FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION
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February 12, 2010

OAK GROVE RESOURCES, LLC,	:	CONTEST PROCEEDING
Contestant	:	
	:	Docket No. SE 2010-350-R
	:	Order No. 6698830; 01/06/2010
v.	:	
	:	
SECRETARY OF LABOR,	:	
MINE SAFETY AND HEALTH	:	Oak Grove Mine
ADMINISTRATION, (MSHA),	:	Mine ID 01-00851
Respondent	:	

DECISION

Appearances: Jennifer D. Booth, Esq., Thomas A. Grooms, Esq., Office of the Solicitor, U.S. Department of Labor, Nashville, Tennessee, on behalf of the Secretary of Labor; Laura E. Beverage, Esq., Arthur M. Wolfson, Esq., Jackson Kelly, PLLC, Denver, Colorado, on behalf of Oak Grove Resources, LLC.

Before: Judge Zielinski

This case is before me on a Notice of Contest filed by Oak Grove Resources, LLC, pursuant to section 105 of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 815. Oak Grove contests the Secretary's issuance and refusal to terminate Order No. 6698830, issued pursuant to section 104(d)(2) of the Act, which curtailed mining on its 11-East longwall panel. Oak Grove's motion for an expedited hearing was granted, and a hearing was held in Birmingham, Alabama on January 26, 27 and 28, 2010. At the conclusion of the hearing, the parties made oral arguments, and a decision was rendered from the bench. This decision memorializes the bench decision issued on January 28, 2010. For the reasons stated in the bench decision, as further explained below, Order No. 6698830 is affirmed and the Secretary's refusal to abate the violation and terminate the order is found not to be arbitrary and capricious. Consequently, the Notice of Contest is dismissed.

Findings of Fact - Conclusions of Law

Oak Grove Resources operates the Oak Grove Mine, an underground coal mine, in Jefferson County, Alabama. A substantial amount of its coal production is obtained through operation of longwall mining equipment, and it has mined a number of longwall panels on the East section of the mine, served by the Main East Bleeder system. The panel currently being mined is designated "11 East LW38" ("11-East"), which is the north-most of a series of panels mined in that section. The panel runs in an east-west direction. Mining commenced at the east

end on March 2, 2009, and had proceeded west approximately 6,000 feet. The mined-out area of the 11-East panel, the "gob," is ventilated by the Main East Bleeder system, the primary component of which is the No. 6 Fan, located off the northeast corner of the panel. That centrifugal exhaust fan also provides ventilation for fourteen or more other mined-out longwall panels through lengthy bleeder entries that run from the end of the track entry, to the east and north behind (east) of the old panels. The bleeder system is depicted in a number of exhibits, noteably, Government Exhibit No. 35. The bleeder entry is accessed from the track entry. Because of its low height, it must be traversed largely by "duckwalking." It takes almost a whole shift to traverse the south side of the bleeder entry from the end of the track to Measuring Point Location ("MPL") No. 781, a bleeder examination point near the southeast corner of the 11-East panel. Prior to January 6, 2010, persons traveling in the bleeder entry had no ability to communicate with the surface or miners in other locations of the mine.

Mined-out areas, like the 11-East gob, continue to generate methane, and must be ventilated "so that methane-air mixtures and other gases, dusts, and fumes from throughout the worked-out areas are continuously diluted and routed into a return air course or to the surface of the mine." 30 C.F.R. § 75.334(a)(1). The ventilation system for mined-out areas must be examined at least every seven days. 30 C.F.R. § 75.364(a). Part of the weekly examination must include:

> At least one entry of each set of bleeder entries used as part of a bleeder system under § 75.334 shall be traveled in its entirety. Measurements of methane and oxygen concentrations and air quantities and a test to determine if air is moving in the proper direction shall be made at the measurement point locations specified in the mine ventilation plan to determine the effectiveness of the bleeder system.

30 C.F.R. § 75.364(a)(2)(iii).

> If the bleeder system used does not continuously dilute and move methane-air mixtures and other gases, dusts, and fumes away from worked-out areas into a return air course or to the surface of the mine, or it cannot be determined by examinations under § 75.364 that the bleeder system is working effectively, the worked-out area shall be sealed.

30 C.F.R. § 75.334(d).

Oak Grove had positioned air-powered pumps in the bleeder entries to control water accumulations. It began to experience problems with the pumps around mid-December, 2009. By the end of the month, the problems had grown, and there were significant accumulations of water in low spots of the bleeder entries.[1] On or about January 1, it initiated efforts to drill bore

[1] Oak Grove's efforts to repair and replace pumps were stymied for three to four days by an order issued by MSHA barring access to the area. The order related to dangerous

holes down to the bleeder entries near the rear of the 11-East panel to provide electrical power for more powerful electric pumps, communication lines, and additional compressed air capacity.

