

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued December 8, 2020

Decided March 26, 2021

No. 20-1299

SECRETARY OF LABOR, MINE SAFETY AND HEALTH
ADMINISTRATION,
PETITIONER

v.

KNIGHT HAWK COAL, LLC AND FEDERAL MINE SAFETY AND
HEALTH REVIEW COMMISSION,
RESPONDENTS

On Petition for Review of a Decision of the
Federal Mine Safety and Health Review Commission

Emily Toler Scott, Acting Counsel for Appellate
Litigation, U.S. Department of Labor, argued the cause and
filed the briefs for petitioner.

Ralph Henry Moore II argued the cause for respondent
Knight Hawk Coal, LLC. With him on the brief was *Patrick
W. Dennison*.

Before: SRINIVASAN, *Chief Judge*, HENDERSON, *Circuit
Judge*, and RANDOLPH, *Senior Circuit Judge*.

Opinion for the Court filed by *Circuit Judge* HENDERSON.

KAREN LECRAFT HENDERSON, *Circuit Judge*: The Federal Mine Safety and Health Amendments Act of 1977 (Mine Act), 30 U.S.C. §§ 801 *et seq.*, requires the Secretary of the United States Department of Labor (Labor Secretary or Secretary), acting through the Mine Safety and Health Administration (MSHA), to negotiate mine-specific ventilation plans with representatives of the companies that operate the mines. From 2006 to 2018, Knight Hawk Coal, LLC (Knight Hawk) operated its Prairie Eagle Underground Mine (Prairie Eagle) in accordance with a ventilation plan approved by MSHA. The approved ventilation plan permitted Knight Hawk to conduct perimeter mining at Prairie Eagle with 40-foot perimeter cuts.¹ In January 2018, MSHA conducted a ventilation survey at Prairie Eagle and concluded that the approved ventilation plan did not adequately ventilate the perimeter cuts. MSHA relied primarily on the results of chemical smoke tests, which involved survey team members observing smoke movement from a 44-foot distance. From February to October 2018, MSHA and Knight Hawk exchanged letters about the alleged deficiencies in the ventilation plan. Then, in November 2018, MSHA revoked Knight Hawk's Prairie Eagle ventilation plan. After receiving a technical citation from MSHA for operating without an approved plan,² Knight Hawk sought review of MSHA's revocation decision from the Federal Mine Safety and Health Review Commission (Commission).

An Administrative Law Judge (ALJ) appointed by the Commission found that the revocation decision was arbitrary and capricious, in part because the chemical smoke test results were unreliable and inconsistent and the Secretary ignored disagreements among MSHA ventilation survey team

¹ See *infra* at 5–6.

² See *Prairie State Generating Co. v. Sec'y of Labor*, 792 F.3d 82, 87–88 (D.C. Cir. 2015) (explaining technical citation practice to enable review of MSHA actions).

members regarding the results. The ALJ vacated the technical citation and reinstated the previously approved ventilation plan. The Commission then affirmed the ALJ's decision, finding that substantial evidence supported the ALJ's conclusion that the Secretary failed to explain adequately why the existing ventilation plan was deficient. The Secretary now petitions us for review. We deny the petition because substantial evidence supports the ALJ's finding that the Secretary's revocation decision was indeed arbitrary and capricious.

I. BACKGROUND

A. Statutes and Regulations

The Congress enacted the Mine Act “to protect the health and safety of the Nation’s coal or other miners.” 30 U.S.C. § 801(g). “The Mine Act subjects mine operators to substantial safety regulation, under rules generally applicable to all mines, as well as mine-specific safety plans suited to the particular geologic conditions and the operator’s chosen mining system.” *Prairie State Generating Co. v. Sec’y of Labor*, 792 F.3d 82, 84 (D.C. Cir. 2015).

Two separate agencies enforce the Mine Act through “complementary policymaking and adjudicative functions.” *Id.* at 85. The Labor Secretary, acting through MSHA, sets regulatory standards for mine safety, conducts regular mine inspections and issues citations and orders in response to violations. *See* 29 U.S.C. § 557a; 30 U.S.C. §§ 813, 814; *Thunder Basin Coal Co. v. Reich*, 510 U.S. 200, 202–04 & n.5 (1994). The Commission, an adjudicatory body that is independent of the Secretary, reviews challenges to MSHA’s actions. *See* 30 U.S.C. §§ 815(d), 823.

“The Mine Act requires the Secretary, acting through an MSHA district manager . . . , to negotiate mine-specific roof-support and ventilation plans with representatives of the companies that operate the mines.” *Prairie State*, 792 F.3d at 86. In this respect, the Congress determined that “individually tailored plans, with a nucleus of commonly accepted practices, are the best method of regulating such complex and potentially multifaceted problems as ventilation, roof control and the like.” *United Mine Workers of Am., Int’l Union v. Dole*, 870 F.2d 662, 669 (D.C. Cir. 1989) (quoting S. Rep. No. 95–181, at 25 (1977), reprinted in 1977 U.S.C.C.A.N. 3401, 3425).

