

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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June 6, 2016

SECRETARY OF LABOR
MINE SAFETY AND HEALTH
ADMINISTRATION (MSHA),
Petitioner

v.

MACH MINING, INC.,
Respondent

CIVIL PENALTY PROCEEDING

Docket No. LAKE 2014-0077
A.C. No. 11-03141-334561

Docket No. LAKE 2014-132
A.C. No. 11-03141-337701

Mine: No. 1 Underground Mine

AMENDED DECISION AND ORDER

Appearances: Thomas J. Motzny, Esq., Office of the Solicitor, U.S. Dept. of Labor,
Nashville, Tennessee for Petitioner

Christopher D. Pence, Esq., Hardy Pence, PLLC, Charleston, West
Virginia for Respondent

Before: Judge McCarthy

The Decision and Order that issued on May 25, 2016 is hereby amended pursuant to Commission Rule 69(c), 29 C.F.R. § 2700.69(c), to read as set forth below.

I. Statement of the Case

These cases are before me are upon two Petitions for Assessment of Civil Penalty under section 105(d) of the Federal Mine Safety and Health Act of 1977, as amended, (“the Mine Act”), 30 U.S.C. § 815(d). The two dockets at issue contain 20 citations alleging violations of mandatory health and safety standards.

A hearing was held on July 22-24, 2014 in Carbondale, Illinois. During the hearing, the parties introduced testimony and documentary evidence.¹ Witnesses were sequestered. Thereafter, the parties submitted post-hearing briefs. During hearing, the parties made a joint

¹ ALJ Exhibits (ALJ Exs.) 1-8, Petitioner Exhibits (P. Exs.) 100-115, Respondent Exhibits (R. Exs.)1-8 and 11, and Joint Exhibit (J. Ex.) 1 were received into evidence. Tr. 10, 19-20, 304. R. Exs. 9 and 10 were not offered into evidence. Tr. 757.

motion to settle nine of the 20 citations. The joint motion to approve settlement was read into the record. Tr. 377-84.

In Docket No. LAKE 2014-0077, the parties moved for the approval of the settlement of nine of the thirteen citations, and proposed a reduction in penalties from \$10,933 to \$7,392. Tr. 386. The Secretary vacated Citation No. 8439443. Tr. 383. The Secretary's discretion to vacate a citation or order is not subject to review. *E.g., RBK Constr. Inc.*, 15 FMSHRC 2099 (Oct. 1993). The parties agreed to settle Citations No. 8439449, 8439450, 8439452, 8445747, 8448973, and 8449000 with no modifications or reductions in penalties. Tr. 383. The parties also request that Citation No. 8445731 be modified to reduce the level of negligence from "moderate" to "low." Tr. 383-84.

I have considered the representations and documentation submitted at hearing, and I conclude that the proffered settlement in Docket No. LAKE 2014-0077 is appropriate under the criteria set forth in section 110(i) of the Act. The settlement amounts are as follows:

Citation No.	Assessment	Settlement
8439449	\$224	\$224
8439450	\$224	\$224
8439452	\$334	\$334
8439460	\$3,143	\$2,438
8445731	\$4,689	\$2,000
8445747	\$308	\$308
8448973	\$207	\$207
8449000	\$1657	\$1657
TOTAL	\$10,933	\$7,392

In Docket No. LAKE 2014-0132, the parties moved for the approval of the settlement of four of the seven citations, proposing a reduction in penalties from \$4,826 to \$3,252. Tr. 381. Citation No. 8445755 remains unchanged. Tr. 378. Citation No. 8445758 also remains unchanged, but the Solicitor justifies the reduction in proposed penalty by stating that there were legitimate factual and legal disputes regarding gravity and negligence. Tr. 380-81. The parties also request that:

Citation No. 8445758 be modified to reduce the level of from "moderate" to low," and

Citation No. 8451650 be modified to reduce the number of persons affected from "twelve" to "six."

Tr. 378-80.

I have considered the representations and documentation submitted at hearing, and I conclude that the proffered settlement in Docket No. LAKE 2014-0132 is appropriate under the criteria set forth in section 110(i) of the Act. The settlement amounts are as follows:

Citation No.	Assessment	Settlement
8445758	\$2,282	\$1,845
8451649	\$1,530	\$700
8451650	\$807	\$500
8445755	\$207	\$207
TOTAL	\$4,826	\$3,252

At hearing, Respondent moved for a directed verdict on Citation Nos. 8443200 and 8443901 in Docket No. LAKE 2014-132. The undersigned granted the motion because the Secretary's evidence did not support a violation of section 75.821(a). Tr. 242-62.²

² Both citations alleged that Respondent violated Section 75.821(a) because chip alerts were not working on longwall equipment. A mule train is comprised of several pieces of equipment that distribute power to the longwall. Tr. 53. Power enters the unit through a disconnect box, which can be switched on or off, and then travels to the power centers within the mule train. Tr. 55. Chirp alerts indicate that the equipment is energized by making a chirping noise and emitting a flashing light. Tr. 32-33. On the cited disconnect box in Citation No. 8443200, the chirp alert failed to make the chirping sound. Tr. 37. On the cited power center in Citation 8443901, the chirp alert failed to make the chirping sound and the flashing light failed. *Id.* MSHA inspector John Butcher testified that without notification from the chirp alerts that a piece of equipment is energized, the miners are at risk of fatal injuries from electrocution. Tr. 65-66, 74-75. Essentially, the Secretary argues that since the equipment was not being maintained, there was a violation of Section 75.821(a). Section 75.821(a) requires that every seven days, a person qualified to perform electrical work must test and examine longwall equipment to determine that such equipment is being properly maintained. 30 U.S.C. § 75.821(a).

The Secretary failed to establish that Respondent did not assign a qualified person to test and examine the chirp alerts within the last seven days to ensure that the equipment was being properly maintained. Inspector Butcher conceded on cross examination that as far as he knew, the required testing was actually performed and that he was not alleging that the mine was not conducting the appropriate testing and examination, but merely alleging that the chip alerts on the inspected equipment were not working properly. Tr. 109.

- Q: ...As far as you know, the test that was required every seven days was actually performed, correct?
- A: As far as I know, yes.
- Q: Okay. And that's not your allegation, is it, that the test—
- A: No.
- Q: —wasn't performed?
- A: No.
- Q: Okay. So your—your allegation is — is not that the mine wasn't conducting examinations? Your allegation is — is, When I inspected this equipment, the chirp alert wasn't working, right?
- A: Yes.

Citations No. 8451651 in Docket No. LAKE 2014-0132, and Citation Nos. 8439446, 8432319, 8439454, and 8452203 in Docket No. LAKE 2014-0077 were litigated at hearing.

For the reasons set forth below, I modify Citation No. 8451651 to reduce the level of negligence from “high” to “moderate.” I modify Citation No. 8452203 to raise the level of negligence from “moderate” to “high.” I find that Citation Nos. 8439446, 8432319, 8439454 were properly issued, as written. I assess a total civil penalty of \$32,636 for the five citations adjudicated herein.

Based on a careful review of the entire record, including the parties’ post-hearing briefs and my observation of the demeanor of the witnesses,³ I make the following findings of fact and conclusions of law:

II. PRINCIPLES OF LAW

A. Establishing a Violation

To prevail on a penalty petition, the Secretary bears the burden of proving by a preponderance of the evidence that a violation of the Mine Act occurred. *RAG Cumberland Res. Corp.*, 22 FMSHRC 1066, 1070 (Sept. 2000), *aff’d*, 272 F.3d 590 (D.C. Cir. 2001). A mine operator is held strictly liable for violations that occur at its mine. *Spartan Mining Co.*, 30 FMSHRC 699, 706 (Aug. 2008). The operator may avoid liability only by showing that it was not properly on notice of the violative nature of its conduct. Even in the absence of actual notice, the Secretary may properly charge the operator with a violation when a reasonably prudent person familiar with the protective purposes of the cited standard and the factual circumstances surrounding the allegedly hazardous condition, including any facts peculiar to the mining industry, would have recognized a hazard warranting corrective action within the purview of the applicable regulation. *LaFarge North America*, 35 FMSHRC 3497, 3500-01 (Dec. 2013); *Ideal Cement Co.*, 12 FMSHRC 2409, 2415-16 (Nov. 1990); *Alabama By-Products Corp.*, 4 FMSHRC 2128, 2129 (Dec. 1982).

Q: So there’s no dispute in your mind that the tests that are required by [Section] 75.821(a) were actually performed at the times required, correct?
A: Correct.

Tr. 109. In these circumstances, I found that Respondent complied with the requirements of § 75.821(a), and granted Respondent’s motion for directed verdict. Tr. 242-62.