On January 5, Edward Boylen, an MSHA inspector with considerable mining experience involving design, set-up and operation of longwall mining systems, commenced a regular inspection of the Oak Grove mine. He met with mine officials, reviewed records, and became aware that there had been roof falls in the bleeder entries on the headgate side of the 11-East panel and water accumulations in the bleeder system. He decided to travel to the longwall and conduct a spot inspection, but did not complete it.[2] When he exited the mine, he examined charts of pressure measurements at the No. 6 exhaust fan, and found that the pressure differential had almost doubled since December 15, 2009, indicating that there were significant restrictions in the bleeder system flow. That same day, members of the United Mine Workers of America, the union representing miners at Oak Grove, met with MSHA officials and expressed concerns about the safety of miners who were involved in efforts to pump water from the bleeder system.[3]

MSHA determined to inspect the mine the following day.[4] On the morning of January 6, 2010, Boylen and Jacky Shubert, an MSHA field office supervisor, arrived at the mine to conduct an inspection of the bleeder system. They met with Oak Grove officials and examined records of weekly bleeder examinations and noted that a complete inspection had last been accomplished on December 14, 2009. Ex. G-9. The record reflected that the mine had been idle on December 21, that on December 29 and January 4 two MPLs on the headgate side of the 11-East panel could not be examined because the entries were impassible due to a roof fall, and that no measurements had been taken at nine other MPLs established in Oak Grove's approved ventilation plan. Oak Grove managers readily acknowledged that 11 MPLs were not being

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atmospheres behind some seals located several miles from the 11-East panel.

[2] The Oak Grove mine liberated in excess of one million cubic feet of methane in a 24-hour period, and was subject to spot inspections by MSHA pursuant to section 103(i) of the Act. 30 USC § 813(i).

[3] Oak Grove officials also met with MSHA on January 5, on a variety of topics. The meeting was not related to the UMWA's meeting, and Oak Grove officials were unaware of the other meeting.

[4] MSHA was very concerned about information related by the Union members about conditions in the bleeder entries. MSHA phoned Oak Grove and advised, in essence, that the longwall should not be in production. Oak Grove called back later, questioning MSHA's authority to impose such a condition in the absence of any official enforcement action. Joseph O'Donnell, Jr., assistant district manager for MSHA's District 11, then advised Oak Grove to "forget" the earlier call, and that MSHA would see them in the morning.

visited during the weekly examinations.[5]

Shubert and Boylen traveled to the South end of the Main East Bleeder system, and began to walk up the bleeder entry. They encountered accumulations of water in five locations that they determined presented unsafe travel conditions, including water at MPL 476 that was waist to chest deep for a distance as far as a cap light would shine, and water had accumulated to the roof of the entry inby MPL 483. They decided not to attempt to proceed further. They exited the bleeder entries some 12 hours after they had entered, and Boylen issued two orders pursuant to section 104(d)(2) of the Act.[6]

Order No. 6698829 alleged a violation of 30 C.F.R. § 75.370(a)(1), which requires that operators develop and follow a ventilation plan approved by the MSHA district manager. Ex. G-1. Oak Grove's approved ventilation plan required that bleeder entries be maintained with additional roof support and that water be pumped to maintain free air flow and safe travel. Ex. G-7. Oak Grove had clearly failed to comply with its ventilation plan. Water accumulated in the bleeder entries had rendered them unsafe for travel, and impassible. Moreover, the conditions had existed at least since December 29, when the MPLs could not be examined. The order barred entry beyond the first-identified hazardous water accumulation until the entry had been pumped and was safe for travel. Ex. G-1. The order was modified on January 8 to allow

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[5] Boylen also determined that Oak Grove was not conducting proper preshift examinations of the area where miners were working on pumps in the bleeder system. Because it took about six hours to reach the work area and men in the bleeder entries had no means of communication, miners were simply following examiners into the bleeder entries. Normal preshift examinations, required to be conducted within three hours of a scheduled shift were not conducted for the bleeder work.

[6] Section 104(d)(2) of the Act provides:

> (2) If a withdrawal order with respect to any area in a coal or other mine has been issued pursuant to paragraph (1), a withdrawal order shall promptly be issued by an authorized representative of the Secretary who finds upon any subsequent inspection the existence in such mine of violations similar to those that resulted in the issuance of the withdrawal order under paragraph (1) until such time as an inspection of such mine discloses no similar violations. Following an inspection of such mine which discloses no similar violations, the provisions of paragraph (1) shall again be applicable to that mine.

The underlying section 104(d)(1) withdrawal order had been issued on October 21, 2003, and Oak Grove had not experienced a "clean" inspection since that date. Consequently, it remained on the section 104(d)(2) "chain." Ex. G-5, G-6.

certified persons, accompanied by a limited number of miners, to travel further inby, to an electric pump station to move and maintain pumps that were beginning to run "dry," possibly creating a further hazard.[7]

The second order, Order No. 6698830, alleged a violation of 30 C.F.R. § 75.334(d), which requires that a worked-out area be sealed if its bleeder system does not continuously dilute and move methane-air mixtures and other noxious gases out of the mine, or if it cannot be determined from the required weekly examinations that the bleeder system is working effectively.