A mine operator must propose a plan that it believes is “suitable” to ensure adequate ventilation as well as methane and dust control based on each mine’s unique geology and proposed mining system. *See* 30 U.S.C. § 863(o); *see also* 30 C.F.R. § 75.370(a)(1) (“The operator shall develop and follow a ventilation plan approved by the district manager. The plan shall be designed to control methane and respirable dust and shall be suitable to the conditions and mining system at the mine.”). “[W]hile the operator proposes a plan and is entitled . . . to further consultation with the Secretary over revisions, the Secretary must independently exercise his judgment with respect to the content of such plans in connection with his final approval of the plan.” *Dole*, 870 F.2d at 669 n.10 (quoting S. Rep. No. 95–181 at 25, 1977 U.S.C.C.A.N. at 3425). Thus, the Secretary “retain[s] final responsibility for deciding what ha[s] to be included in the plan.” *Id.* “No mine may operate without an approved plan, and once the Secretary has approved a plan, its terms are enforceable as if they were duly promulgated regulations.” *Prairie State*, 792 F.3d at 86. Moreover, “[t]he ventilation plan for each mine shall be reviewed every 6 months by an authorized representative of the Secretary to assure that it is

suitable to current conditions in the mine.” 30 C.F.R. § 75.370(g).

B. Facts

“Perimeter mining” is “a special variant of the room-and-pillar method” of mining. *Sec’y of Labor v. Knight Hawk Coal, LLC (Knight Hawk II)*, 42 FMSHRC 435, 436 (July 2020) (internal quotations omitted). Underground room-and-pillar mining proceeds in two phases: advance mining and retreat mining. Coal is first extracted with advance mining—digging parallel and perpendicular tunnels into the solid coal and leaving pillars of undisturbed coal behind for roof support.

Retreat mining begins after advance mining has been completed. In traditional room-and-pillar mining, entire pillars are removed during retreat mining and the roof eventually collapses. By contrast, perimeter mining involves making angled cuts into the interior pillars or into the perimeter of areas where advance mining has been completed. Thus, no interior pillars are completely removed in perimeter mining. Because the interior pillars are left to support the roof, “perimeter mining has less caving of the mined area than other forms of retreat mining.” *Id.* at 437.

Three mines under MSHA Coal District 8’s jurisdiction³ either currently operate, or previously operated, with perimeter mining: Gateway North, Viper and Knight Hawk’s Prairie

³ At the time the case was presented to the ALJ and to the Commission, MSHA’s district offices were identified by number. MSHA’s district offices have since been renamed based on location. Coal District 8 is now the Vincennes, Indiana district office. Because the ALJ and the Commission decisions refer to District 8, we also refer to the Vincennes, Indiana district office as District 8 to avoid confusion.

Eagle. As noted, 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.” 30 U.S.C. § 863(o); see 30 C.F.R. §§ 75.370–.371. Prairie Eagle received conditional approval from MSHA to begin perimeter mining in 2006. MSHA District 8 granted unconditional approval four years later in 2010 and again granted unconditional approval in 2015. The approved ventilation plan allowed Knight Hawk to conduct perimeter mining at Prairie Eagle with deep perimeter cuts, up to a depth of 40 feet.

In 2017, the Gateway North mine submitted a plan to MSHA to conduct perimeter mining with 40-foot cuts, as opposed to the 20-foot perimeter cuts that had previously been approved at that mine. Before approving the plan, MSHA District 8 Manager Ronald Burns ordered a ventilation survey to determine whether the deep cuts could be adequately ventilated. Burns concluded that “the results [of the Gateway North survey] raised concerns regarding 40-foot cut perimeter mining, so he decided to conduct [ventilation] surveys at Viper Mine and [Prairie Eagle], as well.” *Knight Hawk II*, 42 FMSHRC at 439.

On January 9–10, 2018, MSHA conducted a ventilation survey of Prairie Eagle. Dennis Beiter, an MSHA mining engineer with the ventilation division, headed the investigation team. The team included MSHA Ventilation Specialists and other MSHA personnel. The survey was conducted using “standard investigation procedures and standard procedures for collecting ventilation related data.” Joint Appendix (J.A.) 36 (Dennis Beiter Administrative Hearing Testimony). Specifically, the team “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.” *Knight Hawk II*, 42 FMSHRC at 439. For the perimeter cuts,

[t]he team . . . conducted [chemical] 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. The smoke was released from a tube at the end of the [44-foot] 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.

Id. (citations omitted). MSHA’s team did not use tracer gas tests⁴ in its survey even though Beiter admitted that tracer gas could have been used to provide similar airflow information.

