

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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WASHINGTON, D.C. 20004-1710

July 23, 2020

SECRETARY OF LABOR, :
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA) : Docket No. LAKE 2019-0087-R
 :
v. :
 :
KNIGHT HAWK COAL, LLC :

BEFORE: Rajkovich, Chairman; Jordan, Young, Althen, and Traynor, Commissioners

DECISION

BY: Rajkovich, Chairman; Young and Althen, Commissioners

This proceeding arises under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq. (2012) (“Mine Act” or “Act”). The Mine Act requires every underground coal mine operator to adopt a ventilation plan “suitable to the conditions and the mining system of the coal mine and approved by the Secretary [of Labor].” 30 U.S.C. § 863(o). This matter concerns the ventilation plan for Knight Hawk Coal’s Prairie Eagle Underground Mine (“PEUM”).

In 2018, the Department of Labor’s Mine Safety and Health Administration (“MSHA”) conducted a ventilation survey at PEUM and alleged certain deficiencies with the mine’s long approved ventilation plan. After a series of correspondence and conferences, MSHA revoked the mine’s ventilation plan and issued a technical citation for operating without an approved plan in violation of 30 C.F.R. § 75.370(a)(1).¹ Ventilation plans must address the effectiveness of bleeder systems, which in turn must continuously dilute and move methane-air mixtures and other gases, dusts, and fumes from a worked-out area away from active workings and into a return air course or to the surface of the mine. *See* 30 C.F.R. §§ 75.334(b)(1), (c)(2).²

¹ 30 C.F.R. § 75.370(a)(1) requires operators to “develop and follow a ventilation plan approved by the district manager.” When an operator and the Secretary are unable to resolve a dispute concerning plan provisions, the Secretary may issue a citation alleging a violation for operating without an approved plan, which is sometimes referred to as a “technical citation,” so that the matter may be litigated before the Commission.

² “‘Bleeder’ entries (the accepted terminology) may be defined as ‘special returns’, developed and maintained as part of the ventilating system” for this purpose. Kingery, D. and Dornenberg, D., Bureau of Mines Report of Investigation 5360, *Effectiveness Of Bleeder Entries In Ventilating Pillared Areas Of Bituminous-Coal Mines* (1957), at 2.

The Judge found MSHA’s revocation of the plan to be arbitrary and capricious and vacated the revocation. 41 FMSHRC 522, 560 (Aug. 2019) (ALJ) (Amended Decision and Order). For the reasons below, we affirm the judgment below.

I.

Factual and Procedural Background

A. Background on PEUM and Perimeter Mining

PEUM engages in “perimeter mining” which is “a special variant of the room-and-pillar method” of mining.³ The mine layout for perimeter mining is very similar to a typical room-and-pillar “checkerboard” panel mining design.⁴ Except as described below, this form of mining essentially is no different in concept from traditional room-and-pillar mining.⁵

The exception is during the retreat mining phase.⁶ In traditional room-and-pillar mining, entire pillars may be removed during retreat, allowing the roof to eventually collapse. During retreat in perimeter mining, however, individual cuts of coal are only taken peripherally from the edge of a block or panel into the surrounding solid coal and from a few of the interior barrier

³ Gadde, M. and Peng, S. 2009. *Weak Floor Stability During Perimeter Mining in the Illinois Basin Coal Mines*. 28th International Conference on Ground Control in Mining, Morgantown, WV, at 1. In “room and pillar mining,” typically flat-lying beds of coal are mined in “rooms” (entries and crosscuts) forming pillars of undisturbed coal left for roof support. Am. Geological Institute, *Dictionary of Mining, Minerals, and Related Terms* 469 (2d ed. 1997) (“*DMMRT*”).

⁴ A panel refers to the largest distinct unit for coal extraction. The panel is surrounded by solid strata and coal, and ventilation for each panel is kept distinct. *DMMRT* at 389 (“panel working”). Panels are generally then subdivided into smaller sections (“blocks”). While the term “block” in some coal mining circles may refer to an individual “pillar,” the term “block” as used by PEUM in reference to its perimeter mining method refers to a small section comprised of entries, crosscuts and pillars.

⁵ Attachment A (Ex. P-28) is a typical drawing from PEUM’s plan showing the entries, crosscuts and pillars that are formed as the mining is advanced into the coal seam. This creates the typical “checkerboard” form of advance mining.

⁶ Coal is first extracted with advance mining, in which entries and crosscuts are advanced into the solid coal (forming the pillars) from a main set of entries and crosscuts. In traditional room-and-pillar mining, once the limits of advance mining are reached, the retreat mining phase commences, in which the pillars are extracted while backing out towards the main entry. See *DMMRT* at 457 (“retreating system”). The extent to which coal is extracted on retreat differs in traditional room-and-pillar mining as compared to perimeter mining.

pillars between blocks.⁷ At PEUM, these additional cuts are taken *after* the entries, crosscuts, and pillars are developed in advance mining and while “retreating” from each particular “block” within a panel. The individual pillars are left intact and unmined to support the roof, even after abandonment of each individual block. Except for the cuts taken into the interior barrier pillars, those barrier pillars are left intact, as well. Since the pillars and barriers are left to support the roof, perimeter mining has less caving of the mined area than other forms of retreat mining; as a result, the entries and crosscuts within each block may remain relatively open—subject to deterioration, over time, as any worked-out area.

At PEUM, the development plan for a Perimeter Mining Panel consists of a main section of entries, crosscuts and pillars. Off both sides of the main section, at right angles, additional successive shorter-length blocks of entries, crosscuts and pillars are driven and developed.⁸ Once each shorter block (3 to 7 entries wide, 6 crosscuts deep) is developed, and before development of the next successive block, the “retreat” phase of perimeter mining is initiated. These additional dead-end cuts are made into the extremities of the solid coal around the undeveloped perimeter of each block.

At PEUM, under the previously approved plan, these perimeter cuts could extend to 40 feet in depth. 41 FMSHRC at 530. Because there will be no further advance into these cuts, nor any access by any miner, the roofs are not bolted, and entry is not permitted. It is uncontested that perimeter mining is safer than other forms of retreat mining. It provides lower exposure to hazards that might occur during roof bolting or working around moving equipment in potentially unsafe areas such as “red zones.” It also affords lower exposure to respirable dust and noise. Sec’y Ex. 2 at 3-6. Perimeter mining further provides the advantage of protecting valuable

⁷ Attachment B (P. Ex. 28) shows the typical perimeter mining plan. This diagram, appearing like a “fringed checkerboard,” depicts the entries and crosscuts, together with the unmined pillars that create the “checkerboard” form. The additional perimeter cuts along the outside edges of the block appear as the “fringe” to the “checkerboard.” These perimeter cuts are numbered sequentially and intake air passes across the miners’ backs as they mine, so air is swept over the previously mined area and out of the mine. In perimeter mining, these cuts are taken from the solid coal barriers between blocks or panels. *See* Gadde, M. and Peng, S. at 1.

⁸ While Stipulation No. 18 in the Decision (41 FMSHRC at 526) notes that a “typical Perimeter Mining Panel is 1 mile in length and 1,240 feet in width; approximately 150 acres,” perimeter mining of this panel is concentrated and conducted in the individual smaller sections or blocks. Each block is 3 to 7 entries wide and extends only 6 crosscuts deep from the outside entry of the main section. *See* Sec’y Exs. 18-1, 18-2. There are 7 sets of such blocks depicted on this Exhibit. While it takes approximately 11 months to complete the entire Perimeter Mining Panel, each individual block within the panel is developed and perimeter mined, on an individual, sequential basis in a much shorter timeframe. Once the entire area is “worked-out” in the panel, PEUM typically seals each Perimeter Mining Panel within 30 days from completion of all mining, thereby closing the entire worked-out area from further entry by any person.

surface farmland from subsurface subsidence.⁹ Thus, it allows for the recovery of the energy resource while protecting farmers and the environment.

PEUM received conditional approval to begin perimeter mining 14 years ago in 2006.¹⁰ MSHA District 8 granted unconditional approval 4 years later in 2010, and again in 2015. During the relevant period, in addition to PEUM, perimeter mining was being conducted in two other mines in MSHA District 8, namely, Peabody's Gateway North Mine, and ICG Illinois' Viper Mine. Each of those approvals involved the same system of mining that is the subject of this case.

In 2013, MSHA issued Program Policy Letter P13-V-12 ("the PPL") regarding bleeder systems. The PPL changed MSHA's prior position by asserting, for the first time, an expanded definition of "pillared areas." The new definition, in general, viewed *each* of the entries and crosscuts in any mined area as "pillared areas" subject to bleeder system requirements, whether the actual pillars were cut and/or fully extracted. See Ex. 13 at 3. This new definition by MSHA would require information on airflow *throughout* the individual entries and crosscuts in the worked-out area to be provided in the ventilation plan whereas 30 C.F.R. §75.334(b)(1) requires airflow *through* the worked-out area. Knight Hawk's expert, Gary Hartsog, testified without contradiction that the PPL redefined what constituted a "bleeder entry." Tr. 493-94.

The PEUM Perimeter Mining Plan did not include the full extraction of any *individual pillar*. In fact, the only "extraction" in the retreat mining phase of PEUM's perimeter mining is within the 40-foot long, 20-foot wide extended cuts along the periphery into the solid coal and a few interior barriers. Hartsog testified that despite this difference, perimeter cuts, along with the entries and crosscuts within the interiors of blocks, are actually abandoned areas likened to the "gob" in longwall mining.¹¹ Tr. 474. In longwall mining, airflow is evaluated by measuring the airflow *going in and out* of a *gob area*, as a whole. Hartsog testified that, as with a longwall gob, ventilation in an area worked-out by perimeter mining should be evaluated in the same manner, consistent with 30 C.F.R. § 75.334(b)(1) that requires airflow "through" the worked-out areas, rather than measuring *within* each and every entry and crosscut within the blocks. Tr. 473-81, 516-17. PEUM's approved plan followed this ventilation scheme for years. Evaluation points were specifically noted in the plan for the explicit purpose of measuring quantity and quality of

⁹ Subsidence is a time-dependent process, either natural or purposefully induced, in which there is a lowering of the ground surface in response to the removal of gas, liquid, or solid matter. Lee, F.T. and Abel, Jr., J.F. 1983. *Subsidence from Underground Mining Environmental Analysis and Planning Considerations*. Geological Survey Circular 876, at 2.

¹⁰ The approved PEUM Ventilation Plan map was not included as an exhibit in the record on discretionary review. Except for publicly available information which supports administrative notice, the only factual information permissible on review is the record. A complete evidentiary record is essential for review of the parties' contentions, particularly when the subject of contention centers on information best represented by review of an actual document.

