder split of air until it joins another split of air, at which point a

maximum concentration of 2% methane is allowed. 30 C.F.R. § 75.323(e). Cumberland asserts that imposing a 2% limit some 10,000 feet further inby was overly restrictive, in that it failed to take into consideration that leakage would occur through stoppings along the route, resulting in considerable additional dilution of the air flow before it joined another split of air.[11]

There is no question that the conditions MSHA insisted upon were highly unusual. Virtually all of Cumberland's witnesses, many with extensive mining experience, and most of MSHA's witnesses testified that they were not aware of any other ventilation plan that included a monitoring point in the #2 tailgate entry or anything similar to the 2% monitoring point at the #73/74 crosscuts. Tr. 296-97, 380-81, 1035-37. MSHA's inspectors also stated that they normally would not enter the #2 tailgate entry inby the face, but indicated that they would do so, if necessary to evaluate a bleeder system, and it were safe.[12] Tr. 192-93, 410-11, 679, 717-18, 897-98, 910, 1054, 1062-63. Several MSHA personnel also agreed that methane concentrations of 4.5% or higher could be expected in or near the #2 entry, particularly in the crosscuts from the #3 to the #2 entry. Tr. 211-12, 710, 1032-33, 1062-63.

MSHA's position remained firm, and on January 21, Cumberland reluctantly submitted a proposed ventilation plan incorporating the changes required by MSHA. It was approved that same date. The newly revised plan consisted of a narrative that included the various conditions and a map of the panel depicting the various monitoring points and directions of intended air flow. Stip. 36; ex. Jt-10, Jt-10A. The plan provided, in pertinent part:

> Additional safeguards have been included to ensure approval of the plan per discussions taken place at Cumberland mine #6 Portal on 1-19-2004. They are as follows:
>
> . . . .
>
> B- Continuous monitoring will take place in the [tailgate] at BEP30, BEP30A, BEP30B, 85xcut #2 to #1 entry, 82xcut #2 to #1 entry. The monitoring will be on

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[11] The 2% monitoring point was unique, and there was considerable discussion about its appropriateness. The UMWA, at one point, joined in suggesting that the methane limit be raised to 2.3%. MSHA considered lowering it to 1.8%. While that particular provision resulted in numerous interruptions to mining, it did not play a direct or substantial roll in any of the violations at issue in these cases, and will not be addressed at length. It should be noted, however, that MSHA has considerable discretion in imposing conditions in ventilation plans. *See RAG Cumberland Resources, LP*, 26 FMSHRC at 648 n.16.

[12] Normally there would be another, mined-out longwall panel on the other side of the tailgate entries, and deteriorating roof and other conditions would preclude safe travel in the #2 entry. Since LW49 was in a new district, there was no adjacent panel. In addition, Cumberland had spent a considerable amount of money to install pumpable concrete cribs to keep the bleeder entries open. Consequently, the LW49 #2 tailgate entry was in very good condition and presented no impediment to travel.

a "roving" basis and the quality, quantity and airflow direction will be recorded in a designated book at the end of each shift, until a history has been established. A (15 second or more) methane reading of 4.5% at the continuously monitored locations will cause power to be deenergized on the longwall face and immediate corrective action to be taken. MSHA will be notified if this condition occurs.

. . . .

. . . .

E- Steel pipes will be installed, extending from rockdust ports in 82 and 85 crosscuts of No. 1 to the center of No. 2 entry of [the tailgate].

F- A Bleeder Monitoring Point will be established in the No. 1 entry of [the tailgate] between the No. 73 & 74 crosscuts. A methane reading of 2.0% or greater will cause the longwall to cease production. Longwall mining will resume once the methane level at this Bleeder Monitoring Point reduces below 2.0%.

Ex. Jt-10.

MSHA assigned inspectors to monitor the LW49 bleeder system on rotating shifts, 24 hours per day. Inspectors took measurements at the established monitoring points approximately every two hours. Ronald Hixon, an MSHA inspector and ventilation specialist, was assigned to conduct the monitoring on the second shift. On January 24, he decided to enter the #2 tailgate entry in order to verify the accuracy of the readings that he had been getting at the #82 and #85 crosscut monitoring points. He measured methane concentrations in excess of 5% at the intersections of crosscuts #83 and #84 within the #2 entry, and issued an imminent danger order pursuant to section 107(a) of the Act. Tr. 752. He also issued a citation for an ineffective bleeder system, a violation of 30 C.F.R. § 75.334(b)(1). Tr. 760.

On January 25, MSHA technical support personnel and inspectors again evaluated the LW49 bleeder and ventilation systems. They were accompanied by Cumberland management and hourly personnel. Stip. 41. The results of that ventilation survey were recorded on a map of the panel, and were discussed with Cumberland officials. Ex. G-32.

MSHA inspector Ronald Tolliver began monitoring the LW49 bleeder system on January 31, 2004. On February 4, he detected 4.8% methane at the #85 crosscut monitoring point, and issued an imminent danger order and a citation alleging a violation of 30 C.F.R. § 75.334(b)(1). Stip. 45. Tolliver also issued an imminent danger order and citation on February 7, 2004, when he found a methane concentration of 5.0% at the #85 crosscut monitoring point. Stip. 50, 51.

MSHA inspector James Conrad, Jr., was monitoring the LW49 bleeder system on February 14, 2004. On his second tour of the monitoring points, he discovered 5.0% methane coming through the regulator at BEP 31, at the back corner of the headgate entries. Tr. 993. He issued an imminent danger order and a citation alleging a violation of 30 C.F.R. § 75.334(b)(1). Stip. 54, 56. He spoke with the foreman, who explained that a temporary disruption to the headgate air flow had been caused by the erection of a check curtain, while a regulator was being

moved. He then returned to BEP 31, measured a methane concentration of 2.3%, and terminated the order and citation. Tr. 1042-44.

Cumberland had become increasingly concerned about production interruptions mandated by provisions in the plan and caused by the issuance of imminent danger orders and citations. It continued to view the #73/74 2% monitoring point and the monitoring in the #2 tailgate entry at crosscuts #82 and #85 to be unprecedented and unjustified. It pressed for a meeting with the Assistant Secretary of Labor for Mine Safety and Health, David Lauriski. That meeting was held on January 29, 2004, but did not result in the resolution of any of Cumberland's concerns. Stip. 42. It then sought assurances from MSHA that monitoring in the #2 tailgate entry would no longer be required if the wraparound system was converted to a bleeder fan system. Tr. 1911-12. It developed a plan to mine back to, and make operational, the previously planned #4 bleeder shaft. That plan was approved by MSHA on February 7, 2004. Stip. 47, 48. On February 13, 2004, Cumberland announced that it would idle LW49, until mining to the #4 bleeder shaft was completed. Stip. 58. That process consumed over one month, after which production resumed, and no further unusual delays or problems were experienced.

At issue in these cases are the ineffective bleeder system citations issued on January 16 and 24, and February 4, 7 and 14, 2004, and the related imminent danger orders. Cumberland filed Notices of Contest as to those enforcement actions. The Secretary filed Petitions for Assessment of Civil Penalties for the citations, proposing that a total of $3,874.00 in penalties be imposed.

Citation No. 7083200

Citation No. 7083200 was issued by Penigar at the completion of the January 16, 2004, ventilation survey, and alleges that the LW49 bleeder system was ineffective, in violation of 30 C.F.R. § 75.334(b)(1).[13] The violation was described in the "Condition or Practice" section of the citation as follows:

> The bleeder system for the active LW49 longwall section, MMU 0011, was determined to be ineffective in controlling the flow of air through the bleeder system to continuously dilute and move methane-air mixtures from the gob and away from the active workings. A ventilation survey conducted by MSHA inspectors and engineers from MSHA Technical Support on 01/16/2004 showed that the bleeder system was not adequate to move methane out of the gob and

[13] 30 C.F.R. § 75.334(b)(1) provides:

> (b)(1) During pillar recovery a bleeder system shall be used to control the air passing through the area and to continuously dilute and move methane-air mixtures and other gases, dusts, and fumes from the worked-out area away from the active workings and into a return air course or to the surface of the mine.

> away from the face. The operator was cited on 01/13/2004 for not complying with the ventilation plan approved on December 9, 2003, when it was found the longwall was not being ventilated in a manner approved in the plan. Coal will not be mined with the longwall until ventilation changes are made to correct the bleeder system deficiencies and a plan submitted and approved by the District Manager showing the revised bleeder system.

Stip. 28, 29; ex. G-1.

MSHA determined that it was reasonably likely that the violation would result in a fatality, that it was significant and substantial, that seven persons were affected, and that Cumberland's negligence was moderate. A penalty of $1,238.00 is proposed for this violation.

The Violation

The results of the January 16 ventilation survey were recorded on two maps of LW49. One showed air flow directions. Ex. G-25. Pressure differentials, methane readings, air flow quantities and other data were recorded on the second. Ex. G-26. The involved MSHA personnel collectively determined that the LW49 bleeder system was not functioning effectively. Tr. 713. Penigar was assigned to write the citation, which reflects his wording. Tr. 713. As Penigar explained the survey results, there were many significant concerns, including, air flow reversals, weak pressure differentials, and excessive methane in the #2 tailgate entry close to the face. Tr. 666-69. Methane at an explosive level, 5% - 15%, was found in the #2 tailgate entry near the #85 and #86 crosscuts, which was compounded by the fact that air flow at those locations was reversed, i.e., flowing outby toward the face. Air in that area should have been flowing inby, toward BEP 30 at the back corner of the panel, where it would pass into the travelable bleeder entries. There was no perceptible air movement in the #2 entry between crosscuts #87 and #88, and there was very limited flow in the opposite direction (outby) between crosscuts #87 and #86. There was limited, perceptible air movement from the #3 entry to the #2 entry in crosscuts #84 and #86. A methane concentration of 4.3% was detected between crosscuts #83 and #84, which was 300 - 400 feet from the face. Air at that location in the #2 entry was flowing outby, toward BEP 30A. Penigar felt that there was a substantial amount of methane too close to the face, where people were working, and would have issued an order shutting down the longwall if Cumberland had not agreed to cease production. Tr. 669, 673, 683-84.[14]

[14] Penigar impressed me as a particularly credible witness. Cumberland contends that he indicated, during the survey, that he didn't see anything objectionable. Penigar did not recall making such a statement, and pointed out that he would not have had access to all of the survey data until it was recorded on the mine map. Tr. 719. I credit his testimony, and find that he was sincerely concerned about the performance of the bleeder ventilation system, and perceived that it posed a hazard to miners.