³ In resolving conflicts in testimony, I have taken into consideration the demeanor of the witnesses, their interests in this matter, the inherent probability of their testimony in light of other events, corroboration or lack of corroboration for testimony given, experience and credentials, and consistency, or lack thereof, within the testimony of witnesses and between the testimony of witnesses.

B. Gravity

The gravity penalty criterion under section 110(i) of the Mine Act, 30 U.S.C. § 820(i), “is often viewed in terms of the seriousness of the violation.” *Consolidation Coal Co.*, 18 FMSHRC 1541, 1549 (Sept. 1996) (citing *Sellersburg Stone Co.*, 5 FMSHRC 287, 294-95 (March 1983), *aff’d*, 736 F.2d 1147 (7th Cir. 1984); *Youghiogheny & Ohio Coal Co.*, 9 FMSHRC 673, 681 (Apr. 1987)). The seriousness of a violation can be examined by looking at the importance of the standard violated and the operator’s conduct with respect to that standard, in the context of the Mine Act’s purpose of limiting violations and protecting the safety and health of miners. *See, e.g., Harlan Cumberland Coal Co.*, 12 FMSHRC 134, 140 (Jan. 1990) (ALJ).

The gravity analysis focuses on factors such as the likelihood of an injury, the severity of an injury, and the number of miners potentially injured. The Commission has recognized that an assessment of the likelihood of injury is to be made assuming continued normal mining operations, without abatement of the violation. *U.S. Steel Mining Co.*, 7 FMSHRC 1125, 1130 (Aug. 1985).

C. Significant and Substantial (S&S)

The Mine Act describes an S&S violation as one “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).⁴

In a seminal early decision interpreting this statutory provision, the Commission held that a violation is S&S “if, based on the particular facts surrounding the violation, there exists a reasonable likelihood that the hazard contributed to will result in an injury or illness of a reasonably serious nature.” *Cement Div., Nat’l Gypsum Co.*, 3 FMSHRC 822, 825 (Apr. 1981). In so holding, the Commission rejected the Secretary’s argument that all violations are S&S except technical violations or violations that pose only a remote or speculative risk of injury or illness. The Commission found that the Secretary’s interpretation would result in almost all violations being categorized as S&S, which would be inconsistent with the statutory language and the role the S&S provision is intended to play in the Mine Act’s graduated enforcement scheme. 3 FMSHRC at 825, 828. The Commission also found that the Secretary’s interpretation would leave little room for inspectors to exercise their independent judgment. *Id.* at 825-26.⁵ In addition, the Commission found that the Secretary’s interpretation would render the Act’s

⁴ See also *id.* § 814(e), the Mine Act’s pattern-of-violations provision, which is the only other provision that mentions S&S, and which defines the term the same way as § 814(d)(1).

⁵ The Commission has consistently reiterated that the inspector’s judgment is an important element of the S&S determination. However, the concept has generally been raised in the context of deferring to the inspector’s opinion that a violation was S&S, rather than in the context of examining whether the inspector exercised independent judgment in forming this opinion as opposed to merely following the “mechanical approach” advanced by the Secretary and rejected by the Commission in *National Gypsum*, 3 FMSHRC at 825. *See, e.g., Wolf Run Mining Co.*, 36 FMSHRC 1951, 1959 (Aug. 2014); *Maple Creek Mining, Inc.*, 27 FMSHRC 555, 563 n.6 (Aug. 2005); *Harlan Cumberland Coal Co.*, 20 FMSHRC 1275, 1278-79 (Dec. 1998).

S&S language almost superfluous, and would render the Act's pattern-of-violation provisions wholly punitive by making it almost impossible for a mine to be relieved of withdrawal order liability once placed on notice of a pattern of violations. *Id.* at 826-27. Although the Commission did not develop a test to determine whether violations are S&S, it enunciated several guiding principles. Specifically, it stated that the term "hazard" denotes "a measure of danger to safety or health" and that a violation is S&S if it "could be a major cause" of such a danger. *Id.* at 827.

In its subsequent *Mathies* decision, the Commission set forth a four-prong test for determining whether a violation is S&S under *National Gypsum. Mathies Coal Co.*, 6 FMSHRC 1 (Jan. 1984). To establish an S&S violation, the Secretary must prove: (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. *Id.* at 3-4. The Secretary, mine operators, and the federal appellate courts have accepted the *Mathies* test as authoritative. See *Knox Creek Coal Corp. v. Sec'y of Labor*, 811 F.3d 148, 160 (4th Cir. 2016) (noting federal appellate courts' uniform adoption of *Mathies* test and parties' recognition of authority of test); *Mach Mining, LLC v. Sec'y of Labor*, 809 F.3d 1259, 1267 (D.C. Cir. 2016) (applying *Mathies* criteria); *Buck Creek Coal, Inc. v. Fed. Mine Safety & Health Admin.*, 52 F.3d 133, 135 (7th Cir. 1995) (recognizing wide acceptance of *Mathies* criteria); *Austin Power, Inc. v. Sec'y of Labor*, 861 F.2d 99, 103 (5th Cir. 1988) (approving use of *Mathies* criteria).

Ensuing case law has solidly established several general principles regarding the proper application of the *Mathies* test. The Commission has held that the S&S determination should be made assuming "continued normal mining operations." *McCoy Elkhorn Coal Corp.*, 36 FMSHRC 1987, 1990-91 (Aug. 2014) (citing *U.S. Steel Mining Co.*, 7 FMSHRC 1125, 1130 (Aug. 1985)). The assumption of continued normal mining operations considers "the length of time that the violative condition existed prior to the citation and the time it would have existed if normal mining operations had continued," without any assumptions as to abatement. *Black Beauty Coal Co.*, 34 FMSHRC 1733, 1740 (Aug. 2012), *aff'd sub nom. Peabody Midwest Mining, LLC v. FMSHRC*, 762 F.3d 611 (7th Cir. 2014); *Rushton Mining Co.*, 11 FMSHRC 1432, 1435 (Aug. 1989); see also *Knox Creek*, 811 F.3d at 165-66 (upholding Commission's rejection of "snapshot" approach to evaluating S&S for accumulations violation); *Mach Mining*, 809 F.3d at 1267-68 (citing with approval *McCoy Elkhorn's* discussion of operative timeframe for S&S). The Commission has repeatedly stated that the S&S determination must be based on the particular facts surrounding the violation. See, e.g., *Wolf Run Mining Co.*, 36 FMSHRC 1951, 1957-59 (Aug. 2014) (remanding S&S finding for further consideration of relevant circumstances); *Black Beauty*, 34 FMSHRC at 1740; *Peabody Coal Co.*, 17 FMSHRC 508, 511-12 (Apr. 1995); *Texasgulf, Inc.*, 10 FMSHRC 498, 500 (Apr. 1988).

A line of cases beginning with the Seventh Circuit's decision in *Buck Creek*, *supra*, has established that an operator cannot rely on redundant safety measures to mitigate the likelihood of injury for S&S purposes. See, e.g., *Brody Mining, LLC*, 37 FMSHRC 1687, 1691 (Aug.

2015).⁶ Finally, Commission precedent indicates that the likelihood of injury is the key consideration in determining whether a violation is S&S. *Consolidation Coal Co.*, 18 FMSHRC 1541, 1550 (Sept. 1996) (comparing S&S inquiry, which focuses on “the reasonable likelihood of serious injury,” with gravity inquiry, which focuses on “the effect of the hazard if it occurs”).

The evolving case law, however, has presented conflicting guidance as to how some of these principles should be applied. In particular, there is some confusion about how to evaluate the facts surrounding the violation and the likelihood of injury under the second and third prongs of the *Mathies* analysis. The Fourth Circuit’s recent decision in *Knox Creek, supra*, and the Seventh Circuit’s decision in *Peabody Midwest Mining, LLC v. FMSHRC*, 762 F.3d 611 (7th Cir. 2014), have cast doubt on whether the traditional application of the literal language of the second and third prongs of the *Mathies* test is still valid.

Traditional Application of *Mathies* Test

Under the traditional approach, Commission Administrative Law Judges (ALJs) have conducted the fact-intensive component of the analysis and evaluated the reasonable likelihood of injury at the third prong. In one of its earliest decisions applying the *Mathies* test, the Commission explained that “the reference to ‘hazard’ in the second element [of the test] is simply a recognition that the violation must be more than a mere technical violation – i.e., that the violation present a measure of danger.” *U.S. Steel Mining Co.*, 6 FMSHRC 1834, 1836. “There is no requirement of ‘reasonable likelihood’” encompassed in this element. *Musser Engineering, Inc.*, 32 FMSHRC 1257, 1280 (Sept. 2010). Rather, longstanding Commission precedent indicates that the likelihood of harm should be accounted for in the third *Mathies* element, which “requires that the Secretary establish a *reasonable likelihood* that the hazard contributed to will result in an event in which there is an injury.” *U.S. Steel*, 6 FMSHRC at 1836 (quoted by the Commission on numerous occasions over the next two decades, including in *Elk Run Coal Co.*, 27 FMSHRC 899, 906 (Dec. 2005); *Bellefonte Lime Co.*, 20 FMSHRC 1250, 1254-55 (Nov. 1998); *Zeigler Coal Co.*, 15 FMSHRC 949, 953 (June 1993); and *Texasgulf*, 10 FMSHRC at 500). As the Commission explained in another early decision, “The third element embraces a showing of a reasonable likelihood that the hazard will occur, because, of course, there can be no injury if it does not.” *Consolidation Coal Co.*, 6 FMSHRC 189, 193 (Feb. 1984).

