

PUBLISHED

UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT

No. 14-2313

KNOX CREEK COAL CORPORATION,

Petitioner,

v.

SECRETARY OF LABOR, Mine Safety and Health Administration;
FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION,

Respondents.

On Petition for Review of a Decision of the Federal Mine Safety
and Health Review Commission. (2010-81-R)

Argued: September 16, 2015

Decided: January 21, 2016

Before MOTZ and WYNN, Circuit Judges, and DAVIS, Senior Circuit
Judge.

Petition for review denied by published opinion. Judge Wynn
wrote the opinion, in which Judge Motz and Senior Judge Davis
joined.

ARGUED: Mark Evan Heath, SPILMAN THOMAS & BATTLE, PLLC,
Charleston, West Virginia, for Petitioner. Philip Edwin Mayor,
UNITED STATES DEPARTMENT OF LABOR, Arlington, Virginia, for
Respondent. **ON BRIEF:** Alexander Macia, SPILMAN THOMAS & BATTLE,
PLLC, Charleston, West Virginia, for Petitioner. M. Patricia
Smith, Solicitor of Labor, Heidi W. Strassler, Associate
Solicitor, W. Christian Schumann, Office of the Solicitor,
UNITED STATES DEPARTMENT OF LABOR, Arlington, Virginia, for
Respondent Secretary of Labor.

WYNN, Circuit Judge:

The Federal Mine Safety and Health Review Commission (the "Commission") determined that four uncontested violations of the Federal Mine Safety and Health Act of 1977 (the "Mine Act") by Knox Creek Coal Corporation ("Knox Creek") were "significant and substantial" under 30 U.S.C. § 814(d)(1). Three violations were so-called "permissibility" violations, involving inadequately sealed enclosures of electrical equipment, and one was an "accumulations" violation, involving the piling of coal dust on a conveyor belt. Knox Creek argues that, with respect to each violation type, the Commission either applied an erroneous legal standard or improperly reweighed the Administrative Law Judge's (ALJ's) evidentiary findings.

Regarding the permissibility violations, we conclude that the Commission should have applied the legal standard advocated by the Secretary of Labor (the "Secretary"), but that the outcome is unaffected when the proper standard is applied. Regarding the accumulations violation, we conclude that the Commission applied the correct legal standard, one also endorsed by the Secretary. And nowhere did the Commission improperly reweigh evidence. Accordingly, we deny Knox Creek's petition for review.

I.

A.

The Mine Act was intended to address the "urgent need to provide more effective means and measures for improving the working conditions and practices in the Nation's . . . mines in order to prevent death and serious physical harm." 30 U.S.C. § 801(c). The Act directs the Secretary to promulgate mandatory safety and health standards for the nation's mines. Id. § 811(a). To ensure compliance with those standards, it authorizes the Mine Safety and Health Administration (MSHA), as an "[a]uthorized representative[] of the Secretary," to "make frequent inspections and investigations in . . . mines each year." Id. § 813(a); see also Speed Mining, Inc. v. Fed. Mine Safety & Health Review Comm'n, 528 F.3d 310, 312 (4th Cir. 2008).

Mine inspectors issue citations when a mandatory safety and health standard has been violated. 30 U.S.C. § 814(a). A violation is designated as "significant and substantial" (or "S&S") when it "is of such nature as could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard." Id. § 814(d)(1). An S&S designation increases the civil penalty amount assessed against the mine operator, becomes part of that operator's permanent citation history, and can provide the basis for a "pattern of

violations" designation and possible withdrawal orders prohibiting operations in the affected mines. Id. § 814(d), (e); 30 C.F.R. § 100.3(a) (enumerating factors for the determination of a penalty, including whether the operator has a history of violations).

An operator may contest a citation, as well as its designation as S&S, before the Commission. 30 U.S.C. § 815(d). Further, a party may petition a court of appeals to review any Commission decision by which it has been adversely affected. Id. § 816(a)(1).

B.

The MSHA conducted a series of inspections of Knox Creek's Tiller No. 1 Mine ("Tiller Mine") in October and November 2009, issuing thirty-four citations that it deemed S&S. Of these, only five were reviewed by the Commission and only four are at issue here: three "permissibility" violations and one "accumulations" violation.

The three permissibility violations involve a requirement that a mine's electrical equipment enclosures be "explosion-proof," meaning that those enclosures must be sealed, and that any gaps between the enclosures and the surrounding air must not

exceed .004 inches. 30 C.F.R. §§ 18.31(a)(6), 75.503.¹ As explained by the Secretary's expert witness, the standard is designed to prevent an explosion inside an enclosure from causing an explosion outside the enclosure. An internal explosion will not occur without an ignition source such as an electrical arc or spark, events that do not occur when the electrical equipment is functioning properly. However, "normal use in the mining environment" can, for example, involve vibrations and water seepage, which over time may damage the electrical connections such that the potential for an ignition can exist. J.A. 326-27.

Each of the three permissibility citations involved an electrical mining equipment enclosure with an opening in excess of .004 inches. In all three cases, the wires were bolted down and wrapped in insulation and tape at the time of inspection to decrease the likelihood of sparking. However, evidence suggested that during the course of normal mining operations, the bolting could come loose or the insulation could wear down, thus making arcing and sparking more likely over time. For one of the machines, evidence showed that some of the insulation was

¹ The permissible length of any gap depends on the internal volume of the empty enclosure. Here, there is no dispute that the relevant enclosures have more than 124 cubic inches of internal volume, and therefore have a maximum permissible "clearance" of .004 inches. See 30 C.F.R. § 18.31(a)(6).

starting to wear, and for another, evidence showed rust and corrosion. In all three cases, the equipment was scheduled to be used in the subsequent shift.