The violation was described in the "Condition and Practice" section of the Order as follows:[8]

> The mine operator is not maintaining the Main East Bleeder system. There are eleven MPL evaluation stations that are not being examined by certified officials. Water was allowed to roof inby MPL 483. Thus the bleeder system was not inspected to determine its effectiveness in diluting and removing methane-air mixtures and other gases. This bleeder area has existed for at least 10 shifts and the longwall had continued operating under normal production. Located on the headgate side of the operating longwall there are roof falls in the No. 1 and No. 2 entries preventing passage for bleeder inspection to the No. 6 Exhaust Fan. The air returning off the tailgate of the operating longwall was not being monitored, due to the fact that the 11 MPLs were not being checked. Upon inspection of the mine fan charts for the No. 6 exhaust fan, it was revealed that the water gauge, in a two-week period, went from a reading of 15 to a reading of 31. A 75.364(a)(2)(iii) citation was written on 12/30/2009 because the bleeder could not be made in its entirety. The mine operator has engaged in more than ordinary negligence by allowing the bleeder to remain unexamined, while the longwall was in normal production mode. This violation is an unwarrantable failure to comply with a mandatory standard.

Ex. G-2.

The orders required idling of the longwall. On January 8, 2010, Oak Grove filed notices of contest of the orders with the Commission, along with a motion for an expedited hearing.

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[7] Order No. 6698829 was terminated on January 15, because the water in the cited areas had been pumped down. Because that order had been terminated, Oak Grove's contest action involving it was not made a subject of the expedited hearing.

[8] Grammar and spelling errors have been corrected in quotations from documents prepared in the field.

The weekly examination regulation, section 75.364, provides that: "In lieu of the requirements of section 364(a)(2)(i) and (iii) of this section, an alternative method of evaluation may be specified in the ventilation plan provided the alternative method results in proper evaluation of the effectiveness of the bleeder system." 30 C.F.R. § 75.364(a)(2)(iv). Oak Grove officials met with MSHA on January 8, following which, Paul Hafera, the General Manager, faxed a letter requesting additional access to the bleeder entries to maintain conditions and pump water. Ex. G-22. MSHA erroneously construed the letter as a request to amend the ventilation plan to address bleeder evaluation, denied the request and specified information that would be required for review of such a plan. Ex. G-23. The following day, Saturday, Oak Grove faxed a letter in response to MSHA's reply. Ex. G-24. It proposed establishment of temporary bleeder evaluation points, to be examined daily, as substitutes for the MPLs that could not be accessed, and suggested an alternative bleeder evaluation plan. Two temporary evaluation points, BE 1 (T) and BE 2 (T) would be established in the No. 1 and No. 2 headgate entries, outby the roof fall. They would approximate the conditions at the two inaccessible headgate MPLs, Nos. 550 and 551, as depicted on a map submitted with the letter. Ex. G-24A. Because MPL 483 and those further inby were not accessible, it was proposed that MPLs 439, 440 and 441, be designated temporary evaluation points, which would show conditions in the south side of the bleeder up to that location, i.e., behind the old 9-East panel. Another temporary evaluation point, BE 6 (T), would be established at the No. 6 Fan. Oak Grove represented that "the air quantity difference between that temporary BE points and the fan measuring point will be significant and will be the sum of the air that is passing through old 9 East, Old 10 East, New 10 East and the longwall gobs of 10 East and the active 11 East." Ex. G-24.

Oak Grove stated that the plan was "being submitted in order to terminate order # 66988[30] which alleges Oak Grove has violated 30CFR75.334(d)." Ex. G-24. This approach later became known as the "subtraction" method for evaluating the effectiveness of the bleeder system. The quantity and quality of air entering the bleeder system at known points, would be subtracted from the amount leaving the system through the No. 6 Fan, and it was assumed that the remainder was exiting the 11-East tailgate entries.

MSHA responded on January 11, the following Monday, denying approval of the plan, and specifying nine "issues and/or items of concern" that Oak Grove had to address, including "the means by which the air quality in the untravelable areas will be determined." Ex. G-25. It also noted that MSHA's understanding was that the plan supplement had been submitted to allow temporary evaluations until the bleeder entries could be traveled in their entirety, not to allow resumption of longwall mining.

Oak Grove responded by letter dated January 13, with an attached map depicting temporary bleeder evaluation points, MPLs and other information, and clarifying that it was intended to secure termination of the section 334(d) Order so that mining could be resumed. Ex. G-26. Also clarified was Oak Grove's proposed "subtraction" method to evaluate the effectiveness of the bleeder system. It proposed to determine the quantity of air passing through the three MPLs at the back of the tailgate entries of the 11-East panel, MPLs 556, 557 and 569, by subtracting from the quantity measured at the No. 6 Fan, the quantities measured in the No. 1

and No. 2 headgate entries, BE 1 (T) and BE 2 (T) (approximating readings at MPLs 550 and 551), and the quantity measured at the then-accessible MPL 483 (approximating the reading at MPL 581).