Dennis Beiter, a supervisory mining engineer, chief of MSHA's mine emergency services branch, ventilation division, safety and health technology center, was in charge of the survey. Testifying as an expert in the field of mine ventilation and the conduct of surveys, he cited other concerns, including pressure differentials across temporary ventilation controls on the headgate side that were very large in comparison to the pressure differentials that created air flow in the primary internal air flow paths in the gob on the tailgate side, i.e., entries #3 and #2 inby the face. Tr. 504. The pressure differential in the #2 entry from the #87 crosscut to the #83 crosscut was only 0.02 inches of water, and it was in an outby direction. In comparison, the pressure differential across ventilation curtains in the #2 entry on the headgate side was .59 inches of water. Those curtains had to be moved as the face advanced, and Beiter was concerned that the moving process would produce changes in pressure that would have an adverse impact on the tailgate side. Tr. 519-23. Smoke tube indicators had shown changing air velocity in the #2 tailgate entry, possibly as a result of inadvertent changes to ventilation controls, e.g., a miner passing through a ventilation curtain. Methane concentrations in the #2 entry had risen considerably during the survey. Tr. 505, 507. Beiter was concerned that, with the air flowing outby in the #2 entry, the limited flow through BEP 30 was from the headgate side by way of the ladders, and did not provide any indication of conditions in the tailgate's #2 entry or the gob. Tr. 510-11. Because gas in the #3 entry and the adjoining rubble zone is subject to the same pressure differential as the air in the #2 entry, it flows in the same direction, and he believed that methane in the gob adjacent to crosscuts #85 to #83 was moving toward the face. Tr. 511-12.

John Urosek, chief of MSHA technical support's ventilation division, did not participate in the survey, but concurred in Beiter's analysis of the survey data and the conclusion that the bleeder system was ineffective. Urosek had unique qualifications to testify as a mine ventilation expert.[15] In his capacity with MSHA he participated in over 50 investigations of various mine incidents involving ventilation issues. In the early 1990's he was selected as chairman of an educational project and charged with developing a course on bleeder and gob ventilation systems to ensure that MSHA personnel, operators, and other interested persons understood the requirements of MSHA's regulations on the subject. The project team performed ventilation surveys at a large number of mines throughout the country, examining different types of bleeder systems. That information was analyzed and a bleeder and gob ventilation course was developed. After development, the course was reviewed by industry leaders, academia and other MSHA personnel. Appropriate changes were made, and the course was administered to all MSHA inspectors during one-week sessions at MSHA's training academy. It was also administered at mining companies and at MSHA district offices where interested parties could attend. Urosek believes that the course book is accepted as authoritative in the industry. Tr. 1072. There were no other publications, or similar sources of authority on mine ventilation

[15] Four witnesses were accepted as experts. However, the parties were advised that little weight would be given purely to the "expert witness" label, and that the testimony of all witnesses would be considered in light of their education, experience and other qualifications, as well as pertinent indicators of reliability for their particular testimony. Tr. 1306, 1464-65, 1479-80.

cited by any other witness.

Urosek explained that a wraparound bleeder system, like other bleeder systems, is designed to create a pressure differential from the front of a longwall panel to the back, or inby, end of the bleeder system. Wraparound systems can work well, but have some "inherent flaws." Tr. 1074. The pressure differential is created by exhaust fans that are located outby the mouth of the panel. Ventilation controls are used to transfer part of that pressure differential to the most inby corner of the tailgate entries, and the ability to create a sufficient pressure differential and air flow depends upon a number of factors. It is necessary to support the entries, and the supports create resistence to air flow. The distance from the ventilation fans to the mouth of the panel, as well as the length, number and size of entries can affect the ability of a wraparound system to generate a sufficient pressure differential at the back of the gob. Tr. 1074-75. In contrast, bleeder fan systems are not impacted at all by some of those considerations, and to a lesser extent by others, because the fans are typically located inby the panel, and the pressure differential is created at the back of the gob. Tr. 1074. As noted previously, Cumberland's LW49 was a very large panel. It had been developed with three, instead of four, entries, only one of which was available for the bleeder system. Moreover, the ventilation fans were located a considerable distance from the mouth of the panel. Urosek noted that other panels that Cumberland had successfully mined using a wraparound system typically were smaller, had multiple bleeder entries, and fans that were located closer to the panel. Tr. 1075. He believed that the wraparound system for LW49 was "weak to start with," because there was only one bleeder entry, which required movement of air through a single entry for over 10,000 feet, and that roof supports in the entry would increase resistence as the panel was mined out. Tr. 1089. In his opinion, it would have been very difficult to transfer enough of a pressure differential to produce sufficient air flow in the #2 entry toward the back corner, even if the ventilation fans had been located close to the mouth of the panel. Tr. 1089.

Urosek concurred with MSHA's determination that the LW49 bleeder system was ineffective on January 16, 2004. He believed that the system had virtually no additional capacity to improve air flow. The pressure differential across the regulator at the most inby corner, BEP 30, was "very small," only 0.015 inches of water. Tr. 1109. As the entries became longer, resistence to air flow would increase, and there would be more methane in the gob that had to be diluted. "To compensate for that, what the mine operator has to do is open [the BEP 30] regulator, so you need to have enough pressure at the regulator to compensate for the longwall as it goes out to carry that methane." Tr. 1110. However, the pressure differential at the BEP 30 regulator was so small that opening it would not provide any additional air flow. Tr. 1109-10. Another major problem, according to Urosek, was that the air flow in the #2 tailgate entry was outby, instead of back inby toward BEP 30. Tr. 1114. Methane liberated in the gob tends to flow in the direction of the pressure differential across the gob. The desirable direction is toward the back corner of the tailgate, i.e., toward BEP 30. Tr. 1114. But that was not happening in LW49. Urosek believed that the methane was going to the T-split point, one crosscut inby the face. The highest concentrations of methane were about two crosscuts inby from the face, which meant that there was a very high concentration of methane from behind the longwall shields that extended one crosscut back, that was not being carried away effectively by the bleeder system.

Tr. 1113-16. He explained that that was why it was so important to maintain methane levels below 4.5% in the tailgate entries, i.e., to minimize the zone of explosive mixtures of methane in the gob. Tr. 1116.

It is clear that on January 16, the BEPs on the tailgate side did not give an accurate picture of the conditions in the #2 entry. The most important evaluation point, BEP 30 located at the most inby corner of the tailgate entries, was receiving no air flow from the primary internal gob air flow paths on the tailgate side. The air flowing through that BEP was low methane content air from the headgate entries that had traveled up the ladders at the back of the panel, crosscuts #86 and #87. Tr. 1130-31. Consequently, BEP 30 did not indicate "anything of what was going on in the number 2 entry." Tr. 1130-32. The evaluation point at the other end of the entry, BEP 30A, which was located outby the face, did receive some air flow from the primary internal air flow paths. However, roughly three-quarters of the air passing through that regulator was face ventilation air from the T-split, and the limited flow from further inby in the #2 entry was substantially diluted before it reached that evaluation point. As noted above, most of the methane in the #3 entry and the adjoining rubble zone was not being drawn into the #2 entry. Rather, it was being drawn outby, to an area behind the shields. Tr. 1248-49.

Cumberland called several witnesses who testified that the bleeder system was working effectively on January 16, 2004. Robert A. Kimutis, Cumberland's senior mining engineer, and Robert A. Bohach, its manager of safety, have extensive experience in the design and operation of mine ventilation systems, as well as educational qualifications, and were accepted as expert witnesses. In their opinion, the bleeder system was operating effectively because there was good face ventilation, the T-split was functioning properly, there was air flow in the proper directions at the BEPs, and methane concentrations at the BEPs were well under 4.5%, MSHA's historically applied standard for bleeder taps and travelable bleeder entries. Tr. 1355, 1425-32, 1490-92, 1627-30. Jack Trackmus, director of technical services for Foundation Coal Company, an affiliate of Cumberland, testified to the same effect. Tr. 1680-82. Cumberland's witnesses uniformly expressed their opinion that the #2 tailgate entry, inby the face, is part of the gob and the dilution zone for methane emanating from the gob, and that high concentrations of methane have been found, and can be expected to be found, in the #2 entry. They did not believe that the outby flow in the #2 entry indicated that methane was moving toward the face. Rather, they believed that it was being moved out through BEP 30A, away from the face.

Cumberland asserts a number of arguments, both factual and legal, in defense of this citation. Factually, it contends that the bleeder system was functioning as it was designed to, i.e., as reflected in the ventilation plan that had been approved by MSHA.[16] It disputes the Secretary's contention and evidence, that methane was accumulating in the #2 entry and in the

[16] That plan did not specify required pressure differentials or flow quantities at BEPs, and the only flow direction indicated in the #2 entry on the tailgate side was inby flow between crosscuts #87 and #88. The plan also did not specify any air quality or methane requirements within the #2 tailgate entry. Ex. Jt-1, Jt-1A.

gob, extending toward the face. It also contends that methane in the #2 entry posed no danger because it was moving away from the face and out of the system, and there were no ignition sources in proximity to methane in the explosive range. Legally, it contends that MSHA imposed new and unreasonable criteria for evaluating the bleeder system, and that it was not provided fair notice of the new interpretation. It also contends that the interrelationship between sections 75.334(b)(1), 75.334(c) and 75.370 precludes a finding that its bleeder system was ineffective while the citation issued by Guley on January 13 remained outstanding, and its ventilation plan was being evaluated to terminate that citation. In addition, Cumberland contends that the January 16 citation was legally duplicative of the January 13 citation.