In reviewing these permissibility citations, the ALJ concluded that the Secretary had failed to satisfy the third prong of the four-part "Mathies" test, articulated by the Commission in Secretary of Labor v. Mathies Coal Co., 6 FMSHRC 1 (1984), for establishing the S&S nature of a violation. That third prong requires the Secretary to demonstrate "a reasonable likelihood that the hazard contributed to [by the violation] will result in an injury" to a miner. Id. at 3-4.

Although the ALJ found that the Secretary had established a reasonable likelihood that methane could have entered the relevant enclosures at an explosive concentration, and that, in the event of an ignition, an explosion could escape the enclosures and trigger a larger explosion in the "gassy" mine atmosphere,² the ALJ nevertheless concluded that Mathies' third prong was unsatisfied because the Secretary had "not establish[ed] the likelihood of a triggering arc or spark" inside the enclosures for each of the violations. S.A. 63; see also S.A. 64, 65. In so deciding, the ALJ rejected the

² The Tiller Mine is classified as "gassy" because it liberates more than 500,000 cubic feet of methane during a twenty-four-hour period, and is therefore subject to spot inspections every ten working days. 30 U.S.C. § 813(i).

Secretary's argument that when evaluating whether the "hazard" was reasonably likely to result in injury under Mathies, the existence of the hazard—in this case, the escape of hot gas through an enclosure opening after an ignition caused by internal arcing or sparking—should be assumed.

After granting the Secretary's petition for discretionary review, the Commission unanimously reversed the ALJ's non-S&S finding with respect to each of the permissibility citations. See Sec'y of Labor v. Knox Creek Coal Corp., 36 FMSHRC 1128 (2014). Although the Commission did not adopt the Secretary's position that the presence of arcing and sparking within the enclosure should be assumed, it did find fault with the ALJ's application of Mathies' third prong. The Commission concluded that the ALJ had failed to consider how conditions change during normal mining operations, id. at 1132, and had erroneously required the Secretary to "produce quantitative evidence of the frequency of malfunctions within these types of enclosures in order to establish that arcing or sparking was reasonably likely," id. at 1133. Examining the evidence in light of this clarified standard, the Commission ruled that the "evidence compels the conclusion" that the permissibility citations were S&S. Id.

C.

In addition to the above permissibility violations, Knox Creek contests the Secretary's S&S designation of an "accumulations" violation under 30 C.F.R. § 75.400, which requires that "[c]oal dust . . . shall be cleaned up and not be permitted to accumulate" in certain mine areas. Here, the MSHA inspector found accumulations of coal dust ranging from four to twelve inches in depth at numerous locations on and around a conveyor belt, whose movement at the time of inspection was creating friction points with the accumulations and the consequent potential for ignition and fire. When the inspector observed the accumulations around 7:00 a.m., there were no visible cleaning efforts underway, but the accumulations had been recorded in a pre-shift examination book sometime between 4:30 a.m. and 6:30 a.m., and there was evidence that miners had been assigned to remove them. Also, a Knox Creek employee who had accompanied the inspector called management at the time of inspection and was told that a clean-up crew was "on the way." J.A. 298. Shortly thereafter, three miners arrived and removed the accumulations, a process that took approximately forty-five minutes.

The ALJ determined that this accumulations violation was not S&S because at the time of inspection miners were on the way to remove the accumulations, and therefore there was no

reasonable likelihood of an ignition and fire. As with the permissibility violations, the Commission unanimously reversed the ALJ's non-S&S determination on the basis that it was error to assume the likelihood of clean-up in the absence of an "order directing that [coal] production not resume until the accumulations were resolved and [with] no evidence that miners had made any efforts to abate the violation during the preceding . . . shift." Knox Creek, 36 FMSHRC at 1140. The Commission found that the violation was not being "actively abated" and thus concluded that the evidence required a determination that the accumulations violation was S&S. Id. at 1141.

D.

Having designated the permissibility violations and accumulations violation as S&S, the Commission remanded to the ALJ for a recalculation of penalties regarding all four violations. Knox Creek, 36 FMSHRC at 1142. Knox Creek appealed the Commission's decision to this Court, but we initially dismissed that appeal because the Commission's remand for redetermination of penalties rendered the agency's decision non-final. Order, Knox Creek Coal Corp. v. Sec'y of Labor, No. 14-1637 (4th Cir. Sept. 5, 2014), ECF No. 25. Because the ALJ has now imposed revised penalties, and the Commission has denied

Knox Creek's petition for discretionary review, the agency's decision is now final and ripe for review before this Court.³

II.

A.

Knox Creek advances two main challenges to the Commission's decision, applicable to both the permissibility and accumulations violations. First, it contends that the Commission applied an incorrect legal standard for determining whether a given violation ought to be considered S&S. Second, it suggests that the Commission reversed factual findings of the ALJ that were supported by substantial evidence, thereby exceeding its statutorily prescribed standard of review. See 30 U.S.C. § 823(d)(2)(A)(ii)(I); Donovan ex rel. Chacon v. Phelps Dodge Corp., 709 F.2d 86, 91 (D.C. Cir. 1983) (construing multiple provisions of § 823(d)(2)(A) to conclude that "the only 'question' relating to the factual findings of an ALJ that the

³ We have jurisdiction over Knox Creek's appeal pursuant to Section 106(a)(1) of the Mine Act. 30 U.S.C. § 816(a)(1). As the Secretary points out, Knox Creek's petition for review references the Commission's order denying discretionary review of the ALJ's penalty redeterminations rather than the order it clearly disputes, i.e., the Commission's earlier reversal of the ALJ's non-S&S determinations. Nevertheless, because the Secretary "had notice of the appeal and an opportunity fully to brief the issue," Hartsell v. Duplex Prods., Inc., 123 F.3d 766, 771 (4th Cir. 1997), Knox Creek's error does not prejudice the Secretary and therefore does not preclude our jurisdiction over the appeal.