¹¹ The "gob" is the space left by the extraction of a coal seam into which waste is packed or the immediate roof caves. *DMMRT* at 239.

air moving *into* a perimeter mined area *and* for measuring quantity and quality of air moving *out* of a perimeter mined area. *See, e.g.*, Ex. P-30 at 8. Importantly, the Judge accepted and credited Hartsog’s testimony that the PPL changed the definition of a bleeder system to include areas commonly understood to be “gob.” 41 FMSHRC at 532.

The Judge also credited testimony that the mine’s characteristics demonstrated an unlikelihood of ignitions or combustions. Hartsog testified that the mine’s roof and floor are primarily composed of soft clay and limestone, and therefore it would be unlikely that falling material would result in a spark. Tr. 492-93. Additionally, the mine has low methane liberation and had no history of spontaneous combustion at the time when the plan was revoked.¹² Tr. 174, 246; Sec’y Ex. 2 at 6.

B. Ventilation Survey, Plan Review, and Plan Revocation

1. *The Survey and Contentions*

In 2017, a different mine, the Gateway North mine (owned by Peabody Coal Company), submitted a plan to include 40-foot long perimeter cuts. MSHA District 8 Manager Ronald Burns ordered a survey at that mine. Burns felt the results raised concerns regarding 40-foot cut perimeter mining, so he decided to conduct surveys at Viper Mine and PEUM, as well. Tr. 42-46, 159-66.

On January 9-10, 2018, MSHA’s Safety and Health Technology Center conducted a ventilation survey of PEUM. The investigation team was headed by Dennis Beiter, a mining engineer with the ventilation division. The team included MSHA Ventilation Specialists John Hohn and Mike Pritchard and MSHA General Engineer Diane Doyle-Coombs, as well as other MSHA personnel. The MSHA team did not include any ventilation specialists from MSHA District 8. MSHA personnel were joined on the first day by PEUM Mine Superintendent Thomas Hasenstab and Knight Hawk Corporate Safety Director William Jankousky. It is this survey that forms the basis as to whether the revocation of the PEUM plan was arbitrary and capricious.

During the survey, the team primarily used chemical smoke tests to determine airflow velocity and direction at various locations within the entries, crosscuts, and perimeter cuts of a block and measured air quality with handheld devices and bottle samples. The team also conducted these smoke tests at the ends of the 40-foot perimeter cuts using a probe with a 44-foot extension fitted with two cap lamps attached to the end of the probe. Tr. 52-53, 118, 122, 256-57. The smoke was released from a tube at the end of the extension. Team observers, 44 feet away, would attempt to see the movement of the smoke—whether the smoke moved left or right, indicating airflow, or whether it rose to the roof and dissipated, indicating no airflow. Tr. 48-53, 122-23. This method, however, generated disputed testimony regarding the ability to

¹² MSHA District 8 Manager Ronald Burns testified that the mine experienced two heat-producing events *after* the plan was revoked and in a different area of the mine where rock from cutting the roof for an overcast airway was deposited. However, the evidence as to the source of the heat was inconclusive as to whether it was due to a deposit of rock in the area or generated from a bit used to cut the rock. Tr. 175, 376, 492.

make such observations so far away and whether MSHA supervisors asserted pressure on the MSHA team members to make findings in accord with Team Leader Beiter's expectations.

Thus, the MSHA team was attempting to see smoke movement at the end of a 40 foot darkened tunnel from a vantage point that was approximately 44 feet away, and the only form of illumination was from a pair of cap lights on the probe itself. Tr. 52- 53, 122, 257.¹³ Not unexpectedly, therefore, the results of the smoke tests were not always repeatable. Tr. 561-62.

More significantly, the members of the MSHA team were not always in agreement as to the results of the tests. Tr. 541-44. Mine Superintendent Hasenstab testified that there were disagreements among the MSHA survey team members regarding perceptible movement and "general uncertainty in regards to movement or no movement." Tr. 299. Notably, on several occasions, MSHA engineer Doyle-Coombs initially determined that there was perceptible movement but Beiter would later disagree, even though he was not observing at the same time as Doyle-Coombs. Tr. 378-79. Safety Director Jankousky testified that Doyle-Coombs became visibly upset when Beiter overruled her observations and then directed that some of her notes be rewritten. Beiter directed that some of her observations, or those of Knight Hawk's representatives, be changed to conform to his interpretations. Tr. 389-90, 567-68.¹⁴ Beiter testified that there initially was disagreement among MSHA personnel regarding airflow, but that he "explained" the expected phenomenon to them. Tr. 104-105.

MSHA's survey team did not use tracer gas¹⁵ even though Beiter agreed that tracer gas is used when airflow is indeterminate. Tr. 573. PEUM's ventilation expert witness Hartsog emphasized this failure to use tracer gas (Tr. 532) since results can be difficult to determine from

¹³ There is a slight discrepancy between the Judge's Decision and the hearing transcript on the sources of light during this survey. The Decision states that "an MSHA representative would point a light from outside the perimeter cut into the cut, while a pair of lights on the probe itself also provided some level of illumination. Tr. 122, 520." 41 FMSHRC at 534. MSHA witness Beiter, however, referred only to the two cap lights, stating "[w]e use two lights attached to the end of the probe." Tr. 122. The Judge's notion of distinct sources of light from two different locations may be explained by Hartsog's testimony regarding different types of surveys he had run. He, by way of example, recalled tests "in a large cavity limestone mine or aggregate mine where the opening was maybe 30 or 32 feet high and 60 feet wide." Tr. 519, 520. Hartsog explained that in the tests he had taken in the past, the smoke was being observed from 25 feet away with *two sources* of light—a light being shone back into the cavity by an observer, and a light shining straight up onto the released smoke. Tr. 520. Of course, those tests are distinctly different from the 44-foot observations by the survey team using two cap lights. The important point here is that "it gets difficult to see at a distance if you're 50 feet away, 45 feet away," as Hartsog stated. Tr. 520.

¹⁴ Mine Superintendent Hasenstab, observing one smoke test with Beiter, disagreed with him on his determination that there was no perceptible movement. Tr. 349-50.

¹⁵ The use of tracer gas is a technique for determining air movement whereby a certain gas is released in one area and then sampling for that gas occurs in another area to assess its concentration level, thus determining air movement. Tr. 533, 560.

distances of 44 feet or more using smoke as in this survey (Tr. 520). Thus, Hartsog testified he probably would have used tracer gas. Tr. 533. Arguably, such a test would have supplied more accurate data when compared to the disputed and variable results obtained by MSHA's testing methods in this survey.

The preliminary results of the survey were conveyed to Knight Hawk at a meeting on January 29, 2018, and the finalized survey report was issued on February 8, 2019. Tr. 93-95, 169. The survey showed that the highest concentration of methane, particularly at the end of the 40-foot perimeter cuts, was 0.12%—far below an explosive level of 5%. The lowest concentration of oxygen was measured at 20.2%, also well within safe limits. Beiter admitted that the survey indicated “controlled airflow” in that air was being routed through the entire panel from active workings to the surface. Tr. 95-98, 138-39.

Despite his testimony that air was being effectively routed through the entire panel and the controversy related to smoke tests in the perimeter cut, Beiter maintained that the smoke tests showed no perceptible movement in some locations within the worked-out area and that air was flowing in multiple directions at once in others. Tr. 64-65, 83-85. Despite the overall flow of air, Beiter asserted that “in the detailed sense,” the survey results showed “no rhyme or reason” to direction of airflow within perimeter cuts and within entries and crosscuts of blocks, and therefore did not allow for evaluation of the adequacy of ventilation airflow through portions of the worked-out area. Tr. 96-97. He admitted, however, that in other retreat mining systems, such as longwall mining, it is not possible to detect the specific airflow *throughout* the gob in a worked-out area. Tr. 139.

2. *The Plan Review and Revocation*

After the report was issued, Knight Hawk and MSHA exchanged a series of letters. MSHA's letters outlined the alleged deficiencies subsequently listed in the technical citation in increasing levels of detail. Knight Hawk alleged that the report contained opinion, speculation, and assumed definitions and designations of the terms “pillared areas, bleeder entries, partial recovery second mining, and return air split.” Sec'y Ex. 2 at 7. Knight Hawk also argued that the report contained conflicting information and inaccuracies between the report and the sketches of the ventilation plan. *Id.*

Knight Hawk emphasized the safety benefits of perimeter mining and further claimed that the mine's ventilation plan was effective because any gases that might be present were being diluted and routed away from active workings. It further noted that the mine had never experienced any spontaneous combustion events. It also documented, with extensive detail, the safety record of perimeter mining, in general.¹⁶ MSHA District Manager Burns conceded that

¹⁶ Knight Hawk claimed that “[p]erimeter mining results in a lower miner exposure to respirable dust, lower citations, a lower injury rate, a lower exposure to noise, and a lower exposure to red zone/danger zone.” Sec'y Ex. 2 at 2. It further emphasized that perimeter mining does not involve roof bolting in perimeter cuts, eliminating all hazards associated with the roof bolting process. Tr. 374, 422. At the hearing, PEUM's Hasenstab and Jankousky both testified that the previously approved ventilation plan has “significant” safety benefits. Tr. 337, 370-71. PEUM's Hartsog also testified that perimeter mining was not only a safe form of

perimeter mining “is a safe form of mining” and provides less exposure to certain hazards released into the air than other forms of mining. Tr. 173, 224.

Nevertheless, MSHA demanded a showing of the actual direction of airflow throughout every area of the “pillared” previously mined areas. Knight Hawk proposed one modification in response to the MSHA letters, which was to add fuller descriptions of the direction of air through worked-out areas. MSHA rejected the proposal as not being an appropriate substitute for “arrows” showing the actual direction of the airflow. Tr. 238.

On October 22, 2018, MSHA notified Knight Hawk that, absent proposed modifications addressing the deficiencies, the plan would be revoked. On November 14, 2018, MSHA revoked the mine’s ventilation plan, approved an interim plan (which does not include perimeter mining), and issued a technical citation. The citation asserts five deficiencies: (1) the design of the bleeder system did not control air direction throughout the blocks; (2) a method to control air movement to ventilate extended depth perimeter cuts within the “pillared area” has not been provided; (3) air direction through blocks, including the “pillared areas” within each block, was not shown on plan drawings or the ventilation map (noting that information on direction of airflow is necessary for proper evaluation of bleeder system effectiveness); (4) air direction at evaluation points was not shown in the plan drawings or map (noting the same); and (5) the specified means of evaluating ventilation in the worked-out area did not provide sufficient information to determine the effectiveness of the bleeder system. Sec’y Ex. 11 at 1-3.

In setting out these five alleged deficiencies, the citation refers to multiple separate sections of the underground coal mine safety regulations at 30 CFR Part 75.¹⁷ 30 C.F.R. § 75.334(b) is the primary regulation invoked by the citation as it requires that during any reduction in pillar size during retreat mining—that is, when there is “pillar recovery”—air must move from the worked-out area into a return air course or the surface of the mine.¹⁸ The other

mining, but that it was safer than continuous mining. Ex. P-37 at 2. Jankousky noted, “Definitely perimeter mining is safer.” Tr. 371.