Following this guidance, ALJs have traditionally applied *Mathies* by identifying the potential hazard at the second prong, and then at the third prong, assessing whether there is a reasonable likelihood that the hazard will result in injury under the particular facts of the case at

⁶ It is not completely clear whether redundant safety measures are precluded from consideration such that it is error to take them into account, which could make it difficult for judges at the trial level to discharge their duty of considering all the particular facts surrounding the violation, or whether arguments that rely on redundant safety measures are simply disfavored as a defense to S&S. Compare *Brody Mining*, 37 FMSHRC at 1691 (stating that evidence regarding redundant safety measures has been “consistently rejected as irrelevant”) with *Black Beauty*, 36 FMSHRC 1121, 1125 n.5 (May 2014) (stating only that such measures “do not prevent a finding of S&S”) and *Buck Creek*, 52 F.3d at 136 (“The fact that Buck Creek has safety measures in place to deal with a fire does not mean that fires do not pose a serious safety risk to miners.”).

hand, with the caveat that normal mining operations are assumed to continue without abatement of the violation. The crux of this traditional *Mathies* analysis is the third and fourth prongs of the test, which effectuate *National Gypsum*'s definition of S&S (reasonable likelihood of a reasonably serious injury) and are often combined into a single showing (reasonable likelihood that a particular serious injury will occur under the facts of the case). Consistent with this approach, MSHA inspectors determine whether a violation meets the criteria for S&S by the likelihood of injury and the expected severity of injury, which correspond to the third and fourth *Mathies* elements.⁷

Over the years, it appears that the Commission, with court approval, has developed special rules for applying the *Mathies* test in two situations. First, for violations that contribute to the hazard of an ignition, fire, or explosion, the Commission has held that the third *Mathies* element is satisfied only when a "confluence of factors" is present that could have triggered an ignition, fire, or explosion, under continued normal mining operations. *Zeigler Coal Co.*, 15 FMSHRC at 953; *Texasgulf*, 10 FMSHRC at 501; *see, e.g., Paramount Coal Co. Va., LLC*, 37 FMSHRC 981, 984 (May 2015). Second, for violations of emergency safety standards, the Commission assumes the emergency when making the S&S evaluation. *See, e.g., Cumberland Coal Res., LP v. FMSHRC*, 717 F.3d 1020, 1027-28 (D.C. Cir. 2013); *Mill Branch Coal Corp.*, 37 FMSHRC 1383, 1394 (July 2015).

Effect of Recent Fourth & Seventh Circuit Decisions

The Fourth Circuit's recent *Knox Creek* decision issued in January 2016 appears to shift the focus of the S&S analysis from the third to the second *Mathies* prong and to restrict consideration of the facts bearing on the reasonable likelihood of injury under the third prong. The Fourth Circuit interpreted the second *Mathies* prong to entail an inquiry into the likelihood of harm, stating:

In our view, the second prong of the test ... 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.

Knox Creek, 811 F.3d at 162. Significantly, the Fourth Circuit further held that the occurrence of the hazard must be assumed under the third prong of the *Mathies* test. *Id.* at 161-65. Evidence of the likelihood that the hazard will occur is not considered at this prong, according to the Fourth Circuit. Rather, the inquiry is whether the hazard, assuming it occurred, would result in serious injury. *Id.* at 162.

⁷ The Secretary's citation/order form contains boxes for inspectors to check the likelihood of injury and the expected severity of injury immediately above the line where they designate the violation S&S or non-S&S. Inspectors are trained not to designate a violation as S&S, unless item 10.A on the form is marked "reasonably likely," "highly likely," or "occurred," and item 10.B is marked "lost workdays or restricted duty," "permanently disabling," or "fatal." *See* MSHA, PROGRAM POLICY MANUAL, Vol. I, § 104 (2003).

The particular hazard confronted by the Fourth Circuit in *Knox Creek* was the escape of ignited gas into the mine atmosphere through impermissible enclosures. *Id.* at 164. The parties had stipulated that the mine was a “gassy” mine that liberated more than 500,000 cubic feet of methane or other explosive gases per day. *Id.* at 164. Consequently, the ALJ had found that methane was reasonably likely to accumulate to explosive concentrations. *Id.* The ALJ had also found that a resulting explosion was reasonably likely to cause serious injuries, but he had ultimately declined to find that the violation was S&S because the Secretary had failed to prove the likelihood of an ignition. *Id.* at 154, 164-65. Without discussing the likelihood of ignition, the Fourth Circuit deemed the ALJ’s other findings sufficient to satisfy the third *Mathies* prong. *Id.*

Previously, in *Peabody Midwest Mining*, the Seventh Circuit had similarly suggested that the S&S analysis assumes the occurrence of the hazard. The violation at issue in that case was the mine operator’s failure to erect berms on an elevated roadway. The Seventh Circuit defined the hazard as the risk that a vehicle would veer off the roadway and go over the edge. *Peabody Midwest*, 762 F.3d at 616. The operator had argued that a vehicle was not reasonably likely to veer off the road. *Id.* However, the Seventh Circuit stated that the question “is not whether it is likely that the hazard (a vehicle plummeting over the edge) would have occurred” but “whether, if the hazard occurred (regardless of likelihood), it was reasonably likely that a reasonably serious injury would result.” *Id.*

Peabody Midwest does not discuss the proper role of deference in the S&S context, but the Fourth Circuit reached its holding in *Knox Creek* by deferring to the Secretary’s interpretation that the third *Mathies* element requires proof that the hazard, not the violation itself, is likely to cause injury. 811 F.3d at 161 (declining to afford deference under *Chevron, USA, Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984), but finding the Secretary’s interpretation persuasive and therefore entitled to deference under *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944)). The Fourth Circuit further asserted that this interpretation is consistent with a number of prior cases, including the Seventh Circuit’s decisions in *Peabody Midwest* and in *Buck Creek, supra*, 52 F.3d at 135 (assuming occurrence of fire at third *Mathies* prong when ALJ had engaged in “confluence of factors” analysis at second prong); the Fifth Circuit’s decision in *Austin Power, supra*, 861 F.2d at 103-04 (declining to require evidence that the hazard was likely to occur); and the Commission’s decision in *Musser Engineering, supra*, 32 FMSHRC at 1280-81 (stating that the third *Mathies* prong requires a showing that the hazard, not the violation itself, will cause injury). 811 F.3d at 161-62.⁸ The Fourth Circuit rejected the operator’s

⁸ It is debatable to what extent *Austin Power* and *Buck Creek* truly stand for the proposition the Fourth Circuit seems to be embracing, which is that the actual likelihood of injury is irrelevant, except to the extent necessary to establish a “discrete” hazard at the second *Mathies* prong. In *Austin Power*, the Fifth Circuit upheld an S&S finding for a fall protection violation, reasoning that “[a] danger of falling is a necessary element of this violation, so by the very nature of a violation there was a discrete safety hazard.” 861 F.2d at 103. However, the hazard had actually occurred and had resulted in a fatality, which may have influenced the Court’s failure to require additional evidence of likelihood at the third *Mathies* prong. 861 F.2d at 100. In *Buck Creek*, the Seventh Circuit did not expressly discuss the proper application of the *Mathies* test, but

argument that under *Zeigler Coal Company, supra*, the Secretary must show that an ignition is reasonably likely under the third *Mathies* prong. 811 F.3d at 164. The Court found this position to be “flatly contradicted” by *Musser Engineering* and by decisions of other federal appellate courts. *Id.*

The Fourth Circuit emphasized, however, that the *Mathies* approach that it has adopted “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.” *Id.* Realistically, however, it will likely require very little fact-specific analysis to conclude that any given non-technical violation contributes to a discrete safety hazard, because the Secretary generally does not promulgate a mandatory health and safety regulation (except technical regulations), unless the Secretary has already found that violating the standard would contribute to a hazard. Under the third *Mathies* prong, judges must consider all of the facts surrounding the violation, but must assume continued normal mining operations without abatement of the violation, and may not rely on redundant safety measures to mitigate the likelihood of injury. Now, under *Knox Creek* and *Peabody Midwest Mining*, judges must also assume that the hazard will actually occur. At some point, so many circumstances are either assumed or precluded from consideration that judges will find themselves evaluating the likelihood of injury in the abstract. If this is the case, the Commission will have turned its back on the principles set forth in *National Gypsum* because the *Mathies* test will have become a longhand expression for “non-technical violations.” S&S will apply to almost all violations and therefore will no longer serve as a statutory tool by which the Secretary can single out the violations that he believes the Commission should consider significant and substantial when assessing a penalty.