Commission can consider is whether those findings are supported by substantial evidence").⁴

We begin by disposing of Knox Creek's second argument, that the Commission improperly reweighed facts found by the ALJ. On the contrary, the Commission's decision with respect to both the permissibility and accumulations violations did not question even one of the ALJ's factual findings. Rather, the Commission's reversal turned on the correction of legal error.

Specifically, in reviewing the finding that the permissibility citations were not S&S, the Commission found fault with two main aspects of the ALJ's analysis. First, it concluded that the ALJ erred by considering the violative conditions only "as they existed at the time of the inspection, [and thereby] taking a 'snapshot' approach to the issue of an arc or spark within the subject enclosures." Knox Creek, 36 FMSHRC at 1132. It noted clear Commission precedent requiring the "consider[ation of] the violative conditions as they existed

⁴ Knox Creek also argues that the Secretary did not meet his S&S burden because his expert witness did not testify as to the "safety factor" relevant to the permissibility violations, which would supposedly specify a "buffer" above the .004-inch opening allowed by the regulation that would nevertheless be safe. Petitioner's Br. at 31-32. However, as the Secretary points out, the ALJ expressly found that ignited gases inside the enclosures could have escaped into the mine's atmosphere, and Knox Creek did not challenge that finding as being unsupported by substantial evidence before the Commission. Knox Creek has therefore waived that argument. 30 U.S.C. § 816(a)(1).

both prior to and at the time of the violation and as they would have existed had normal mining operations continued." Id. The ALJ had not applied that standard. Second, the Commission criticized the ALJ for "requiring the Secretary to prove essentially a statistical frequency of a spark," which it characterized as "an unwarranted standard beyond reasonable likelihood." Id. at 1133.

Similarly, regarding the accumulations violation, the Commission faulted the ALJ for considering abatement measures that were intended, but not yet begun, as a mitigating factor in making an S&S determination. Id. at 1140. Significantly, the Commission did not dispute the ALJ-determined fact that "miners had been assigned to clean the accumulations," id., but only the relevance of that fact to the legal conclusion that the violation was being "actively" abated and therefore not S&S, id. at 1141. Each of these errors, the Commission held, was inconsistent with decades of binding Commission precedent interpreting the third prong of Mathies, doctrine that it had developed to construe 30 U.S.C. § 814(d)(1).

The Commission's reasoning is analogous to that employed in another of its decisions, reviewed in RAG Cumberland Resources LP v. Federal Mine Safety & Health Review Commission, 272 F.3d 590 (D.C. Cir. 2001). There, the relevant question was whether, "to constitute an 'inspection' [under 30 U.S.C. § 814(d)(2)],

inspectors must leave their vehicles and conduct a detailed examination for non-obvious hazards," or whether a mere "opportunity to observe" such hazards was sufficient. Id. at 594. Without reconsidering any of the factual evidence suggesting that inspectors had repeatedly traveled through the relevant area, the Commission reversed on the grounds that an "inspection" required actual inspection activity, such as might be reflected in the operator's inspection log. Id. at 597.

There and here, the Commission's reversal was legal in nature because it turned upon the clarification of a standard, one that was derived from the interpretation of a statutory provision and applicable prospectively, beyond the facts of the case at hand. See id. at 596-97. In both instances, the Commission did precisely what it is charged to do under the Mine Act: review an ALJ decision to determine if it rested on an "erroneous" legal conclusion or was "contrary to law or . . . decisions of the Commission." 30 U.S.C. § 823(d)(2)(A)(ii)(II), (III).

B.

Because we read the Commission's decision as adopting, rather than reweighing, the ALJ's factual findings, we review those findings under a substantial evidence standard. 30 U.S.C. § 816(a)(1). And we review the Commission's legal conclusions de novo, affording deference when appropriate to the Secretary's

interpretations. See Sec'y of Labor ex rel. Wamsley v. Mut. Mining, Inc., 80 F.3d 110, 113-15 (4th Cir. 1996). Where a Commission decision and the Secretary's relevant interpretation turn upon the construction of a clear statutory provision—where Congress has “directly spoken to the precise question[s] at issue”—then our review requires no deference, and “that is the end of the matter.” Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 842 (1984); Power Fuels, LLC v. Fed. Mine Safety & Health Review Comm'n, 777 F.3d 214, 221 (4th Cir. 2015). It is only where the relevant statutory provision is unclear that we owe deference to the Secretary's interpretation of that provision. See Wamsley, 80 F.3d at 113-15. As a result, to determine whether any deference is due, we must examine whether the statute is ambiguous.

Regarding the permissibility violations, the legal issue before us is whether the Secretary must prove that ignition is reasonably likely to occur inside an electrical enclosure in order to render the violations S&S under 30 U.S.C. § 814(d)(1).⁵ Again, that provision authorizes the Secretary's representative

⁵ The issue might also be identified in the terms articulated in the Commission's decision, i.e., as whether the “reasonable likelihood” standard requires the Secretary to offer a quantitative level of proof, and whether it ought to be examined assuming the continuance of “normal mining operations.” Knox Creek, 36 FMSHRC at 1131-33. Examining the vague language contained in 30 U.S.C. § 814(d)(1), we think it is obvious that Congress has not “directly spoken” to this issue either.

to designate a violation as S&S where the "violation is of such nature as could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard." 30 U.S.C. § 814(d)(1).