On January 29, 2018, MSHA conveyed to Knight Hawk the preliminary results of the ventilation survey. “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.” *Id.* at 441. The survey also found that “[t]here was no perceptible air movement in 5[7]⁵ of the 138 deep perimeter cuts MSHA tested (of the 615 total deep perimeter cuts in the panel), and [in some

⁴ Tracer gas is used to determine airflow by releasing a certain gas in one area of a mine and then sampling for that gas in another area and assessing its concentration level.

⁵ The Secretary’s brief states that there was no perceptible movement in 56 of the 138 deep perimeter cuts. But MSHA’s final ventilation survey report stated that 57 of the 138 deep perimeter cuts tested had no perceptible air movement. *See* J.A. 265.

cuts] where there was air movement, it was intermittent (inconsistent and uncontrolled).” Pet’r’s Br. 19 (citing J.A. 265).

After MSHA’s finalized ventilation survey report issued on February 8, 2018, Knight Hawk and MSHA exchanged a series of letters. MSHA’s letters outlined alleged deficiencies in the ventilation plan and asked Knight Hawk to submit a revised plan. Knight Hawk claimed that the ventilation survey report “contained opinion, speculation, and assumed definitions and designations of the terms pillared areas, bleeder entries, partial recovery second mining, and return air split.” *Knight Hawk II*, 42 FMSHRC at 441 (internal quotations omitted). Knight Hawk also emphasized the safety benefits of perimeter mining as compared to other mining methods.⁶

Knight Hawk eventually proposed one modification in response to the MSHA letters, offering to “add a statement to the Mine Ventilation Map for each worked out area to better describe the direction of air movement through the worked-out areas.”⁷ J.A. 296. MSHA rejected the proposal “because it was only a general statement that air was going from one place to another without indicating how it got there.” Pet’r’s Br. 23 (citing J.A. 74). In his testimony at the subsequent administrative hearing, District 8 Manager Burns described the difference as stating airflow went from point A to point Z rather than from point A to B to C, etc.

⁶ In this case, “[i]t is uncontested that perimeter mining is safer than other forms of retreat mining.” *Id.* at 437.

⁷ A worked-out area is “[a]n area where mining has been completed, whether pillared or nonpillared, excluding developing entries, return air courses, and intake air courses.” 30 C.F.R. § 75.301.

On October 22, 2018, MSHA notified Knight Hawk that, if Knight Hawk did not propose modifications that addressed the alleged deficiencies in the ventilation plan, the plan would be revoked. On November 14, 2018, MSHA revoked Knight Hawk's Prairie Eagle ventilation plan, approved an interim plan that did not include perimeter mining and issued a technical citation. The technical citation asserted five deficiencies:

(1) the design of the bleeder system did not control air direction through[] [all individual] 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 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) [the] 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.

Knight Hawk II, 42 FMSHRC at 455. The technical citation referred to multiple sections of the underground coal mine safety regulations to support the five alleged deficiencies. *Id.* (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)). In its brief, the Secretary categorizes the five deficiencies as focused on two problems: "the [40-foot] deep cuts were not adequately ventilated, and mine examiners

could not adequately evaluate whether the ventilation system was working effectively.” Pet’r’s Br. 24.

C. Procedure

On November 15, 2018, Knight Hawk filed a notice of contest, challenging MSHA’s technical citation. *Knight Hawk Coal, LLC v. Sec’y of Labor (Knight Hawk I)*, 41 FMSHRC 522, 522 (Aug. 2019) (ALJ). On March 28–29 and April 1, 2019, an ALJ held a hearing on Knight Hawk’s challenge to the technical citation. On August 19, 2019, the ALJ issued his decision, concluding that MSHA’s revocation of Knight Hawk’s Prairie Eagle ventilation plan was arbitrary and capricious, vacating the technical citation and reinstating the previously approved ventilation plan.⁸

The ALJ examined the factors set forth in *Motor Vehicle Manufacturers Ass’n of the United States, Inc. v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 43 (1983), traditionally used to determine whether an agency action is arbitrary and capricious.⁹ First, the ALJ concluded “MSHA improperly relied on two factors: unreliable smoke tests conducted inside the perimeter cuts, and a bias against

⁸ Although the ALJ noted that “Commission case law regarding the standard of review applicable to . . . a district manager’s rejection of a ventilation plan appears to be in a state of flux,” the ALJ correctly concluded that “the most recent Commission precedent . . . applies an arbitrary and capricious standard in these circumstances.” *Knight Hawk I*, 41 FMSHRC at 544, 548.