As noted above, the Fourth Circuit reached its result in *Knox Creek* by deferring to the Secretary’s interpretation of the Mine Act, and the Seventh Circuit reached a similar result. At the outset of its analysis, the Fourth Circuit indicated that it would review the Commission’s legal conclusions *de novo* but would afford deference to the Secretary’s, not the Commission’s, legal interpretations. *Id.* at 157 (citing *Sec’y of Labor ex rel. Wamsley v. Mut. Mining, Inc.*, 80 F.3d 110, 113-15 (4th Cir. 1996), in which the Fourth Circuit discussed the Mine Act’s split-enforcement scheme and concluded that an informal rule created and implemented by the Secretary was entitled to deference over a contrary Commission decision).

It is not surprising that the Circuit Courts have departed somewhat from the traditional *Mathies* analysis in favor of the Secretary’s legal interpretation, given the rule of deference mentioned above, and given the fact that the Secretary’s attorneys, and not the Commission’s, are the ones who argue for enforcement of the Commission’s decisions in the Circuit Courts of

simply rejected the mine operator’s argument that the ALJ had not put enough emphasis on the third and fourth *Mathies* factors when evaluating S&S for an accumulations violation. 52 F.3d at 135. The ALJ had made a finding at the second *Mathies* prong (rather than the third) that there existed a confluence of factors, including fuel sources and ignition sources, that could trigger a fire. *Id.* By contrast, in *Knox Creek*, the Fourth Circuit did not require a “confluence of factors” analysis or a showing that an ignition source existed at any prong of the *Mathies* test.

Appeals. That latter protocol is strange. Notwithstanding the propriety of the rule of deference applied by the Fourth Circuit, which raises concerns that I previously discussed in *Knife River Corporation Northwest*, 34 FMSHRC 1109, 1125-27 (May 2012) (ALJ), it does not make sense that although Congress conferred independent adjudicatory authority upon the Commission to serve as an impartial forum for Mine Act litigation, and although the Commission itself laid out the test that parties have followed for more than thirty years to litigate S&S in this forum, the Secretary is permitted to challenge the Commission's interpretation of this long-standing test in the Circuit Courts of Appeals and litigate his own interpretation on behalf of the Commission. It should be obvious that since the Secretary is one of the litigating parties before the Commission at the trial level, the Commission's and the Secretary's views on interpretation of the Act may differ. See e.g., *The American Coal Co.*, 36 FMSHRC 1311 (May 2014) (ALJ), *petition for interlocutory review granted*, Unpublished Order dated July 11, 2014. In my view, the Commission's interpretations of Mine Act provisions that turn on adjudication and not enforcement should be accorded at least some form of deference based on the power to persuade, as evidenced by the fact that courts and litigants have uniformly followed the Commission-derived *Mathies* test.⁹ Compare *Chevron, supra* (according full deference to agency's reasonable interpretation of ambiguous statutory provision) with *United States v. Mead Corp.*, 533 U.S. 218 (2001) (according deference based on "power to persuade" under *Skidmore, supra*, and finding that *Chevron* applies only where the agency was authorized by Congress to make rules carrying the force of law and did in fact promulgate the proffered interpretation in the exercise of that authority). It is within the Commission's authority to specify how the second and third factors of the *Mathies* test should be applied – particularly, whether the hazard must now be assumed at the third factor, and if so, what steps of the test account for the facts surrounding the violation – and whether the *Mathies* test is still intended to effectuate *National Gypsum's* interpretation of the S&S provisions of the Mine Act or whether the Commission now interprets S&S differently.

Because I am bound by the *Mathies* test, I will evaluate S&S under this test after taking into consideration the more recent approach set forth in *Knox Creek* and *Peabody Midwest Mining*.

D. Negligence

Negligence is not defined in the Mine Act. The Commission has found "[e]ach mandatory standard thus carries with it an accompanying duty of care to avoid violations of the standard, and an operator's failure to satisfy the appropriate duty can lead to a finding of negligence if a violation of the standard occurred." *A.H. Smith Stone Co.*, 5 FMSHRC 13, 15 (Jan. 1983) (citations omitted). In determining whether an operator meets its duty of care under the cited standard, the Commission considers what actions would have been taken under the same or similar circumstances by a reasonably prudent person familiar with the mining industry, the relevant facts, and the protective purpose of the regulation. See generally *U.S. Steel Corp.*, 6 FMSHRC 1908, 1910 (Aug. 1984). See also *Jim Walter Res., Inc.*, 36 FMSHRC 1972, 1975, 1976-77 (Aug. 2014) (requiring Secretary to show that operator failed to take specific action

⁹ But see *Cumberland Coal Res., LP v. FMSHRC*, 717 F.3d 1020, 1027 (D.C. Cir. 2013) (expressly declining to address validity of *Mathies* test).

required by standard violated); *Spartan Mining Co.*, 30 FMSHRC 699, 708 (Aug. 2008) (negligence inquiry circumscribed by scope of duties imposed by regulation violated).

The Mine Act imposes a high standard of care on foremen and supervisors. *Midwest Material Co.*, 19 FMSHRC 30, 35 (Jan. 1997) (holding that “a foreman ... is held to a high standard of care”); *see also Capitol Cement Corp.*, 21 FMSHRC 883, 892-93 (Aug. 1999) (“Managers and supervisors in high positions must set an example for all supervisory and nonsupervisory miners working under their direction,” (quoting *Wilmot Mining Co.*, 9 FMSHRC 684, 688 (Apr. 1987))); *S&H Mining, Inc.*, 17 FMSHRC 1918, 1923 (Nov. 1995) (heightened standard of care required of section foreman and mine superintendent).

Although MSHA’s regulations regarding negligence are not binding on the Commission, *see Wade Sand & Gravel Co.*, 37 FMSHRC 1874, 1878 n.5 (Sept. 2015), MSHA defines negligence by regulation in the civil penalty context as follows:

Negligence is conduct, either by commission or omission, which falls below a standard of care established under the Mine Act to protect miners against the risks of harm. Under the Mine Act, an operator is held to a high standard of care. A mine operator is required to be on the alert for conditions and practices in the mine that affect the safety or health of miners and to take steps necessary to correct or prevent hazardous conditions or practices. The failure to exercise a high standard of care constitutes negligence. The negligence criterion assigns penalty points based on the degree to which the operator failed to exercise a high standard of care. When applying this criterion, MSHA considers mitigating circumstances which may include, but are not limited to, actions taken by the operator to prevent or correct hazardous conditions or practices

30 C.F.R. § 100.3(d).

MSHA regulations further provide that mitigation is something the operator does affirmatively, with knowledge of the potential hazard being mitigated, and that tends to reduce the likelihood of an injury to a miner. This includes actions taken by the operator to prevent or correct hazardous conditions. 30 C.F.R. § 100.3(d). According to MSHA, the level of negligence is properly designated as high when “[t]he operator knew or should have known of the violative condition or practice, and there are no mitigating circumstances.” 30 C.F.R. § 100.3, Table X. The level of negligence is properly designated as moderate when “[t]he operator knew or should have known of the violative condition or practice, but there are mitigating circumstances.” *Id.* The level of negligence is properly designated as low when there are considerable mitigating circumstances surrounding the violation. *Id.*

Recently, the Commission held that Commission judges are not required to apply the level-of-negligence definitions in Part 100 and *may* evaluate negligence from the starting point of a traditional negligence analysis rather than from the Part 100 definitions. *Brody Mining*,

LLC, 37 FMSHRC 1687, 1701 (Aug. 2015); accord *Mach Mining, LLC v. Sec’y of Labor*, 809 F.3d 1259, 1263-64 (D.C. Cir. 2016). Moreover, because Commission judges are not bound by the definitions in Part 100 when considering an operator’s negligence, they are not limited to a specific evaluation of potential mitigating circumstances, and may find “high negligence,” in spite of mitigating circumstances, or moderate negligence, without identifying mitigating circumstances. *Brody*, 37 FMSHRC at 1701; *Mach Mining*, 809 F.3d at 1263-64. In this regard, the gravamen of high negligence is “an aggravated lack of care that is more than ordinary negligence.” *Brody*, 37 FMSHRC at 1701 (citing *Topper Coal Co.*, 20 FMSHRC 344, 350 (Apr. 1998)). Thus, in making a negligence determination, a Commission judge is not limited to an evaluation of allegedly mitigating circumstances and may consider the totality of the circumstances holistically. Under such an analysis, an operator is negligent if it fails to meet the requisite high standard of care under the Mine Act. *Id.*

E. Penalty Assessment

The Act requires that the Commission consider the following statutory criteria when assessing a civil penalty: (1) the operator’s history of previous violations; (2) the appropriateness of the penalty to the size of the business; (3) the operator’s negligence; (4) the operator’s ability to stay in business; (5) the gravity of the violation; and (6) any good-faith compliance after notice of the violation. *Douglas R. Rushford Trucking*, 22 FMSHRC 598, 600 (May 2000); 30 U.S.C. § 820(i). The Commission is not required to give equal weight to each of the criteria, but must provide an explanation for any substantial divergence from the proposed penalty based on such criteria. *Spartan Mining Co.*, 30 FMSHRC 699, 723 (Aug. 2008).