As the Secretary notes, the word "could" suggests no particular degree of likelihood, but rather a mere possibility that the violation itself might causally contribute to the hazard. On the other hand, as Knox Creek suggests, it is hard to conceptualize how a violation could "significantly and substantially contribute" to a causal chain of events leading to a hazard without satisfying some threshold level of probability, a probability that in turn must depend on the circumstances surrounding the violation. Thus, there are at least two plausible interpretations regarding whether the Secretary must establish the reasonable likelihood of an ignition to render a permissibility violation S&S. As a result, the statute is ambiguous. See King v. Burwell, 759 F.3d 358, 363 (4th Cir. 2014) (finding statutory language ambiguous where "subject to multiple interpretations"), aff'd, 135 S. Ct. 2480 (2015).

Determining the appropriate characterization of the accumulations violation involves resolving an issue even further removed from the statute's text. We are asked to decide whether evidence that an operator intends to abate a violation—where that violation is not being actively abated at the time of

inspection—can be considered in order to mitigate liability for what would otherwise be an S&S violation. As far as we can tell, even Knox Creek does not attempt to argue that the Mine Act unambiguously provides us with an answer to this question. In short, we have little trouble concluding that Congress has not “directly spoken” to the issues before us today. Chevron, 467 U.S. at 842.

Where the meaning of a Mine Act provision is unclear, our precedent directs that we afford some measure of deference to the Secretary’s—rather than the Commission’s—interpretations. Wamsley, 80 F.3d at 113–15. Exactly how much deference is owed to the Secretary’s litigating positions, however, is not a question this Court has previously had occasion to resolve.⁶ Nor is there a consensus among our fellow circuit courts that have addressed the question. Compare N. Fork Coal Corp. v. Fed. Mine Safety & Health Review Comm’n, 691 F.3d 735, 742 (6th Cir. 2012) (declining to apply “full Chevron deference” to the Secretary’s litigating positions regarding the Mine Act), with Sec’y of Labor v. Excel Mining, LLC, 334 F.3d 1, 6 (D.C. Cir. 2003)

⁶ In both Speed Mining, 528 F.3d at 314, and Power Fuels, 777 F.3d at 221, we found that the statutory text was clear, such that deference to the Secretary was not a necessary component of our analysis. Finding that the statutory provision here is ambiguous, however, we may not “simply impose [our] own construction on the statute.” Chevron, 467 U.S. at 843. Rather, we must determine what level of deference the Secretary’s litigating positions are to receive.

(affording Chevron deference to the Secretary's interpretations, albeit of her own regulations).

Not every agency interpretation of an ambiguous statute is entitled to full Chevron deference, such that the agency's view is upheld so long as it is reasonable. Rather, such strong deference "is limited to circumstances where (1) Congress has given the agency authority to make rules carrying the force of law and (2) the agency's interpretation is rendered in the exercise of that authority." A.T. Massey Coal Co. v. Holland, 472 F.3d 148, 166 (4th Cir. 2006) (citing United States v. Mead Corp., 533 U.S. 218, 226-27 (2001)).

The Mine Act explicitly grants the Secretary of Labor the "authority to make rules carrying the force of law," id.; indeed, he is directed to do so, in accordance with the notice-and-comment rulemaking procedures of the Administrative Procedure Act (APA). 30 U.S.C. § 811(a) ("The Secretary shall by rule in accordance with procedures set forth in this section and in accordance with [APA notice-and-comment rulemaking procedures] develop, promulgate, and revise . . . improved mandatory health or safety standards for the protection of life and prevention of injuries in coal or other mines."); see also 5 U.S.C. § 553 (prescribing the rules for notice-and-comment rulemaking under the APA). Without a doubt, then, the first element articulated in Mead is satisfied.

In this case, however, whether Mead's second requirement is satisfied presents a more challenging issue. The agency interpretations we are asked to consider here are not the product of the Mine Act's express delegation of lawmaking authority. Rather, they are positions taken by the Secretary in the course of litigation, first before the Commission and now before this Court. Consequently, we must determine whether the Secretary's relevant positions are "rendered in the exercise" of the necessary "authority." A.T. Massey, 472 F.3d at 166.

When an agency's interpretation derives from notice-and-comment rulemaking, it will almost inevitably receive Chevron deference, since in that case, the interpretation results from "a relatively formal administrative procedure tending to foster the fairness and deliberation that should underlie a pronouncement" of law. Mead, 533 U.S. at 230. However, where an agency has interpreted a statute without aid or constraint from APA rulemaking procedures, we must look for "other circumstances" suggesting that Congress intended for an agency's reasonable interpretation to bind reviewing courts. Id. at 231. In the past, we have generally found such circumstances to exist only where there are "indicia of a legislative-type determination—i.e. those of weighing conflicting policies, considering adversarial viewpoints, [and] promulgating forward-

looking rules of general applicability." A.T. Massey, 472 F.3d at 166.

Those "legislative-type" traits do not accurately characterize the interpretive positions the Secretary adopts in litigation. No doubt, when the Secretary conducts inspections, issues citations, and proposes civil penalties for violations, he does so pursuant to an express statutory delegation of authority, see 30 U.S.C. §§ 813, 814(a), 815(a), 820(a), and we do not question that in carrying out that enforcement role, the Secretary's decisions are informed by considerations of policy and internal consistency. Indeed, we have previously recognized that the Secretary is the authoritative policymaking entity under the Mine Act's scheme. Wamsley, 80 F.3d at 113-14. However, when the Secretary defends the issuance of a citation before a reviewing court, he does so more as prosecutor and less as legislator.