Fact-based Defenses

On the issue of the effectiveness of the LW49 bleeder system on January 16, I find the testimony of the Secretary's witnesses, particularly, Urosek, to be more persuasive. There was virtually no pressure differential or air flow from the #3 entry and the adjacent rubble zone into the #2 entry. There was no measurable pressure differential between the #3 and #2 entries at the #84 crosscut, and there was only perceptible air movement into the #2 entry. Ex. G-26. There is no indication that there was any pressure differential or positive air flow from the #3 to the #2 entries in crosscuts #85 and #85 1/2, and only perceptible air flow in crosscut #87. Except for the localized effect of the T-split at crosscut #83, the bleeder system was producing almost no air flow from the #3 entry into the #2 entry. Moreover, the overall pressure differential in the #2 entry between crosscuts #87 and #83 was very small, 0.02 inches of water, which produced limited air flow in an outby direction. Ex. G-26. Explosive concentrations of methane were found in the #2 entry and in a crosscut leading into it from the #3 entry, indicating that methane was accumulating in the worked-out area. I accept Beiter's and Urosek's testimony, which is not directly refuted by Cumberland's witnesses, that the same pressure differential that generated the outby flow in the #2 entry would produce air flow in the #3 entry and adjoining rubble zone in the same direction, i.e., toward the face. Tr. 511-12, 1114. The bleeder system clearly was not moving any appreciable amount of methane out of the worked-out areas on the tailgate side of the panel. Moreover, the methane that was in the worked-out area was being moved toward, not away from, the active workings.[17] The results of the January 16 ventilation survey indicated that the bleeder system was ineffective, and that methane was being allowed to accumulate in the gob near the tailgate side of the face.

I accept Cumberland's general contention that the presence of a high concentration of methane in the #2 entry is not necessarily unusual and does not, in itself, establish that the

[17] It is true, as Cumberland contends, that methane in the #2 tailgate entry was not flowing such that it would actually reach the face. Rather, it was flowing to BEP 30A and into the travelable bleeder entry. However, the methane that was of concern was located in the #3 entry and adjoining rubble zone, which was moving toward the face.

bleeder system was ineffective.[18] *See ANR Coal Co.*, 21 FMSHRC 531, 537 (May 1999) (hazardous levels of methane do not necessarily represent violations of the Act or its standards). However, MSHA's decision regarding the effectiveness of the bleeder system was not based solely upon the fact that a high methane concentration was detected in the #2 entry. The violation was predicated upon the whole of the survey results, principally, the virtual absence of air flow out of the #3 entry and adjacent rubble zone, and the outby pressure differential that would move the methane in that area toward, rather than away from, the active workings.

Cumberland also argues that the ventilation survey did not disclose any overt deviations from the ventilation plan, except for the three, as yet unapproved, air changes. However, as noted below, the fact that the system may have been functioning in conformance with the plan is not a defense to the citation. The survey disclosed that the BEPs on the tailgate side, BEP 30 and BEP 30A, were not providing reliable information about conditions in the #2 entry and the adjacent primary gob air pathways between crosscuts #87 and #83. The survey results demonstrated that methane was not being moved away from the active workings, and it was clear that the December 9 ventilation plan could no longer be regarded as describing an adequate and effective bleeder system.

Other Defenses - Compliance with Ventilation Plan Precludes Violation of Section 75.334(b)(1)

The Secretary's regulations require that the bleeder system, as well as the means for determining its effectiveness, be specified in the operator's ventilation plan, including locations for the taking of measurements of methane and oxygen concentrations, air quantities and air flow directions. 30 C.F.R. §§ 75.334(c), 75.371(x)-(bb). Cumberland contends that any enforcement action with respect to an allegedly ineffective bleeder system must be accomplished through the ventilation plan approval process, not through the issuance of a citation alleging a violation of section 75.334(b)(1), requiring that bleeder systems be effective. That position was rejected in *Plateau Mining Corp.*, 25 FMSHRC 738, 746 (Dec. 2003) (ALJ). Judge Manning's decision in *Plateau* is currently on review by the Commission, and is not binding precedent. However, I agree with his analysis.

The ventilation plan for the LW49 panel represented Cumberland's best educated prediction of how the panel could be ventilated in conformance with applicable mandatory safety standards. Despite MSHA's approval of the plan, there was no guarantee that it would work effectively, or that it would continue to work effectively. As Judge Manning observed, "because an underground coal mine is a dynamic environment, a mine operator must be constantly vigilant when monitoring the conditions underground and must make changes to its ventilation system as conditions warrant." 25 FMSHRC at 746. Any number of conditions can impact the effectiveness of the bleeder system, including roof falls, water accumulation in critical air paths,

[18] MSHA formally acknowledged as much when it approved the January 21 ventilation plan, which specified that production cease and corrective action be taken if a methane concentration of 4.5% was detected *for 15 seconds or more* in the #2 entry.

increased resistence as air flow paths grow longer or, simply, the amount of methane liberated by mining activity. The Commission has held that section 75.334(b)(1) requires that an operator maintain an effective and adequate bleeder system. "A bleeder system must effectively ventilate the area within the bleeder system and protect active workings from the hazards of methane accumulations." *RAG Cumberland Resources, LP*, 26 FMSHRC at 647. Cumberland was obligated to comply with section 75.344(b)(1) independent of the ventilation plan approval process, and could be charged with violating that provision even though it was fully complying with its approved ventilation plan. *See Utah Power & Light Co. v. Sec'y of Labor*, 951 F.2d 292 (10th Cir. 1991). Compliance with ventilation plan approval requirements does not permit an operator to shield itself from liability for violating other mandatory standards.[19]

Duplication

The January 16 citation, alleging an ineffective bleeder system, was not duplicative of the citation issued by Guley on January 13, which alleged a failure to comply with the approved ventilation plan. Citations and orders alleging violations of different standards arising out of the same, or related, conduct are not duplicative, as long as the standards involved impose separate and distinct legal duties on an operator. *Western Fuels-Utah, Inc.*, 19 FMSHRC 994, 1003-05 (June 1997) (citing *Cyprus Tonopah Mining Corp.*, 15 FMSHRC 367, 378 (Mar. 1993); *Southern Ohio Coal Co.*, 4 FMSHRC 1459, 1462-63 (Aug. 1982); and *El Paso Rock Quarries, Inc.*, 3 FMSHRC 35, 40 (Jan. 1981)). In *Western Fuels-Utah*, the Commission held that a charge of violating a specific standard was duplicative of a charge of violating a more general standard. However, the Commission made clear that its decision was not based solely upon the premise that every violation of the more specific standard would also be a violation of the more general one. Rather, it looked to whether the operator had been cited for more than one specific act or omission. Had there been evidence of additional deficiencies that violated the general regulation, such that that allegation would not have been based upon the identical evidence used to support the violation of the more specific standard, the charges would not have been found duplicative. *Id.* at 1004, n.12.

Here, the two citations allege non-compliance with different legal duties, and are not based on the same acts or omissions. As of January 13, Cumberland had implemented three

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[19] Cumberland asserts a different version of its ventilation plan defense to citations issued following approval of the January 21 plan. It contends that the conditions imposed with respect to the monitoring points established "action levels," for which citations could be written only if the specified action was not taken. Although two of MSHA's witnesses agreed that the provisions were action levels, the argument is unavailing. Tr. 206-08, 406-07. As noted above, the effective bleeder system standard embodied in section 75.334(b)(1) can be enforced irrespective of ventilation plan requirements. In addition, the citations that are affirmed in this Decision were not issued solely for non-compliance with one of the ventilation plan requirements. The argument has no relevance to the validity of the imminent danger orders, which may be issued whether or not there is a violation of the Act or applicable regulations.

changes to the ventilation system that had not been approved by the MSHA district manager, and a citation was issued for the violation of its duty under section 75.370(d) to secure MSHA approval before implementing changes to its ventilation plan. The January 16 citation was issued because, in the collective judgment of MSHA ventilation experts, Cumberland violated its duty under section 75.334(b)(1) to maintain an effective bleeder system. While approval of an amended ventilation plan eventually abated both of those violations, different aspects of the amendments were designed to address the specific deficiencies that gave rise to the respective violations.[20] Cumberland's argument that, by unilaterally implementing a change to the ventilation system, it was relieved of its obligation to maintain an effective bleeder system, must be rejected.

Due Process

An agency may not impose a fine based upon its interpretation of a statute or regulation unless the respondent has received "fair notice" of the interpretation it was fined for violating. *Energy West Mining Co.*, 17 FMSHRC 1313, 1317-18 (Aug. 1995). An agency's interpretation may be reasonable, but nevertheless fail to provide the notice required to support imposition of a civil sanction. *General Electric Co. v. EPA*, 53 F.3d 1324, 1333-34 (D.C.Cir. 1995). The Commission has not required that the operator receive actual notice of the Secretary's interpretation. Instead, it employs an objective test, i.e., "whether a reasonably prudent person familiar with the mining industry and the protective purposes of the standard would have recognized the specific prohibition or requirement of the standard." *Island Creek Coal Co.*, 20 FMSHRC 14, 24 (Jan. 1998) (quoting from *Ideal Cement Co.*, 12 FMSHRC 2409, 2416 (Nov. 1990)). In applying this test, the Commission has taken into account a wide variety of factors, including the agency's consistency of enforcement, whether MSHA has published notices informing the regulated community of its interpretation, whether the condition or practice at issue affected safety, and the circumstances at the operator's mine. *See Alan Lee Good*, 23 FMSHRC 995, 1005 (Sept. 2001).