¹⁷ These are 30 C.F.R. §§334(b)(1), 364(a)(2)(iii), 364(a)(2)(iv), 334(c)(4), 371(bb), 372(b)(9), 371(y), and 371(z).

¹⁸ Section 334(b) requires in part that:

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

(2) After pillar recovery a bleeder system shall be maintained to provide ventilation to the worked-out area, or the area shall be sealed.

30 C.F.R. § 75.334(b)(1), (b)(2). Section 75.201 defines “pillar recovery” as “[a]ny reduction in pillar size during retreat mining.” 30 C.F.R. § 75.201.

regulatory sections referenced in the citation refer to requirements for the contents of the plan document showing the direction of air, air control devices, and means for evaluating airflow.

MSHA complains that the plan *did not specify* particular directional airflow *throughout* the worked-out area, meaning every entry, crosscut and perimeter cut within the worked-out areas of each block. Those alleged issues all related to one alleged hazard—the possibility of a buildup of methane. Regarding methane, MSHA took methane readings throughout the section. In all these methane measurements taken at sites in the various entries, crosscuts, and fullest extent of the perimeter cuts, there was no hint of a buildup of methane. Indeed, the methane measurements taken by MSHA at various points in the area were far below any danger threshold. Moreover, the mining conditions regarding the composition of the roof and floor did not provide any reason to suspect an actual hazard could arise from any identifiable ignition source and methane concentration. Thus, no evidence demonstrated any danger of a methane buildup in the worked-out area or extended cuts.

C. The Judge’s Decision and Arguments on Appeal

The Judge found that MSHA’s decision to revoke the operator’s ventilation plan rested on the survey results. Although airflow did go “*through*” the worked-out area as required by section 75.334(b)(1), MSHA decided that the bleeder system failed because the plan did not adequately show the direction of air “*throughout*” the entries, crosscuts and perimeter cuts of the mined area. This finding was made despite the regulation’s requirement of flow *through the block*. 41 FMSHRC at 549. The Judge, significantly, observed that Section 75.334(b)(1) does *not* require a showing that ventilation pass “*throughout*” the block as the District Manager asserted, but rather that air pass “*through the mined area*”—a condition that the operator’s plan achieved. *Id.* at 541-42, 549. The evidence was clear that air did flow through the mined area. He found that MSHA’s revocation of the plan was arbitrary and capricious in three respects under the framework for the arbitrary and capricious standard analysis described in *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto Ins.*, 463 U.S. 29, 43 (1983). 41 FMSHRC at 548-49. Moreover, as stated above, none of MSHA’s tests showed any danger or probability of a methane accumulation in the mined areas.

First, based upon the evidence, the Judge found the tests used in the survey were unreliable and unreasonably biased against perimeter mining. As a corollary, he found that MSHA would not have used smoke tests with other forms of retreat mining and that it was arbitrary and capricious to impose additional testing requirements on perimeter mining without a satisfactory explanation of the need for such tests. *Id.* at 549-51.

Second, the Judge found that MSHA failed to consider important factors, namely the safety benefits of perimeter mining, the failure to use more relevant tracer gas tests, and differences of opinion among the MSHA survey team itself. *Id.* at 552-54. Third, he found that MSHA had offered explanations for revoking the plan that were counter to the evidence, in that the record did not establish non-compliance with the regulations. *Id.* at 555-59.

As a final matter, the Judge did not accept the Secretary’s reliance on MSHA’s amended PPL to argue for changed substantive requirements regarding ventilation and ventilation plans. The Judge credited ventilation expert Hartsog’s testimony that the PPL changed the definitions

of a “bleeder system,” and found that under a pre-PPL definition the survey would have found consistent air movement in the bleeder. *Id.* at 559-60.¹⁹

Although air unarguably passed *through* the worked-out area, MSHA maintained that it could not determine the exact direction of airflow *throughout all* of the entries and crosscuts surrounding the unmined pillars and in the perimeter cuts. The Secretary argues that MSHA articulated satisfactory explanations for these determinations based on the survey results, and therefore the revocation was not arbitrary.²⁰

The Secretary states that the survey was reliable and unaffected by bias, arguing that smoke tests are a common assessment tool and that it was imperative to evaluate the perimeter cuts. The Secretary adds that even if MSHA’s actions have the effect of eliminating perimeter mining, which PEUM states is the effect of MSHA’s position, it would be to protect safety and health. Thus, the Secretary argues that the safety and health benefits of perimeter mining during active mining are irrelevant and that, although the record may not show non-compliance with the relevant mandatory standards, MSHA is not required to prove a violation to revoke a plan. As a final matter, the Secretary contends that MSHA did not rely on the PPL to find the ventilation plan unsuitable.

Knight Hawk counters that the mine’s ventilation was suitable and that the Judge found the Secretary introduced no evidence demonstrating its long-approved ventilation plan did not achieve its proper safety purposes. Knight Hawk asserts that 30 C.F.R. § 75.334(b)(1) explicitly requires that air move from active areas *through* worked-out areas and out of the mine—which the survey results had shown to be the case.

Knight Hawk also relies upon the Judge’s findings that the survey was unreliable and affected by bias and states that the survey improperly applied a different standard to perimeter mining of evaluating the airflow within a worked-out area. It points to the very low methane levels, nature of the mine roof and floor, and safe oxygen levels throughout the mine. Knight Hawk also cites the Judge’s findings that the Secretary failed to consider relevant safety benefits or to establish non-compliance with the relevant regulations. Finally, Knight Hawk states that MSHA relied on the PPL’s new definition of a “bleeder system” to impose a duty to evaluate airflow within all parts of the worked-out area and that the Judge properly rejected any reliance on the PPL.

¹⁹ Although Executive Order 13892, October 19, 2019, had not been issued prior to the hearing in this case, reliance on a change to a Program Policy Manual adjustment that changed a prior definition of a bleeder system, without any public notice or comment, clearly violated public policy as it now stands.

²⁰ MSHA’s only expressed concern with the perimeter cuts was the possibility of methane in those cuts, despite the undisputed evidence of low methane throughout the block and the clay-like composition of the roof and floor, rendering conditions unlikely to cause a spark and ignition. Tr. 182-83, 194-95, 246, 492-93.

II.

Legal Framework

Section 303(o) of the Act mandates operators to adopt a ventilation plan “suitable to the conditions and the mining system of the coal mine and approved by the Secretary.” 30 U.S.C. § 863(o). In the absence of a statutory definition for suitability, we apply the ordinary or dictionary meaning and define “suitable” as “adapted to a use or purpose.” *Canyon Fuel Co., LLC v. Sec’y of Labor*, 894 F.3d 1279, 1288 (10th Cir. 2018).

The purpose of a ventilation plan is to “control methane and respirable dust” so that the mine is effectively ventilated. 30 C.F.R. § 75.370(a)(1). Effectively controlling methane and dust serves to protect miners against the hazards of methane accumulations, such as ignitions or explosions. *See RAG Cumberland Resources LP*, 26 FMSHRC 639, 647 (Aug. 2004), *aff’d*, 171 Fed.Appx. 852, 853 (D.C. Cir. 2005); *see also* S. Rep. No. 95-181, at 41 (1977), *reprinted in* Senate Subcomm. on Labor, Comm. on Human Res., *Legislative History of the Federal Mine Safety and Health Act of 1977*, at 629 (1978). The ventilation regulations related to bleeder systems primarily relate to risks of ignition or explosion arising from methane accumulation by assuring airflow *through* the bleeder into a return or the surface. *See RAG Cumberland Resources*, at 647 (“[W]e read section 75.334(b)(1) to require a bleeder system to control air passing *through* the area and continue to dilute and move methane-air mixtures away from active workings and into a return or to the surface in an effective manner.”) (emphasis added).

A suitable ventilation plan, then, is one that protects miners against health or safety hazards such as methane ignitions or exposure to dust resulting from poor ventilation. If a ventilation plan serves the goal of effectively controlling methane and dust, then it achieves that purpose, is suitable, and should be approved. As we have emphasized, the Mine Act charges the operator to develop a suitable plan. It is the “operator’s plan.” Therefore, any decision not to approve a ventilation plan necessarily involves a finding by the Secretary that the plan has a deficiency which fails to address some plausible harm to miners from methane, dust, noxious gases, or some other ventilation-related hazard, which is to say, the denial is not based upon a reasonable fact-based concern for safety.²¹

The current standard of review of the Secretary’s determination not to approve a ventilation plan is under the arbitrary and capricious standard. In turn, the Commission then determines whether substantial evidence supports the Judge’s finding as to whether the agency action was arbitrary and capricious. *See Prairie State Generating Co.*, 35 FMSHRC 1985, 1989-91 (July 2013), *aff’d*, 792 F.3d 82 (D.C. Cir. 2015); *Mach Mining, LLC*, 34 FMSHRC 1784, 1790-91 (Aug. 2012), *aff’d*, 728 F.3d 643 (7th Cir. 2013). Under this standard, an “agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.” *Mach Mining*, 34 FMSHRC at 1790-91 (internal citation omitted); *see also Prairie State*, 792 F.3d at 92 (the Secretary must show that the district manager “did not abuse his discretion . . . in making his suitability

²¹ Contrary to our dissenting colleagues’ assertion, we certainly recognize that the Secretary has the discretion to require information to be included in a ventilation plan. If, based on that information, the Secretary disapproves the plan, *then* the explanation must identify a harm that may plausibly result from the alleged deficiencies.

determination, for instance by failing to examine relevant facts and draw reasonable conclusions.”).

Our dissenting colleagues are grossly mistaken in asserting that our approach is a “radical departure from well settled authority.” It is not. Well settled authority broadly defines the Secretary’s burden as a matter of determining suitability and finding a rational connection between the facts and the choice made. Neither *Prairie State* nor *Mach Mining* define unsuitability, or what constitutes a satisfactory explanation. In fact, in accordance with existing case law, we simply require that the Secretary prove *facts* sufficient to support a finding that a long approved and long used plan poses safety issues warranting revocation. If the Secretary cannot do so, there is obviously no rational connection between the facts found and the choice that was made. We apply the substantial evidence to the Administrative Law Judge’s decision based upon the record before the Judge as to whether the Secretary has established the requisite factual basis for revocation.

Notably, the analysis in *Prairie State* focused on whether potential harms suggested by the Secretary were supported by the record. 35 FMSHRC at 1991-93 (weighing the relative safety of 20 and 40 foot cuts). The Secretary may articulate a satisfactory reason as to why a plan is unsuitable explicitly by articulating a harm that may plausibly result from the operator’s plan, or implicitly by offering a satisfactory explanation as to why the plan is incompatible with a statute or regulation.