Two fundamental aspects of the Secretary's litigating positions distinguish them from the "legislative-type determinations" to which we afford Chevron deference. First, and most importantly, the Secretary's litigating positions are not binding or precedential, a factor which has been highlighted as significant, and at times dispositive, by this Court and others in declining to apply Chevron deference. See Mead, 533 U.S. at 233 (noting as significant that a tariff classification

determination's "binding character as a ruling stops short of third parties"); Martinez v. Holder, 740 F.3d 902, 909-10 (4th Cir. 2014) ("When issuing a single-member, nonprecedential opinion, the [Board of Immigration Appeals] is not exercising its authority to make a rule carrying the force of law, and thus the opinion is not entitled to Chevron deference."); Precon Dev. Corp. v. U.S. Army Corps of Eng'rs, 633 F.3d 278, 290 n.10 (4th Cir. 2011) (declining to apply Chevron deference to an interpretation offered "in a non-binding guidance document").

Second, unlike the rules it promulgates through the APA's notice-and-comment rulemaking procedures, the Secretary's litigating positions do not arise out of a formal procedure intended to foster the "fairness and deliberation that should underlie a pronouncement [of law]." Mead, 533 U.S. at 230. The Secretary makes enforcement choices and adopts litigating positions through an internal and discretionary process closed to public input. See Speed Mining, 528 F.3d at 317 (characterizing the Secretary's citation decisions under the Mine Act as "discretionary" and "therefore unreviewable"); Didrickson v. U.S. Dep't of Interior, 982 F.2d 1332, 1339 (9th Cir. 1992) ("[L]itigation decisions are generally committed to agency discretion by law").

For these reasons, we conclude that the Secretary's litigating positions are not entitled to Chevron deference.⁷ That being said, deference is still due. Keeping in mind that "developing rules and enforcing them endow the Secretary with . . . 'historical familiarity and policymaking expertise,'" Wamsley, 80 F.3d at 114 (quoting Martin, 499 U.S. at 153), the Secretary's position is owed deference to the extent it has the "power to persuade," Skidmore v. Swift & Co., 323 U.S. 134, 140 (1944). In evaluating the Secretary's interpretation, we will weigh "the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all [other relevant] factors." Id.

⁷ This determination is consistent with Martin v. Occupational Safety & Health Review Commission, 499 U.S. 144, 152-53 (1991), which afforded deference to the Secretary's litigating positions interpreting the Occupational Safety and Health Act ("OSH Act") rather than to the Occupational Safety and Health Review Commission's adjudicative interpretations of that Act. Martin indicated that we should defer to the Secretary, but it did not specify the degree of that deference—indeed, it did not cite Chevron. Id. Additionally, in Martin, the Secretary's interpretations of OSH Act regulations were at issue, and an agency's interpretations of its own regulations have consistently been afforded greater deference than its direct interpretations of the governing statute. See Auer v. Robbins, 519 U.S. 452, 461 (1997). In Wamsley, we applied Martin's guidance in the context of the Mine Act, but again nowhere specified the level of deference owed to the Secretary's interpretations. 80 F.3d at 114-15. Moreover, both cases were decided prior to Mead, which outlined the contours of Chevron deference and guides our reasoning today.

C.

The disputed standards relevant to both the permissibility and accumulations violations each implicate the Commission-developed Mathies test. First articulated more than three decades ago, the test has since been consistently applied by the Commission and ALJs to determine whether a violation is S&S, and has been adopted by federal appellate courts. See, e.g., Peabody Midwest Mining, LLC v. Fed. Mine Safety & Health Review Comm'n, 762 F.3d 611, 616 (7th Cir. 2014); Buck Creek Coal, Inc. v. Fed. Mine Safety & Health Admin., 52 F.3d 133, 135 (7th Cir. 1995); Austin Power, Inc. v. Sec'y of Labor, 861 F.2d 99, 103 (5th Cir. 1988). It is therefore unsurprising that in light of the statute's ambiguity, both parties recognize the Mathies test as authoritative in resolving the issues disputed here.

Under Mathies, to establish that a violation is S&S, the Secretary must establish "(1) the underlying violation of a mandatory safety standard; (2) a discrete safety hazard—that is, a measure of danger to safety—contributed to by the violation; (3) a reasonable likelihood that the hazard contributed to will result in an injury; and (4) a reasonable likelihood that the injury in question will be of a reasonably serious nature." Mathies, 6 FMSHRC at 3-4 (footnote omitted). The parties' dispute regarding both the permissibility and accumulations

violations implicates the proper interpretation of Mathies' third prong.

Regarding the permissibility violations, the Secretary argues that "the third prong of Mathies focuses on the likelihood that the hazard to which the violation contributes will cause injury, not on the likelihood of the hazard occurring." Respondents' Br. at 27 (emphasis added). Consequently, when analyzing this third prong, the existence of the relevant hazard—in this case, the ignition and escape of hot gas through an impermissibly large enclosure opening—should be assumed.

By contrast, Knox Creek argues that the Secretary has a burden under Mathies' third prong "to prove it was reasonably likely that the violations would result in a serious injury." Petitioner's Br. at 28 (emphasis added). In Knox Creek's view, in making this probability determination, all facts surrounding the cited violation are relevant, including the likelihood of other causally contributing events—such as, in this case, the likelihood of arcing and sparking. In short, the parties' dispute is whether evidence of the likelihood of the hazard is a necessary component of Mathies' third prong.