Cumberland was on notice of the Secretary's interpretation that section 75.334(b)(1) required it to maintain an adequate and effective bleeder system, regardless of the state of its compliance with its approved ventilation plan. *RAG Cumberland Resources, LP*, 23 FMSHRC 1241 (Nov. 2001) (ALJ), *aff'd*, 26 FMSHRC 639 (Aug. 2004). The Commission has determined that the Secretary's interpretation of the regulation is reasonable. *Id.* For the reasons discussed above, MSHA's determination that the LW49 bleeder system was ineffective on January 16, 2004, its application of section 75.334(b)(1) to the particular facts, also was reasonable.

The January 16 ventilation survey confirmed that neither BEP 30A, nor BEP 30, were providing reliable or useful information as to what was occurring in a substantial and important

[20] In fact, Cumberland was not required to obtain approval of a ventilation plan amendment in order to abate the January 13 citation. It simply could have conformed its ventilation system to the approved plan.

part of the LW49 bleeder system, the #2 entry, and the #3 entry and adjacent rubble zone, from crosscut #87 to the second crosscut inby the face. There was virtually no air flow from the #3 tailgate entry into the #2 entry inby the #83 crosscut. The pressure differential and air flow in the #2 entry and the adjacent #3 entry was outby from the #88 crosscut, and there were high methane concentrations in those areas. While the methane that was actually in the #2 entry would be moved outby through BEP 30A into the bleeder entry, the flow in the #3 entry and the adjacent rubble zone would have been toward the face, because the overall pressure differential from the #87 to the #83 crosscut was in that direction. The bleeder system was not moving methane in that substantial portion of the worked-out area away from the active workings.

While Cumberland argues that MSHA's enforcement methodology was unprecedented, there is no true claim that the standard has been enforced inconsistently, because there was no evidence presented that comparable conditions had actually been considered by MSHA in the past. Neither party points to any published notices addressing the particular types of conditions encountered here. The overriding considerations on the fair notice question are the conditions' effect on safety under the circumstances presented by LW49. For the reasons discussed above, the conditions relied upon by MSHA in determining that the LW49 bleeder system was ineffective had a substantial and critical effect on safety.

I find that a reasonably prudent person familiar with the mining industry and the protective purposes of the standard would have recognized that the bleeder system was ineffective on January 16, 2004.

Cumberland appears to rely on its fair notice defense, not only to challenge the actual decision that the bleeder system was ineffective, but to challenge MSHA's methodology in making the determination. It contends that MSHA's decision to evaluate the effectiveness of the bleeder system based upon conditions in the #2 entry inby the face represented "new criteria" for evaluating bleeder systems and, because it was not put on notice of the new criteria at the time the LW49 ventilation system was being designed, the citations must be vacated.

Such a broad fair notice defense cannot succeed for a number of reasons. Taken to its logical conclusion, it would mean that an operator could continue mining in a longwall panel with an inadequate and ineffective bleeder system, because the specific type of data upon which MSHA relied to determine that the system was ineffective had not been previously used to evaluate such systems. Such a result could not be more contrary to the legislative and regulatory scheme, and is simply unacceptable. Moreover, Cumberland cannot reasonably assert that it could not have anticipated the possibility that data pertinent to LW49 bleeder system's performance, including conditions in the #2 entry, would not have been used to evaluate its effectiveness.

Each longwall panel is, in some sense, a unique undertaking. As Trackmus explained, every longwall panel is different, and no one can "predict how much methane [will be] in that gob [or] where it is going." Tr. 1428. That is why the shaft within a shaft was incorporated into design, "because that was going to provide additional air flow at the back corner in case we needed that." Tr. 1429. If each longwall panel is a unique undertaking, LW49 was more unique than others. It was extremely large, the largest panel Cumberland had mined, and it was to use a wraparound bleeder system, a system with "inherent weaknesses," according to Urosek.

The UMWA had raised concerns about the use of a wraparound bleeder system when first advised of Cumberland's decision to abandon its plan to use a bleeder shaft. Problems encountered during start-up also raised questions about the system. While Cumberland believed that the wraparound system would be effective, there was ample reason to anticipate that questions regarding its effectiveness would continue to be raised. It was also predictable that when such questions were called to MSHA's attention, a ventilation survey would be performed. Cumberland's managers did not believe that a ventilation survey was necessary, but there is no claim that they were surprised by the decision or that it was unprecedented. A proper survey would, of course, include collection of data pertinent to conditions in the #2 entry, and MSHA's technical personnel would review and consider all of the data in order to evaluate the effectiveness of the system.

MSHA was required by its statutory mandate to consider all pertinent data in evaluating the system, and make its best judgment as to its effectiveness. It could not ignore data reflecting conditions in the #2 entry, i.e., methane concentrations, pressure differentials and air flow directions and quantities, even if Cumberland had no reason to anticipate that that particular type of data would be used to evaluate the system. Cumberland's quarrel is, in reality, not so much with MSHA's consideration of data pertinent to conditions in the #2 entry, as it is with the reasonableness of the conclusion MSHA ultimately reached based upon that data. Cumberland's due process, fair notice defense to MSHA's methodology is also rejected.

In an enforcement proceeding under the Act, the Secretary has the burden of proving all elements of an alleged violation by a preponderance of the evidence. *In re: Contests of Respirable Dust Sample Alteration Citations*, 17 FMSHRC 1819, 1838 (Nov. 1995), *aff'd, Sec'y of Labor v. Keystone Coal Mining Corp.,* 151 F.3d 1096 (D.C. Cir. 1998); *ASARCO Mining Co.*, 15 FMSHRC 1303, 1307 (July 1993); *Garden Creek Pocahontas Co.*, 11 FMSHRC 2148, 2152 (Nov. 1989); *Jim Walter Resources, Inc.*, 9 FMSHRC 903, 907 (May 1987).

I find that the Secretary has carried her burden of proof with respect to Citation No. 7083200, and that Cumberland committed the violation, as alleged. I also concur with the assessment that seven persons were affected, and that Cumberland's negligence was moderate.

Significant and Substantial

A significant and substantial ("S&S") violation is described in section 104(d)(1) of the Act as a violation "of such nature as could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard." A violation is properly designated S&S "if, based upon the particular facts surrounding that violation, there exists a reasonable likelihood that the hazard contributed to will result in an injury or illness of a reasonably serious nature." *Cement Div., Nat'l Gypsum Co.*, 3 FMSHRC 822, 825 (Apr. 1981); *see also U.S. Steel Mining Co., Inc.*, 7 FMSHRC 1125, 1129 (Aug. 1985); *Mathies Coal Co*, 6 FMSHRC 1 (Jan. 1984); *Austin Power, Inc. v. Secretary*, 861 F.2d 99, 103-04 (5th Cir. 1988), *aff'g, Austin Power, Inc*., 9 FMSHRC 2015, 2021 (Dec. 1987) (approving *Mathies* criteria).

Accumulations of methane in the vicinity of the face, behind the shields, pose a risk of explosion and multiple fatalities for miners working in the area. Urosek explained that, due to the variable nature of the roof fall behind the shields, face ventilation air can flow behind the shields, and then be forced out onto the face area, carrying methane with it. While there are sensors on the face equipment and at the tailgate that can detect the presence of methane and automatically deenergize the equipment, those sensors are positioned such that they would most likely not detect the presence of methane in air flowing in from the shields. Tr. 1249. I find that there was a reasonable possibility that the violation would have resulted in an injury and that any injury would have been serious. Accordingly, the violation was S&S.

The January 24, February 4, and February 7, Citations and Orders

Following approval of the January 21, 2004, ventilation plan, which included monitoring points at crosscuts #82 and #85, mining of the LW49 panel commenced. The operation of the bleeder system was continuously monitored by MSHA and operator personnel. On the dates in question, high levels of methane were detected in the #2 entry, and citations and imminent danger orders were issued.

Citation No. 7067356 and Order No. 7067355 – January 24, 2004

Citation No. 7067356 and Order No. 7067355 were issued by Hixon on January 24, 2004. The citation alleged that the LW49 bleeder system was ineffective, in violation of 30 C.F.R. § 75.334(b)(1). The violation was described in the "Condition or Practice" section of the citation as follows:

> The bleeder system for the No. 49 longwall panel failed to continuously dilute and move methane-air mixtures and dust from the worked-out area away from the active section. Methane was detected on the tailgate side, in the No. 2 entry, at the No. 83 crosscut at 5.6% and extended inby to the No. 84 crosscut. The methane was measured 1 foot from the mine roof, in the center of the entry.

The methane was layered and when measured closer to the roof it was as high as 6.9%.

Stip. 38; ex. G-3.

Hixon determined that it was reasonably likely that the violation would result in a fatality, that it was significant and substantial, that six persons were affected, and that Cumberland's negligence was low.[21] A penalty of $878.00 is proposed for this violation. The companion order contained virtually identical language. Ex. G-2.

Hixon, had been an MSHA inspector since 1987, and a ventilation specialist since 1993. Prior to joining MSHA, he worked as a miner for eight years, and had worked on one of Cumberland's longwall panels that had a wraparound bleeder system. He had participated in the ventilation surveys, and was assigned to monitor the LW49 bleeder system on the second shift as of January 21, 2004. As he started his shift on January 24, Bohach told him that the #73/74 monitoring point would probably shut down mining, i.e., that methane levels were approaching the 2% limitation established in the plan. Hixon was concerned about the rising methane. He proceeded inby in the #1 tailgate entry and measured 1.9% methane at the #73/74 monitoring point. He continued down the entry, measuring 1.6% methane at the sampling pipe at crosscut #82, and 2.6% at the sampling point at crosscut #85. When he got to the back corner, BEP 30, he decided to enter the #2 entry. He had some questions about the accuracy of the readings at the #82 and #85 crosscut sampling pipes, because a large amount of coal was being produced, but MSHA wasn't seeing anticipated increases in methane. Tr. 744. The company representative traveling with him, Ed Yesh, declined to go with Hixon, because Cumberland had issued instructions that personnel were not to enter the #2 entry. The union representative also declined.

