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March 7, 2017

SIGNAL PEAK ENERGY LLC, Contestant, v. SECRETARY OF LABOR, MINE SAFETY AND HEALTH ADMINISTRATION, (MSHA), Respondent.	CONTEST PROCEEDING Docket No. WEST 2016-0624-R Citation No. 9021220; 7/21/2016 Bull Mountains Mine No. 1 Mine ID: 24-01950

DECISION AND ORDER

Appearances: Ryan L. Pardue, Michelle A. Horn, U.S. Department of Labor, Office of the Solicitor, Denver, Colorado, for Petitioner;

R. Henry Moore, Christopher G. Peterson, Jackson Kelly, PLLC, Pittsburgh, Pennsylvania, for Respondent.

Before: Judge Miller

This case is before me upon a notice of contest filed by Signal Peak Energy, LLC, pursuant to Section 105(d) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 815(d) ("the Act"). This docket involves one citation issued pursuant to Section 104(a) of the Act for a violation of the mine's ventilation plan. The citation is a technical citation issued for the purpose of bringing the matter of the ventilation plan before the Court. The parties presented testimony and evidence regarding the mine's proposed changes to the ventilation plan beginning on October 19, 2016, in Billings, Montana. Due to a lost transcript, the first portion of the hearing was redone in December 2016, and briefs were submitted in February 2017. Based upon the parties' stipulations, my review of the entire record, my observation of the demeanors of the witnesses, and consideration of the parties' legal arguments, I uphold the citation as amended at hearing.[1]

I. STIPULATIONS

The parties have submitted the following stipulations which have been accepted into the record:

1. The Bull Mountains Mine No. 1 is a "mine" as that term is defined in Section 3(h) of the Mine Act.

[1] The original citation includes a reference to deficiencies in the mine's current ventilation plan discovered during the fan stoppage tests. The Secretary at hearing moved to amend the citation to remove that portion, and the motion was granted. The parties agreed to continue discussions on the fan stoppage issue with regard to the mine's current dual-entry plan.

2. Signal Peak primarily mines its coal by the longwall method. This includes development of three entries on either side of a block of coal approximately 22,000 [feet] long and 1,250 [feet] wide. The length of the panel may vary from panel to panel.

3. The mine operates currently under approximately 200-800 feet of cover. No methane has been detected by handheld detectors. The mine does not receive more frequent inspections under Section 103(i) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. §813(i), because of methane liberation.

4. The coal that Signal Peak mines is prone to spontaneous combustion.

5. Signal Peak operates a "bleederless" longwall mining system. Signal Peak chose this system because it believes that the system reduces the potential for spontaneous combustion by limiting the oxygen that is available in the longwall gob. This system includes the progressive installation of ventilation controls that become seals when the panel is complete. Signal Peak is currently mining in the 5R panel. A map of the mine is marked as Signal Peak's Exhibit A and may be admitted into evidence.

6. Signal Peak had a significant thermal event in its mine as a result of spontaneous combustion in December 2011. The heating occurred near the inby end of the headgate on the 2 Right panel in a rider seam above the main seam that was being mined. That event resulted in the loss of approximately 20 production days. As a result of the event, Signal Peak, with the approval of MSHA, instituted additional measures on subsequent longwall panels, including injection of nitrogen into the longwall gob area to lower the oxygen concentration and use of a blowing ventilation system rather than the previous exhausting system. Oxygen is necessary for combustion and lowering the oxygen concentration in the gob reduces the potential for spontaneous combustion.

7. Since January 2013, Signal Peak has utilized "blowing" ventilation, in which air is forced into the mine by a fan.

8. One alternative to a blowing ventilation system is an exhausting system where a fan or fans pull air through a mine.

9. For over one and a half years, Signal Peak and MSHA District 9 have been negotiating a change in Signal Peak's longwall ventilation plan. Signal Peak is proposing to change its current ventilation plan from a dual-entry return to a single-entry return in the tailgate. Signal Peak's Exhibit EEE illustrates the different configurations at the end of the longwall face in the tailgate and may be admitted into evidence.

10. On January 12, 2015, Signal Peak first submitted a revised ventilation plan that proposed a change from dual-entry return to single-entry return in the longwall tailgate. A copy of such plan is marked as Secretary's Exhibit 3 and may be admitted into evidence.

11. On April 3, 2015, MSHA issued a letter disapproving the proposed change and requesting additional information from Signal Peak. A copy of this letter is marked as Secretary's Exhibit 4 and may be admitted into evidence.

12. On April 23, 2015, Signal Peak submitted a revised plan. A copy of such plan is marked as Secretary's Exhibit 5 and may be admitted into evidence.

13. On May 5, 2015, Signal Peak personnel and MSHA personnel had a conference call concerning the April 23, 2015 submittal.