The MSHA district office obtained input from MSHA's technical support and certification center prior to preparing a response. Thomas Morley, an MSHA engineer and ventilation expert, reviewed the Oak Grove proposal and advised the district office by e-mail. Morley also testified at the hearing. Morley expressed concern about the assumptions underlying the "subtraction" alternative and the reliability of the results. His e-mail read, in part:

> The proposed method of substitution reading where the 11 East Headgate and Bleeder 483 quantities are subtracted from the total at the fan does not account for air flow in the headgate of the 10 East panel.
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> The proposed method of substitution reading does not account for air that may be traveling the setup entries of previous panels.
>
> The quantity of air shown 4 crosscuts in by the face in the tailgate is 5,593 cfm [cubic feet per minute]. The total quantity at the fan and in the bleeder is so much larger than the amount of air in the tailgate that a determination of quantity or quality can not be reliably made for air exiting the active tailgate by substitution.

Ex. G-38.

MSHA responded to Oak Grove's January 13 submittal by letter dated January 15, denying approval of the plan amendments. Ex. G-27. It viewed Oak Grove's proposal as an alternative method of evaluating the effectiveness of the bleeder system under section 75.364(a)(2)(iv), and determined that it did not adequately provide for proper evaluation of the bleeder system. The letter made clear that MSHA's position was that:

> Any plan submitted for approval of an alternative method for evaluating the effectiveness of the bleeder system must provide no less than the same information as would be gathered during normal weekly examinations. This information includes measurements of methane and oxygen concentrations and tests to determine that air is moving in the proper direction. Of prime concern is the air quantity and quality, particularly methane concentrations, on the tailgate end of the 11-East longwall panel at the back end. An alternative plan for evaluating the effectiveness of the East Bleeder System must specify how air quality will be determined in the areas that cannot be traveled, particularly where air would normally be exiting the gob on the tailgate end. In addition, the adequacy of the plan submitted January 14, 20[10], cannot be evaluated because air entering and/or exiting the "Old" 10-East entries outby the "Old" 10-East Longwall face, including the establishment of evaluation points in this area, is not specified in the submitted plan. The air entering/exiting this area directly impacts

> the East Bleeder System and the ability to make a proper evaluation of its effectiveness.

Ex. G-27.

Specific concerns were identified at page 2 of the letter, including the following points:

> Air quantities across the old longwall start-lines, particularly the 10-East and 11-East panels, are not accounted for in the proposed calculation. In order for an adequate review of any such plan to be conducted, the plan must include all air quantities entering and leaving the East Bleeder System so that it may be possible to calculate such air quantities. Such air quantities must be shown on the map and, if calculated, must include the method of calculation.
>
> The total air quantity at the fan and in the bleeder entries is so much greater than the quantity shown inby the longwall face on the tailgate end (5,593 cfm) that a calculated determination of air quantity and quality exiting the worked-out area on the tailgate end at the back may not be reliable.
>
> The low air quantity just inby the longwall face on the tailgate end (5,593 cfm) is very low and does not ensure adequate ventilation of the worked-out area. This is particularly significant since the air quality cannot be measured directly.

Ex. G-27.

Further correspondence was exchanged. Oak Grove forwarded a letter dated January 18, 2010, to which MSHA responded on January 20, advising that, in its opinion, the supplement provided no additional information. Ex. G-28, G-29. Oak Grove sought to move the longwall shearer back to the headgate, a request that was also denied. Ex. G-30, G-32. Oak Grove further clarified its proposal by letter dated January 21, 2010, which MSHA denied on January 22, partially on the understanding that a new proposal would be forthcoming following a meeting that day. Ex. G-31, G-33. Oak Grove's final proposal, prior to the hearing, was a January 23, letter, with attached mine map, showing air readings and calculations. Ex. G-34, G-34A. Pumping had progressed to the point that MPL 581 was accessible, and Oak Grove proposed to use readings from that evaluation point to calculate, or approximate, the quantity of air exiting the tailgate entries at the back end of the 11-East panel. Noteably, approximate locations where water remained roofed were highlighted in blue, and it was represented that, "Airflow is passing by and through these areas and being accounted for." Ex. G-34 at 2.

MSHA did not respond to the January 23 letter. That letter, and the attached map, were the subjects of considerable testimony at the hearing, which commenced on January 26, 2010. At that time Order No. 6698830 remained in effect, barring production on the active longwall panel.

The Issues

There are two primary issues, resolution of either of which in Oak Grove's favor, would remove the bar to production. The first is the validity of the Order. If the Order is found to be valid, the second issue is the reasonableness of the conditions set for abatement of the violation, specifically, the validity of MSHA's disapprovals of Oak Grove's proposed amendments to its ventilation plan, that would have established an alternative method for evaluation of the bleeder system.