Hixon proceeded out the #2 entry. He measured methane at 1.5% at crosscut #82, which corresponded with a 1.6% reading that he had obtained earlier for that location at the other end of the sampling pipe in the #1 entry. At crosscut #83, he discovered a methane concentration of 5.6%, took bottle samples, and continued to travel inby. Tr. 755. He measured a methane concentration of 4.5% between crosscuts #83 and #84, 5.1% at the intersection of the #84 crosscut, 4.0% between #84 and #85, and generally declining concentrations back to #87. He measured 3.8% methane at the #85 crosscut intersection, and had measured 2.6% for that location at the other end of the sampling pipe in the #1 entry, approximately 30 minutes earlier. Methane readings at the BEPs and the additional monitoring points established in the January 21 ventilation plan, were within acceptable limits. The location of the methane concentrations found by Hixon are depicted generally on a map of the panel. Ex. G-33.

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[21] Hixon determined that Cumberland's negligence with respect to the violation alleged in the citation was low because, as far as he knew, no one from Cumberland had been in the #2 entry since the approval of the January 21 plan, and the readings at the BEPs and other monitoring points were within acceptable limits. Tr. 765.

After reaching crosscut #88, Hixon decided to issue the subject imminent danger order and citation. He felt that the methane posed an imminent danger because it was in the explosive range and he had "no idea . . . where [it] starts and stops." Tr. 757. His primary concern was that the methane that he found was two crosscuts, about 280 feet, from the face, where there were "plenty of ignition sources." Tr. 756. He didn't know if the pocket of methane extended to the shields of the longwall panel, and was concerned that the pocket would grow. Tr. 805, 812-14. He was aware of the ventilation surveys that had been performed, and believed that they showed that the bleeder system was fragile and had limited capacity, and that changes at one location, e.g., a regulator door opening, might cause the air flow to reverse and push the methane back onto the face. Tr. 816-19. He testified that he would have issued the order even if the face had been further outby. Tr. 818.

The Imminent Danger Order

Section 3(j) of the Act defines "imminent danger" as the "existence of any condition or practice in a coal or other mine which could reasonably be expected to cause death or serious physical harm before such condition or practice can be abated." 30 U.S.C. § 802(j). Section 107(a) of the Act provides, in pertinent part:

> If, upon any inspection or investigation of a coal or other mine which is subject to this Act, an authorized representative of the Secretary finds that an imminent danger exists, such representative shall determine the extent of the area of such mine throughout which the danger exists, and issue an order requiring the operator of such mine to cause all persons, except those referred to in section 104(c), to be withdrawn from, and to be prohibited from entering, such area until an authorized representative of the Secretary determines that such imminent danger and the conditions or practices which caused such imminent danger no longer exist.

30 U.S.C. § 817(a).

"Imminent danger orders permit an inspector to remove miners immediately from a dangerous situation, without affording the operator the right of prior review, even where the mine operator did not create the danger and where the danger does not violate the Mine Act or the Secretary's regulations. This is an extraordinary power that is available only when the 'seriousness of the situation demands such immediate action.'" *Utah Power & Light Co.*, 13 FMSHRC 1617, 1622 (Oct. 1991) (quoting from the legislative history of the Coal Act). An imminent danger exists "when the condition or practice observed could reasonably be expected to cause death or serious physical harm to a miner if normal mining operations were permitted to proceed in the area before the dangerous condition is eliminated." *Wyoming Fuel Co.*, 14 FMSHRC 1282, 1290 (Aug. 1992) (quoting from *Rochester & Pittsburgh Coal Co.*, 11 FMSHRC 2159, 2163 (Nov. 1989)). Inspectors must determine whether a hazard presents an imminent danger quickly and without delay, and a finding of an imminent danger must be

supported "unless there is evidence that [the inspector] had abused his discretion or authority." 11 FMSHRC at 2164. An inspector must make a reasonable investigation of the facts, under the circumstances, and must make his determination on the basis of the facts known, or reasonably available to him. An inspector may abuse his discretion if he issues a section 107(a) order without determining that the condition or practice presents an impending hazard requiring the immediate withdrawal of miners. 13 FMSHRC at 1622-23.

While an inspector has considerable discretion in determining whether an imminent danger exists, that discretion is not without limits. As the Commission explained in *Island Creek Coal Co.*, 15 FMSHRC 339 (March 1993):

> While the crucial question in imminent danger cases is whether the inspector abused his discretion or authority, the judge is not required to accept an inspector's subjective "perception" that an imminent danger existed. Rather, the judge must evaluate whether, given the particular circumstances, it was reasonable for the inspector to conclude that an imminent danger existed. The Secretary still bears the burden of proving [her] case by a preponderance of the evidence. Although an inspector is granted wide discretion because he must act quickly to remove miners from a situation that he believes to be hazardous, the reasonableness of an inspector's imminent danger finding is subject to subsequent examination at the evidentiary hearing.

15 FMSHRC at 347-48.

The Secretary argues that Hixon, who was a ventilation specialist, reasonably determined that an imminent danger existed based on the fact that explosive concentrations of methane were found within an estimated 280 feet of the face where numerous ignition sources existed. The Secretary also asserts that Hixon had participated in the surveys on January 16, 19 and 20, and had "knowledge of the ineffectiveness of the longwall 49 bleeder system between January 16, 2004 and January 24, 2004." Sec'y Br. at 33.

Cumberland counters that there was no ignition source in the area where explosive levels of methane were found, that the methane found in the #2 entry was not part of an accumulation that extended to the face, that pressure differentials and air flows precluded the methane from moving toward the face, that high methane levels found at other times did not result in imminent danger orders, and that issuance of an imminent danger order because of methane in the #2 entry is unprecedented and contrary to the actions required by the January 21 plan. Resp. Br. at 52-58.

The impending danger that could justify the issuance of the order was the possibility of methane at explosive levels reaching ignition sources on the face. While an explosion ignited by a roof fall in the area where the methane was found was considered a possibility by Hixon, virtually all of the witnesses, including Hixon, testified, consistent with Urosek's authoritative MSHA training materials, that a roof fall is an "unlikely" source of ignition. The Secretary does

not argue the possibility of an ignition caused by a roof fall in support of the order. Cumberland argues that the equipment on the longwall face is permissible and that there are monitors that automatically deenergize the equipment in the presence of methane concentrations of 2%. However, the monitoring devices on the face are positioned in the high volume face ventilation air flow, and they would not likely detect methane infiltrating the face from the gob area behind the shields. Tr. 805, 1249. The working face presented sufficient ignition sources to constitute an impending hazard if explosive levels of methane were to reach it.

There is no question that Hixon, an experienced inspector and ventilation specialist, sincerely believed that an imminent danger existed. Whether the Secretary has sustained her burden of proving that his belief was reasonable is a close question. However, after carefully reviewing all of the pertinent evidence, I find that the Secretary has not carried her burden with respect to Order No. 7067355. The most significant considerations in reaching that conclusion are that Hixon appears to have been misinformed about the effect of ventilation changes made following the January 16 ventilation survey, and it appears that the methane accumulation was not extensive and that the bleeder system was diluting it and moving it away from the active workings.

Hixon had participated in the ventilation surveys on January 16, 19 and 20, and was present for at least portions of the meetings that followed. His understanding, as of January 24, was that "no significant changes" to the bleeder ventilation system had been made following the January 16 survey. Tr. 735-36. Consequently, his primary concern was that he didn't know exactly where the methane he detected in the #2 entry extended to, and he feared that a reversal of air flow, as occurred on January 16, could cause methane to back up onto the face. Tr. 816-18. He testified that the determination that no significant changes had been made to the system had been "made by someone else," and that he didn't personally know how the pertinent pressure differentials had changed. Tr. 796.

Contrary to Hixon's belief, marked improvements had been made to the bleeder system after the January 16 survey. Surveys on January 19 and 20 demonstrated that a significant positive pressure differential had been established at the back corner of the panel, which produced substantial air flows in the proper direction, inby, in the #2 tailgate entry. Changes to the system prior to the January 19 survey produced an inby air flow in the #2 entry ranging from 4,500 to 6,000 CFM between crosscuts #83 and #86, and a pressure differential across the BEP 30 regulator of 0.14 inches of water. Ex. G-28. Despite this improvement, Beiter believed that the system was still too fragile, did not have enough capacity, and presented a potential for unintended changes. Tr. 542-43. Additional changes were then made to the system that resulted in significant improvements.

The results of the January 20 survey showed that the #2 entry air flow increased to 10,331 – 13,812 CFM and the BEP 30 pressure differential increased to 0.29 inches of water. Ex. G-30. Beiter described the system following the January 20 survey, while "still fragile" and subject to unintended changes, as "markedly improved" and effective for limited production. Tr. 553, 560-

61, 603, 622. Of course, the January 20 survey results led, in part, to the approval of the January 21 ventilation plan and the resumption of production under the monitoring system. Urosek agreed that the January 20 survey showed that the bleeder system was effective for limited production. Tr. 1134-35. While Beiter remained of the opinion that actions on the headgate side could have unintended consequences on the tailgate side, the nature and degree of such unintended consequences were not explained. It was not claimed, for example, that such changes might result in a complete reversal of the air flow in the #2 entry, as had occurred with the considerably weaker system on January 16.