14. On May 6, 2015, Signal Peak submitted a revised plan to MSHA. A copy of such plan is marked as Secretary's Exhibit 6 and may be admitted into evidence.

15. On May 29, 2015, MSHA provided Signal Peak with a deficiency letter. A copy of such letter is marked as Secretary's Exhibit 7 and may be admitted into evidence.

16. On July 9, 2015, MSHA and Signal Peak met at MSHA District 9 in Denver, Colorado, to discuss Signal Peak's proposed changes to its ventilation plan as well as other mine plans.

17. On July 23, 2015, Signal Peak submitted a revised plan. A copy of such plan is marked as Secretary's Exhibit 8 and may be admitted into evidence.

18. On September 29, 2015, MSHA District 9 requested the assistance of Ventilation Division, Pittsburgh Safety and Health Technology Center ("Tech Support") to review Signal Peak's plan. District 9 supplied the following information to Tech Support:

a. A letter from Signal Peak dated July 23, 2015 (*see* Signal Peak Exhibit M);
b. A letter dated September 25, 2015, from Signal Peak to MSHA District 9 attaching "Signal Peak 5R CO Records." A copy of the September 25, 2015 letter without attachments is marked as Signal Peak's Exhibit N and may be admitted into evidence.

19. At MSHA's request, Signal Peak submitted the following information to Tech Support personnel on and after October 8, 2015:

a. Map of Bull Mountains Mine
b. Mine Map with Overburden
c. Complete set of SPE submittals to District 9, including:
   (i) Two/Single Entry System color graphic,
   (ii) Signal Peak Laboratory Analytical Results of seals 10/8/14-2/20/15
   (iii) Mine Map/Life Line Signals.
d. Revised Ventilation Plan
e. Single v. Dual Entry Return Vnet PC Model Summary / Inches Water Gage from Mine to Atmosphere
f. Laboratory Analytical Results 2/20/15-6/22/15.
g. VNET Drawings
h. Weekly Seal Examination Data
i. SP Weekly Seal Examination Records 10/31/14-6/26/15
j. Mine Map Water Gauge Reading Locations, Single Entry Return Longwall
k. Mine Map Water Gauge Reading Locations, Dual Entry Return Longwall
l. Graphs and maps for barometric pressure data
m. Barometric Pressure Data
n. SP Barometric Pressure Records graphic chart
o. Barometric Pressure Monitoring Station Location Map
p. Barometric Pressure Data 10/1/14-11/23/14.
q. Barometric Pressure Data
r. Barometric Pressure Data 11/23/14--2/1/15

20. On January 13, 2016, Tech Support issued a report prepared by Dennis Beiter, Senior Mining Engineer with the Ventilation Division, and provided the report to MSHA District 9. A copy of such report, which is sometimes referred to as the "Beiter report," is marked as Secretary's Exhibit 10(a) and may be admitted into evidence.

21. On January 22, 2016, MSHA sent Signal Peak a letter attaching the Beiter report and identifying what it believed were deficiencies in Signal Peak's plan. A copy of such letter is marked as Secretary's Exhibit 10 and may be admitted into evidence.

22. On February 2, 2016, Brad Hansen of Signal Peak sent District 9 Manager Russell Riley a letter requesting a technical citation. Such letter is marked as Secretary's Exhibit 11 and may be admitted into evidence.

23. In March 2016, MSHA District 9 requested that Tech Support perform a fan stoppage test with the dual-entry return and a simulated single-entry return in the tailgate at Signal Peak. The parameters for such tests were proposed by Signal Peak and amended after discussions between MSHA District 9 personnel, Signal Peak personnel, and Tech Support personnel. The final fan stoppage parameters were approved by MSHA. A copy of Mr. Hansen's email requesting Tech Support's assistance and the initial plan are marked as Signal Peak's Exhibits JJ and II and may be admitted into evidence. A copy of the approved plan for the test is marked as Secretary's Exhibit 14 and may be admitted into evidence.

24. Such fan stoppage tests were performed during the period of April 24-28, 2016, by Thomas Morley, Mining Engineer with the Ventilation Section of MSHA Tech Support, and others, including personnel from Signal Peak.

25. On May 3, 2016, Tech Support provided a report drafted by Thomas Morley concerning the results of the fan stoppage tests to MSHA District 9. A copy of such report is marked as Secretary's Exhibit 15(a) and may be admitted into evidence.

26. On May 11, 2016, MSHA District 9 provided Signal Peak a letter, attaching the Morley report, setting forth the deficiencies in its plan related to the results of the fan stoppage test. A copy of such letter is marked as Secretary's Exhibit 15 and may be admitted into evidence.

27. On May 16, 2016, Signal Peak submitted a revised ventilation plan including a single-entry return. A copy of such plan is marked as Secretary's Exhibit 16 and may be admitted into evidence.