As I discussed in my final *Big Ridge* decision, in an effort to avoid the appearance of arbitrariness, I look to the Secretary’s penalty regulations and assessment formula as a reference point that provides useful guidance when assessing a civil penalty. *Big Ridge Inc.*, 36 FMSHRC 1677, 1681-82 (July 2014) (ALJ); see also *Wade Sand & Gravel, supra*, at 1880 n.1 (Chairman Jordan and Commissioner Nakamura, concurring). See also *Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410, 414 (1945) (holding that an agency’s interpretation of its own regulation should be given controlling weight unless it is plainly erroneous or inconsistent with the regulation). This formula is not binding, but operates as a lodestar, since factors involved in a violation, such as the level of negligence, may fall on a continuum rather than fit neatly into one of five gradations. Unique aggravating or mitigating circumstances will be taken into account and may call for higher or lower penalties that diverge from this paradigm. My independent penalty assessment analysis applies to each of the citations at issue in this case.

III. Stipulated Facts

A. Stipulations of Fact

At hearing, the parties agreed to the following stipulations:

1. Respondent is subject to the Federal Mine Safety and Health Act of 1977 and to the jurisdiction of the Federal Mine Safety and Health Review Commission.

2. The presiding Administrative Law Judge has the authority to hear this case and issue a decision.
3. Respondent has an effect upon commerce within the meaning of Section 4 of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 803.
4. At all relevant times, Respondent operated Mach No. 1 Mine, Mine ID 11-03141.
5. The violations in this docket are complete, authentic and admissible, but the Respondent does not stipulate to the allegations asserted therein.
6. Respondent mined 7,528,061 tons of bituminous coal in 2012 at Mach No. 1 Mine.
7. The violations in this docket were properly served on Respondent by a duly authorized representative of the Secretary on the dates stated therein.
8. The penalties proposed in this docket would not affect Respondent's ability to remain in business.
9. Respondent abated the citations involved herein in a timely manner and in good faith.
8. Tom Crum, Jr. is an agent of the operator Mach Mining. Tr. 272.

J. Ex. 1.

IV. Background Information

Mach Mining's No. 1 Mine is an underground coal mine located in Marion, Illinois. The height of the mine is generally nine to ten feet. Tr. 619. The mine is subject to five-day spot inspections by the Department of Labor's Mine Safety and Health Administration (MSHA), pursuant to § 103(i) of the Mine Act because the mine liberates more than one million cubic feet of methane or other explosive gases during a 24-hour period. 30 U.S.C. § 813(i); *see* Tr. 35, 211-10. At the time of the October 14, 2014 inspection, the mine liberated approximately two million cubic foot of methane in a 24-hour period. Tr. 158, 211-10.

V. Citation No. 8451651

A. Findings of Fact

1. The Inspection

On October 15, 2014, MSHA inspector Chad Lampley¹⁰ issued Citation No. 8451651 during an E16 inspection of Mach Mine's No. 1 mine.¹¹ Tr. 140-42. Mark Schilke, the mine

¹⁰ At hearing, Lampley had been a certified mine inspector with MSHA for seven years. He received a degree in Applied Science from Southern Illinois University (SIU). Upon graduation,

safety manager, accompanied Lampley during the inspection.¹² Tr. 143, 152, 159-160. The inspection was conducted during a production shift. Tr. 155. At the time of Lampley's inspection, however, mining had halted due to a problem with a conveyor belt. Tr. 153-54, 214-15.

2. The Location of the Truck

During the inspection, Lampley noticed a Dodge Ram pickup truck parked facing inby in the #3 tailgate entry at the no. 109 crosscut, two crosscuts from the longwall face. Tr. 144-45, 152; *see* P. Ex. 113.¹³ Lampley used a 25-foot tape measure and determined that the diesel-powered truck was approximately 144 feet from the face, rather than the required 150 feet. Tr. 146-47.¹⁴ Shilke observed Lampley measure the distance between the face and the truck. Tr. 302, 316. Neither Shilke nor Lampley reported any other measurements of the truck's location. Tr. 147, 301-02. Respondent does not dispute that the truck was closer than 150 feet from the longwall face. R. Post Hr'g Br. 4.

Lampley learned that Tom Allen Crum, Jr. (Crum), the longwall maintenance supervisor, drove the truck. Tr. 152-53, 162, 213. Lampley did not speak to Crum. Tr. 215.

Crum testified that he drove his truck into the #3 tailgate entry to repair a conveyor belt. Tr. 265-67, 287.¹⁵ Schilke testified that the truck was parked "slightly" inby the outby corner of

Lampley worked in the automotive field and taught classes at SIU in automotive base, and electrical theory and operation. Prior to his employment at MSHA, Lampley worked at American Coal performing general mining tasks and maintenance. Tr. 140-41.

¹¹ MSHA ceased its regular EO1 quarterly inspections and normal 103(i) spot inspections during the 2014 government shutdown. Tr. 142. Nonetheless, Lampley still conducted E16 spot inspections of the working areas of the mine. *Id.*

¹² Schilke was a certified mine manager, examiner, instructor, and mine rescuer. 299-300. He worked for Respondent since 2010 in a variety of roles. Tr. 299. He had a bachelor's degree in mining engineering from SIU. Tr. 299-300.

¹³ There is some confusion about the correct crosscut numbers. The crosscut referenced in the text above as no. 109 is referred to in Lampley's testimony as no. 108 and in Schilke's testimony as no. 109. Similarly the crosscut referred to herein as no. 110 is referred to in Lampley's testimony as no. 109 and in Schilke's testimony as no. 110. In the interest of clarity, I use Schilke's numbers as he was more certain about this issue at hearing.

¹⁴ Electric face equipment must be permissible within 150 feet from pillar workings or longwall faces or in return air outby the last open crosscut. 30 C.F.R. §§75.1002 and 75.507-1.

¹⁵ Crum had 13-14 years of mining experience and had worked at several companies in a variety of roles. Tr. 263-64. Crum was a certified mine electrician, with face and examiner papers. Tr. 264. He was a member of mine management and a stipulated agent of Respondent. Tr. 272.

crosscut 109. Tr. 305-06. Crum, however, testified that the truck was even with the outby corner. Tr. 268-69. I credit Schilke, particularly since his testimony is consistent with Respondent's map of the area where Crum parked. See R. Ex. 8.

There were no footage markers to indicate the distance from the face. Tr. 316. Crum estimated that he parked over 150 feet from the face because the crosscut centers were 120 feet and the face appeared 50 feet further than the last crosscut center. Tr. 268-71, 284. Because that crosscut was open, Crum knew that he was not permitted to drive further into the return air. Tr. 282-83. There were no obstructions blocking Crum from driving the truck all the way to the face. Tr. 216. Crum testified that had he intended to breach the 150-foot limit, he could have easily parked by the face. Tr. 271-72, 280. Crum opined that his actions demonstrated his intent to comply with the permissibility requirements, and that they negate any classification of high negligence. Tr. 279-80.

Crum further testified that he would have moved his truck before production resumed. Tr. 286-87. He further admitted that he would have started the truck's ignition to do so, because he had assumed that it was not parked in return air. Tr. 287.

3. The Presence of Methane

a. The Temperature of the Air

Inspector Lampley was concerned that the non-permissible diesel truck was parked in return air, which presented a methane ignition hazard. Tr. 148-49. Lampley testified that return air is warm and moist due to heat emitted from the longwall mining unit. Tr. 144, 146, 150. Near the truck, Lampley observed that the air approaching him from the face was warmer than the intake air at his back, indicating the presence of return air. Tr. 144, 146, 199.