⁹ The *Motor Vehicle Mfrs.* “arbitrary and capricious” factors are: “if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Id.*

perimeter mining.” *Knight Hawk I*, 41 FMSHRC at 549, 548–51. Second, the ALJ found MSHA failed to consider important factors, including (1) the statutory requirement of the no-less protection standard, (2) the failure to use tracer gas tests and (3) the differences of opinion among the MSHA survey team members regarding the chemical smoke test results. *Id.* at 552–54. Third, the ALJ concluded MSHA’s explanation for revoking the ventilation plan ran counter to the evidence because the record did not establish non-compliance with the regulations. *Id.* at 555–59. Moreover, the ALJ found that, “insofar as the Secretary relies on [Program Policy Letter (PPL)] P13-V-12 as the impetus that changed the substantive requirements for the submitted ventilation plan and maps, such reliance is improper as PPL P13-V-12 did not go through proper notice-and-comment rulemaking.” *Id.* at 559. Based on these deficiencies, the ALJ concluded MSHA’s revocation of Knight Hawk’s Prairie Eagle ventilation plan was arbitrary and capricious.

On July 23, 2020, in a 3–2 decision, the Commission affirmed the ALJ’s decision and order. *Knight Hawk II*, 42 FMSHRC at 453–54. The Commission confirmed that the Secretary’s decision to revoke a ventilation plan is reviewed under the arbitrary and capricious standard. The Commission “then determine[d] whether substantial evidence support[ed] the [ALJ]’s finding as to whether the agency action was arbitrary and capricious.” *Id.* at 445 (citing *Prairie State Generating Co. v. Sec’y of Labor*, 35 FMSHRC 1985, 1989–91 (July 2013), *aff’d*, 792 F.3d 82 (D.C. Cir. 2015); *Sec’y of Labor v. Mach Mining, LLC*, 34 FMSHRC 1784, 1790–91 (Aug. 2012), *aff’d*, 728 F.3d 643 (7th Cir. 2013)). Under the substantial evidence standard of review, in a 3–2 decision, the Commission concluded that “substantial evidence supports the [ALJ]’s finding that the Secretary failed to articulate a satisfactory explanation, rationally connected to the facts,

justifying a finding that [Knight Hawk's Prairie Eagle] ventilation plan was unsuitable." *Id.* at 447.

First, the Commission concluded that the ALJ correctly determined that MSHA does not require uniform air flow throughout the worked-out areas in mines that conduct types of retreat mining other than perimeter mining. Because MSHA does not require this information from mines that do not use perimeter mining, the Commission found "[s]uch an informational requirement is not necessary without a showing of *need*, for safety, to require travel within worked-out areas to evaluate airflow in entries and crosscuts." *Id.* at 448. In this respect, the only potential hazard that MSHA had identified as relevant to its ventilation survey was "the possibility of a buildup of methane" and the Commission concluded that MSHA presented no evidence that supported finding a risk of methane buildup. *Id.* at 449. Specifically, the Commission found that:

Although the tests conducted by MSHA were deeply flawed, 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.

Id. (footnote omitted). Accordingly, the Commission concluded "substantial evidence supports the [ALJ]'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.” *Id.* at 451. Simply put, “MSHA’s investigation did not show any prospect of an ignition or lack of oxygen in the mine.” *Id.* at 450.

Second, the Commission determined that PPL P13-V-12 “redefined bleeder systems to include *pillared areas* and thus information would now be required on airflow *within such areas*.” *Id.* at 449. The Commission found that the PPL’s redefinition of bleeder systems was a substantive change rather than an interpretive rule and therefore required notice-and-comment rulemaking. Because PPL P13-V-12 did not go through the notice-and-comment process, the Commission concluded that the ALJ “correctly found that it was improper for MSHA to rely on the PPL to revoke the plan without a reasonable fact-based finding of safety deficiencies in the plan.” *Id.* at 450.

Third, the Commission agreed with the ALJ’s finding that “MSHA failed to explain why the revocation satisfied the ‘no-less protection’ standard under 30 U.S.C. § 811(a)(9).” *Id.* at 451. Finally, the Commission concluded that substantial evidence supports the ALJ’s conclusion because “the Secretary has not provided the necessary explanation as to why th[e existing ventilation] 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.” *Id.* at 452.

Two Commissioners dissented. The dissent claimed that the majority “create[d] a new legal standard . . . 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.’” *Id.* at 454 (Jordan and Traynor, Comm’rs, dissenting) (quoting *id.* at 445 (majority opinion)). Moreover, the dissent concluded

that “the District Manager provided a reasonable fact-based rationale for declining to approve Knight Hawk’s proposed plan,” namely, “[t]he 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.” *Id.* at 457.

On August 7, 2020, the Secretary timely petitioned this court for review.¹⁰ The Secretary argues that (1) the Commission did not properly apply the arbitrary and capricious standard; (2) substantial evidence does not support finding that the Secretary arbitrarily revoked Knight Hawk’s Prairie Eagle ventilation plan; and (3) in the event the Secretary’s plan revocation was arbitrary, the appropriate remedy was remand, not reinstatement of the previously approved plan. Knight Hawk responds that (1) the Commission applied the proper standard of review; (2) the ALJ’s determination that the Secretary arbitrarily revoked Knight Hawk’s Prairie Eagle ventilation plan is supported by substantial evidence; and (3) the Secretary waived its appropriate remedy argument by failing to raise the issue in its petition before the Commission.