The Order

The order was clearly valid. Section 75.364(a)(2)(iii) requires that bleeder system entries be examined weekly, and that air quality and quantity be measured at evaluation points specified in the operator's approved ventilation plan. Section 75.334(d) provides that, if the effectiveness of the bleeder system cannot be ascertained by the weekly examinations, the worked-out area must be sealed. Oak Grove was well aware that it had not conducted a proper weekly examination of the bleeder system since December 14, over three weeks prior to January 6, 2010. During the weekly examinations on December 29 and January 4, eleven MPLs specified in the ventilation plan for evaluation of the bleeder system serving the 11-East panel had not been examined, and no measurements had been taken.

Records of pressures at the No. 6 Fan indicated that significant changes were occurring in the bleeder system. The pressure differential at the fan increased by 50% from December 15 to January 2, indicating that there was significant additional resistence to air flow in the system.[9] Nevertheless, Oak Grove operated the longwall on January 4, 5 and 6, and it made no apparent effort to propose an alternative method of evaluating the bleeder system until after the order had been issued. Ex. G-19.

The cited regulation was violated. The violation was extensive, open, obvious, and was known to the operator.[10] High level officials of Oak Grove, including the General Mine

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[9] The pressure differential at the fan, essentially the vacuum created by the exhaust fan, was recorded in inches of water, referred to as the "water gauge," or "W.G." Prior to December 15 the W.G. was averaging about 20 inches. It rose steadily, to a level above 30, by January 2. Ex. G-19.

[10] The Order was issued pursuant to section 104(d)(2) of the Act, and alleged that the operator's negligence was high, and that the violation was a result of the Oak Grove's unwarrantable failure to comply with the standard. The unwarrantable failure terminology is taken from section 104(d) of the Act, 30 U.S.C. § 814(d), and refers to more serious conduct by an operator in connection with a violation. In *Emery Mining Corp.*, 9 FMSHRC 1997 (Dec. 1987), the Commission determined that unwarrantable failure is aggravated conduct constituting more than ordinary negligence. *Id*. at 2001. Unwarrantable failure is characterized

Foreman, had signed off on reports of incomplete examinations recorded in the weekly examination book. Oak Grove management officials candidly told Shubert and Boylen, on January 6, that the MPLs were not being examined due to roof falls and water accumulations. Tr. I-100.[11] The violation was of high gravity. Operation of the longwall with an ineffective bleeder system, or a bleeder system whose effectiveness could not be determined, posed a serious risk of a serious injuries to miners.[12] Resistence to air flow through the bleeder system had increased by 50% over the past three weeks, indicating significant changes in the bleeder system. The mine liberates substantial amounts of methane. Methane could have been accumulating in the gob, backing up along the tailgate entry. Roof falls in the gob could push explosive concentrations of methane onto the longwall face, where there were numerous ignition sources. The significant possibility of an ignition was not obviated by safety devices on the face equipment.

Oak Grove points to the fact that another MSHA inspector issued a less serious section 104(a) citation on December 30, 2009, because the bleeder entries were not travelable. Ex. C-1. The original time allowed for abatement of that citation, December 31, was extended on January

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by such conduct as "reckless disregard," "intentional misconduct," "indifference," or a "serious lack of reasonable care." *Id*. at 2003-04; *Rochester & Pittsburgh Coal Co.*, 13 FMSHRC 189, 194 (Feb. 1991) (“*R&P*”); *see also Buck Creek* [*Coal, Inc. v. FMSHRC*, 52 F.3d 133, 136 (7th Cir. 1995)] (approving Commission's unwarrantable failure test). Aggravating factors include the length of time that the violation has existed, the extent of the violative condition, whether the operator has been placed on notice that greater efforts are necessary for compliance, the operator’s efforts in abating the violative condition, whether the violation is obvious or poses a high degree of danger, and the operator’s knowledge of the existence of the violation. Because supervisors are held to a high standard of care, another important factor supporting an unwarrantable failure determination is the involvement of a supervisor in the violation. *REB Enters., Inc.*, 20 FMSHRC 203, 225 (Mar. 1998). *Lopke Quarries, Inc.*, 23 FMSHRC 705, 711 (July 2001).

[11] The hearing transcript consists of three separately numbered volumes. The volume associated with the first day of the hearing is identified as “Tr. I-x,” day two “Tr. II-x” and day three “TR.-III-x.”

[12] The Order alleges that the violation was significant and substantial (“S&S”). An 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 Mathies Coal Co.*, 6 FMSHRC 1, 3-4 (Jan. 1984) (footnote omitted); *see also, Buck Creek Coal, Inc. v. MSHA*, 52 F.3d 133, 135 (7th Cir. 1999); *Austin Power, Inc. v. Secretary of Labor*, 861 F.2d 99, 103-04 (5th Cir. 1988), *aff'g Austin Power, Inc.*, 9 FMSHRC 2015, 2021 (Dec. 1987) (approving *Mathies* criteria). *U.S. Steel Mining Co., Inc.*, 7 FMSHRC 1125, 1129 (Aug. 1985).