Respondent's witnesses disagree. Schilke testified that the vehicle was in intake air because he felt cool air at his back and warm return air was not present until the middle of the intersection. Tr. 305-08. Crum testified that when he exited his truck, he felt cool intake air at his back. Tr. 273-76. Crum testified that there was little to no air movement where he parked the vehicle. Tr. 273. Crum further testified that he did not feel return air until midway through the crosscut. Tr. 283.

Longwall coordinator Parker Phipps drove an Electric Mine Utility vehicle (EMU) to the longwall tailgate that day. Tr. 324.¹⁶ Phipps was aware of the requirement to park in intake air at least 150 feet from the face. Tr. 339. He parked approximately 150 feet from the face near open crosscut no. 109. Tr. 324, 340; see P. Ex. 110 and R. Ex. 8. After learning about the citation, Phipps observed Crum's truck underground. Tr. 330. Phipps testified that Crum's truck was parked even with the outby rib, approximately two feet from the solid coal wall. Tr. 330-331,

¹⁶ Phipps was a licensed, professional engineer and was a certified mine examiner, manager, and fire boss. Tr. 323. His duties included running the longwall on a day-to-day basis, planning production, and dealing with MSHA inspectors. Tr. 323-324.

333. Phipps testified that the front of Crum's truck was within ten feet of the front of his own vehicle. Tr. 343. Facing inby, Phipps walked into the area between Crum's truck and the solid right-hand rib. Tr. 333. Phipps testified that the air was cool and moved inby. *Id.* Because return air from the longwall was warmer and more humid, Phipps opined that the truck was in intake air. Tr. 325, 328.

By the feel of the air, Phipps opined that the return air began in the center of the crosscut. Tr. 329, 358-359. Phipps referred to the crosscut center as a mixing zone for return and intake air. Tr. 329. Mixing zones are classified as return air. Tr. 363. Phipps believed that the mixing zone was inby Crum's truck, which left the truck entirely within intake air. Tr. 329-331, 335, 363. Phipps later testified, however, that the truck was near a "dead spot" with little air movement, where both the outby and inby air courses met. Tr. 353-54.

b. Inspector Lampley's Smoke Test

After noting the temperature differentials, Lampley performed a smoke test to determine the direction of return air. Tr. 150-51. A smoke test reveals the path of air along the mine's ventilation pattern. *Id.* With respect to ventilation in this area, Respondent sent 90,000-100,000 cubic feet of air per minute (cfm) from the headgate, which was well over the required 60,000 cfm. Tr. 181-82. Phipps testified that a great velocity of air would dilute gases. Tr. 355. In fact, Phipps opined that as little as 50 cfm of air would render flammable or noxious gases harmless, although Phipps did not know if the air around the truck reached that velocity. Tr. 361-62.

Lampley released smoke at the mining face and observed it travel down the entry. Tr. 145-46, 150-51, 207-08. The heavy airflow displaced the smoke, so Lampley released smoke into the atmosphere several times as he neared the truck. Tr. 208-10.

The smoke test revealed that the air traveled down the longwall face to the T-split, where it either seeped into the gob or branched off towards the #2 and #3 tailgate entries. Tr. 145, 176, 182-84.¹⁷ Because the #2 entry had lower air pressure than the #3 entry, the majority of the air moved from the #3 entry into the #2 entry through the open no. 110 crosscut. The remaining air in the #3 entry reached the open no. 109 crosscut where the truck was located. Tr. 145, 184, 205-07. Stoppings were legally removed at the nos. 109 and 110 crosscuts (the first two crosscuts after the T-split) to allow this air movement. Tr. 187.

Because the return air that reached the no. 109 crosscut was also drawn into the #2 entry, it moved faster at the corner near the crosscut than it did in the middle or other side of the entry near Crum's truck. Tr. 186, 194-95. Lampley noticed that while a large portion of the return air hugged the inby corner near the crosscut, some smoke traveled directly over the hood, windshield, and cab of the truck. Tr. 151, 185-87, 194, 200. Rather than continue over the back of the truck, the air turned and exited into the #2 entry through the crosscut upon meeting the intake air in a "mixing zone." Tr. 147, 161, 198. Lampley testified that the front of the truck up

¹⁷ A "gob" is an area of the mine where coal has been removed and the roof and strata have been allowed to cave in. Tr. 177.

to the cab area was in return air, and that the cab to the tailgate bumper at the back of the truck was in the intake air. Tr. 146, 198-99.

During the inspection, Schilke watched Lampley conduct the smoke test. Tr. 303, 308. Schilke testified that Lampley had to stand “almost over the hood of the truck” before the smoke sample traveled over the hood. Tr. 308. No smoke test was conducted at the tailgate of the truck. Tr. 313-14.

Schilke testified that when Lampley tested further inby from the truck, the sample traveled towards the no. 109 crosscut, rather than over the hood of the truck. Tr. 309-311. Further, Schilke testified that when Lampley tested directly over the hood of the truck, the smoke rose and spread out, indicating to Schilke that the truck was in a dead spot. Tr. 307-309, 315. Schilke determined that this dead spot was caused by a “mixing zone” where return and intake air met. Tr. 307. On cross examination, however, Schilke conceded that if the truck was in the intake air, that air would push the smoke inby above the truck, which did not occur, rather than allow the smoke to rise and spread, which did occur. Tr. 315-16.

Lampley testified that the exact location of the truck within the return air was not important. Tr. 158-59. Rather, any place inby the intake air at crosscut no. 109 posed an equal hazard because it had the same, undiluted gas concentration where no additional air was added. Tr. 158-59, 194, 196-97, 221-22. Because of this, Lampley chose not to test the air volume. Tr. 166, 195-96, 198, 219. Lampley conceded, however, that the concentration of gas would diminish in a mixing zone. Tr. 198. Most of the mixing occurred near the corner where the air velocity was greatest, not above the truck. Tr. 200-201, 222. Lampley did not see any swirling smoke over the truck to indicate the mixing of intake and return air. Tr. 222-23. Lampley agreed, however, that there was no way to easily distinguish between return air and intake air. Tr. 201-02.

c. Other Considerations

Schilke testified that the cited area usually had 20.9 % oxygen and up to 0.1 % methane during production. Tr. 318. By contrast, Phipps testified that methane concentrations typically reached 0.6 % to 0.8 % during production. Tr. 332. While Phipps was in the cited area, his methane spotter reported 20.8 % oxygen, no methane, and no carbon monoxide. Tr. 331. He testified that historically no methane was produced in the area when the longwall was down. Tr. 331-332.

Crum also carried a methane detector, which produces audio and visual warnings when methane concentrations reach one percent. Tr. 276-77. Crum watched his detector closely and observed no methane in the cited area. Tr. 277.

During the repair work near the longwall face, the miners were required to take air readings every fifteen minutes with individual methane spotters. Tr. 289-90. The readings detected no methane. *Id.* Crum reported that all the checks were properly conducted. Tr. 290.

Schilke testified that no methane or carbon monoxide was present because the longwall had been down for several hours before Crum's truck arrived. Tr. 312-13. Lampley did not know how long the longwall had been down before Crum parked his truck, but Lampley noted that the hood of Crum's truck was still warm at the time of the inspection. Tr. 155, 213-14.

Schilke testified that the inspection began at approximately 6:00 a.m. Tr. 301. Phipps testified that the longwall had been down for several hours when Phipps arrived between 5:00 and 6:00 a.m. Phipps further testified that Crum's truck had not yet arrived. Tr. 332, 338, 341-42. Crum, however, testified that after working the day shift, he returned to the mine between 2:00 and 3:00 a.m. because the longwall was down. Tr. 265.

4. Issuance of Citation No. 8451651

After observing that Crum's non-permissible, diesel-powered pick-up truck was being used where permissible electrical equipment was required, Lampley issued Citation No. 8451651 for a violation of 30 C.F.R. § 75.1907(a), which requires that all diesel-powered equipment used where permissible electrical equipment is required must be approved under part 36. Tr. 147-48. Lampley determined that the violation was S&S and contributed to a methane ignition hazard that was reasonably likely to result in fatal injuries affecting four miners, as a result of Respondent's high negligence. Tr. 156, 162-63. The Secretary proposed a penalty of \$16,867.

Lampley determined that the cited diesel truck was not permissible because it lacked properly enclosed electrical components necessary to prevent a methane ignition in the mine atmosphere. Tr. 147-49. Engine enclosures prevent flame paths from reaching the atmosphere. Tr. 149.

Lampley determined that the truck would likely ignite methane for several reasons. The truck had numerous ignition sources including a starter motor and a combustion engine, which produced thousands of combustions per minute. The electrical components of the truck were not sufficiently enclosed to contain any sparks from the engine. The diesel-powered truck did not have countermeasures, such as flame arresters, that were required in permissible equipment. Tr. 156-7. Most of the ignition sources were in the front of the truck and exposed to return air. Tr. 224. The cited truck was in the tailgate (rather than a headgate), which increased the likelihood of a methane ignition because the air in that area had ventilated the face. Tr. 175-176. Further, Lampley opined that since Crum was apparently unaware that he parked the truck in return air, it was likely to remain there until the longwall resumed production. Tr. 156. Further, during production, the face would move 2 and ½ feet closer to the truck with each pass of the longwall drum. Tr. 177.