28. On May 18, 2016, Signal Peak submitted a revised ventilation plan. A copy of such plan is marked as Secretary's Exhibit 17 and may be admitted into evidence.

29. On May 25, 2016, Signal Peak sent MSHA District 9 Manager Russell Riley a letter signed by Joseph Farinelli requesting that a technical citation be issued. A copy of such letter is marked as Secretary's Exhibit 18 and may be admitted into evidence.

30. On June 15, 2016, MSHA District 9 sent a deficiency letter to Signal Peak outlining deficiencies in Signal Peak's proposed changes to its ventilation plan. This letter is marked as Secretary's Exhibit 19 and may be admitted into evidence.

31. On June 21, 2016, Signal Peak submitted a letter to MSHA District 9 referencing "Third Request for Technical Citation" and attaching both a proposed single-entry return ventilation plan and a dual-entry return ventilation plan. This letter is marked as Secretary's Exhibit 20 and may be admitted into evidence.

32. Citation No. 9021220 was issued on July 21, 2016, by MSHA inspector James Preece pursuant to Section 104(a) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. §814(a), alleging a violation of 30 C.F.R. §75.370(a)(1). Citation No. 9021220 is marked as Secretary's Exhibit 1 and may be admitted into evidence.

33. Under the heading and caption "Condition or Practice," the citation alleges as follows:

> The mine operator submitted a proposal for a single-entry longwall return. The parties' negotiations have reached impasse. The mine operator has notified MSHA that the mine's existing, approved ventilation plan is no longer adopted by the operator. The operator intends to adopt the changes proposed on June 21, 2016, which are not approved.
>
> Additionally, MSHA has identified deficiencies in the mine's current ventilation plan. The mine operator's proposal to address these deficiencies is rejected by MSHA, and the parties have reached impasse on that dispute as well. The mine operator agreed to and will implement temporary, interim safety provisions to protect miners in the longwall panel in the event of a main fan outage while the Citation is pending.
>
> Those items, however, must be fully addressed in an approvable Mine Ventilation Plan in order to terminate this Citation.
>
> This "technical" Citation is being issued to enable the operator to bring this dispute before the Federal Mine Safety and Health Review Commission.

34. The operations of Signal Peak at the aforementioned mine at the time Citation No. 9021220 was issued were, and remain, activities covered under the Mine Act and subject to MSHA's inspection authority.

35. This proceeding is subject to the jurisdiction of the Federal Mine Safety and Health Review Commission and its designated Administrative Law Judge, pursuant to Sections 105 and 113 of the Mine Act.

36. The subject citation was properly served on Signal Peak and/or its agents by a duly authorized representative of the Secretary on the date and place stated in the citation as is required by the Mine Act, and may be admitted into evidence for the purposes of establishing its issuance, but not for the truthfulness or relevancy of any statements asserted therein. It is marked as Secretary's Exhibit 1.

II. FINDINGS OF FACT

As set forth in the stipulations above, Signal Peak Energy LLC ("Signal Peak") submitted a number of proposed ventilation plans to the Mine Safety and Health Administration (MSHA) beginning on January 12, 2015. Since that time, Signal Peak and MSHA Coal District 9 have engaged in plan negotiations and discussed various plan provisions. On June 21, 2016, after more than a year of discussion, Signal Peak made its third request that a "technical citation" be issued indicating an impasse in the negotiation. MSHA Inspector James Preece issued Citation No. 9021220 on July 21, 2016, pursuant to Section 104(a) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. §814(a), alleging a violation of 30 C.F.R. §75.370(a)(1). The citation states that Signal Peak submitted a proposal for a single-entry longwall return which was rejected by MSHA. *See* Jt. Stips. ¶ 33. The citation also references changes to the current plan to address

hazards in the event of a fan shut-down, but the parties have agreed to remove that portion from the citation and continue working to resolve that matter. The issue remaining in dispute is the mine's request for a single-entry return air system in the longwall tailgate. I incorporate all facts listed in the stipulations above in these findings.

Background

Signal Peak's Bull Mountain Mine is a large underground coal mine that operates using a 20,000 foot longwall system. The mine has very low methane levels, but there is a risk of spontaneous combustion, also referred to in the testimony as a heating event. Because of these factors, the mine uses a bleederless system in which the mined-out area, or gob, is sealed as mining progresses. In a bleeder system, in contrast, air sweeps the gob in order to move gases out through a system of bleeders.

In December 2011, the mine experienced a spontaneous combustion incident in the seam above the one that was being mined, resulting in an extended closure of the mine. The mine was using an exhausting ventilation system at that time, in which a fan pulls air through the mine. In response to the spontaneous combustion incident, the company switched to a blowing ventilation system, in which the fan forces air into the mine. In the blowing system, air enters the mine at headgate entries one and two and puts pressure on the longwall face. Some air may still enter the mined-out area through leaks in the longwall and in the seals surrounding the mined-out area. To minimize the effect of air that gets into the gob, the company injects nitrogen into the mined-out area to keep oxygen levels low to prevent combustion. The company also takes weekly bag samples along the headgate and tailgate to monitor gases in the mined-out area.