Finally, our dissenting colleagues emphasize our failure to address *Peabody Coal Co.*, 18 FMSHRC 686 (May 1996). The Commission in *Peabody* rejected the operator’s proposal that the Secretary be required to prove the existence or likelihood of a specific hazard. *Id.* at 690-92. We do not require such a degree of proof, we require a rational basis for believing that the plan poses a risk to miners. Moreover, the Commission’s decision in *Peabody* is not governing case law with respect to the Secretary’s burden of proof. 18 FMSHRC at 692 (requiring the Secretary to prove that the new plan provision was suitable as well as that the previously approved plan was unsuitable, rather than the arbitrary and capricious standard subsequently applied in the D.C. Circuit’s decision).

As stated above, under the arbitrary and capricious standard, an “agency must examine the relevant data and articulate a satisfactory explanation for its action” in disapproving the plan, “including a rational connection between the facts found and the choice made.” *Mach Mining*, 34 FMSHRC at 1790-91. A plan should only be disapproved if they are unsuitable, i.e. if it fails to serve its intended purpose. Accordingly, the Secretary’s burden under the arbitrary and capricious standard is to provide a satisfactory explanation by identifying a factually supported reason for finding the plan unsuitable—that is, a fact-based explanation for why the proposed plan could expose miners to unsafe or unhealthful conditions.²²

²² In the opening paragraph of their dissent our colleagues incorrectly claim that we “create a new legal standard.” Slip op. at 19. In fact, the dissenters identify the same standard, but divorce it from its proper end. Our colleagues say that the District Manager may reject a plan if he demonstrates “a reasonable rationale based on the facts for rejecting the proposed plan.” Slip op. at 21. That is correct provided the “rationale” to which they refer relates to a valid conclusion, based on facts, that the plan fails to address hazard(s) to miner safety and health. Our use of the term “plausible” is merely synonymous for a harm that is worthy of

We emphasize that, while the Secretary need not establish by a preponderance of the evidence that a harm is “likely” to occur, the justification for finding the plan unsuitable must be rationally connected to the record. The arbitrary and capricious standard requires the Secretary to identify reasonable fact-based harm that may result from the alleged deficiencies identified in the explanation for disapproving the plan. The Secretary justifies rejection of a plan if there are explicitly articulated reasons that a plan may expose miners to the dangers of inadequate ventilation. The explanation must be reasonable and must be rationally connected to the facts.

An agency’s decision is arbitrary and capricious if the determination was reached through means such as flawed or inaccurate testing or the finding of preconceived or mandated results. Other indicators of an arbitrary and capricious determination include reliance on factors which Congress had not intended the agency to consider, failure to consider important aspects of the problem or explanations that run counter to the evidence. *Motor Vehicle Mfrs.*, 463 U.S. at 43.

III.

Disposition

For the reasons below, we hold that substantial evidence supports the Judge’s finding that the Secretary failed to articulate a satisfactory explanation, rationally connected to the facts, justifying a finding that the PEUM’s ventilation plan was unsuitable. Thus, the Secretary failed to articulate sufficiently why the plan is not suitable to achieve the purpose of a ventilation plan—the safe and satisfactory removal of methane, toxic gases, and dust through the worked-out area and extended cuts and supply of a safe level of oxygen to the miners.²³

belief—that is, the facts making it *reasonable* to find, on an objective basis, an identified potential harm. We cannot condone the rejection of a plan that has been long used safely, based upon a District Manager’s implausible belief—which is to say an irrational belief not grounded on the record evidence—that conditions harmful to miners might arise if the plan is adopted. It does no good to cite, as our colleagues have (slip op. at 24), one possible finding that at some past time methane was found in some other unidentified place elsewhere in the mine, without relating that isolated fact to a *rationale*, i.e., a thesis based on reason and facts, that supports rejection due to a danger to miner safety and health. During the extensive survey, no hint of methane or the possibility of methane within any conceivable danger range was found at any location in the active workings or in the gob area. Further, methane is a naturally occurring substance in underground mines, but its potential for danger is governed by the laws of nature—i.e., chemistry and physics—to prevent methane from accumulating in a way that may endanger miners. The use of engineering principles to eliminate this potential danger is the precise point of ventilation planning. Such planning is useless if it cannot be evaluated by reasoned, scientific analysis. Requiring that the Secretary show his work in this regard is hardly a “new” requirement. Rather, it reflects his fundamental duty under the Act to defend his choices as “reasonable,” at a minimum. That minimum standard here requires that he at least show some plausible—i.e. not speculative or preconceived—*factual* basis for rejecting an operator’s plan.

²³ The requirement for safe removal of methane, toxic gases and dust through the worked-out area is found in 30 C.F.R. § 75.334(b), which is referenced in the technical citation

The Judge correctly found that in other forms of retreat mining, the information demanded by MSHA in this case is neither necessary nor required. 41 FMSHRC at 549-50. Worked-out areas in mines utilizing other methods of retreat mining generally involve inaccessible gob areas. There has been no showing that air flows uniformly through all areas of a gob. Likewise, there has been no showing that the absence of uniform flow would make the ventilation plan unsuitable. Consequently, the airflow throughout the interior of previously mined areas in those circumstances historically cannot be, and is not, evaluated. *See* Tr. 116-17, 221-23. Such an informational requirement is not necessary without a showing of a *need*, for safety, to require travel within worked-out areas to evaluate airflow in entries and crosscuts. If evaluations throughout the interiors of blocks are not necessary to detect a fact-based harm, then there is no need for examiners to walk through worked-out areas.²⁴

Thus, although PEUM's plan had shown for years, and continued to show, airflow and evaluation points in worked out areas, MSHA complains that the plan *did not specify* particular directional airflow *throughout* the worked-out area, meaning every entry, crosscut and perimeter cut within the worked-out areas of each block.²⁵ Those alleged issues all related to one alleged

(along with other ventilation regulations at 30 C.F.R. Part 75). At oral argument, the Secretary's counsel expressly disclaimed that MSHA's finding the ventilation plan was unsuitable was based upon any of the regulations identified in the citation. Counsel stated "I think there may have been . . . five deficiencies that needed to be corrected. Those were not tied to any particular standard. So, the, finding of deficiency is not, is not tied to a standard." Oral Arg. Tr. 34. Further, MSHA's counsel noted that MSHA was not asking for more evaluation points stating, "[a]nd so I guess a more direct response to your question, MSHA's not saying there need to be more EPs." Oral Arg. Tr. 14-15.

²⁴ The interiors of the blocks, here, are worked-out areas in which miners would otherwise have no reason to enter or travel. Mining has ceased in these areas, and therefore, regular examinations conducted for active mining areas are no longer carried out. The roof, ribs and floor necessarily deteriorate with time. Further, the extended perimeter cuts are not roof bolted, by design, and miners are prohibited from entering under the unbolted roof. Indeed, they are barricaded against such entry. Tr. 54, 105.

²⁵ In addition to the information shown by Knight Hawk on approved Ventilation Plans and maps for the past 14 years, Knight Hawk proposed adding to the map a statement further describing airflow direction in certain areas. Moreover, PEUM offered to provide more information such as inclusion of a sample statement that could read, "[t]he direction of airflow for the worked-out area in the 5W/3N/2ME is from EP4 to EP3 to EP2 to EP1." Sec'y Ex. 6 at 2. Knight Hawk also offered to "add a more detailed description to our Ventilation Plan as well as indicate the direction at [Evaluation Points]." Sec'y Ex. 6 at 3. Beiter conceded that "in a general sense" airflow through the panel, from the working face to the surface, was adequately controlled. Tr. 95-98, 138-39; *see also* Sec'y Ex. 1 at 3 (describing adequacy of overall airflow). Nevertheless, MSHA rejected these offers and continued to contend that the plan needed to contain even more detail regarding air control devices and air directions with more specificity. Burns testified that was inadequate because the "plain language" of the regulation states that

hazard—the possibility of a buildup of methane. However, MSHA’s investigation showed ventilation coursing through the worked-out area. Although the tests conducted by MSHA were deeply flawed,²⁶ even those tests do not support the proposition that the pattern of airflow within perimeter cuts and through the worked-out area created any dangers for miners. Every methane reading in perimeter cuts and other areas demonstrated methane levels far below the danger threshold. MSHA’s survey did not reveal any fact-based reasons to suspect that ignitions might arise as a result of the ventilation plan. Likewise, the survey failed to render fact-based reasons that the plan did not cause air to flow through the bleeder into a return or the surface.²⁷

The PPL acknowledges that areas it now defines as part of the bleeder system had previously been considered “open areas within the worked-out area, inner bleeders, mine foreman entries, part of the gob, or by other names.” Sec’y Ex. 13 at 3. The PPL redefined bleeder systems to include *pillared areas* and thus information would now be required on airflow *within such areas* to be collected. *Id.* at 2-3. This raises yet another interpretive complication. The only fully extracted areas here are the 40-foot long, 20-foot wide extended cuts which are not roof-bolted and are otherwise inaccessible. We note that substantive changes that MSHA seeks to apply as a binding norm, such as these noted in the PPL, require notice-and-comment rulemaking. *Drummond Co.*, 14 FMSHRC 695 (May 1992). Despite the assertions of our dissenting colleagues to the contrary, this is no mere “interpretation of the regulations.” Slip op. at 24 n.10. Without question, this is a substantive change. The Judge correctly found that it was

maps must “show the direction” of airflow using arrows. Tr. 204, 238, 250. To the contrary, the relevant regulation simply requires maps to “contain . . . information” on airflow in underground areas. 30 C.F.R. § 75.372(b)(9). If the Secretary rejected the modification on the basis that “arrows” were required by the standard, such a determination was clearly arbitrary and capricious.

²⁶ Our dissenting colleagues devote more attention to attacking the Administrative Law Judge’s references to “bias” than focusing on the Secretary’s revocation decision. In doing so, they undermine their own position. The Judge’s use of the term “bias” is simply a reflection of a view, which he supported based upon the record, that the District Manager entered upon the review with a predisposition to rejecting the long approved and long used ventilation plan. Regardless of the “bias” reference, the ALJ nevertheless points out the real focus and problem in this case—specific errors and preconceptions that are part and parcel of the District Manager’s failure to provide an objective fact-based reason for rejecting Knight Hawk’s suitable ventilation plan. The Judge’s objections to MSHA’s methodology are correct: the use of fatally flawed and inaccurate smoke tests, Beiter’s intimidation of Inspector Doyle-Combs to report his suggested findings rather than her own observations, and the desire for irrelevant notations on the plan given that the parties agree that all air moves “through” the area as required, are among a multitude of errors identified by the Judge and in our Decision.

²⁷ District Manager Burns did not choose to include any of the ventilation specialists in District 8. Of course, Burns’ choice of MSHA personnel to conduct the survey is not a reason for rejecting his findings. However, no explanation was proffered as to why ventilation personnel most familiar with operations in the specific area of the Illinois basin were not included in the survey team.

improper for MSHA to rely on the PPL to revoke the plan without a reasonable fact-based finding of safety deficiencies in the plan. 41 FMSHRC at 559.