II. ANALYSIS

A. Standard of Review

We think it important to first determine our standard of review and, in the process, set forth the Mine Act’s unique statutory structure for review of the Secretary’s actions. The

¹⁰ The Secretary also moved to stay the Commission’s decision with the Commission and with our court. Both motions were denied. *See Order at 1, Sec’y of Labor v. Knight Hawk Coal, LLC*, No. 20-1299 (D.C. Cir. Sept. 17, 2020); *Sec’y of Labor v. Knight Hawk Coal, LLC (Knight Hawk III)*, 2020 WL 5500868, at *1 (FMSHRC Sept. 1, 2020).

Commission has the authority to assign an ALJ appointed by the Commission to hear matters arising under the Mine Act. *See* 30 U.S.C. § 823(d)(1). Section 823(d) further provides that a person adversely affected by an ALJ decision may file a petition for discretionary review by the Commission on one or more of five specific grounds:

(I) A finding or conclusion of material fact is not supported by substantial evidence.

(II) A necessary legal conclusion is erroneous.

(III) The decision is contrary to law or to the duly promulgated rules or decisions of the Commission.

(IV) A substantial question of law, policy or discretion is involved.

(V) A prejudicial error of procedure was committed.

Id. § 823(d)(2)(A)(ii). The statute then directs that, “[i]f granted, review shall be limited to the questions raised by the petition.” *Id.* § 823(d)(2)(A)(iii). Accordingly, “the only ‘question’ relating to the factual findings of an ALJ that the Commission can consider is whether those findings are supported by substantial evidence.” *Donovan ex rel. Chacon v. Phelps Dodge Corp.*, 709 F.2d 86, 91 (D.C. Cir. 1983). Thus, “[u]nlike the Administrative Procedure Act, the Commission’s generic statute limits the agency’s review of an ALJ’s findings of fact to an inquiry into whether they are supported by substantial evidence.” *Id.* at 87 (citation omitted).

If a party petitions for review of the Commission’s decision, we then review the ALJ’s factual findings for

substantial evidentiary support. 30 U.S.C. § 816(a)(1) (“findings of the Commission with respect to questions of fact, if supported by substantial evidence on the record considered as a whole, shall be conclusive” in any subsequent judicial review proceeding).¹¹ We accord “great deference” to the ALJ’s credibility determinations. *Sec’y of Labor v. Keystone Coal Mining Corp.*, 151 F.3d 1096, 1107 (D.C. Cir. 1998). And we review the Commission’s legal conclusions *de novo*. See *Black Beauty Coal Co. v. Fed. Mine Safety & Health Rev. Comm’n*, 703 F.3d 553, 558 (D.C. Cir. 2012); *Keystone Coal*, 151 F.3d at 1099.

The question arises whether the ALJ’s determination that the Secretary acted arbitrarily and capriciously in revoking Knight Hawk’s Prairie Eagle ventilation plan is a question of law or fact. Here, however, the parties agree that we assess the ALJ’s finding that the Secretary acted arbitrarily and capriciously, and the Commission’s affirmance of that finding, under the substantial evidence standard. Accordingly, we assume, without deciding, that the substantial evidence standard governs our review of the ALJ’s and the Commission’s decisions regarding this dispute.

B. Commission’s Application of Arbitrary and Capricious Standard

Before applying the substantial evidence test, we address the Secretary’s argument that the Commission improperly

¹¹ We have concluded that “[t]his reference to ‘the Commission’ does not focus on the Commission as distinguished from an ALJ; indeed, in many cases the ALJ’s decision will become the decision of the Commission for lack of further review within the agency.” *Phelps Dodge Corp.*, 709 F.2d at 91 n.7 (citing 30 U.S.C. § 823(d)(1)).

applied the arbitrary and capricious standard.¹² All parties agree that the arbitrary and capricious standard applies to the ALJ's review of the Secretary's revocation of Knight Hawk's Prairie Eagle ventilation plan. The Secretary disputes only whether the Commission *in fact* applied the arbitrary and capricious standard in its substantial evidence review of the ALJ's decision.