14 to January 29, 2010. This was somewhat of a mixed signal from MSHA. However, the longwall was not operating on December 30 or after January 6, which could explain the abatement period determinations. The issuance of the citation, and the abatement period, do not excuse Oak Grove's conduct. It knew that no weekly examination of the bleeder entries had been done since December 14, and that conditions had deteriorated since that time, such that a considerable portion of the south bleeder entries, as well as critical portions of the 11-East headgate entries, were inaccessible. Yet it resumed production on the longwall. The longwall was operated on January 4 (2 shifts), January 5 (2 shifts), and January 6 (1 shift). Ex. G-10.

I find that Order No. 6698830, which was issued as an S&S violation pursuant to section 104(d)(2) of the Act based upon Oak Grove's unwarrantable failure to comply with a mandatory standard, was valid in all respects, and reject Oak Grove's contest of the Order.

Abatement

MSHA's refusal to abate the order, by approving Oak Grove's proposed amendments to its ventilation plan presented, in essence, a plan dispute. The law applicable to plan disputes is well-settled. Both MSHA and the operator must negotiate in good faith, stating their positions on the issues and explaining them. If the parties have fulfilled their obligations to negotiate, then it must be determined whether MSHA's rejection of plan provisions proposed by the operator was arbitrary and capricious.[13]

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[13] The law applicable to plan disputes was recently explained by the Commission in

> One of the cornerstone principles with regard to plan formulation under the Mine Act is that MSHA and the affected operator must negotiate in good faith for a reasonable period concerning a disputed plan provision. *Carbon County Coal Co.*, 7 FMSHRC 1367, 1371 (Sept. 1985). The Commission has noted, "Two key elements of good faith consultation are giving notice of a party's position and adequate discussion of disputed provisions." *C.W. Mining Co.*, 18 FMSHRC 1740, 1747 (Oct. 1996).
>
> While the contents of a plan are based on consultations between the Secretary and the operators, the Commission has recognized that "the Secretary is [not] in the same position as a private party conducting arm's length negotiations in a free market." Id. at 1746. As one court has noted, "the Secretary must independently exercise [her] judgment with respect to the content of … plans in connection with [her] final approval of the plan." *UMWA v. Dole*, 870 F.2d 662, 669 n.10 (D.C. Cir. 1989), *quoting* S. Rep. No. 181, 95th Cong., 25 (1977), reprinted in Senate Subcom. on Labor, Com. on Human Res., 95th Cong., Legislative History of the Federal Mine Safety and Health Act of 1977, at 613 (1978). Ultimately, the plan approval process involves an element of judgment on the Secretary's part. *Peabody Coal Co.*, 18 FMSHRC 686, 692 (May 1996)

Here, both parties engaged in rapid-fire exchanges of correspondence, and fulfilled their obligations to negotiate in good faith over the disputed plan provisions. Consequently, the issue to be decided is whether MSHA's disapproval of the proposed amendments was arbitrary and capricious. I conclude that it was not.

While it presented Oak Grove with a series of "concerns" that it wanted addressed to evaluate plan submittals, MSHA had made clear that its primary focus was assuring reliable measurement, or calculation, of the air exiting the tailgate side of the 11-East panel at the back of the gob. Ex. G-27. The MPLs that were intended to provide that information were Nos. 556, 557 and 569, at which were measured the quality and quantity of air exiting the No. 1, 2 and 3 tailgate entries. They are highlighted in yellow on Government exhibit 34A. MSHA had also made clear that it did not believe that Oak Grove's subtraction method accounted for all air entering and exiting the bleeder system, particularly air entering from the 10-East headgate and set up entries. Ex. G-27.

MSHA's point was well-taken. As is evident on Government exhibit 34A, there are two passages from the No. 1 headgate entry of the 10-East panel to the bleeder entries behind the 11-East panel. They are circled in orange on the exhibit, and labeled "cut thru." The east cut-through has an air lock that prevents passage of air from the 10-East panel. However, the west cut-through is open and, in fact, is the passage for air from the south bleeder, which has passed through MPL 581, into the bleeder entry behind the 11-East panel. Air traveling inby in the 10-East headgate entries and entering the bleeder entries through the cut-through would not have passed through MPL 581, and would not have been accounted for in Oak Grove's subtraction method.

MSHA's concern was that such air was entering the system, and it had serious reservations about the proposed subtraction method. As depicted on Government exhibit 34A, Oak Grove's example of readings on January 22, showed that 230,000 cfm of air was exiting the system at the No. 6 fan. The quantity of air entering the system from the 11-East headgate entries (BE 1 (T) and BE 2 (T), approximating the flow in MPLs 550 and 551), was 29,472 cfm. The quantity of air entering the bleeder from the south, as measured at MPL 581, was 178,320 cfm. That left a balance of 22,253 cfm that Oak Grove attributed to flow from the tailgate side of the 11-East panel.