The mine's current ventilation plan, shown in the Secretary's Exhibit 2, is a dual-entry return system at the tailgate. *See also* Sec'y Ex. 24. Air is blown into the mine on the headgate side through entries one and two. At the longwall, a portion of the air is directed out headgate entry three, which houses the belt, and some air also continues inby the longwall face in headgate entries one and two. The remaining air is directed across the longwall face from headgate to tailgate. When the air reaches the end of the longwall shields at the tailgate side, there is a "T-split." A regulator directs part of the air out tailgate entry one. The remaining air is directed inby, where it is sent right at the next crosscut, then directed out tailgate entry two. *See* Sec'y Ex. 24. Several witnesses referred to this portion of the system as the "back-around return." The mine's current ventilation plan has been in place since January 2013 and has successfully limited spontaneous combustion since that time. The plan has also successfully kept the air pressure as required and has diluted the various toxins that result from mining.

The mine seeks to amend the ventilation plan to change the manner in which the air travels after sweeping the face. The mine's amended plan would omit the T-split and back-around return from the dual-entry system, and instead have the air leave the mine in just one entry, tailgate entry one. The Secretary's Exhibit 26 illustrates the proposed single-entry plan. Like the current plan, the amended plan would be a bleederless blowing air system.

Signal Peak argues that a single-entry return in the tailgate has several advantages over the current dual-entry system. It argues that the new system will reduce material-handling

hazards because miners will not have to install roof support in the second tailgate entry. Exposure to roof hazards will also be reduced because miners will be able to build crosscut seals on the headgate side in advance of the longwall face instead of inby where there are greater roof hazards, as is required under the dual-entry plan. Additionally, the company believes that a single-entry system will reduce the oxygen content in the mined-out area, thus lessening the risk of spontaneous combustion.

The Secretary argues that the dual-entry plan is safer for miners because it better protects miners from noxious air on the tailgate side of the longwall and allows for earlier detection of spontaneous combustion. Thus, the Secretary argues that the district manager was not arbitrary and capricious in rejecting Signal Peak's proposed single-entry plan.

Plan Negotiations

Signal Peak submitted its proposal to change its ventilation system on January 12, 2015. Sec'y Ex. 3. In addition to the specifications of the plan, the mine submitted a summary of the potential advantages of a single-entry plan. The mine received a letter on April 3, 2015, indicating that the plan was not approved and requesting further information. Sec'y Ex. 4. The rejection cited concerns over relocation of several seals, monitoring of contaminants, and buildup of contaminants at the longwall tail. *Id.* The company submitted a revised plan on April 23, 2015, addressing those concerns, as well as an issue regarding carbon monoxide alarms that had been raised in discussions with MSHA. Sec'y Ex. 5. On May 5, 2015, representatives from Signal Peak and MSHA held a conference call to discuss the revised submission. The principal representatives were Sid Hansen, the ventilation supervisor for MSHA Coal District 9, and Robert Ochsner, Chief Engineer at Signal Peak. Following the conference call, the mine submitted a second revised plan on May 6, 2015. Sec'y Ex. 6. This submission provided additional information on issues that had been raised in discussions with MSHA, including carbon monoxide monitoring and alert and alarm levels. MSHA responded with a deficiency letter on May 29, 2015, based on the same issues raised in previous discussions. Sec'y Ex. 7. On July 9, 2015, representatives from Signal Peak, including Ochsner and Joseph Farinelli, Vice President of Engineering, met in Denver to discuss the plan with representatives from MSHA, including Hansen and the district manager, Russell Riley. The company submitted a third revision of the plan on July 23, 2015. Sec'y Ex. 8. The representatives from Signal Peak indicated that the new plan addressed all of the issues discussed at the Denver meeting, and they believed the plan would be approved. However, after reviewing the submission, the district manager decided to seek assistance from MSHA's technical support division before making a final decision.

On September 29, 2015, District Manager Riley requested assistance from the Ventilation Division, Pittsburgh Safety and Health Technology Center ("Tech Support") to review the plan. Riley sought an in-depth review of the plan from Tech Support to assist him in making a final decision. MSHA submitted the most recent plan to Tech Support with supporting documents. Signal Peak also submitted materials to Tech Support, including maps, testing results, and examination records. Dennis Beiter was assigned as the lead person from Tech Support on the review of the plan. Beiter and his team spoke with the mine and reviewed all of the documents submitted. Beiter considered the information that had been submitted and issued a report on

January 13, 2016, recommending against the single-entry system. Sec'y Ex. 10(a). The report was sent to District 9 and subsequently forwarded to Signal Peak.