The United States Supreme Court has made clear that:

[D]ivorcing of the rule announced from the rule applied . . . frustrates judicial review. If revision of the . . . standard of proof can be achieved thus subtly and obliquely, it becomes a much more complicated enterprise for a court of appeals to determine whether substantial evidence supports the conclusion that the required standard has or has not been met. . . . Because reasoned decisionmaking demands it, and because the systemic consequences of any other approach are unacceptable, the [adjudicatory body] must be required to apply in fact the clearly understood legal standards that it enunciates in principle Reviewing courts are entitled to take those standards to mean what they say, and

¹² Granted, as explained *infra* at 19–20, the Commission applied the substantial evidence test to the ALJ's arbitrary and capricious determination; it did not apply the arbitrary and capricious standard in the first instance. We nonetheless address the Secretary's argument because the Commission's understanding of the arbitrary and capricious standard is relevant to its application of the substantial evidence test in this context.

to conduct substantial-evidence review on that basis.

Allentown Mack Sales & Serv., Inc. v. NLRB, 522 U.S. 359, 376–77 (1998).

The Secretary argues that the Commission imposed a “plausible harm” requirement on him and that requirement is inconsistent with the arbitrary and capricious standard. The Commission’s affirmance of the ALJ’s decision uses the term “plausible harm” twice. *See Knight Hawk II*, 42 FMSHRC at 445 (“[A]ny 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 . . .”), 451 (“[N]ot 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 [Prairie Eagle] examiners.”).

It is well-settled that, under arbitrary and capricious review, “the 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.’” *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43 (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962)). In response to the dissent’s claim that the Commission created a new legal standard, the Commission asserted that the Secretary’s articulation of a “plausible harm” was necessary to demonstrate a rational connection between the facts found and the choice made by the Secretary where, as here, the choice made was to revoke a ventilation plan that the Secretary had previously approved. *See Knight Hawk II*, 42

FMSHRC at 446 n.22. In its subsequent denial of the Secretary's motion to stay the Commission's decision, the Commission was even more explicit:

The term "plausible harm" as used in the decision is simply a means of expressing that if an operator submits a plan, a determination by MSHA finding the plan unsuitable must be explained by a rational and reasonable assessment of, and citation to, the facts of the plan's operation. . . . It is a means of explaining the arbitrary and capricious standard.

Knight Hawk III, 2020 WL 5500868, at *3 n.4.

In any event, as noted in Part II.A, the Commission was not charged with applying the arbitrary and capricious standard in the first instance. The ALJ determined whether the Secretary's revocation of the ventilation plan was arbitrary and capricious. The Mine Act requires the Commission, on discretionary review, to determine only whether substantial evidence supported the ALJ's determination. *See* 30 U.S.C. § 823(d)(2). The Commission explicitly stated as much in its decision. *See Knight Hawk II*, 42 FMSHRC at 445 ("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 [ALJ's] finding as to whether the agency action was arbitrary and capricious."). Accordingly, any error in the Commission's articulation of the arbitrary and capricious standard is now remedied via our application of the substantial evidence test to the ALJ's arbitrariness determination. *Cf. Allentown Mack*, 522 U.S. at 376–77 ("Reviewing courts are entitled to take those standards

to mean what they say, and to conduct substantial-evidence review on that basis.”).

C. Substantial Evidence Test

We find that substantial evidence supports the ALJ’s determination that the Secretary’s revocation of Knight Hawk’s Prairie Eagle ventilation plan was arbitrary and capricious. Specifically, substantial evidence supports the ALJ’s findings that the chemical smoke test results were unreliable and inconsistent and the Secretary ignored disagreements among the MSHA ventilation survey team members about the results.

“Substantial-evidence review is highly deferential to the agency fact-finder, requiring only ‘such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.’” *Rossello ex rel. Rossello v. Astrue*, 529 F.3d 1181, 1185 (D.C. Cir. 2008) (quoting *Pierce v. Underwood*, 487 U.S. 552, 565 (1988)). We “may not reject reasonable findings and conclusions, even if we would have weighed the evidence differently.” *Cumberland Coal Res., LP v. Fed. Mine Safety & Health Rev. Comm’n*, 717 F.3d 1020, 1028 (D.C. Cir. 2013). Thus, the question is “whether a theoretical ‘reasonable factfinder’ could have reached the conclusions actually reached by the Commission and the ALJ.” *Keystone Coal*, 151 F.3d at 1104 (citing *United Steelworkers of Am. v. NLRB*, 983 F.2d 240, 244 (D.C. Cir. 1993)). We have noted that “[r]eversal of an agency decision under th[e] [substantial evidence] standard is rare.” *Astrue*, 529 F.3d at 1185.

The Secretary first argues that it was not arbitrary to treat ventilation plans for perimeter mining differently from other forms of retreat mining that involve roof collapse. In this respect, the Secretary plainly has the authority to treat perimeter mining differently. As noted, the Congress decided

that “*individually* tailored plans, with a nucleus of commonly accepted practices, are the best method of regulating such complex and potentially multifaceted problems as ventilation, roof control and the like.” *Dole*, 870 F.2d at 669 (quoting S. Rep. No. 95–181 at 25, 1977 U.S.C.C.A.N. at 3425) (emphasis added). Accordingly, the Secretary evaluates ventilation plans “based on each mine’s *unique geology and proposed mining system*.” *Prairie State*, 792 F.3d at 86 (citing 30 U.S.C. §§ 862(a), 863(o)) (emphasis added).