("Peabody II"). "[A]bsent bad faith or arbitrary action, the Secretary retains the discretion to insist upon the inclusion of specific provisions as a condition of the plan's approval." *C.W. Mining*, 18 FMSHRC at 1746; see also *Monterey Coal Co.*, 5 FMSHRC 1010, 1019 (June 1983) (withdrawal of approval of water impoundment plan was not arbitrary or capricious where MSHA's conduct throughout the process was reasonable).

However, as the exhibit shows, there was also a total of 24,000 cfm flowing inby in the No. 1 and No. 2 heagate entries of the 10-East panel. It appears that that air could flow inby and enter the bleeder system through the cut-through.[14] If the 24,000 cfm entering the 10-East headgate entries was entering the bleeder through the cut-through, without passing through MPL 581, then it also needed to be subtracted from the total exiting the system to approximate the flow from the 11-East tailgate area. The result, a negative 1,747 cfm, would indicate that air was flowing outby in the 11-East tailgate, i.e., backing up methane in the gob toward the face.

Oak Grove's Safety Manager, Timothy Thompson, and General Manager testified at the hearing that, in their opinion, the air from the 10-East headgate was not able to flow through the cut-through, but, rather, was flowing into the bleeder entries upstream, i.e., south, of MPL 581. As such, it would have formed a portion of the flow at MPL 581, and would have been accounted for in the proposed subtraction evaluation method. While Oak Grove maintained in its letter that air from the 10-East panel was accounted for, it did not explain its theory of flow in its correspondence with MSHA. Thompson did not believe that the theory had been advanced to MSHA. Tr. III-158. Morley, MSHA's ventilation expert, did not believe that it was likely that the 10-East headgate air was flowing into the bleeder upstream of MPL 581, because stoppings along the entries would have required that it flow down through the gob into the tailgate entries. Tr. II-194-96.

Possible errors in flow measurements were also a concern to MSHA, as expressed in its January 15 letter. Flow volume at the No. 6 Fan, the air exiting the system, was determined by one of two methods. Oak Grove's January 23 submission proposed measurement of the No. 6 Fan volume by reference to performance specifications published by the fan manufacturer. A chart entitled "typical performance curve" ("fan curve") for the centrifugal exhaust No. 6 Fan displays volume of flow through the fan as functions of the pressure differential across the fan, measured in inches of water, i.e., "water gauge" or "W.G.," and the angle setting of the fan louvers. Ex. G-20. With the fan louvers at 90 degrees, i.e., fully open, and a water gauge reading of 30 inches, the chart yields a flow volume of 220,000 cfm.

A second method involves use of a Pitot tube, a device that measures the pressures generated by flowing air, and consists of two concentric tubes bent in an "L" shape. The open end of the inner tube, which is pointed into the air flow, measures the total pressure within the stream, including that generated by the air velocity. Holes in the sides of the outer tube, transverse to the air flow, measure the "static" pressure, i.e., the pressure without the velocity component. The volume of flow can then be calculated based upon the two readings and other available information, such as the density of the air and the area of the discharge ducts. The

[14] Oak Grove believed that the No. 1 headgate entry had been roofed with water, as shown on the map. The No. 2 entry, which was not completely separated from the No. 1 entry, extended to the area of the cut-through, and there were several areas where falls had occurred in that vicinity. Oak Grove had represented in its January 23 letter that air was flowing by and through the areas that were roofed with water.

Pitot tube method is regarded as a more accurate means of determining flow velocity and volume.
Tr. II-207.

Flow volume in the bleeder entries was determined by measuring the velocity of air flow at various points in the entry, and multiplying the velocity by the area of the entry opening. Air velocity was measured with an anemometer, a small fan that is rotated by the air current. It is held in the mine airway for a specified time, while being moved steadily over the entire area of the entry. The velocity of air flow is then displayed as a function of the number of fan revolutions and the specified time. The error rate for anemometer readings ranges from five to ten percent. Tr. II-267. However, Larry Bennett, Oak Grove's chief engineer, explained that at higher velocities, like those experienced near MPL 581, it was well known in the industry that such readings could be 10-20% high. Tr. III-35-36. Morley generally agreed that anemometer readings would likely be high at higher velocities. Tr. II-257.

Morley had expressed concern in his January 15 e-mail about the reliability of the calculation of volumes in the range of 20,000 cfm from much larger volumes in the range of 200,000 cfm, because the measurements might have significant error rates. Oak Grove's final supplemental plan relied on measurements of flow volume at the No. 6 Fan determined by relating the water gauge reading to the fan curve. The map included with the submission, shows 230,000 cfm exiting the No. 6 Fan, based upon a water gauge reading of 29.0 inches. Ex. G-34A, G-20. After subtracting the measurements at MPL 581 (178,320 cfm) and B1 (T) and B2 (T) (29, 427 cfm), Oak Grove's subtraction method yielded a volume of 22,253 cfm, which it assumed was entering the bleeder system from the 11-East tailgate.