Ochsner, the Signal Peak Chief Engineer, was disappointed with the result of Beiter's report and felt that Beiter had focused too much on the merits of the dual-entry system, while neglecting the merits of the single-entry system. At this point, Brad Hanson, the superintendent at Signal Peak, sent a letter to the district manager requesting a technical citation so that the matter could be decided outside of MSHA. Sec'y Ex. 11. However, Riley did not feel that the parties had reached an impasse, and continued to review the matter, speak to the mine, and gather more information. In particular, Tech Support had indicated to the district office that the mine's current ventilation plan might need to address hazards in the event of a fan stoppage.

Accordingly, Riley requested that Tech Support work with the mine to test the effects of a fan stoppage in both the dual-entry system and a simulation of the single-entry system. Tech Support, District 9, and Signal Peak collaborated to design the test, and it was performed in April 2016. Sec'y Ex. 14. The results were addressed in a May 3, 2016 report to District 9 from Thomas Morley, an engineer with MSHA Tech Support who worked on the tests. Sec'y Ex. 15(a). Morley concluded that changes should be made to the dual-entry plan to address fan stoppage concerns, and that the changes could also be incorporated into a single-entry plan. Signal Peak submitted a revised plan for a single-entry return on May 16, 2016, addressing issues raised by the fan stoppage test. Sec'y Ex. 16. Shortly thereafter, mine representatives discussed the fan stoppage issues with Hansen, the MSHA ventilation supervisor, and based on that discussion submitted another revised single-entry plan on May 18, 2016. Sec'y Ex. 17. MSHA responded with a deficiency letter on June 15, 2016, explaining that it believed that a dual-entry return was safer than a single-entry and that it still had concerns about a fan stoppage. Sec'y Ex. 19.

The company sent a second request for a technical citation to MSHA on May 25, 2016, and a third request on June 21, 2016, after it received the June 15 deficiency letter. Sec'y Exs. 18, 20. In the June 21 letter, Signal Peak expressed that it was willing to make MSHA's proposed changes regarding fan stoppage, but that it objected to MSHA's continued rejection of a single-entry plan. Sec'y Ex. 20. MSHA eventually agreed that the parties were at an impasse and issued a technical citation on July 21, 2016. Sec'y Ex. 1.

The Commission has determined that plan formulation under the Mine Act requires MSHA and the operator to negotiate in good faith for a reasonable period of time concerning disputed plan provisions. *Carbon Cty. Coal Co.*, 7 FMSHRC 1367, 1371 (Sept. 1985). Good faith negotiation includes "giving notice of a party's position and adequate discussion of disputed provisions." *C.W. Mining Co.*, 18 FMSHRC 1740, 1747 (Oct. 1996). In this proceeding, there is ample evidence that MSHA and Signal Peak negotiated in good faith.

Evaluation of the Plans

Russell Riley, the MSHA district manager, testified regarding his understanding of the merits of Signal Peak's proposed plan. Riley was responsible for making the ultimate decision to reject the single-entry plan. He discussed a number of advantages of a dual-entry plan over a

single-entry. First, the dual-entry plan allows for the "back-around return" area, which Riley believes helps prevent noxious air from entering the working areas. He explained that the mine's blowing ventilation system puts pressure on the gob, and the gob gasses tend to release into the area at the tailgate end of the face because that area is open. Thus, there is a possibility for noxious gasses to accumulate there. However, he believes the T-split in the dual-entry system relieves some of the pressure because it provides a place for noxious air to go when it comes out of the gob and prevents it from building up. Noxious air flows into the inby crosscut at the T-split, away from the shields and the face where miners are working. The T-split with back-around return is not possible in a single-entry mine. *See* Sec'y Ex. 26.

Dennis Beiter, the Tech Support engineer who reviewed the plan for MSHA, also testified as to the merits of the two plans. He was qualified as an expert in underground mine ventilation based on his education, training, and experience as a mining engineer. His original report on the plans for MSHA was also introduced into evidence. Sec'y Ex. 10(a). Beiter based his review of the Signal Peak plan on information provided by MSHA and the mine. He was not told whether District 9 had a preference for one plan over the other, but rather was directed to conduct an independent review of the single-entry and dual-entry plans. His report ultimately endorsed the dual-entry plan. Sec'y Ex. 10(a). He also reviewed the submissions of the mine made after his report was issued and saw nothing to change his opinion.