While Hixon was concerned that the methane he detected might extend back to the face, he admittedly did not know its extent. He did not discuss the fact that he found a methane content of only 1.5% at the #82 crosscut, the second crosscut inby the face. The various ventilation surveys show that the second crosscut inby, like the rest of the crosscuts back to #86, carry low volume air flow from the #3 entry and the adjoining rubble zone into the #2 entry.[22] Ex. G-26, G-28, G-30, G-32. The low methane reading at the #82 crosscut appears to indicate that more significant concentrations of methane in the #3 entry and rubble zone near the #83 and #84 crosscuts did not extend outby to the #82 crosscut. Moreover, the methane Hixon found was being moved in the proper direction, i.e., inby, into the #2 entry and toward BEP 30. Hixon confirmed that the air flow he observed was in the proper direction, and agreed that the air flow in the #3 entry and adjoining rubble zone would have been in the same direction, i.e., away from the face, inby toward the back corner. Tr. 797-98, 870-08, 813.

Thomas E. Light, Jr., MSHA's assistant district manager for District 2, had "no problem" with Hixon's issuance of the imminent danger order based upon the conditions in the #2 entry, because Hixon "made the determination that's where he needed to take a measurement to check the effectiveness of the system." Tr. 184. However, he noted that inspectors monitoring the system had to consider not only the concentration of methane and the fragility of the system, but how extensive the methane accumulation was and where it was located. Tr. 182-83. In Urosek's opinion, the methane found by Hixon extended to the face, because it was the outer fringes of a methane accumulation generated by the mining that had just occurred. Tr. 1147. However, he also noted that it was difficult to tell whether methane was coming from the cutting action at the face or from within the system. Tr. 1148.

Neither Light, nor Urosek, directly addressed the significance of the low methane reading at the #82 crosscut. Urosek acknowledged that in an effective system, air from the T-split traveling inby will dilute methane coming off the rubble zone as it enters the gob's primary internal air flow paths, the #3 and #2 entries on the tailgate side. Tr. 1232, 1245. He also acknowledged that there could be "high spots," methane concentrations of 5% or more, in "very

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[22] Crosscut #81, which was just inby the face, was also open. However, the surveys show that virtually all of the T-split air flows through that first crosscut into the #2 entry. Ex. G-26, G-28, G-30, G-32. That high volume flow from the face would not reflect methane accumulations in the gob.

small areas" of the #2 entry and the crosscuts between the #2 and #3 entries. Tr. 1228-30. A small pocket could exist, and the system could be "just fine." Tr. 1260. However, "if you find it too much or in too many places, it starts telling you that the system is not functioning correctly." Tr. 1260. Hixon agreed that high methane concentrations could be expected in air flowing from the #3 tailgate entry to the #2 entry. Tr. 776-77.

Kimutis and Bohach disagreed with Hixon's conclusions. Kimutis believed that Hixon was in the gob and that the methane he found did not extend to the face. The methane Hixon found in the #2 entry could not migrate to the face because the pressure differentials and air flows were into the #2 entry from the #3 entry and were also inby, away from the face toward the back corner and BEP 30. Tr. 1378. Bohach also noted that the pressure differentials and air flows were inby and from the #3 entry to the #2 entry, and that the methane was traveling inby and was being diluted exactly as it was "supposed to do." Tr. 1519-20, 1642.

I find that the conditions observed by Hixon on January 24 did not justify issuance of an imminent danger order. There was a pocket of methane in the #3 entry and adjacent rubble zone near the #83 and #84 crosscuts. However, it was not extensive, and did not appear to exist further outby to the #82 crosscut, or further inby to the #85 crosscut. It was being drawn up into the #2 entry, where it was immediately diluted to non-explosive levels. Methane concentrations of 5% or more existed only in portions of the intersections of the #83 and #84 crosscuts with the #2 entry. The methane was being further diluted as it traveled inby in the #2 entry, until it passed through BEP 30 into the travelable bleeder entry.

Limited areas of explosive concentrations of methane can be expected in such areas. Notably, air with a methane content at or above 5% was found flowing into the #2 entry from crosscut #83 during the January 25 survey. Ex. G-32. That apparently was not viewed as a remarkable situation, and it did not generate any enforcement action. Conrad, who assisted in taking the readings in the #2 tailgate entry during that survey, and who issued an imminent danger order and citation on February 14, testified that methane in concentrations at or above 5% could be expected in crosscuts like #83 in LW49 and other longwalls. Tr. 1031-32.

There were no precipitous increases in methane readings within the bleeder system as a whole. A chart of monitoring point methane readings for January 21-25, 2004, shows that methane concentrations in the bleeder system on January 24 were relatively stable and within allowable limits, information that Hixon should have been aware of. Ex. G-17. That chart shows that system-wide methane readings were decreasing at the time Hixon issued his order, with the exception of an increase at BEP 30, which would be consistent with a moderate concentration of methane, localized in the area of the #83 and #84 crosscuts, being diluted and moved out of the system.

Considering the location and limited extent of the methane accumulation, the absence of ignition sources in that area, the fact that the methane was being diluted and moved away from the face, and that there were no other indications of a build-up of methane within the bleeder

system, I cannot find that Hixon's determination that an imminent danger existed was reasonable. Moreover, Hixon testified that a "lot of [my] concern" was that the gob was not that large yet, and that continued mining would cause the pocket of methane to grow. Tr. 762-64, 814. This would not appear to be a relevant consideration for determining the existence of an imminent danger, or the effectiveness of the bleeder system on January 24.

As noted above, given the wide discretion accorded to an inspector's decision to issue an imminent danger order, this a difficult decision. However, I find that the Secretary has not carried her burden of proving that the decision to issue Order No. 7067355 was reasonable. She has not established that there was an imminent danger, as defined in Commission cases, and I find that issuance of the order, on the particular facts of this case, was an abuse of discretion.

Citation No. 7067356

For the reasons stated above, I find that the Secretary has failed to carry her burden of proof with respect to Citation No. 7067356, which alleged that the bleeder system was ineffective on January 24, in violation of 30 C.F.R. § 75.334(b)(1). It appears that the bleeder system was functioning effectively, and was diluting methane and rendering it harmless within the bleeder system's internal air flow paths. There was no significant system-wide build-up of methane levels within the bleeder system, and the methane content of air exiting the BEPs into the travelable bleeder entries was well below MSHA's operational limit of 4.5%.

Citation No. 7067000 and Order No. 7069999 – February 4, 2004; and
Citation No. 7067003 and Order No. 7067001 – February 7, 2004

Citation No. 7067000 and Order No. 7069999 were issued by Tolliver on February 4, 2004. The citation alleged that the LW49 bleeder system was ineffective, in violation of 30 C.F.R. § 75.334(b)(1). The violation was described in the "Condition or Practice" section of the citation as follows:

> The bleeder system for the active LW49 longwall section, MMU 0011, was determined to be ineffective in controlling the flow of air through the bleeder system to continuously dilute and move methane-air mixtures from the gob and away from the active workings. This was due to an adjustment to the ventilation controls in the No. 2 entry of the headgate side.

Stip. 46; ex. G-4.

Tolliver determined that it was reasonably likely that the violation would result in an injury that would require lost work days or restricted duty, that it was significant and substantial, that seven persons were affected, and that Cumberland's negligence was moderate. A penalty of $629.00 is proposed for this violation. The companion order contained similar language, but added that methane had been detected on the tailgate side, in the #2 entry, at the #85 crosscut at 4.8%. Stip. 44; ex. G-5.

Citation No. 7067003 and Order No. 7067001 were issued by Tolliver on February 7, 2004. The citation alleged that the LW49 bleeder system was ineffective, in violation of 30 C.F.R. § 75.334(b)(1). The violation was described in the "Condition or Practice" section of the order as follows:

> The bleeder system used in the No. 49 longwall panel failed to continuously dilute and move methane-air mixtures and dust from the worked-out area away from the active section. Methane was detected on the tailgate side, in the No. 2 entry, at the No. 85 crosscut at 5.0%.

Stip. 50; ex. G-6.

Tolliver determined that it was reasonably likely that the violation would result in an injury that would require lost work days or restricted duty, that it was significant and substantial, that seven persons were affected, and that Cumberland's negligence was moderate.[23] A penalty of $629.00 is proposed for this violation.

Tolliver, who had been an MSHA inspector for twelve years, was assigned to monitor LW49's bleeder system on January 31, 2004. Guley and another inspector advised him that there were instructions that a citation and imminent danger order were to be issued if methane in excess of the allowable limits was found at the monitoring/evaluation points specified in the January 21 ventilation plan. Tr. 829-34, 406. On February 4, he traveled the tailgate bleeder entry, entry #1, with union representative Mihalik and a Cumberland management representative. On the fourth monitoring pass, he detected 4.8% methane at the #85 crosscut monitoring point. After 15-20 seconds, he repeated the sampling and got the same result. The other members of the party had similar readings on their hand-held detectors.[24] Tr. 547-48, 943. He took two bottle samples, and issued the subject citation and imminent danger order.

He testified that he issued the order because of concern for the safety of miners. On the first three passes, methane readings had been "pretty steady." Tr. 852. The reading at crosscut #85 had been 3% at 12:37 p.m., but had increased to 4.8% at 1:25 p.m. He "knew something had happened," and was "afraid that gob air might be coming onto the longwall face." Tr. 851. John Dzurino, Cumberland's superintendent, confirmed that a ventilation curtain on the headgate side

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[23] Tolliver determined that the violations were S&S because of the potential for an explosion, and evaluated Cumberland's negligence as moderate because it was continuously monitoring the system, along with MSHA and union officials.

[24] Cumberland emphasizes that the bottle samples taken on February 4 showed methane concentrations below 4.5%, and that there were discrepancies of up to 0.4% in the readings of the other persons' hand-held monitors. I find those facts of little significance because everyone traveling with Tolliver had readings very close to his on both occasions, and Tolliver testified that there may have been some error in the collection of the bottle samples. Tr. 891, 915.

had been adjusted, which caused a temporary increase in methane flow into the #2 entry on the tailgate side, eventually reaching BEP 30. Tr. 1741-45. Dzurino did not regard that as an unusual occurrence. He testified that no additional actions were required to abate the citation and terminate the order, and that the same thing would have occurred with a bleeder fan system. Tr. 1741-45.