Here, the Secretary apparently based its ventilation plan revocation decision on the results of a ventilation survey. The Secretary performed similar ventilation surveys at two other mines doing perimeter mining in the same jurisdiction as Prairie Eagle—Gateway North and Viper. Thus, the Secretary did not arbitrarily *conduct* the Prairie Eagle ventilation survey as compared to other mines using similar perimeter mining techniques.

The problem for the Secretary, however, is that the ALJ did not find the Secretary’s revocation arbitrary and capricious solely on the basis that the Secretary *conducted* a different ventilation survey at a mine doing perimeter mining. And the Commission did not affirm the ALJ on that basis. The ALJ found the Secretary’s revocation arbitrary and capricious because it improperly relied on inconsistent smoke test results without addressing the “differences in the opinions and observations from the survey team.” *Knight Hawk I*, 41 FMSHRC at 554. Substantial evidence supports the ALJ’s finding that the Secretary’s revocation was arbitrary and capricious based on that flaw.¹³

¹³ The Commission affirmed the ALJ’s arbitrariness determination in part on this basis. *See Knight Hawk II*, 42 FMSHRC at 439 (observing smoke tests from 44-foot distance “generated

As noted, the Secretary apparently relied exclusively on the ventilation survey results to support his revocation decision. *See Knight Hawk I*, 41 FMSHRC at 543 (District Manager “Burns verified that nothing [at Prairie Eagle] had changed at all since 2010, except for the ventilation study”); *Knight Hawk II*, 42 FMSHRC at 443 (ALJ “found that MSHA’s decision to revoke the operator’s ventilation plan rested on the survey results”). Prairie Eagle’s previously approved ventilation plan had been in place for 12 years without serious incident. With this backdrop, the 2018 ventilation survey’s diminished credibility undermines its capability to provide the necessary rational connection between the facts found and the choice made by the Secretary.

Specifically, at the administrative hearing, a Knight Hawk witness testified that there was disagreement among MSHA team members when an MSHA engineer said there was perceptible movement from the smoke test but Beiter said there was no movement.¹⁴ Knight Hawk’s witness “assume[d] [the disagreements] were marked down as no movement” because

disputed testimony regarding the ability to 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”), 449 n.26 (ALJ’s “objections to MSHA’s methodology are correct: the use of fatally flawed and inaccurate smoke tests, [and] Beiter’s intimidation of Inspector Doyle-Combs to report his suggested findings rather than her own observations . . . are among a multitude of errors identified by the [ALJ] and in our Decision”).

¹⁴ Another Knight Hawk witness similarly testified that there was “[g]eneral uncertainty [among MSHA personnel] in regards to [whether there was] movement or no movement” during the perimeter cut chemical smoke tests. J.A. 100.

Beiter “was the supervisor.” J.A. 120.¹⁵ In rebuttal, Beiter testified that his conversations with team members should be classified as clarifying discussions, not disputes. Beiter claimed he was explaining proper smoke test technique to his colleagues and repeating smoke tests in areas where he saw inconsistent results.

The ALJ credited the testimony of Knight Hawk’s witnesses and discredited Beiter’s testimony, finding that Beiter “actively suppressed” disagreement within the MSHA team. *Knight Hawk I*, 41 FMSHRC at 554.¹⁶ Specifically, the ALJ found Beiter “to be, by and large, unreliable. He was evasive and frequently avoided answering questions directly.” *Id.* at 546. We accord “great deference” to the ALJ’s credibility determinations, *Keystone Coal*, 151 F.3d at 1107, and thus find that substantial evidence supports the ALJ’s finding that the Secretary suppressed and/or ignored differences of opinion within the MSHA ventilation survey team.

The ALJ further found that other record evidence corroborated the conclusion that the chemical smoke tests

¹⁵ See also J.A. 112–13 (Knight Hawk witness testimony that “[t]here w[ere] definitely some varying interpretations of movement of the smoke. . . . I do recall Mr. Beiter arriving and very quickly making a determination that the current perimeter cut we were in when smoke was released was no perceptible movement. I disagreed with that interpretation of that particular cut. From that point forward, MSHA personnel – I’ll just say they seemed to be very quick as to a determination if there was movement or not.”).