A ventilation plan is unsuitable if it poses or fails to address a reasonably perceived harm based on facts in the record. *See supra* Part II, Legal Framework. A proffer about the uniqueness of perimeter mining does not sufficiently explain why perimeter mining, unlike longwall mining, should be singled out for detailed airflow directions within and throughout the area of completed mining from which the operator has withdrawn all miners and mining machinery. This is especially true because the evidence demonstrated, to the Judge's satisfaction, that PEUM's plan removes the small amount of methane and other gases and provides sufficient oxygen to miners. 41 FMSHRC at 549-50.

MSHA's investigation did not show any prospect of an ignition or lack of oxygen in the mine. Measurements taken at the end of the perimeter cuts did not show any appreciable amount of methane. Only very low levels of methane were found in any of the areas inspected. Tr. 70-71, 296, 420-21; Sec'y Ex. 1. That is consistent with the generally low level of methane in the mine. Beiter conceded that "in a general sense" airflow through the panel, from the working face to the surface, was adequately controlled. Tr. 95-98, 138-39; *see also* Sec'y Ex. 1 at 3 (describing adequacy of overall airflow).

Moreover, the entire mine had low methane liberation and no history of spontaneous combustion.²⁸ Perimeter cuts are not roof-bolted, so ignition sources typically associated with roof bolting do not exist. Tr. 374, 422. Additionally, ignition sources associated with active mining would not be present in a worked-out area. Hartsog, testified without contradiction that the roof and floor in this mine are primarily composed of soft materials (clay and limestone), and therefore falling roof materials striking the floor would be unlikely to result in a spark. Tr. 492-93. The Judge cited testimony that any methane liberated by a roof fall would be effectively diluted and rendered harmless, adding that the testimony was bolstered by the results of the ventilation survey, which found some roof falls in perimeter cuts but no elevated levels of methane. 41 FMSHRC at 535, 545.

Conversely, testimony from the Secretary's witnesses as to the possibility of ignition or explosion consists of conjecture, describing events at other mines they believe might also happen at this mine. *See* Tr. 177, 228. The Secretary speculates that pockets of methane *might* form in the roof above a perimeter cut but does not provide a fact-based articulation as to how they *would* form in this low methane mine. No evidence was introduced to show a harm that *could*

²⁸ We noted above that there was some testimony about heat-producing events after this inspection was concluded. However, the evidence did not show any similarity to the matters considered in the MSHA investigation. Additionally, Beiter's knowledge of the event appears to be secondhand. Tr. 550-51. As to spontaneous combustion, Hartsog testified that the material had only been there for a week or two, whereas the incubation period necessary for spontaneous combustion in the Illinois Basin is generally months, eliminating the notion that the heating event could have been spontaneous combustion. Tr. 491-492. In sum, that alleged incident in a different area of the mine and not shown to be connected in any way to perimeter cutting is wholly irrelevant to the ventilation plan studied in MSHA's survey.

plausibly result from the ventilation plan or that methane and any other gases are not adequately moved and diluted under the operator's plan. *See* Tr. 194-95, 177, 182-83, 351-52.²⁹ Thus, substantial evidence supports the Judge's finding that the Secretary failed to rebut Knight Hawk's testimony regarding the low risk of dangers associated with methane buildup in the mine at issue. 41 FMSHRC at 536.

The Secretary actually argued that one reason the standard approach used by PEUM is insufficient for perimeter mining is that perimeter mining offers a unique accessibility to the worked-out area thereby providing an opportunity, and hence an obligation, to gather additional information. Given the form of retreat mining used at PEUM, MSHA saw a limited opportunity for entry into certain parts of a worked-out area before the entire Perimeter Mining Panel being sealed at the end of the retreat mining cycle.³⁰ Having seized the opportunity, MSHA now seeks to impose requirements on PEUM beyond those required for retreat mining in ventilation plans. MSHA, however, may not impose unnecessary requirements in a ventilation plan to aid its research. This is especially true when such travel creates an additional exposure to conditions for examiners without an offsetting safety benefit overall.

The Judge also concluded that MSHA failed to explain why the revocation satisfied the "no-less protection" standard under 30 U.S.C. § 811(a)(9). *Id.* at 551-53. We agree. In fact, not only has the Secretary failed to identify a plausible harm arising from the alleged deficiencies as required to meet his burden under the arbitrary and capricious standard, the Secretary would impose requirements on the mine that potentially places a measure of unnecessary exposure on PEUM examiners. In this new interpretation, the Secretary appears to represent that MSHA does not demand that *every* entry and crosscut in a worked-out area of a perimeter mining panel be examined. Contrary to that assertion, however, Beiter stated that examiners would be *expected* to travel within the previously mined areas of blocks for bleeder system evaluations. Tr. 60-63. Our dissenting colleagues assert that these blocks in perimeter mining are "uniquely accessible." Slip op. at 23. That ignores the fact that, as previously noted, the roof conditions in these abandoned areas surrounding these blocks continue to deteriorate, potentially rendering them dangerously *inaccessible*.

A satisfactory explanation as to why the operator's plan is unsuitable would articulate, at a minimum, how harms might plausibly result in this mine from the level of airflow in perimeter

²⁹ Burns expressed a concern about "the bleeder system after [PEUM is] through doing perimeter mining and left that area that it's not being ventilated." Tr. 173. This concern is unfounded. Once the area has been sealed in accordance with the PEUM plan, there is no ventilation needed of the internal abandoned area.

³⁰ Beiter testified that one reason for the study was that "we had a unique opportunity in this perimeter mining system to actually determine airflow through the pillared area." Tr. 50. In traditional retreat mining, it is neither safe nor even practical to determine the direction of air flow throughout areas of the extracted pillars. From an MSHA perspective, therefore, this study constituted, at least in part, simply an opportunity for MSHA to do research on air flow through a worked-out area.

cuts, not making airflow evaluations in the worked-out area, or the absence of a map arrow indicating the specific direction of airflow throughout the entries and crosscuts of the worked-out area. Here, there was an existing framework satisfactorily used for years conforming to applicable regulations—one that effectively monitored airflow through a worked-out area while limiting the examiner’s exposure to obvious deteriorating conditions over time. In this case, the Secretary has not provided the necessary explanation as to why that plan was unsuitable either because it does not comply with the substantive requirements of 30 C.F.R. § 75.374(b) or creates plausible dangers of a methane buildup.

The Commission finds, therefore, that substantial evidence supports the Judge’s conclusion. The Secretary failed to articulate reasons, rationally supported by the facts, as to why the ventilation approach used at PEUM, which is also used in other forms of mining, does not protect miners in this mine. This is particularly so given the evidence demonstrates a safe supply of oxygen and virtually no risk of a methane-generated incident or any other ventilation-related hazards under the operator’s existing plan. The Secretary has not only failed to show a reasonably possible harm rationally connected to the facts as required to establish that the operator’s plan is unsuitable, but would impose requirements that could potentially increase danger. Therefore, considering the evidence and the findings of the Judge, the revocation of the operator’s plan was arbitrary and capricious.³¹

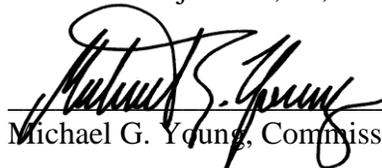
IV.

Conclusion

For the foregoing reasons, substantial evidence supports the Judge’s finding that the Secretary’s revocation of Knight Hawk’s ventilation plan was arbitrary and capricious. Accordingly, the Judge’s decision is affirmed.



Marco M. Rajkovich, Jr., Chairman



Michael G. Young, Commissioner



William I. Althen, Commissioner

³¹ As we have found substantial evidence supports an arbitrary and capricious finding based on the Secretary’s failure to articulate a satisfactory explanation for unsuitability that is rationally connected to the facts, we need not specifically address each of the *Motor Vehicles* factors analyzed by the Judge.

Commissioners Jordan and Traynor, dissenting:

We dissent from our colleagues’ decision because we conclude that the record evidence leads to only one reasonable conclusion—District Manager Ronald Burns did not act in an arbitrary and capricious manner when he declined to approve Knight Hawk’s proposed ventilation plan.

In affirming the Judge’s conclusion that Burns acted arbitrarily and capriciously, our colleagues create a new legal standard. The majority holds that a District Manager may only exercise his/her discretion to require additional information in a proposed ventilation plan if he/she can connect that specific requirement to a “plausible harm.” Slip op. at 11. We reject the majority’s new burden as it is plainly inconsistent with Commission precedent and the Mine Act.

I.

Factual Background

In MSHA District 8, at the time relevant to this proceeding, the Prairie Eagle Underground Mine (“PEUM,” operated by Knight Hawk), and Gateway North Mine and Viper Mine (owned by different operators) were engaged in secondary perimeter mining. In 2017, Gateway North asked MSHA to extend the distance of its perimeter cuts from 20 feet to 40 feet.¹ In response, Burns conducted a ventilation survey at Gateway North. The results of the survey raised concerns about whether Gateway North could adequately ventilate those extended cuts. Accordingly, Burns decided to conduct surveys at the PEUM and Viper.

At the PEUM, MSHA measured air quality, velocity and direction in the perimeter cuts and blocks using handheld devices and chemical smoke tests. While the survey demonstrated that adequate air flowed through the system, MSHA was not able to determine a predictable path. The surveyors reported that the air seemed to travel without “rhyme or reason,” and MSHA found air-flow in multiple directions at some points and no air movement at other locations. Tr. 64, 69, 83-85, 96-97; Sec’y Ex. 18. MSHA was concerned that because the direction of the airflow could not be predicted, Knight Hawk’s mine examiners would not be able to perform a proper evaluation of the ventilation system. Tr. 95-98, 138-39; Sec’y Ex. 1.²

¹ The PEUM had been taking 40 foot perimeter cuts since 2007. Jt. Stip. 9, 12.

² Notable findings included: (1) Direction of net airflow through many blocks was difficult to determine. Air direction through the rooms from which the perimeter cuts were mined was not always consistent through the length of the room, or through the block; (2) No perceptible air movement was detected in approximately 57 of the 138 perimeter cuts tests (of 615 total). Movement in some cuts was intermittent, and appeared to be the result of eddy currents created by air flowing past the front of the cut; (3) Direction of air was not always consistent in adjacent bleeder entries within a block, or through the entire length of individual bleeder entries. Generally, airflow between the pillared area and adjacent bleeder entries was not controlled; (4) Air direction at some evaluation points was not representative of the overall airflow through the block and adjacent pillared area. Information collected at evaluation points did not provide a determination of airflow direction or ventilation through the pillared area, including cuts. Sec’y Ex. 1

The ventilation survey reports for the Gateway North and Viper Mine indicate similar difficulties discerning airflow and direction. Exs. P-34, P-35.