Lampley was not aware of any reserves of methane at the mine, nor was he aware of the average concentration of methane in the mine atmosphere. Tr. 211-12. Lampley testified, however, that methane would be present in return air coming off an active longwall face in a gassy mine, which has gob, and would most likely be found at the tailgate or at a bleeder system at the wall. Tr. 158. Lampley found no methane present when he took readings at the T-split of air, when production was down. Tr. 189-91, 197. Lampley testified that regardless of air quality, or the fact that when the citation was written, the air from the T-split of the longwall

outby Crum's truck was sufficient to dilute or render harmless any methane, MSHA regulations do not allow shorter permissibility distances when the longwall is not in production. Tr. 173-74, 227-29.

Apart from the likelihood of ignition during production, Lampley explained that an ignition hazard could be realized spontaneously from a rock fall. Tr. 155, 189-92. He noted that rock falls were not unusual and major gob falls were fairly common in longwall mining and that the methane concentration "at the gob line where the T-split occurs, that could change at any given moment whenever a roof fall occurs back there, and it's going to fall, it's just when it's going to fall." Tr. 190-92, 230. If a major rock or gob fall prevented the absorption of methane by sealing the gob, the resulting change in air pressure would pull methane from the gob area and allow methane to accumulate in the active working area. Tr. 227-30. Such a rock fall in the gob is fairly common given mining conditions in that area, although pressure changes in this mine were somewhat less likely because of the blowing and exhausting fans. Tr. 230-33.

Lampley testified that a methane ignition in a gassy mine could result in a "massive" explosion. Tr. 162. A massive methane explosion would be fatal to some or all of the miners on the face. Tr. 162-63. Lampley ascertained that at least two shearer operators, a shieldman, and a stage loader operator would be affected by an explosion. Tr. 162-64. Lampley referenced the Upper Big Branch explosion as one caused by the ignition of methane on a tailgate. Tr. 158.¹⁸

With respect to the negligence designation, Lampley found no mitigating circumstances and determined that Respondent's agent Crum should have been aware of the presence of return air when parking his truck. Tr. 163-64, 167. Given the change in air temperature and humidity and the lack of a visible stopping, Lampley opined that Crum knew or should have known that the truck's location created a permissibility violation. Tr. 163-64. Crum was a member of management who should have been aware of the methane ignition hazard created once Crum drove into the return air and broke the plane of the intersection. Tr. 171-73. According to Lampley, once Crum broke the plane and entered return air, it was too late to correct the condition. Tr. 173. Rather, Lampley testified that Crum should have stopped 300 feet from the face to ensure compliance. Tr. 174-175. Further, Lampley opined that Respondent also could have placed signs 150 feet from the face or blocked off the area to prevent the entrance of diesel equipment. Tr. 178. Lampley emphasized that the hazard remained whether the truck was parked six feet within the 150-foot limit or directly next to the face. Tr. 166-167. Rather, the dispositive issue was that the truck was in return air. Tr. 166-67.

To abate the alleged violation, the truck was pulled by chain by another piece of equipment from intake air, and moved to an outby location outside the 150-foot limit where no return air was coursing over the pickup. Thereafter, the truck was disconnected and driven an additional 150 feet away from the face. Tr. 179; S. Ex. 114.

¹⁸ Lampley did not personally investigate the explosion and could not testify whether the majority of the air samples taken at Upper Big Branch contained methane rather than natural gas, or whether the gas originated from the face, or from another location, such as a crack in the floor. Tr. 210-11.

B. Analysis and Disposition

1. The Violation of §75.1907(a)

30 C.F.R. §75.1907(a) provides that diesel-powered equipment must meet permissibility standards where permissible electrical equipment is required. 30 C.F.R. §75.1907(a). Electric face equipment must be permissible within 150 feet from pillar workings or longwall faces or in return air outby the last open crosscut. 30 C.F.R. §§75.1002 and 75.507-1. The truck cited by inspector Lampley was diesel-powered equipment that did not meet permissibility requirements. Tr. 148. It is undisputed that the equipment was closer than 150 feet from the longwall face. R. Post Hr'g Br. 4. Accordingly, I find that the Respondent violated the cited standard.

2. The Violation was Significant and Substantial

a. There was a Violation of a Mandatory Safety Standard

For the reasons explained above, I have found the underlying violation of mandatory safety standard § 75.1907(a).

b. The Violation Contributed to a Discrete Measure of Danger to Safety

With regard to the second *Mathies* factor, the Secretary must show that the violation contributed to a discrete safety hazard, “which implicitly requires a showing that the violation is at least somewhat likely to result in harm.” *Knox Creek*, 811 F.3d at 163 (citing *Black Beauty*, 34 FMSHRC at 1741, n.12 (“[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*, 762 F.3d 611; *Cumberland Coal Res., LP*, 33 FMSHRC 2357, 2368 (2011) (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. FMSHRC*, 717 F.3d 1020 (D.C. Cir. 2013); *E. Associated Coal Corp.*, 13 FMSHRC 178, 183 (1991) (same); *Utah Power & Light Co.*, 12 FMSHRC 965, 970 (1990) (same). For the reasons set forth below, I find that the violation of parking an impermissible diesel-powered truck in return air where permissible equipment was required contributed to a discrete safety hazard or measure of danger to safety, that is, a methane ignition or explosion.

Permissibility requirements like the one at issue here ensure that ignitions occurring within enclosures on mining equipment with electrical circuits will not escape into the mine atmosphere. *Knox Creek*, 811 F.3d at 153-54; *Consolidation Coal Co.*, 35 FMSHRC 2326, 2336 (Aug. 2013) (permissibility requirement is designed to prevent hot gases from escaping from an enclosure containing electrical connections, thus causing an ignition outside the enclosure.”). Thus, the permissibility requirements are intended to prevent the ignition of explosive air-methane mixtures surrounding mine equipment. Consequently, I must determine whether it was somewhat likely that the violation contributed to the hazard or danger of allowing an ignition

source to be available in this gassy mine. *Cf., Consolidation Coal*, 35 FMSHRC at 2335-36 (Commission affirmed judge's description of relevant hazard contributed to by the violation and her determination that second prong of *Mathies* was satisfied because the violation contributed to the hazard of "the danger of allowing an ignition source to be available in this gassy mine.").

When examining the likelihood of a permissibility violation to contribute to the hazard of a methane ignition or explosion, the Commission has traditionally examined whether a "confluence of factors" is present based on the particular facts surrounding the violation. *Texasgulf, Inc.*, 10 FMSHRC 498, 501 (April 1988). The Commission has held that the confluence-of-factors analysis requires consideration of the particular circumstances in the mine, including the possible ignition sources, the presence of methane, and the type of equipment in the area. *Excel Mining, LLC*, 37 FMSHRC 459, 465 (Mar. 2015); *Utah Power & Light Co.*, 12 FMSHRC at 970-71; *Texasgulf*, 10 FMSHRC at 501-03. For example, the mine in *Texasgulf* contained only miniscule amounts of methane and had never had a methane ignition or explosion. See 10 FMSHRC at 501. Given detailed testimony establishing the mine's history of low methane emissions, the absence of previous ignitions or explosions, and testimony establishing a reasonable expectation of low methane emissions in the future, the Commission concluded that that substantial evidence supported the judge's findings that there was not a reasonable likelihood that the hazard contributed to would result in a mine ignition or explosion.

On the other hand, numerous other Commission cases have upheld an S&S determination where the particular facts surrounding a violation established that a methane ignition was reasonably likely in a gassy mine. See e.g., *U.S. Steel Mining Co., Inc.*, 6 FMSHRC 1866, 1867-69 (Aug. 1984) (upholding significant and substantial finding where coal mine liberated over one million cubic feet of methane in 24-hour period, had a history of methane ignitions, and there was an excessive accumulation of coal nearby); *United States Steel Mining Co., Inc.*, 7 FMSHRC 1125, 1128-30 (Aug. 1985) (upholding significant and substantial finding where coal mine liberated over one million cubic feet of methane in a 24-hour period, had a history of past methane ignitions, could liberate dangerous levels of methane in a relatively short period, and ventilation was substandard); *Youghiogheny & Ohio Coal Co.*, 9 FMSHRC 673, 677-678 (upholding significant and substantial finding where coal mine was subject to inspection pursuant to section 103(i) and sudden outburst of methane had occurred recently); *Consolidation Coal Co.*, 35 FMSHRC at 2337 (upholding a significant and substantial finding for a roof bolter that violated permissibility standards where methane was emitted during roof bolting, the bolter was located near the gob and far from the bleeder fans, and the mine was gassy).