¹⁶ See also *id.* at 535 (Knight Hawk witness “credibly testified that at least one member of the [MSHA] survey team . . . observed perceptible movement, but became visibly upset when Beiter overruled her observations and then directed that some of her notes be rewritten and some of her observations, or those of Knight Hawk’s representatives, be changed in accordance with Beiter’s interpretations”).

performed in the perimeter cuts were unreliable. *See Knight Hawk I*, 41 FMSHRC at 545 (“substantial evidence demonstrated that the smoke tests as conducted at the mine were unreliable”). Specifically, Beiter admitted that the chemical smoke test results “were not always repeatable.” *Id.* at 534 (citing J.A. 166). Moreover, “[t]he survey team made observations of smoke rising approximately 44-feet away in dimly lit perimeter cuts from areas that miners do not normally work or travel.” *Id.* at 554.¹⁷ Given that the ventilation survey’s findings involved observations of smoke movement from more than a 40-foot distance in a dark, underground mine, it is no surprise that there were disagreements among MSHA personnel as to what the smoke was doing. *See* J.A. 147 (according to Knight Hawk’s expert witness, “one of the biggest problems is trying to see what the smoke is doing [at] that . . . distance in the coal mine”).

Moreover, the ALJ found that the air purity test results obtained during the ventilation survey did not provide the necessary rational connection between the facts found and the choice made. The Secretary relies primarily on his conclusion that “the risk of methane accumulation made the ventilation plan unsuitable.” Pet’r’s Br. 44.¹⁸ But the ALJ found:

¹⁷ *See also Knight Hawk II*, 42 FMSHRC at 440 (“[T]he 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. Not unexpectedly, therefore, the results of the smoke tests were not always repeatable.”) (citations and footnote omitted).

¹⁸ *See also Knight Hawk II*, 42 FMSHRC at 444 n.20 (“MSHA’s only expressed concern with the perimeter cuts was the possibility of methane in those cuts . . .”).

Concerning air quality, the [MSHA ventilation] report stated that the highest concentration of methane was 0.12% and that the lowest concentration of oxygen was 20.2%. These results were well within the allowable limit of methane below 1% under 30 C.F.R. § 75.323(c)(1), and the allowable minimum level of oxygen above 19.5% under 30 C.F.R. § 75.321[(a)].

Knight Hawk I, 41 FMSHRC at 536 (citations omitted).¹⁹ That is not to say that these objective air quality readings, standing alone, provide substantial evidence supporting the ALJ's determination that the Secretary's revocation decision was arbitrary and capricious. As the Secretary points out, "what is true generally or at a particular point in time is not true invariably, and methane can be encountered at any time." Pet'r's Br. 45. But where, as here, the objective evidence—the above air purity readings—does not undermine the ALJ's finding that the subjective evidence relied on by the Secretary was unreliable, inconsistent and ignored opposing viewpoints, substantial evidence supports the ALJ's arbitrary and capricious determination.

Accordingly, substantial evidence supports the ALJ's finding that the Secretary's reliance on the smoke test results to revoke Knight Hawk's Prairie Eagle ventilation plan was arbitrary and capricious. We again accord great deference to the ALJ's credibility determinations, which provide substantial

¹⁹ See also *Knight Hawk II*, 42 FMSHRC at 443 ("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.").

evidence for the conclusion that the smoke test results were inconsistent and the Secretary ignored disagreements among MSHA survey team members regarding the results.²⁰

D. Proper Remedy

Finally, the Secretary argues that, if we affirm the ALJ's and the Commission's decisions that the Secretary's revocation of the ventilation plan was arbitrary and capricious, remand to the Secretary, rather than reinstatement of the previously approved ventilation plan, is the appropriate remedy. We lack jurisdiction to consider the Secretary's suggested remedy.

The Secretary concedes he "did not explicitly raise to the Commission the issue of remedy." Pet'r's Br. 54. The Secretary's failure to raise the argument is fatal. Section 816(a)(1) limits our review of the Commission's decision to arguments urged before the Commission. *See* 30 U.S.C. § 816(a)(1) ("No objection that has not been urged before the Commission shall be considered by the court, unless the failure or neglect to urge such objection shall be excused because of extraordinary circumstances."). The Secretary makes no argument that extraordinary circumstances excuse his failure to raise his remedy argument before the Commission here. Accordingly, we reject the Secretary's remedy argument for lack of jurisdiction. *See, e.g., Pendley v. Fed. Mine Safety & Health Rev. Comm'n*, 601 F.3d 417, 428 (6th Cir. 2010) ("Petitioner cannot raise this objection here because he failed to raise it before the Commission."); *see also U.S. Dep't of the*

²⁰ Because we determine that the inconsistent smoke test results and the Secretary's failure to address intra-team disagreement about the results provide substantial evidence supporting the ALJ's determination that the Secretary's revocation decision was arbitrary and capricious, we do not reach the other bases on which the ALJ and the Commission rejected the Secretary's revocation decision.

Treasury v. FLRA, 670 F.3d 1315, 1319 (D.C. Cir. 2012) (treating as jurisdictional statutory language in the Federal Service Labor–Management Relations Act that is nearly identical to the language in 30 U.S.C. § 816(a)(1)).

For the foregoing reasons, the Secretary’s petition for review is denied.

So ordered.