On February 7, Tolliver detected 5% methane at the #85 crosscut, a reading which was confirmed by a second measurement after 15-20 seconds, and by the hand-held detectors of those accompanying him. Tr. 871. He took bottle samples and issued the citation and imminent danger order. Bohach confirmed that ventilation curtains on the headgate side had been moved in order to achieve a better pressure balance. Tr. 1536. Those changes caused a temporary increase in air flow on the headgate side of the bleeder system that continued up the set-up ladder at the back of the panel to the tailgate side at crosscuts #86 and #87. Tolliver's evaluations of the danger and the effectiveness of the bleeder system on February 4 and 7 were virtually the same, i.e., he was concerned that explosive levels of methane might be coming out onto the face where a number of ignition sources were present.[25] He did not know, on either occasion, whether there were high methane concentrations in the face area. Tr. 882, 896, 908.

The parties' respective views on the significance of Tolliver's findings and the validity of these citations and orders closely parallel their respective positions with respect to Hixon's citation and order. Urosek believed that the instances of sudden methane build-ups detected by Tolliver on February 4 and 7, in conjunction with incidents at the headgate, showed that methane was "sitting in the internal air flow paths" of the gob, extending "all the way to the face." Tr. 1155-56.

Cumberland's witnesses, Kimutis, Bohach and Dzurino, reiterated that the #2 entry is part of the gob where high concentrations of methane are to be expected, that there are no ignition sources in that area, that there was no methane backed-up to the face because there were no high methane readings at the face, and the pressure differentials and air flows were away from the face toward the back of the gob. Tr. 1380-81, 1522-23, 1581-85, 1621-24, 1642-43, 1744-48.

The Imminent Danger Orders

As noted above, Commission precedent places considerable weight in the discretion of an inspector who issues an imminent danger order, because he must act quickly in what may, literally, be life and death situations. Cumberland suggests that the deferential standard should not apply to Tolliver's decisions, because he simply followed instructions and issued the orders solely on the basis of methane levels exceeding the limitations specified in the ventilation plan. However, as noted in the following discussion, I find that his determinations to issue the

[25] Tolliver initially cited the presence of sandstone as a potential source of sparks, but later conceded that he did not know whether sandstone was present in the face area. Tr. 861, 900, 916.

imminent danger orders were grounded more on his bona-fide concerns for, and evaluation of, the safety of miners, than on a mechanical application of instructions related by other inspectors. Consequently, they are entitled to the same degree of deference as that accorded similar decisions by inspectors in more typical situations.

Tolliver's safety concerns arose from a number of factors. He had made three monitoring passes on the morning of February 4, and found relatively steady methane concentrations at most of the monitoring points, with some increases at the #82 and #85 crosscut sampling points. Just before going to crosscut #85 for the fourth time, he found a significant increase in the methane concentration of air exiting the BEP 30 regulator.[26] Ex. G-34. Three minutes later, at 1:25 p.m., he reached crosscut #85, and found that the methane concentration of air flowing out of the sampling tube had risen from 3.0% at 12:37 p.m. to 4.8%, a reading that was confirmed by the others present. Tr. 847-48. He believed that when he "hit this spike here or this slug [of methane] at 85 crosscut, [he] knew that something had happened." Tr. 852. As he proceeded out of the mine, he took measurements at additional points and found that methane at the #82 crosscut sampling point had risen from 3.3% at 12:35 p.m. to 4.4% at 1:30 p.m., and the reading at the #73/74 monitoring point had increased from 1.8% at 12:20 p.m., to 2.1% at 1:40 p.m. Ex. G-18, G-34. The latter reading would have required shutting down production under the plan. Shortly after he issued the order, methane levels at all monitoring points declined to acceptable levels, and production resumed that evening. Ex. G-18.

On February 7, a similar pattern presented itself. Methane levels at the various monitoring points were relatively steady and within acceptable limits, with the exception of the #73/74 point, which was fluctuating in the 2% range and causing interruptions to production. Ex. G-20. Around 10:00 a.m., however, methane levels began to rise significantly. At 12:20 p.m., Tolliver measured methane at 5% at the #85 crosscut monitoring point, a substantial increase over the previous reading of under 3%, less than two hours earlier. Ex. G-20, G-35. Methane at the #82 crosscut monitoring point was over 4%, and the #73/74 point was well above 2%. Ex. G-20. Again, the rapid rise in methane concentrations caused him concern. He didn't have any idea what was going on. Tr. 881.

On both dates, there was a sudden and substantial rise in methane concentrations, not just at the #85 crosscut monitoring point, but virtually throughout the tailgate side of the bleeder system. Cumberland argues that Tolliver issued the orders and citations solely because of the readings at the #85 crosscut monitoring point. While he testified to that effect, Cumberland reads too much into his responses to specific leading questions on cross-examination. Tr. 891. I find that the better interpretation of his responses was that the crosscut #85 readings were the precipitating factors for issuance of the orders and citations. His testimony, as a whole, evidences that he was concerned as much about the sudden rise in methane readings within the system, and the absence of any immediate explanation for them, as he was about the crosscut #85

[26] In less than an hour, the concentration had changed from 2.0% to 3.0% methane. Ex. G-34.

readings themselves. He also considered the unfolding events with an understanding that the bleeder system was fragile. Tr. 868.

Cumberland argues that Tolliver did not determine whether there were excessive methane readings on the face, which was the focus of his concerns. However, as noted previously, the methane monitors on the face are positioned in the relatively high volume flow of face air, and will not detect buildups of methane immediately behind the shields, which might get swept out onto the face in explosive concentrations. Cumberland also notes that air flows and pressure differentials at BEP 30 were appropriate, and that the system was functioning as it was when the January 20 and January 25 ventilation surveys were performed. However, there were no sudden substantial, system-wide increases in methane concentrations on those occasions. In any event, an inspector would be obligated to issue an order if he found an imminent danger, regardless of the state of compliance with a ventilation plan.

I find that the Secretary has carried her burden of proof with respect to Order Nos. 706999 and 7067001. Tolliver did not act solely on the basis of a single excessive methane reading, either on February 4 or 7. He considered the presence of excessive methane and unexplained sudden rises in methane in the system as a whole, and reasonably determined that the conditions he encountered on February 4 and 7 presented imminent dangers to miners. He did not abuse his discretion in issuing the orders.

The Citations

For the reasons stated above, I find that the bleeder system was ineffective on February 4 and 7, as alleged in Citation Nos. 7067000 and 7067003. It was not effectively ventilating the area within the bleeder system and protecting the active workings from hazardous methane accumulations. I concur with Tolliver's assessment of the gravity of the violations and Cumberland's negligence. I also find, for the reasons stated with respect to Citation No. 7083200, that the violations were S&S.

Citation No. 7069907 and Order No. 7069906 – February 14, 2004

Citation No. 7069907 and Order No. 7069906 were issued by Conrad on February 14, 2004. The citation alleged that the LW49 bleeder system was ineffective, in violation of 30 C.F.R. § 75.334(b)(1). The violation was described in the "Condition or Practice" section of the citation as follows:

> Adjustments were being performed in the No. 2 entry inby the [headgate]. Management was attempting to relocate a regulator and installed a canvas check across the No. 2 entry just inby the No. 80 crosscut of the No. 2 entry and air was forced from the No. 2 entry over into the longwall gob and inadvertently flushed an excessive amount of methane gas back out into the No. 2 entry inby 80 crosscut which reported to the No. 31 bleeder evaluation point. Five point one

> percent of methane was detected at the No. 31 bleeder evaluation point with two different hand held methane detectors. The bleeder system was determined to be ineffective in controlling the flow of air to continuously dilute and render harmless methane gas away from the active workings. This was a contributing factor to the 107-(a) order. Therefore, there was no abatement time.

Stip. 57; ex. G-8.

Conrad determined that it was reasonably likely that the violation would result in an injury requiring lost work days or restricted duty, that it was significant and substantial, that five persons were affected, and that Cumberland's negligence was moderate. A penalty of $500.00 is proposed for this violation. The companion order contained similar language. Ex. G-9.

Conrad had inspected Cumberland's mine in the fall of 2003, when the entries for LW49 were being developed. He also participated in the January 25, 2004, ventilation survey. On February 14, he was monitoring the LW49 bleeder system's compliance with the January 21 ventilation plan. He had not been instructed to issue an imminent danger order and citation if he found non-compliance with the plan. Tr. 987, 1024, 1059. He traveled the walkable bleeder entries around the entire panel and, on the second pass, found 5% methane coming out of the regulator at BEP 31, located at the back, most inby, corner of the panel on the headgate side. He decided to issue an imminent danger order, collected a bottle sample, and proceeded toward the face to advise Cumberland officials. Tr. 993. The methane content of the air in the travelable bleeder outside of BEP 31 was less than 1%. Tr. 1039.

Conrad proceeded outby in the #3 headgate entry in an effort to find a management official to whom he could issue the order. Tr. 996-98. He traveled to crosscut #76 and asked a miner where the foreman was. He was told that the foreman was inby in the #2 entry, which surprised him because he thought everyone was working outby the face. Tr. 998-1000. As he passed through a canvass check curtain near crosscut #78, he saw the foreman, Matthew Boback, coming out. He did not encounter any excessive methane as he traveled the #3 and #2 entries. His methane detector was set to alarm at a methane concentration of 1%, and it did not do so as he looked for and found Boback. Tr. 1050. The longwall was not operating at the time, and there was no power on the face. Conrad verbally advised Boback that he was issuing an imminent danger order. Tr. 1003. Conrad had miners removed from the area and power removed from a load center near the #72 crosscut. He then went to the dinner hole with Boback and talked with him about what he had been doing.