Without affording the Secretary's interpretation full Chevron deference, we find the Secretary's interpretation nevertheless persuasive, being "consisten[t] with earlier . . .

pronouncements" and "thorough[]" in its reasoning. Skidmore, 323 U.S. at 140. The Secretary's position that the relevant hazard should be assumed when analyzing Mathies' third prong is consistent with Commission precedent. Indeed, as if to anticipate the very argument Knox Creek makes before us here, the Commission has previously distinguished the terms "hazard" and "violation," and has clarified that the relevant hazard may be assumed when analyzing Mathies' third prong.

In Secretary of Labor v. Musser Engineering, Inc., 32 FMSHRC 1257, 1280 (2010), the relevant violation was "the failure to have an accurate map," and the relevant hazard was "the danger of breakthrough to an adjacent mine and resulting inundation." The mine operator argued then, as Knox Creek argues now, that under Mathies' third prong, there was insufficient evidence that the violation was reasonably likely to cause injury. Id. at 1280-81. "However," the Commission clarified, "that is not the test. The test under the third element is whether there is a reasonable likelihood that the hazard contributed to by the violation . . . will cause injury. The Secretary need not prove a reasonable likelihood that the violation itself will cause injury, as [the operator] argues." Id. at 1281 (emphasis added). In finding that the Secretary had indeed satisfied Mathies' third prong, the Commission went on to assume the existence of the relevant hazard, i.e., breakthrough

and inundation, and to consider only "evidence regarding the likelihood of injury as a result of the hazard," such as the perils of drowning, hypothermia, and suffocation. Id.

Every federal appellate court to have applied Mathies has also assumed the existence of the relevant hazard when analyzing the test's third prong. See Peabody Midwest, 762 F.3d at 616 ("[T]he question [presented by Mathies' third prong] is not whether it is likely that the hazard . . . would have occurred; instead, the ALJ had to determine only whether, if the hazard occurred (regardless of the likelihood), it was reasonably likely that a reasonably serious injury would result."); Buck Creek, 52 F.3d at 135 (accepting as sufficient for satisfying Mathies' third prong the ALJ's finding "that in the event of a fire [i.e., the relevant hazard], smoke and gas inhalation by miners in the area would cause a reasonably serious injury requiring medical attention" (emphasis added)); Austin Power, 861 F.2d at 103-04 (finding Mathies' third prong satisfied where a workplace fall, i.e., the relevant hazard, was from a height of thirty-six feet and so "would almost certainly result in serious injury," without requiring evidence that a fall itself was likely); cf. Cumberland Coal Res., LP v. Fed. Mine Safety & Health Review Comm'n, 717 F.3d 1020, 1025-27 (D.C. Cir. 2013) (accepting the Secretary's interpretation that the Mathies test allows the decisionmaker to assume the existence of an emergency

when evaluating whether the violation of an emergency safety standard is S&S).

Given the language and structure of the Mathies test taken as a whole, this approach makes sense. In its first key opinion interpreting the statute's S&S provision, 30 U.S.C. § 814(d)(1), the Commission identified two sensible considerations—"likelihood and gravity"—that rendered a violation S&S. Sec'y of Labor v. Nat'l Gypsum Co., 3 FMSHRC 822, 828 (1981). In short, the Commission reasoned that a violation should be considered S&S when it is reasonably likely to result in serious harm. See id. The later-developed Mathies test, at its core, also reflects a dual concern for both likelihood and gravity. In our view, the second prong of the test, which requires the showing of a "discrete safety hazard—that is, a measure of danger to safety—contributed to by the violation," Mathies, 6 FMSHRC at 3, primarily accounts for the Commission's concern with the likelihood that a given violation may cause harm. This follows because, for a violation to contribute to a discrete safety hazard, it must be at least somewhat likely to result in harm.

By contrast, we think that Mathies' third and fourth prongs, which the Commission expected would "often be combined in a single showing," Mathies, 6 FMSHRC at 4, are primarily concerned with gravity—the seriousness of the expected harm. To

the extent that the third and fourth prongs are concerned with likelihood at all, they are concerned—by their very terms—with the likelihood that the relevant hazard will result in serious injury. Id. at 3–4. Requiring a showing at prong three that the violation itself is likely to result in harm would make prong two superfluous.

Assuming the existence of the relevant hazard at prong three is also justified by policy considerations. Under Knox Creek's interpretation of Mathies, compliance with some mandatory safety standards could preclude an S&S finding for the violation of an entirely separate mandatory safety standard. For instance, in this case, Knox Creek suggests that the insulation surrounding its electrical wiring should be considered as relevant evidence cutting against an S&S finding with respect to each of the permissibility violations. But as the Secretary points out, "[i]f mine operators could avoid S&S liability—which is the primary sanction they fear under the Mine Act—by complying with redundant safety standards, operators could pick and choose the standards with which they wished to comply." Respondents' Br. at 37. Such a policy would make such standards "mandatory" in name only. It is therefore unsurprising that other appellate courts have concluded that "[b]ecause redundant safety measures have nothing to do with the violation, they are irrelevant to the [S&S] inquiry."

Cumberland Coal, 717 F.3d at 1029; see also Buck Creek, 52 F.3d at 136.