Beiter's testimony supports Riley's explanation of the advantages of the back-around return. He explained that the mined-out area contains empty pockets where gases can accumulate, including nitrogen that the mine injects to prevent combustion. Some of these gases exit the mine through surface cracks, but they can also be released at the face. The air blowing across the face helps to carry the gases away from the active area where miners are working and keep them behind the shields. But at the end of the face, the air and contaminants enter the tailgate. At this point in the dual-entry system, many of the gases are drawn into the back-around return area because that area has low pressure compared to the area outby the face. *See* Sec'y Ex. 24. A regulator between tailgate entries one and two causes most of the contaminated air to go out the number two entry, so that the air in tailgate entry one, where miners are more likely to be, remains cleaner. While miners do not typically work in either tailgate entry and the entries are not escapeways, entry one must be maintained for the purpose of egress off the face in an emergency and may be accessed by ventilation workers and examiners. Beiter explained that in the single-entry system with no back-around return, there would be more contaminants in tailgate entry one, since contaminants would not be directed into entry two. The concentration would be especially high at the end of the shields at the tailgate area, where miners would exit the face. He believes that the back-around return is the best system for keeping noxious gases out of the working area.

Joseph Farinelli testified as an expert on behalf of Signal Peak. He has worked at the mine for three years, and so was not present during the spontaneous combustion incident in 2011, but is familiar with it. One of Farinelli's duties at the mine is to review and develop the roof control and ventilation plans. He engaged in the discussions with MSHA regarding the proposed changes to the mine's ventilation plan and wrote most of the letters from the mine to the district manager, including the request for a technical citation. Farinelli disagreed with Beiter's prediction that there would be contaminants at the end of the tailgate in a single-entry

plan. He explained that because the pressure in a blowing system is higher on the face than in the gob, contaminants are unlikely to move from the mined-out area into the higher-pressure tailgate. Beiter disagreed that the positive ventilation pressure would prevent gob gasses from entering the working area. Robert Ochsner disputed Riley's depiction of the pressurized gob, saying that the nitrogen injections were small compared to the size of the gob and so did not add substantially to the pressure in the gob.

As a second advantage of the dual-entry system, Riley explained that the system allows for early detection of noxious gasses that could be harmful to miners. The dual-entry system allows for placement of a monitoring device in the back-around return behind the face. Riley believes that having the monitor further from the face allows for earlier detection of gasses coming out of the gob before they reach the working face.

Beiter confirmed that the dual-entry system allows for better detection of spontaneous combustion in the gob. In the dual-entry system, contaminants are concentrated in the back-around return as described above. This allows for placement of a monitoring device where the contaminants are most concentrated, which gives clearer readings of changing conditions in the mine. In the single-entry system, the contaminants are mixed into the airflow and never concentrated in one spot, so changes in gases in the air are harder to detect. Thus, the dual system allows for better monitoring of carbon monoxide and other gases coming out of the mined-out area that could indicate spontaneous combustion. Further, Beiter noted that the dual-entry plan allows for installation of a tube-bundle into the mined-out area for additional monitoring.

Farinelli believes that the monitoring advantage of the back-around system described by Beiter is minimal. He explained that the monitoring done in the tailgate is less important than the weekly bag samples from the gob, which are more accurate. Further, of the monitoring devices in the working area, the monitor at the tailgate is not especially important. Farinelli also emphasized that the important number in monitoring for spontaneous combustion is not the concentration of carbon monoxide, but rather the quantity, and that trends are more important than snapshots from a single monitor. Thus he believes that effective monitoring would still be possible in a single-entry system.

Finally, Riley discussed the results of the fan stoppage test, which was meant to determine how quickly gasses would come out of the gob onto the working face in the event of a fan stoppage. The mine performed the test on its current dual-entry system first, and then performed the same test on a simulated single-entry system. In designing the tests, MSHA and Signal Peak had decided that the test of the single-entry system would take place on the second and third day of testing. However, the stopping simulating the single-entry system was installed late, leaving the system in place prior to testing for less time than planned. In the test of the dual-entry system, the oxygen concentration on the tailgate side of the face decreased to 14.7 percent within 15 minutes of the fan stoppage. Gov't Ex. 15(a). In the single-entry test, the oxygen concentration dropped to 16.7 percent within 15 minutes. *Id.* Riley interpreted the results as indicating that both systems were unsatisfactory in terms of the effect of a fan stoppage. Thomas Morley, the MSHA engineer who supervised the test, came to the same conclusion, saying that the concentration of oxygen declined at a similarly fast rate in both

systems. Riley explained that the slightly higher oxygen levels in the single-entry test could be explained by the fact that some of the gob air had already been flushed out during the dual-entry test, and the gob had not yet had time to return to its normal levels. Morley agreed. Ochsner disagreed, stating that a bore hole in the gob did not show any change in the gob air between the first and second tests. Farinelli also disagreed, arguing that the gob area would have returned to pre-test conditions quickly, and that the reservoir of noxious air in the gob was much too large to have been drained in the first test, which lasted 90 minutes. He interpreted the tests as showing that the single-entry system performed as well as the dual-entry system, if not slightly better.