Boback and a crew of miners had been moving a regulator in the #2 entry from just inby crosscut #78 to just inby crosscut #80. There were some concrete blocks that had been knocked out of a stopping in the #79 crosscut between the #1 and #2 entries, and the #80 crosscut between the #2 and #1 entries was open. Ex. G-36. A curtain had been erected in the #2 entry just inby crosscut #80, to serve as a temporary ventilation control while the regulator was being constructed. Tr. 1882. That curtain changed the pressure in the #2 entry, increasing it outby and decreasing it inby. The result was that more air passed into the #1 entry through the missing

blocks in the #79 crosscut stopping and the open #80 crosscut. It swept methane from the #1 entry into the #2 entry further inby. Boback had found 4.4% methane in the #2 entry between the #82 and #83 crosscuts, and became concerned. Tr. 1869, 1877. He instructed his men to remove the temporary curtain a little at a time, and the methane decreased and stabilized. Tr. 1869. He then proceeded outby, where he encountered Conrad. Tr. 1870.

After talking with Boback, Conrad believed that Boback may have already corrected the problem. He proceeded back to BEP-31, found that the methane levels had fallen to 2.3%, and terminated the citation and order. Tr. 1044.

Urosek testified that, in his opinion, Conrad's findings showed that there was a large accumulation of methane in the #1 entry, a primary internal gob air flow path on the headgate side, that extended from the back of the panel up to crosscut #80. Tr. 1159. That amount of methane would have been capable of generating a very large explosion that would have killed or seriously injured men working outby the face. Tr. 1160. He also interpreted a chart of methane readings at various monitoring points on February 14, as showing that a significant amount of methane had been put into the bleeder system about the time of Conrad's findings, and that only the detector at the #73/74 tailgate monitoring point showed it, because its reading went up to 2.2% or 2.3%. Tr. 1168-69; ex. G-21. He felt that the chart showed that the system was "barely effective." Tr. 1169. However, he then stated that it showed that the system was ineffective when there was more than 2% methane detected at the #73/74 monitoring point. Tr. 1170.

Bohach testified that, in his opinion, there should have been no imminent danger order issued, because there was no power on the face and no power or any other ignition source inby the face in the #2 and #3 headgate entries. Tr. 1551. The other evaluation points were within acceptable limits, and the BEP 31 reading was an isolated event, the cause of which had been corrected by the time Conrad found Boback. Tr. 1151. He agreed, however, that there was methane in an explosive concentration, that miners were working in the nearby area, and that they would have been affected if there had been an ignition. Tr. 1573.

The Imminent Danger Order

Conrad was very concerned when he found the high methane concentration at BEP 31. He had never found a high methane concentration at that location, and thought that something must have happened. Tr. 1001-02. He didn't know how far it extended up the #2 entry, and feared that it "might have been all the way back to the #75 crosscut," all the way to the face. Tr. 1000. He understood that there were men and equipment working outby the face, and he "wasn't taking any chances." Tr. 1024-25. He knew that there was power on the load centers, and he didn't know whether other equipment was operating with power in the area of concern. Tr. 1001. His decision to issue the order was made at the time he found the excessive methane at BEP 31. Tr. 995-96, 998-99. However, he was unable to issue the order until he encountered Boback near crosscut #78 in the #2 entry. He issued and implemented the order when he found Boback, and made sure that power to the load center was turned off and that men were removed

from the area before he sat down with Boback to discuss what had happened. Tr. 1004.

Conrad had decided that he was going to issue an imminent danger order when he found the excessive methane at BEP 31. That decision was reasonable. It was very unusual to find such a concentration at that location, and he legitimately feared that explosive methane may have extended outby in the #2 headgate entry to places where power was present and men were working. However, he could not issue the order at that time, because there was no management official present and no ready mechanism for communicating the order. By the time he found Boback, and actually issued the order, he had acquired additional important information. He knew that methane levels were below 1% in the #2 entry from the face inby to crosscut #78. Also reasonably available to him, within a matter of seconds, was information from Boback that methane in excessive concentrations had not been detected by Boback's methane detector, or the detector in the possession of a crew member, except for methane at 4.4% that had been found inby crosscut #82, and steps had been taken that reduced that concentration. Before actually issuing the order, Conrad knew or should have known that the methane he found at BEP 31 did not extend nearly as far as he had feared, and the potential ignition sources that he was concerned about were far removed from it. He, nevertheless, issued and enforced the order, and did not terminate it until he had returned to BEP 31 and found that the methane concentration had been reduced to an acceptable level.

The validity of the order must be determined as of the time it was verbally issued to Boback.[27] *See Wyoming Fuel Co.*, 14 FMSHRC at 1292 (appropriate focus is whether the inspector abused his discretion when he issued the imminent danger order). At that time, the facts known to Conrad or reasonably available to him, did not support the issuance of an imminent danger order. The explosive concentration of methane that he had detected at BEP 31 did not extend outby in the #2 headgate entry for any appreciable distance, and there were no ignition sources in the area. A methane concentration of 4.4% had been detected inby the #82 crosscut, but the temporary ventilation curtain had been adjusted and that concentration had been reduced. Any methane concentration of concern was confined to the most inby end of the #2 entry and was being drawn by the bleeder system through BEP 31 into the bleeder entry, where the concentration was below 1%. While Conrad's original decision regarding the an imminent danger order was reasonable, his decision to issue the order when he encountered Boback was not.

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[27] Cumberland also argues that the order is invalid because, by the time it was reduced to writing as required by the Act, any hazardous condition had ceased to exist. I reject that argument. While section 107(d) of the Act requires that imminent danger orders be reduced to writing, the legislative history of the Federal Coal Mine Health and Safety Act of 1969, the forerunner of the 1977 Act, makes clear that an inspector who finds an impending danger must eliminate miners' exposure to that danger "without waiting for any formal proceedings or notice." S. Rep. No. 91-411, at 89 (1969), *reprinted in* Senate Subcomm. on Labor, Comm. on Labor and Public Welfare, Part I, *Legislative History of the Federal Coal Mine Health and Safety Act of 1969*, at 215 (1975).

The Citation

Conrad was "pretty sure" that he was going to issue a citation for an ineffective bleeder system when he found the methane at BEP 31. Tr. 1006. He eventually decided to issue the citation because of the excessive methane that he found at BEP 31, and because he felt that a solid curtain should never have been put across the #2 entry forcing air out of the gob. Tr. 1011. The S&S finding was based upon the explosive concentration of methane, which presented a danger if it encountered an ignition source. Tr. 1012. He rated Cumberland's negligence as moderate because he didn't believe that Boback understood the effect that the temporary curtain would have on the rest of the system, and hadn't been told exactly, step-by-step, how to move the regulator. Tr. 1013, 1023.

I agree with Cumberland that the temporary elevation of methane concentration in the most inby portion of the #2 headgate entry was an isolated occurrence and did not demonstrate that the bleeder system was ineffective on February 14. The chart of methane measurements on February 14 shows that, with the exception of the #73/74 monitoring point, all of the other evaluation and monitoring points were operating well within allowable limits. Ex. G-21. Those readings evidence that there was no build-up of methane in the bleeder system, as there had been on February 4 and 7. I find unpersuasive Urosek's opinion that the relatively brief elevation of methane content to the 2.2% - 2.3% range at the #73/74 point showed that the system was ineffective. Methane concentrations had been running very close to the 2% limit at that monitoring point for the whole day, and had caused termination of mining activities for a considerable portion of the time. Ex. G-21. Methane at or above 2% at the #73/74 point had also caused cessation of mining on other days. Ex. G-17, G-20. The system was not determined to be ineffective on those occasions, and no enforcement action was taken with respect to them.

There obviously was some methane in and near the #1 entry on the headgate side and the adjoining rubble zone. However, high methane concentrations can be expected in those areas, and it does not appear that the methane was as wide-spread and prevalent as Urosek believed. If a large accumulation of methane existed from the back corner of the gob all the way to crosscut #80, it would seem that the air being forced into the #1 entry at crosscuts #79 and #80 would have produced high methane readings in the #2 entry beginning at crosscut #81. However, there is no evidence of high methane readings closer to the face than the 4.4% Boback found inby crosscut #82.

I find that the Secretary has failed to carry her burden of proof with respect to the violation alleged in Citation No. 7069907.

The Appropriate Civil Penalties

The parties stipulated that Cumberland is a large operator, and that the proposed penalties will not affect its ability to continue in business. A printout from an MSHA computer database shows that Cumberland had paid 234 violations, two of which were specially assessed, over the period January 13, 2002, to January 12, 2004. Ex. G-38. The gravity and negligence associated with the alleged violations are discussed above.

Citation No. 7083200 is affirmed in all respects. A civil penalty of $1,238.00 was proposed by the Secretary. I impose a penalty in the amount of $1,238.00 upon consideration of the above and the factors enumerated in section 110(i) of the Act.

Citation No. 7067000 is affirmed in all respects. A civil penalty of $629.00 was proposed by the Secretary. I impose a penalty in the amount of $629.00 upon consideration of the above and the factors enumerated in section 110(i) of the Act.

Citation No. 7067003 is affirmed in all respects. A civil penalty of $629.00 was proposed by the Secretary. I impose a penalty in the amount of $629.00 upon consideration of the above and the factors enumerated in section 110(i) of the Act.

ORDER

Citation Nos. 7067356 and 7069907, and Order Nos. 7067355 and 7069906, are **VACATED**. Citation Nos. 7083200, 7067000 and 7067003, and Order Nos. 7069999 and 7067001, are **AFFIRMED** in all respects. Respondent is directed to pay a civil penalty of $2,496.00 within 45 days.

Michael E. Zielinski
Administrative Law Judge

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