Finally, the purpose and legislative history of the Mine Act support the Secretary's interpretation. The Federal Coal Mine Health and Safety Act of 1969 ("Coal Act"), which was incorporated in full into the Mine Act, declared that the mining industry's "first priority and concern . . . must be the health and safety of its most precious resource—the miner." Pub. L. No. 91-173, § 2(a), 83 Stat. 742, 742-43 (codified at 30 U.S.C. § 801(a)). More specifically, the Coal Act tightened permissibility requirements in light of a spate of methane explosions, some of which may have been triggered by relatively minor ignition sources. See S. Rep. No. 91-411, at 26-31 (1969). Additionally, the legislative history of the Mine Act suggests that Congress did not intend for the S&S determination to be a particularly burdensome threshold for the Secretary to meet. See Consolidation Coal Co. v. Fed. Mine Safety & Health Review Comm'n, 824 F.2d 1071, 1085 (D.C. Cir. 1987) (concluding that the legislative history of the Mine Act "suggests that Congress intended all except 'technical violations' of mandatory standards to be considered significant and substantial").

In short, we find that the Secretary's interpretation is persuasive and consistent with both Commission precedent and

legislative intent. None of Knox Creek's arguments persuades us otherwise.

Knox Creek attempts, for example, to paint a doomsday picture, arguing that the Secretary's interpretation will result in designating every permissibility violation S&S, or that it will result in effectively changing Mathies' "reasonable likelihood" of occurrence to a simple "could occur." Petitioner's Reply Br. at 10. These arguments are ill-founded, for two reasons.

First, even under the Secretary's interpretation, the third Mathies prong still requires evidence that the hazard is reasonably likely to result in an injury-producing event, which in this case means evidence that the escape of hot gas from an enclosure will trigger an explosion in the mine atmosphere. That evidence will not be available where the mine's atmosphere does not contain explosive concentrations of methane.

Second, as we discussed above, the second prong of Mathies requires proof that the violation in question contributes to a "discrete safety hazard," which implicitly requires a showing that the violation is at least somewhat likely to result in harm. See Sec'y of Labor v. Black Beauty Coal Co., 34 FMSHRC 1733, 1741 n.12 (2012) ("[I]f the roadway here had lacked berms for only a short distance [thereby making the hazard of a vehicle falling off the edge less likely], or if the violation

had been otherwise insignificant, the trier-of-fact could have found that the violation did not contribute to a discrete safety hazard, and hence that the Secretary had failed in her proof under the second element of Mathies."), aff'd sub nom. Peabody Midwest Mining, LLC v. Fed. Mine Safety & Health Review Comm'n, 762 F.3d 611 (7th Cir. 2014); Sec'y of Labor v. Cumberland Coal Res., LP, 33 FMSHRC 2357, 2368 (2011) (similarly considering evidence that the violation, under the particular circumstances, was likely to contribute to the relevant hazard under Mathies' second prong), aff'd sub nom. Cumberland Coal Res., LP v. Fed. Mine Safety & Health Review Comm'n, 717 F.3d 1020 (D.C. Cir. 2013); Sec'y of Labor v. E. Associated Coal Corp., 13 FMSHRC 178, 183 (1991) (same); Utah Power & Light Co. v. Sec'y of Labor, 12 FMSHRC 965, 970 (1990) (same).

Nonetheless, despite the numerous Commission decisions considered above, Knox Creek argues that the Secretary's approach is inconsistent with Commission precedent, focusing on two cases. In the first, Secretary of Labor v. Texasgulf Inc., 10 FMSHRC 498, 501 (1988), the Commission required that a permissibility violation's S&S determination "be based on the particular facts surrounding the violation," which Knox Creek argues is inconsistent with the Secretary's method of assuming the hazard at prong three. As the above discussion should make clear, however, the Secretary's approach still allows plenty of

room for a fact-intensive S&S analysis, both under prong two, where the Secretary must establish that the violation contributes to a discrete safety hazard, and within prongs three and four, where evidence is still necessary to establish that the hazard is reasonably likely to result in a serious injury.

Moreover, the Commission expressly distinguished this case from Texasgulf on the grounds that, whereas the Tiller Mine was classified as "gassy," with high concentrations of methane in its atmosphere, "[t]he mine in Texasgulf contained only miniscule amounts of methane and had never had a methane ignition or explosion." Knox Creek, 36 FMSHRC at 1133 n.11. When the Commission in Texasgulf required the consideration of a "confluence of factors" in making an S&S determination, it was specifically concerned with whether there was "a sufficient amount of methane in the atmosphere surrounding the impermissible gaps and ignition sources." Texasgulf, 10 FMSHRC at 501. Texasgulf is silent as to whether the Secretary must present evidence that the hazard itself is reasonably likely at prong three.

More persuasively, Knox Creek cites Secretary of Labor v. Zeigler Coal Co., 15 FMSHRC 949, 953 (1993), which involved a noncompliant power connection whose related hazard was "an ignition that could result in an explosion." The Commission specified that in satisfying Mathies' third prong, a "reasonable

likelihood of an ignition is [a] necessary precondition to the reasonable likelihood of an injury." Id. Zeigler Coal does appear to support Knox Creek's position that evidence of the likelihood of the hazard is relevant at prong three. However, that position is flatly contradicted by more recent Commission precedent, Musser, 32 FMSHRC at 1281, by the unanimous voice of federal appellate courts, see Peabody Midwest, 762 F.3d at 616; Cumberland Coal, 717 F.3d at 1025-27; Buck Creek, 52 F.3d at 135; Austin Power, 861 F.2d at 103-04, and by the various considerations outlined above. Accordingly, the scales still tip decidedly in the Secretary's favor.