After the survey, the parties exchanged a series of letters. Knight Hawk communicated that it believed that its proposed ventilation plan was suitable because it effectively routed gases away from active workings. Sec’y Exs. 2, 4, 6. MSHA officials outlined the deficiencies identified from the ventilation survey, which are articulated in the technical citation. Sec’y Exs. 3, 5, 7. In response, Knight Hawk proposed adding a general statement to describe how air flows through the panels. Sec’y Ex. 6 at 1-2 (“The direction of airflow for [each] worked-out area in the 5W/3N/2ME is from [Evaluation Point] 4 to EP3 to EP2 to EP1.”). MSHA determined that this modification was not an adequate substitute for a depiction of the specific path of the air through the panel. Sec’y Ex. 9; Tr. 199-201, 204.

On October 22, 2018, MSHA notified Knight Hawk that absent proposed modifications addressing the deficiencies, the ventilation plan would not be approved. Sec’y Ex. 9. On November 14, 2018, MSHA revoked the mine’s ventilation plan, approved an interim plan (without perimeter mining) and issued the technical citation. The citation lists five deficiencies: (1) the design of the bleeder system did not control air direction throughout the blocks; (2) a method to control air movement to ventilate extended depth perimeter cuts within the “pillared area” had not been provided; (3) air direction through the blocks, including the “pillared areas” within each block, was not shown on plan drawings or the ventilation map (noting that information on direction of airflow is necessary for proper evaluation of bleeder system effectiveness); (4) air direction at evaluation points was not shown in the plan drawings or map (noting the same); and (5) the specified means of evaluating ventilation in the worked-out area did not provide sufficient information to determine the effectiveness of the bleeder system. Sec’y Ex. 11 (citing 30 C.F.R. §§ 75.334(b)(1), 75.364(a)(2)(iii), 75.364(a)(2)(iv), 75.334(c)(4), 75.371(bb), 75.372(b)(9), 75.371(y), 75.371(z)).

After a hearing, a Commission Judge concluded that MSHA’s decision not to approve the proposed ventilation plan was a product of bias against the perimeter mining method and was arbitrary and capricious. 41 FMSHRC 522, 548-60 (Aug. 2019) (ALJ).

II.

Analysis

A. Statement of Law

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 The plan shall show the type and location of mechanical ventilation equipment installed and operated in the mine, such additional or improved equipment as the Secretary may require, the quantity and velocity of air reaching each working face, and *such other information as the Secretary may require.*

30 U.S.C. § 863(o) (emphasis added). Section 303(o)'s requirement that the plan contain information "as the Secretary may require" accords the Secretary discretion in determining the contents of the operator's ventilation plan. *Mach Mining, LLC*, 34 FMSRHC 1784, 1791 (Aug. 2012), *aff'd* 728 F.3d 643 (7th Cir. 2013).

An operator may challenge the Secretary's decision not to approve a proposed plan by contesting a technical citation issued for operating without an approved ventilation plan. 30 C.F.R. § 75.370(a)(1). At hearing, the Secretary is required to demonstrate that the District Manager considered the relevant data and provided a reasonable rationale based on the facts for rejecting the proposed plan. *Id.*; *Prairie State Generating Co.*, 35 FMSHRC 1985, 1989 (Jul. 2013), *aff'd* 792 F.3d 82 (D.C. Cir. 2015) ("the Secretary's burden is to persuade the Commission that the district manager did not abuse his discretion or act arbitrarily and capriciously in making his suitability determination, for instance by failing to examine relevant facts and draw reasonable conclusions."³ A Commission Judge then must determine whether the District Manager's rejection of the plan was an abuse of discretion.

In *Mach Mining, LLC*, the Commission affirmed the Judge's determination that a District Manager did not abuse his discretion by requiring additional evaluation points in the bleeder system. 34 FMSHRC at 1795-96. The Commission found that the evidence supported a finding that the adequacy of the airflow and methane dilution could not be determined from the information collected at the existing evaluation points.⁴

In the case at hand, rather than reviewing the proffered rationale, the Judge focused on evidence which he believed demonstrated that MSHA harbored a bias against perimeter mining. We believe that the Judge erred by departing from his narrow role of considering whether the District Manager's explanation was reasonable and based on the facts. *See Motor Vehicle Mfrs. Ass'n of U.S., Inc., v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (review of the agency decision making process under an arbitrary and capricious standard is "narrow").

Tacitly acknowledging the insufficiencies in the Judge's analysis, our colleagues affirm the Judge's decision on different grounds—imposing a new burden of proof on the Secretary. *See Slip op.* at 16. The majority holds that the Secretary does not have the discretion to require information to be included in a ventilation plan *unless* the Secretary connects that requirement to

³ The application of an arbitrary and capricious standard to review the District Manager's decision whether or not to approve a proposed ventilation plan is consistent with the Mine Act's legislative history. The Senate Committee Report on the Mine Act states that "while the operator proposes a plan and is entitled, as are the miners and representatives of miners to further consultation with the Secretary over revisions, the Secretary must independently exercise his judgement with respect to the content of such plans in connection with his final approval of the plan. S. Rep. No. 95-181, at 25 (1977), *reprinted in* Senate Subcomm. on Labor, Comm. on Human Res., *Legislative History of the Federal Mine Safety and Health Act of 1977*, at 613 (1978).

⁴ Section 75.364(a)(2)(iii) requires that "[m]easurements of methane and oxygen concentrations and air quantities and a test to determine if the air is moving in the proper direction shall be made at the measurement point locations specified in the mine ventilation plan" 30 C.F.R. § 75.364(a)(2)(iii).

“some *plausible harm* to miners from methane, dust, noxious gases, or some other ventilation-related hazard.” Slip op. at 11 (emphasis added); slip op. at 12 (The Secretary must provide “a fact-based explanation for why the proposed plan could expose miners to unsafe or unhealthful conditions.”).

The majority’s requirement that the Secretary’s discretion is constrained by his ability to connect a regulatory requirement to a plausible harm is flatly inconsistent with *Mach Mining, Prairie State* and other governing caselaw. *See also e.g., Peabody Coal Co.*, 18 FMSHRC 686, 690 (May 1996) (“[w]e reject Peabody’s proposal that the Secretary be required to prove the hazard addressed by a new plan provision either exists or is reasonably likely to occur.”); *see also Hopkins County Coal, LLC*, 557 Fed.Appx. 515, 520-21 (6th Cir. 2014), *aff’g* 35 FMSHRC 134, 142 (Jan. 2013) (finding, that the Judge’s determination that there was a rational connection between the facts and the requested revisions does not depend on a precise finding of potential harm).⁵ Additionally, our colleague’s requirement is not supported by the plain language of section 303(o), which accords discretion to the District Manager to approve ventilation plans and require information deemed to be appropriate.⁶

B. The District Manager offered a reasonable fact-based rationale for his decision not to approve Knight Hawk’s ventilation plan.

The record evidence supports only a single conclusion: the District Manager provided a reasonable fact-based rationale for declining to approve Knight Hawk’s proposed plan. *See Walker Stone Co. v. Secretary of Labor*, 156 F.3d 1076, 1085 n.6 (10th Cir. 1998) (remand unnecessary where record as a whole admits only one conclusion on the issue). The surveys demonstrated problems with ventilating the deep perimeter cuts, and accordingly the District Manager requested that the mine include more specific information in its ventilation plan.

District Manager Burns determined that the deep cuts were not adequately ventilated. The ventilation survey had indicated either imperceptible or inconsistent air circulation through the mined out blocks and perimeter cuts. Burns found that there was little to no ventilation at the face of the perimeter cuts. Furthermore, the results of the smoke tests were sometimes inconsistent within the same cut, which MSHA considered as evidence that the ventilation was not controlled or adequate. Tr. 78-79. Beiter testified that although air was being moved through the bleeder, he believed that it moved in an arbitrary manner, without “rhyme or reason.” Tr. 96-97. Methane could be encountered at any time, as demonstrated be a recent incident in

⁵ The majority mischaracterizes the Secretary’s burden in our controlling precedents, claiming that the Secretary is already required to demonstrate that the operator’s preferred plan presents a serious hazard. Slip op. at 12 (the Secretary must prove “facts sufficient to support a finding” that the operator’s plan “poses safety issues [that] warrant[] revocation”). This sleight of hand re-articulation of our caselaw subtly, but substantially, raises the Secretary’s burden and thus represents a radical departure from well-settled authority.

⁶ The Mine Act does not require that the Secretary prove a violation of a mandatory safety standard to demonstrate that the District Manager’s decision to reject a ventilation plan was not arbitrary and capricious. *See* 30 U.S.C. § 863(o) (ventilation plans must be “approved by the Secretary” and contain “such other information as the Secretary may require.”).

which a driller broke a hole in the roof and liberated methane. Sec’y Ex. 3 at 1 (4.7% methane bottle sample).

The District Manager also required that Knight Hawk indicate the direction that air moved through the blocks as specified in 30 C.F.R. § 75.372(b)(9) (“The map shall contain the following information: (9) [t]he direction of air flow in *all underground areas* of the mine.”). (emphasis added). He required the directional indications so that Knight Hawk mine examiners would be able to evaluate whether the ventilation system was functioning; proper evaluation of bleeder systems requires the ability to evaluate the direction of the airflow. 30 C.F.R. § 75.371(z) (requiring that the bleeder system be evaluated by taking “measurements of methane and oxygen concentrations and air quantities and tests to determine whether the air is moving in the proper direction.”). It is certainly reasonable for the District Manager to require the ventilation map contain directional arrows indicating which direction is the “proper direction.” Because the plan lacked adequate directional information, it did not comply with the relevant mandatory safety standards. Indeed, the safety standard at 30 C.F.R. § 75.371(y) requires that ventilation plans must include the means to determine the effectiveness of a bleeder system used during pillar recovery. Sections 75.364(a)(2)(iii) and 364(a)(2)(iv) require the travel of bleeder entries and testing at evaluation points for methane and oxygen concentrations and to test to determine if air is moving in the proper direction.⁷

Requiring that a ventilation plan contain information contemplated by the mandatory safety standards based on data retrieved from multiple ventilation surveys is within the discretion of the District Manager. 30 U.S.C. § 863(o) (“The plan shall show . . . such other information as the Secretary may require.”); 30 C.F.R. § 75.371 (“The mine ventilation plan shall contain the information described below and any additional provisions required by the district manager.”).⁸

The fact that the District Manager may require different information for a perimeter mining ventilation plan than for another mining method is a reasonable discretionary act. Ventilation plans are mine specific and address the “conditions and mining system at the mine.” 30 C.F.R. § 75.370(a)(1); *see also* 30 U.S.C. § 863(o). While other forms of secondary mining create subsidence and roof fall, the blocks in perimeter mining are uniquely accessible. The lack of ventilation in the extended perimeter cuts posed a hazard, as methane would be most likely liberated from the face of the cut, away from the ventilation. Tr. 162. Most of the extended cuts were unbolted, putting the cut at risk of a roof collapse which could liberate an explosive level of methane. Although the mine generally liberated a low amount of methane, methane can be

⁷ The Judge’s finding that Knight Hawk was able to evaluate the bleeders as required both ignores MSHA’s reasonable interpretation of a bleeder and the Secretary’s determination as to what constitutes a proper direction according to 30 C.F.R. § 75.372(b)(9).