In addition to contesting Riley's criticisms of the single-entry plan, Farinelli also explained the advantages the company sees in a single-entry system. In Farinelli's opinion, there would be a lower risk of spontaneous combustion in the proposed single-entry plan because the plan would reduce the amount of oxygen in the gob area. Farinelli believes that the dual-entry system allows more oxygen into the gob because air travels directly into the gob in the back-around return. The company's Exhibit H is a model depicting his predictions for the reduction in oxygen in the gob based on data from air quality measurements in the gob under the dual-entry plan. Farinelli also believes the single-entry system would reduce the amount of air entering the gob on the headgate side, because it would allow for installation of seals in the headgate crosscuts before the longwall face reaches each crosscut. In the dual-entry plan, the crosscut seals cannot be installed until after the longwall passes each crosscut, because they are built between entries two and three, where they would obstruct access to the escapeway in entry two. Before each seal is constructed, there is an opening into the gob through which air could enter. In the single-entry plan, the seals would be between entries two and three and so could be built before the longwall advances without obstructing access to the escapeway.

Riley did not agree with Signal Peak that the single-entry system would better control spontaneous combustion. He acknowledged that in the dual-entry system, some air enters the gob through the tailgate. However, he noted that the mine's closest nitrogen injection point to the face is 15 crosscuts inby the gob. He believes that combustion is not a risk near the face, because if it were, the mine would inject nitrogen closer to the face. Thus he believes the additional air entering the gob near the face does not create a spontaneous combustion risk. Ochsner, the Chief Engineer from Signal Peak, explained that it would be useless to inject nitrogen closer to the face, because it would end up getting blown out the tailgate. Beiter also believed the risk of spontaneous combustion was low. He noted that there had been no spontaneous combustion events at the mine under the current plan, which he interpreted as an indication that the plan was effective. He believed the company's concerns about air entering the gob on the headgate side could be addressed by installing a curtain.

Another advantage of the single-entry plan discussed by Farinelli was a reduction of material-handling hazards. Specifically, the back-around return in the dual-entry plan requires building a seal inby the longwall face. *See* Sec'y Ex. 24. Farinelli explained that building the seals involves installing a large timber frame and filling the entire entry with grout. He believes installing seals inby the face is dangerous because there is substantial abutment pressure and cracking in that area, and building the seal requires taking down the roof mesh. He also believes the bad roof conditions could compromise the quality of the seal and allow more air to leak into the gob. In the single-entry system, the seal would be constructed outby the face where roof

conditions were better. The placement of the seal in the single-entry system would also allow miners to inspect both sides of the seal while it was being constructed. In addition to the seal, the dual-entry system requires installing roof support and a water pumping and drainage system in tailgate entry two inby the longwall face. The water system must also be recovered later when the longwall moves forward. These installations involve bringing equipment including ladders and wheelbarrows into the area and would not be necessary in a single-entry system. A summary of Farinelli's view of the plans is shown in Signal Peak's Exhibit CCC, which was not submitted to MSHA during plan negotiations.

Riley does not believe that material handling poses a significant hazard at the mine. He noted that most of the roof support installation is done in the development phase of mining before the longwall mining begins. This process would not be affected by a single-entry plan. He also does not believe there are increased roof hazards in a dual-entry plan, since most roof hazards arise in the development phase. Beiter stated that it was possible that building seals outby the longwall face could decrease exposure to roof hazards, but noted that the mine had not provided any records showing that safe access issues in fact existed in the dual-entry system. The company also had not shown a history of problems caused by a lack of access to the back of the seals during construction. Bradley Hanson, the mine's CEO, agreed that there have been no roof fall or material-handling accidents at the mine, but he believes there is still a risk.

After observing and listening to the testimony of the two chief expert witnesses, Beiter and Farinelli, I find Beiter to be the more thoughtful and reasoned witness with regard to the two ventilation plans. Beiter conducted his review of the plans independently and reached the same conclusion as the ventilation specialist and district manager in District 9. Farinelli, on the other hand, appeared single-minded, and was unable to consider the opinion of MSHA. He also is heavily invested in the outcome. While Signal Peak argues that its experts had more experience with mines susceptible to spontaneous combustion, whereas MSHA's experts were used to working with eastern gassy mines, I find that Beiter had significant experience with spontaneous combustion to support his credibility.

III. DISCUSSION

Section 303(o) of the Mine Act requires that "A ventilation system and methane and dust control plan and revisions thereof suitable to the conditions and the mining system of the coal mine and approved by the Secretary shall be adopted by the operator and set out in printed form ...." 30 U.S.C. §863(o). A ventilation plan is typically drafted by the operator, and mine and MSHA personnel then negotiate to agree on a plan, which must be approved by the MSHA district manager. 30 C.F.R. § 75.370(a)(1). The citation issued to Signal Peak here is a so-called "technical citation" for operating without an approved plan, which enables parties who have reached an impasse in plan negotiations to bring the matter before the Commission. *See Mach Mining, LLC v. Sec'y of Labor, Mine Safety & Health Admin.*, 728 F.3d 643, 655-56 (7th Cir. 2013).