However, in Morley's experience, fans seldom performed exactly as predicted by manufacturer's performance curves. Tr. II-229. The potential error rate was illustrated by Bennett's testimony. He and an MSHA inspector, Steve Harrison, measured the flow volume at the fan with a Pitot tube, and determined it to be 197,197 cfm. Tr. III-18-23. To check the reasonableness of that measurement, they consulted the fan curve at the then water gauge reading of 30.438 inches, which yielded a figure of 212,000 cfm. Assuming the accuracy of the Pitot tube measurement, the fan curve reading was high by 15,000 cfm, or 7.6%.

Seven and six-tenths percent of the 230,000 cfm exit volume reflected on the January 22 map, is 17,480 cfm. Consequently, the exit volume was more likely in the range of 212,500 cfm. If the south bleeder and headgate volumes are assumed to be accurate, that would leave 4,753 cfm, rather than 22,253 cfm, that could have been entering the bleeders from the 11-East tailgate, or other potential sources. Of course, if the anemometer measurement at MPL 581 was high by 10% or more, as Bennett believed, the fan volume error would have been more than offset.

MSHA's disapprovals of the ventilation plan amendments submitted by Oak Grove were primarily based on, 1) disagreement with the underlying assumption of the subtraction method, i.e., that the entire remainder of the subtraction of the 11-East headgate and MPL 581 volumes from the No. 6 fan volume was attributable to flow from the 11-East tailgate; and, 2) that errors in measurements of relatively high flow volumes produced an unreliable result.

Oak Grove advanced explanations for concerns raised by MSHA. It believed that flows from other sources, such as the 10-East headgate and set-up entries of the old panels, were accounted for because they were being drawn into the bleeder entries in the area of the 10-East tailgate, and were included in the flow through MPL 581. However, MSHA's belief, as expressed by Morley, was that at least some of the 24,000 cfm flowing into the 10-East headgate, as well as air that might be coursing through the old set-up entries, was entering the bleeder through the cut-through, inby MPL 581, and was erroneously being characterized as flow from the 11-East tailgate. Morley explained that it was possible that the 10-East headgate air could be flowing either way, the trouble was that "we don't know." Tr. III-196. MSHA was also concerned that errors in measurements of volumes in the range of 200,000 cfm rendered unreliable calculations resulting in much smaller volumes, another unknown quantity..

Oak Grove argues that MSHA's rejection of several proposals and requests for additional information evidence a mindset that it would accept only evaluations made at the inaccessible MPLs at the back of the 11-East tailgate entries, and that that insistence was arbitrary and capricious. There is little question that MSHA's primary concern was that any bleeder evaluation method include reliable data demonstrating that there was an acceptable quantity and quality of air exiting the back of the 11-East tailgate entries. That was the most important indicator that the bleeder system was working properly in the active longwall panel. It did not rule out alternative methods, including the subtraction proposal. However, for the reasons explained above, MSHA did not believe that the proposals advanced by Oak Grove would reliably confirm that the bleeder system was working effectively. MSHA's reservations were reasonable.

As noted in the decision announced from the bench, Oak Grove's assumptions about air flow through the bleeder system may have been correct. It could have been that none of the 10-East headgate flow traveled through the cut-through, and that all of it is accounted for in the MPL 581 measurement. It could have been that errors in anemometer readings at MPL 581 offset errors in fan curve volumes. It could have been that the significant pressure differential across the regulators in the headgate and inby MPL 581 meant that there was sufficient low pressure at the back of the 11-East tailgate entries to continuously dilute methane and other noxious gases and move them out of the mined-out area of the 11-East panel. The problem is that there are reasons to doubt the accuracy of Oak Grove's theories and assumptions, and, most importantly, there is no way to verify their accuracy.

Under section 334(d), the effectiveness of the bleeder system must be determined by examinations. Here, the critical information that was no longer available was measurement of air quantity and quality exiting the tailgate entries of the 11-East panel. Predictions of quantity

and quality of critical air flow based upon assumptions are simply not adequate, unless it can be demonstrated that such assumptions are so reliable as to be the equivalent of actual measurements. The potential consequences of an erroneous assumption that the bleeder system is working effectively, demand a high level of reliability. MSHA's position that 10-East headgate and set-up entry flows were not accounted for in the subtraction method was equally as plausible as Oak Grove's contention. Its concerns about the reliability of results based upon measurement errors were also plausible. Absent verifiable explanations satisfying its concerns, the denials of the proposed alternative evaluation methods were reasonable.

MSHA's denial of proposed amendments to Oak Grove's ventilation plan that were designed to abate Order No. 6698830 were not arbitrary or capricious.

ORDER

Oak Grove's contest of Order No. 6698830, both as to the violation itself and the rejection of the proposed abatement measures, is **DISMISSED**.

Michael E. Zielinski
Senior Administrative Law Judge

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