⁸ The majority curiously maintains that the Secretary’s requirement that the mine map contain arrows indicating the direction of airflow is not supported by the plain language of section 75.372(b)(9) which requires that the map contain “the direction of airflow.” Slip op. at 14-15 n.25. We conclude that the Secretary’s requirement that the mine map contain arrows is plainly consistent with the requirements of section 75.372(b)(9).

liberated at any time and pockets of methane could form in the work-out area.⁹ Tr. 177, 182-83, 194-95, 351-52. Requiring that the deep cuts receive adequate air-flow to dissipate methane that may accumulate is a reasonable discretionary act designed to mitigate a potential harm that may occur under a deficient ventilation plan.

Section 75.334(b)(1) requires that bleeder systems “control the air passing through the area” and “continuously dilute and move methane-air mixtures . . . from the worked-out area away from active workings and into a return air course or to the surface of the mine.” 30 C.F.R. § 75.334(b)(1). In 2013, MSHA issued Program Policy Letter P13-V-12 (PPL) which states that bleeder systems include “the area from which pillars are wholly or partially recovered.” Sec’y Ex. 13 at 2. The PPL acknowledges that rooms around the pillared area may have formerly been identified as part of the “gob” but because gases, dusts and fumes are moved through these entries and away from active workings, the rooms are functionally bleeder entries. *Id.* at 3-4.¹⁰

In summary, the Secretary required Knight Hawk to include further information contemplated by the mandatory safety standards, after conducting a survey that demonstrated that airflow was inadequate in some areas. Because the District Manager’s determination was reasonable and based on the facts and the mandatory safety standards, the record only supports one finding – the District Manager’s requirement was not arbitrary and capricious.

C. The Judge Made Factual and Legal Errors in Finding that the District Manager’s Decision was the Product of a Bias Against Perimeter Mining.

The ruling below is infected by the erroneous conclusion that the District Manager’s determination was arbitrary and capricious because he “improperly relied on two factors: unreliable smoke tests conducted inside the perimeter cuts, and a bias against perimeter mining

⁹ Furthermore, in worked-out areas the Secretary requires that the ventilation plan specify the location of ventilating devices such as regulators, stopping and bleeder connectors used to control air movement through the worked-out area. 30 C.F.R. § 75.334(c)(4); 30 C.F.R. § 75.371(bb).

¹⁰ The Judge refused to consider the mined out rooms at the PEUM to be bleeders. He found that in order for the Secretary to change his interpretation regarding bleeder systems in perimeter mines, he was required to undertake notice and comment rule-making. The Judge erred. An agency is not required to undertake notice and comment rule-making when it changes its interpretation of the regulations it enforces. *Perez v. Mortgage Bankers Ass’n*, 575 U.S. 92 (Mar. 2015) (in which the Department of Labor revised its interpretation of a regulation after realizing that an earlier interpretation relied on “misleading assumption[s]”). The Mine Act contemplates that the Secretary will continually evaluate ventilation plans so that he may best protect miner health and safety. 30 U.S.C. § 863(o) (requiring that the Secretary review ventilation plans every six months). Furthermore, the Secretary is entitled to deference to his reasonable interpretations of his regulations. *Auer v. Robbins*, 519 U.S. 452 (1997). Because the mined out areas that function as bleeders are used to move gases, dust and fumes through, it is reasonable for the Secretary to treat the entries as bleeders and require mine operators to comply with the applicable ventilation safety standards. *See Emery Mining Corp. v. Sec’y of Labor*, 744 F.2d 1411, 1414 (10th Cir. 1984) (safety standards “must be interpreted so as to harmonize with and further . . . objective[s] of” the Mine Act”).

that is supported by substantial record evidence.” 41 FMSHRC at 549. It should not be affirmed because the Judge made findings that lack the support of the record evidence, failed to evaluate relevant evidence, and made legal errors in his analysis.

The Judge’s analysis ignores bedrock principles of administrative law. Case precedent makes clear that absent a concrete preliminary showing of bad faith, it is improper to permit inquiry into the mental processes or methods by which an administrative decision-maker reached his or her conclusions. *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 420 (1971), *abrogated on other grounds by Califano v. Sanders*, 430 U.S. 99 (1977); *United States v. Morgan*, 313 U.S. 409, 421-22 (1941). Consequently,

[u]nless the administrative action is tainted by malice, fraud, or corruption, the courts are concerned only with the product, not with the motives which produced it. The courts do not sit in judgment on the motives of administrative officers, acting in purely administrative matters [I]t is not the proper function of the court to probe the mental processes of the agency . . . particularly if the agency makes a considered decision upon a full administrative record.

73A *Corpus Juris Secundum* Public Administrative Law and Procedure § 491. As the D.C. Circuit has emphasized, “the actual subjective motivation of agency decisionmakers is immaterial as a matter of law—unless there is a showing of bad faith or improper behavior.” *In re Subpoena Duces Tecum Served on the Office of the Comptroller of the Currency*, 156 F.3d 1279, 1280 (D.C. Cir. 1998).

Moreover, the Judge’s analysis also fails to reflect the Secretary’s role—and the importance of his expertise – in the ventilation plan process. As the Seventh Circuit explained:

[T]he process of approving a ventilation plan . . . involves the *formulation* of a standard, not the *enforcement* of a standard. . . . At bottom, it 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. There is, in other words, a congressional mandate that the Secretary exercise independent judgment that the plan safeguards those who it is designed to protect. The plan as finally implemented must reflect the Secretary’s best judgment that the mine is indeed safe for mines. *See* U.S.C. s 8639o). . . . This statutory provision makes clear that the Secretary’s role of approving the plan is . . . a role imbued with a legislative or policy-making dimension to ensure that the plan is reflective of the public interest in mine safety.

Mach Mining, 728 F.3d at 657.

Given this role, and the emphasis on the importance of the Secretary’s exercise of independent judgment, MSHA is permitted—indeed, required—to formulate policy choices that maximize miner safety. Hence, absent a significant threshold showing of bad faith (which was

certainly not demonstrated in this case), our judges should not explore MSHA's motives in preferring certain mining practices over others.

The Commission has adhered to this principle in reviewing plan dispute cases. For example, in *Prairie State*, we upheld MSHA's position on several ventilation and roof control plan provisions that were the subject of disagreement between the agency and the operator (while remanding on other issues where the Judge made no findings of fact). 35 FMSHRC at 1997. One dispute centered on whether the operator should be permitted to use an extended roof cut of 40 feet instead of using the normal 20-foot cut by a continuous mining machine. We concluded that substantial evidence supported the Judge's decision that the District Manager did not act arbitrarily or capriciously by imposing requirements regarding the length of cuts.

Just as MSHA in the case before us has concerns about ventilating deep perimeter cuts and requested that Knight Hawk include more specific information in its ventilation plan, in *Prairie State* MSHA expressed doubts about the safety of extended cuts, due to the possibility of a greater number of roof falls with longer cuts and the presence of respirable dust. *Prairie State Generating Co.*, 32 FMSHRC 602, 606 (May 2010) (ALJ). An MSHA Procedure Instruction Letter permitted MSHA to evaluate operators' plans by using a 10-foot increment stair-step evaluation, first approving a 20-foot cut, then when the mine successfully operated on that basis, progressing to 30-foot cuts, then 40-foot cuts. As the Court of Appeals explained in upholding MSHA's position adopting this approach, "the thrust of the Letter is to ensure that operators and district managers have data from initial operating experience at a site to inform the decision about cut length appropriate to the mine." 792 F.3d at 95.

Both here and in *Prairie State*, MSHA expressed concerns about certain mining practices (perimeter mining and 40 foot cuts) and required additional information to ensure miner safety. The expression of such preferred results (that neither perimeter mining nor 40-foot cuts be permitted in the absence of additional safety information) flows naturally from MSHA's policy-making role, and neither judges nor the Commission need examine the motivation behind such choices.

Nonetheless, we will address the Judge's findings of bias and why they are not supported by the record. First, the Judge found that testing for airflow inside the perimeter cuts was evidence of a bias against perimeter mining. 41 FMSHRC at 550. However, as previously articulated, the mined out areas in perimeter mining function as bleeders and therefore are required to comply with the relevant mandatory safety standards. The Mine Act authorizes the District Manager the discretion to consider the unique conditions of each mine and mining system used in approving a suitable ventilation plan. 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 shall be adopted by the operator . . .") (emphasis added).

The Judge further erred in finding that the use of chemical smoke tests to conduct a ventilation survey was indicative of bias. Smoke tests are a commonly accepted methodology used in conducting ventilation surveys. See *Mach Mining*, 34 FMSHRC at 1786. Thomas Hasenstab, the mine superintendent, and Gary Hartsog, Knight Hawk's own expert, conceded as much. Tr. 347-48, 510-11. John Hohn, MSHA ventilation specialist, testified that smoke tests

are used where the airflow is too low for anemometers. Tr. 255-56. Dennis Beiter¹¹ and Burns stated that MSHA did not use the alternative methodology of tracer gas in this instance because the direction of airflow was unknown in some sections of the mine. Tr. 247-48; Tr. 559-61. We conclude that MSHA articulated a reasonable fact-based rationale for relying on an accepted methodology for conducting a ventilation survey. Accordingly, the Judge's finding that the use of a chemical smoke test was indicative of bias is off the mark.

The Judge further erred when he implied that the District Manager's decision that the proposed plan was not suitable was tantamount to a ban of perimeter mining at the PEUM. *See* 41 FMSHRC at 553 ("Here, MSHA made no statement or analysis that the significant and uncontroverted safety and health protections afforded by perimeter mining under the revoked ventilation plan were actually considered or outweighed by safety and health standards that gave no less protection against respirable dust, noise, red zone, and roof bolting under the interim ventilation plan.").¹² Notably, Burns had told Knight Hawk that he would also approve a perimeter mining plan at the PEUM with 20 foot cuts (Tr. 203; Sec'y Exs. 7, 9), or even 40-foot cuts if a suitable ventilation plan could be developed. Tr. 213-14. Moreover, in finding "bias" on the part of District 8, the Judge failed to consider that District 8 had in fact approved a perimeter mining ventilation plan for Gateway North. Tr. 164-65.

Hasenstab, the superintendent, testified that he did not think that Burns was trying to eliminate perimeter mining by revoking the ventilation plan. Tr. 354. The Judge dismissed Hasenstab's un-rebutted testimony, finding that he did not testify truthfully in order to avoid generating "ill will" with District 8. 41 FMSHRC at 550. The record contains no indication that Hasenstab was coloring his testimony to appease District 8 officials. The Judge's inference is entirely speculative.