In reviewing a district manager's decision to deny approval of a proposed plan, the Commission has held that judges should evaluate whether the action was arbitrary, capricious, or an abuse of discretion. *Prairie State Generating Co.*, 35 FMSHRC 1985, 1989 (July 2013),

aff'd, 792 F.3d 82 (D.C. Cir. 2015); *Mach Mining, LLC*, 34 FMSHRC 1784, 1790 (Aug. 2012), *aff'd*, 728 F.3d 643 (7th Cir. 2013). The operator is not entitled to a de novo hearing on the merits of the plan. *Mach Mining, LLC v. Sec'y of Labor, Mine Safety & Health Admin.*, 728 F.3d 643 (7th Cir.).

Signal Peak argues that under this standard of review, the Secretary is required to prove that the operator's plan is unsuitable for the mine. Resp. Br. 11. However, the Commission has explicitly rejected the approach put forth by the mine. *Prairie State*, 35 FMSHRC at 1989 n.6. It is true that in deciding whether to approve a plan, the district manager must determine whether proposed plan provisions are suitable for the mine. *Id.*; *see also* 30 U.S.C. § 863(o) ("a ventilation system ... suitable to the conditions and the mining system of the coal mine and approved by the Secretary"); 30 C.F.R. § 75.370(a)(1) ("a ventilation plan approved by the district manager"). However, the Secretary is not required to prove suitability by a preponderance of the evidence before the Commission. *Prairie State*, 35 FMSHRC at 1989 n.6. Rather, the judge reviews the district manager's determination under the arbitrary and capricious standard. *Id.* Under that standard, the Secretary must prove only that the district manager "examined the relevant data and articulated a satisfactory or reasonable explanation for his determination." *Prairie State*, 35 FMSRHC at 1989.

The district manager's action may be considered arbitrary and capricious if

> the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). The Commission has emphasized that, while the operator plays an active role in developing the plan, "MSHA always retain[s] final responsibility for deciding what ha[s] to be included in the plan," and "absent bad faith or arbitrary action, the Secretary retains discretion to insist upon the inclusion of specific provisions as a condition of the plan's approval." *Prairie State*, 35 FMSHRC at 1989 (quoting *UMWA v. Dole*, 870 F.2d 662, 669 n.10 (D.C. Cir. 1989)); *C.W. Mining Co.*, 18 FMSHRC 1740, 1746 (Oct. 1996). The Secretary's approval of a ventilation plan is akin to the formulation of a standard and "entails the exercise of the Secretary's independent judgment as to the appropriateness of the plan to ensure the health and safety of the miners." *Mach*, 728 F.3d at 657; *see also Prairie State*, 792 F.3d at 90.

Applying this legal standard to the case here, I find that the district manager did not abuse his discretion. The record indicates that Riley sought and received advice from experts within his district office and MSHA's technical support staff, and considered the opinions of Signal Peak's engineers. He reviewed the multiple plan proposals, discussed them with MSHA and mine personnel, and reviewed the expert reports from the MSHA technical support office. He articulated a reasonable explanation for his findings in letters to the mine denying their proposals.

Riley ultimately concluded that a dual-entry system would protect miners to the greatest degree because it was more effective at removing noxious gases from the tailgate end of the longwall where miners work. He also determined that the dual-entry system enabled better monitoring of conditions in the gob. These conclusions were based on the opinions of highly qualified experts in the MSHA district office and the technical support office and on Riley's own understanding of mine ventilation. Riley also considered the opinions of Signal Peak's engineers, specifically their concerns about material-handling hazards and increased air in the gob in a dual-entry system. However, he determined based on the information presented by the mine that material-handling hazards were not a significant problem under the dual-entry system. He also determined that the risk of spontaneous combustion was suitably low under the dual-entry system and that it was not necessary to decrease the amount of air entering the gob beyond the current amount. While Signal Peak argues that Riley ignored the results of the fan stoppage test because they were unfavorable to the dual-entry plan, Riley did consider the results of the test but did not consider them to strongly favor either plan. It was evident at hearing that Riley had examined the relevant data in reaching his conclusions, and he articulated his reasoning clearly in his letters to the mine.

I find that the decision of the district manager was based on careful consideration of all of the relevant factors, and that he did not abuse his discretion in requiring the mine to use a dual-entry plan. I therefore find that the citation was validly issued.

V. ORDER

Accordingly, I conclude that the Secretary has met his burden of proving that the district manager did not abuse his discretion with regard to the plan provisions. Citation No. 9021220 is **AFFIRMED**, and Contest Proceeding Docket No. WEST 2016-0624 is hereby **DISMISSED**.

/s/ Margaret Miller

Margaret A. Miller
Administrative Law Judge

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