In sum, we accept the Secretary's interpretation that the relevant hazard should be assumed when analyzing Mathies' third prong. This interpretation has the necessary "power to persuade": it is not only consistent with Commission and appellate court precedent applying Mathies, but also well supported by the Mine Act's history and purpose.

Applying this legal standard to the three permissibility citations, we have little trouble concluding that the Commission's S&S determinations were supported by substantial evidence. Neither party disputes the Commission's characterization of the relevant hazard as the escape of ignited gas into the mine atmosphere through the impermissibly sealed enclosure. The dispositive question, then, is whether there was

substantial evidence to support the Commission's conclusion that this hazard was reasonably likely to cause injury. Quite clearly, there was.

Both parties stipulated before the ALJ that the Tiller Mine is a "gassy" mine, "liberat[ing] more than 500,000 cubic feet of methane or other explosive gases during a 24-hour period, and thus . . . subject to . . . 10-day spot inspections." J.A. 316. Consequently, the ALJ found that, with respect to the facts surrounding each violation, an accumulation of methane at explosive concentrations was reasonably likely, and that a resulting explosion was reasonably likely to cause serious injuries to miners. Knox Creek did not even argue before the Commission that these findings were unsupported by substantial evidence. For each of the permissibility violations, we thus find Mathies' third prong satisfied, and the Commission's S&S determinations proper.

D.

The parties' dispute with respect to the accumulations violation also relates to Mathies' third prong. The Secretary argues that "a mine operator's intent to abate [a violation should] not mitigate an otherwise S&S violation," i.e., by rendering a resultant injury not reasonably likely. Respondents' Br. at 52. According to the Secretary, although S&S liability may be mitigated where a violation is being

actively abated, that can only be the case where the mine operator "has ordered the relevant equipment or areas to be shut down and has already begun active repairs." Id. Knox Creek counters that the Secretary's proposed standard is inconsistent with Texasgulf's requirement that ALJs examine a "confluence of factors" surrounding a violation in order to resolve Mathies' third prong. Texasgulf, 10 FMSHRC at 501.

Once more, however, we find the Secretary's interpretation persuasive. For over thirty years, the Commission has held that an S&S determination ought to be "made at the time the citation is issued (without any assumptions as to abatement)." Sec'y of Labor v. U.S. Steel Mining Co., 6 FMSHRC 1573, 1574 (1984) (emphasis added); see also Sec'y of Labor v. McCoy Elkhorn Coal Corp., 36 FMSHRC 1987, 1991 (2014) (rejecting the argument that an S&S finding was erroneous "because [the mine operator] was in the process of cleaning the accumulations when the inspector arrived"); Sec'y of Labor v. Gatliff Coal Co., 14 FMSHRC 1982, 1986 (1992) (finding that the ALJ erred in "inferring that the violative condition would cease" in the course of normal mining operations). It is true that the Commission has applied a "confluence of factors" approach to S&S determinations. However, this approach does not prevent the Commission from providing further clarification as to what factors ought to be evaluated, and how. That is all the Commission did here.

The Secretary's interpretation makes sense. First, planned but not-yet-begun abatement efforts do not actually reduce the risk of harm to miners posed by the relevant violation, as that risk is properly evaluated at the time of citation. That is illustrated by the facts here, where miners were scheduled to begin mining within thirty minutes of when the citation was issued, but the accumulations were not actually abated until nearly an hour later.

Second, if evidence that abatement efforts are merely intended could mitigate an S&S determination, mine operators might have incentives to "plan" more abatement measures than they have the actual capacity to perform. Even assuming good-faith intentions to abate on the part of mine operators, however, plans are inherently less reliable than deeds, and it is therefore reasonable for the Secretary and Commission to discount evidence of the former. See Sec'y of Labor v. Eagle Nest, Inc., 14 FMSHRC 1119, 1123 (1992) (rejecting the argument that a mine operator may assume that miners will behave cautiously in order to mitigate an S&S finding); Sec'y of Labor v. U.S. Steel Mining Co., 6 FMSHRC 1834, 1838 n.4 (1984) (noting the "inherent vagaries of human behavior").

Finally, the Mine Act's history and purpose support the Secretary's interpretation. As we have previously mentioned, the statute's chief concern is with the health and safety of the

miner, 30 U.S.C. § 801(a), and it is for this reason that mine operators face strict liability for mandatory safety standard violations under the Act. See Freeman United Coal Mining Co. v. Fed. Mine Safety & Health Review Comm'n, 108 F.3d 358, 360 (D.C. Cir. 1997) (citing 30 U.S.C. § 820(a)). Further, the accumulations "standard was directed at preventing accumulations in the first instance, not at cleaning up the materials within a reasonable period of time after they have accumulated." Sec'y of Labor v. Old Ben Coal Co., 1 FMSHRC 1954, 1957 (1979) (discussing H. Rep. 91-761 (1969) and H. Rep. 91-563 (1969)). Discounting evidence of intended but not-yet-begun abatement efforts when making S&S determinations is consistent with these stringent enforcement standards, which have as their lodestar miner health and safety.

We therefore accept the Secretary's argument and the Commission's ruling that evidence of intended but not-yet-begun abatement efforts ought not be considered when making an S&S determination. Consequently, since no actual abatement was underway at the time of citation, it is clear that the Commission's S&S determination with respect to the accumulations violation was valid.

III.

In sum, applying the correct legal standard to the facts surrounding the four violations at issue here compels the

conclusion that the Commission reached—that is, that those violations were significant and substantial under 30 U.S.C. § 814(d)(1). Accordingly, we deny the petition for review.

PETITION FOR REVIEW DENIED