Instead of relying on the aforementioned direct evidence, the Judge relied on the hearsay evidence of Eslinger, who testified that he knew of MSHA officials who vowed to "get rid" of perimeter mining. *Id.*; Tr. 416-17, 438-39, 440-42. Yet, Eslinger conceded that he did not have any personal knowledge as to District Manager Burns' thoughts on perimeter mining and, in fact, never met or spoke with Burns. Tr. 443-44. Furthermore, Eslinger had not worked at MSHA since 2009. Tr. 400.

The Judge also found that Beiter demonstrated bias when he corrected Diane Doyle-Combs and asked her to revise her notes concerning the direction the chemical smoke tests indicated. The Judge neglected to consider Beiter's explanation that he corrected Doyle-Combs

¹¹ Dennis Beiter was the MSHA engineer and senior official responsible for investigating ventilation systems in mines.

¹² Section 101(a)(9) of the Act provides that "[n]o mandatory health or safety standard promulgated under [Title 1] shall reduce the protection afforded miners by an existing mandatory health or safety standard." 30 U.S.C. § 811(a)(9). Section 303(o), which grants District Managers the discretion to approve ventilation plans and to require certain information therein, appears in Title III of the Act, not Title I. 30 U.S.C. § 863(o). Accordingly, the Judge erred as a matter of law when he held that MSHA is required to consider the "no-less-protection" standard in section 101(a)(9) when it revokes a ventilation plan.

because she had erroneously recorded the observations of Knight Hawk’s representatives. Tr. 565-66. Her assigned task was to exclusively record MSHA’s observations.

The Judge’s finding that MSHA did not consider the advice of agency experts before revoking the PEUM ventilation plan is not supported by substantial evidence. The District Manger’s decision to revoke the plan was based on the findings of the ventilation survey. Agency officials with demonstrated expertise in ventilation participated in the survey, including John Hohn, a ventilation specialist supervisor, and Dennis Beiter, the senior official responsible for investigating ventilation plans for MSHA. Therefore, the Judge’s conclusion that “bias” can be inferred by the District Manager’s failure to consider the opinion of experts is not substantiated by the facts. 41 FMSHRC at 551.

The Judge further erred in concluding that the findings of the ventilation survey—which demonstrated inadequate air movement in deep perimeter cuts—was not a sufficient reason in-and-of-itself to reevaluate earlier conclusions regarding the suitability of the ventilation plan. *See id.*

Furthermore, the Judge took issue with MSHA’s June 7, 2018, letter in the use of the term “throughout” rather than “through.” *Id.* at 550 (“This bias was evidenced not only from testimony, but also from the June 7, 2018 letter where MSHA specifically emphasized that the ventilation plan was inappropriate because ‘[t]he worked-out area is not ventilated throughout the entire pillared area.’”). The Judge notes that the term “throughout” is not used in section 75.334(b)(1). The Judge apparently failed to consider that section 75.334(b)(1) requires that the bleeder system must “control the air passing *through* the area.” 30 C.F.R. § 334(b)(1) (emphasis added). The Judge did not attempt to explain why it was unreasonable for MSHA to read the term “through” as meaning “throughout” in the context of section 75.334(b)(1).

In summary, because the Judge considered evidence that was superfluous to the Commission’s review of agency action under section 303(o), neglected to consider relevant evidence and otherwise erred as a matter of law, we cannot affirm his finding that the District Manager acted in an arbitrary and capricious manner.

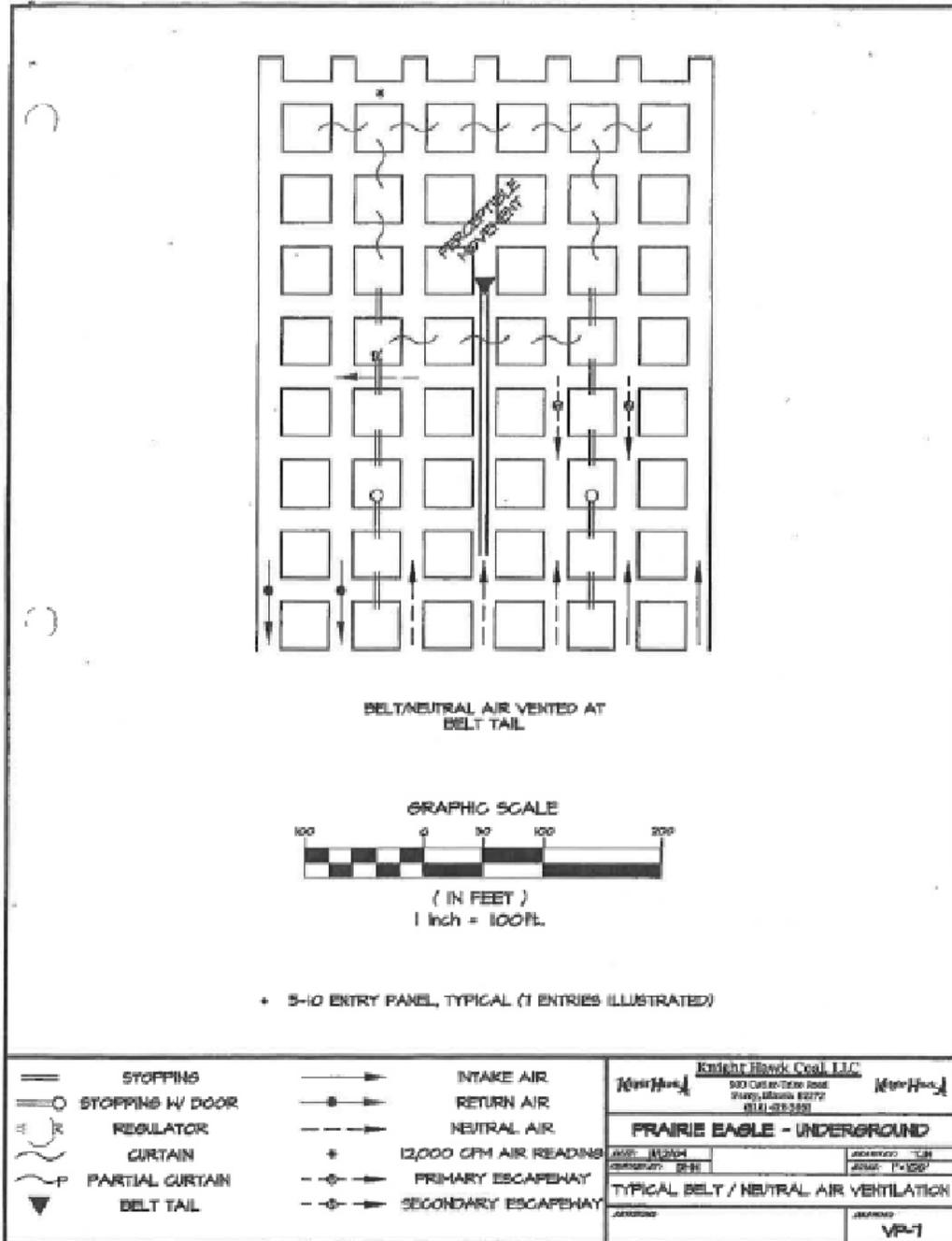


Mary Lu Jordan, Commissioner



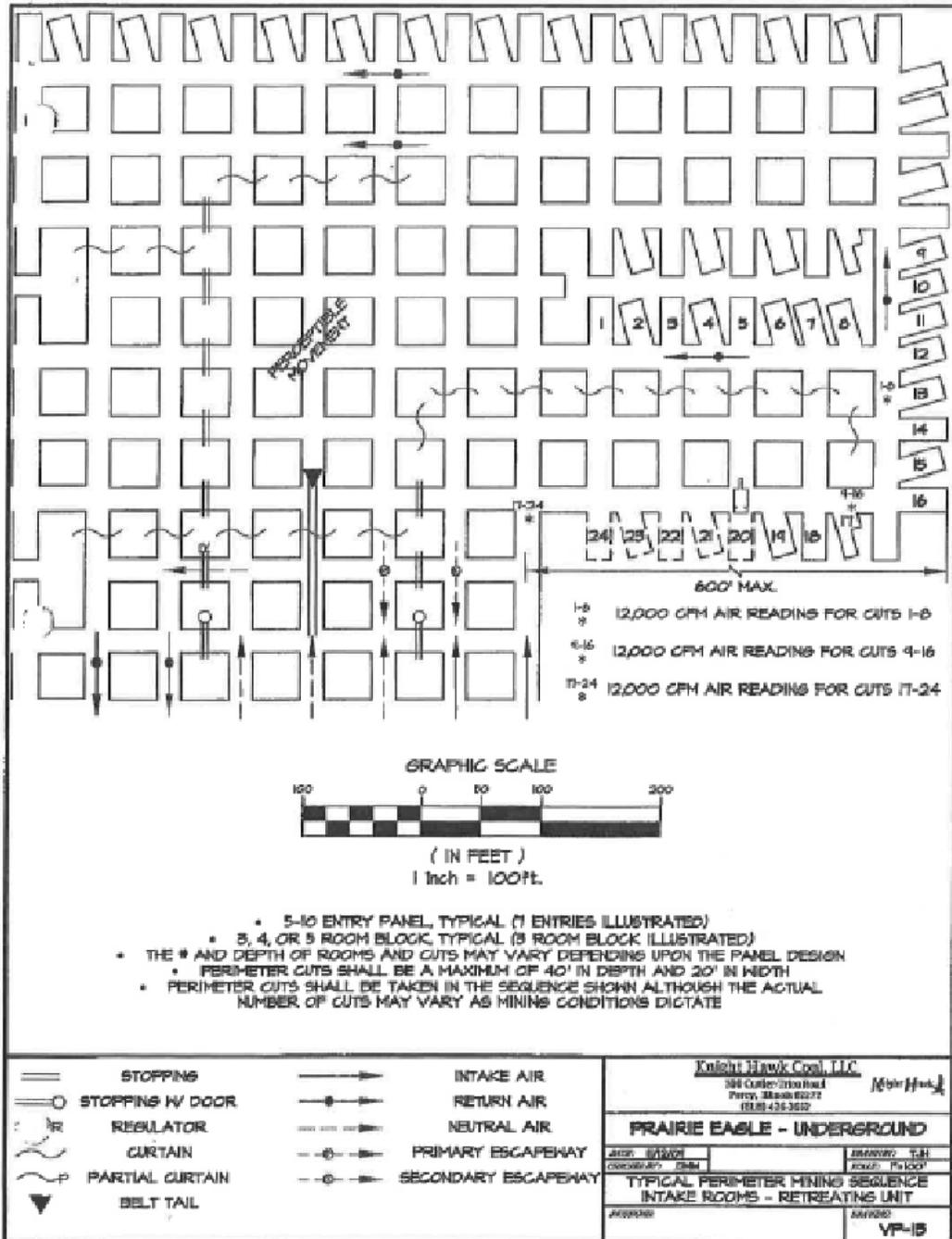
Arthur R. Traynor, III, Commissioner

Attachment A



1891

Attachment B



1897

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