Applying the confluence-of-factors analysis to the instant facts, I find that supervisor Crum's truck was a non-permissible ignition source that was parked in return air and would therefore likely be exposed to an explosive concentration of methane released from the longwall face during continued normal mining operations. Parking impermissible, diesel-powered equipment within 150 feet of the face in return air contributed to the discrete safety hazard that restarting the truck could ignite any explosive concentration of methane present in return air during continuous mining operations. Accordingly, I find that the violation contributed to the hazard of a methane explosion caused by the location of impermissible equipment in return air.

Although the testimony of Crum, Schilke and Phipps suggested that the return air was inby the location where Crum parked his non-permissible, diesel-powered Dodge truck (Tr. 275, 283-84, 308, 330-31), I find that the hood of the truck extended into the mixing zone intersection and into return air and was not in intake air as Phipps, Crum and Schilke suggested. I credit Lampley's testimony and measurements that the truck was parked within 150 feet of the face, and the hood of the vehicle, including the combustion engine, was actually parked within the plane of the intersection or crosscut. Tr. 146-147, 158, 171, 198-99, 217. Crum's testimony and Respondent's own map indicate this. Tr. 269; R. Ex. 8. Lampley and Phipps both described the intersection at crosscut 109 as a mixing zone, where return air met intake air. Tr. 107, 329. Lampley and Phipps both noticed that warmer and more humid air that was characteristic of return air was present in the intersection or crosscut itself, where such air mixed with fresh intake air. Tr. 150, 328. Phipps conceded that areas containing return air, including mixing zones, are properly classified as return air. Tr. 363. Further, I have credited Schilke's testimony that the truck was parked slightly inby the outby corner of crosscut 109 (Tr. 305-06), over Crum's testimony that the truck was parked even with the outby corner. Tr. 268-69.

Although Schilke testified that Lampley had to stand directly at the Dodge truck and almost over the hood of the truck to get the smoke to travel over the hood of the truck, Schilke thereafter acknowledged that the smoke was in a dead spot and automatically spread out over the hood of the Dodge truck. Tr. 309. I credit Lampley's testimony that the results of his smoke test, which recreated the movement of air from the longwall face to the truck, established that return air wafted over the hood of the truck where the engine was located, and then out across crosscut 109. Tr. 151. Based on Lampley's credited testimony, as supported by the results of the smoke test, I find that return air, which would be carrying methane during continuous mining operations in a gassy mine, reached the hood and windshield of the truck, which extended into the intersection and mixing zone. Tr. 151, 194, 202.

I further credit the testimony of Lampley that the truck was an ignition source. Tr. 156-57. Lampley identified several sources of ignition within the truck that Respondent did not contest. *Id.* Most notably, the engine produced thousands of combustions per minute. *Id.* It is undisputed that the truck was not permissible equipment. Tr. 156-57, 275, 319. Consequently, the truck did not prevent sparks released by the combustions from encountering potentially explosive methane concentrations in the air. Tr. 147-49. Due to the numerous ignition sources within the truck, the number of ignitions per minute, and the lack of countermeasures to arrest a methane ignition, I find that the truck was a likely source of methane ignition because it was parked in return air in a gassy mine on five-day spot protocol where methane would be coming off an active face and heading outby past gob and over the truck, during continuous mining operations. Tr. 157-59.

It is important to emphasize that the Mach #1 Mine was subject to section 103(i) spot inspections every five days because of its excessive liberation of methane. Although the Secretary put on no evidence of any prior ignition at the Mach #1 Mine, and there is no mention of a prior methane ignition on MSHA's data retrieval, there is some evidence of the presence of high dust concentration, including float coal dust, which might propagate a methane ignition. For example, inspector Robert Bretzman specifically testified that the mine normally had high dust concentration. In this regard, with respect to Citation 8432319, alleging that on September

12, 2013, almost a year before Citation No. 8451651 was written, the longwall shearer on the headgate six unit did not have a visible warning device to adequately alert the shearer operator when the methane concentration reached 1.0 percent, inspector Bretzman testified as follows:

I determined that if—in the event that we did have a high degree of methane, excessive methane, and the operators were not aware of the methane and we was in a high dust concentration, *like we normally are*, we could have an ignition

Tr. 411 (italics added). As further explained below, these facts coupled with Lampley’s testimony that methane would travel off the active face in return air and past gob to the truck (Tr. 157-59) are sufficient to make an accumulation of methane at explosive concentrations reasonably likely during continued normal mining operations. *Cf., Knox Creek*, 811 F.3d at 164; *Consolidation Coal Co.*, 35 FMSHRC at 2336.

Respondent argues that the truck was not exposed to methane, much less any explosive concentration of methane. This argument is unconvincing in the context of continued normal mining operations. Although no methane was found in the readings taken at the time of the citation, I credit Lampley’s testimony that the truck was exposed to numerous sources of methane. The most likely source of methane was from the gas released from the face during coal production, under continued normal mining operations. Tr. 158. Additionally, Lampley convincingly testified that bursts of methane released from rock falls within the gob could spontaneously increase methane concentrations to explosive levels quickly. Tr. 189-92. Finally, as noted above, the Commission has consistently found permissibility violations to be S&S where mines are characterized as gassy. *See e.g., Consolidated Coal Co.*, 35 FMSHRC at 2336 (affirming judge’s finding that of reasonable likelihood of injury from an explosion despite no methane detected at time of violation because methane was emitted as bolter drilled into the roof, the bolter was close to the gob and far from the bleeder fans, and the mine was a gassy mine).

As emphasized, this mine was on a five-day spot and liberated approximately two million cubic foot of methane in a 24-hour period. Tr. 158. The risks of dangerous concentrations of methane quickly rising to an explosive level from the above sources are increased where the mine liberates such high quantities of methane. Although Respondent offered its ventilation scheme as a sufficient countermeasure against methane accumulation, the Commission has consistently found that adequate ventilation within a mine is not sufficient to remove the danger of explosive levels of methane. *U.S. Steel*, 6 FMSHRC at 1869; *Excel Mining, LLC*, 37 FMSHRC at 466. Based on the entire record, I find it reasonably likely that under continued normal mining operations, Crum’s non-permissible truck would be exposed to an explosive concentration of methane in the return air where it was parked.

Respondent argues that the truck would have been removed before production restarted, thus eliminating the presence of the ignition source. Tr. 286. I reject this argument. As the Fourth Circuit recently recognized, the Commission has long “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).” *Knox Creek*, 811 F.3d at 165. In addition, Crum’s testimony that the truck would have been removed before production restarted is speculative and unsupported by any evidence. Apart from Crum’s interest as a longwall maintenance supervisor in remaining by the longwall to ensure that the belt and longwall operated properly before he returned to his truck and the surface, Crum likely would have been delayed in any number of ways as longwall maintenance supervisor. Furthermore, because Crum was ignorant of the violative condition (see e.g., Tr. 284), I find it likely that he would have started the truck while it was in return air after production restarted, thus increasing the likelihood of a methane ignition.

In sum, I find that the presence of an ignition source, the location of that ignition source within return air reserved only for permissible equipment, the likelihood of a methane build up to an explosive level during continued normal mining operations in this gassy mine, and the testimony that the mine normally had high dust concentrations make it likely that the violation contributed to a discrete methane ignition or explosion hazard. As such, I find that the second prong of *Mathies* test was satisfied.

c. The Violation Contributed to a Hazard That was Reasonably Likely to Result in Injury

As the Fourth Circuit has recognized, the third and fourth prongs of *Mathies*, which are often combined in a single showing, are primarily concerned with gravity or the seriousness of the expected harm. To the extent that the third and fourth prongs are concerned with likelihood at all, they are concerned with the likelihood that the relevant hazard will result in serious injury because requiring a showing at prong three that the violation itself is likely to result in harm would make prong two superfluous. *Knox Creek*, 811 F.3d at 162, citing *Mathies*, 3 FMSHRC at 3-4.

Regarding the third *Mathies* factor, the Secretary demonstrated a reasonable likelihood that the hazard contributed to by the violation, i.e., a methane explosion contributed to by parking an impermissible ignition source in return air, was reasonably likely to result in an injury to the four miners working near the face. As noted, for this element to be satisfied “[t]he Secretary need not prove a reasonable likelihood that the violation itself will cause injury.” *Cumberland*, 33 FMSHRC 2357, 2365 (Oct. 2011) (quoting *Musser Engineering, Inc. & PBS Coals, Inc.*, 32 FMSHRC 1257, 1280-81 (Oct. 2010)). Nor is the Secretary required to prove that the hazard contributed to will actually result in an injury-causing event. *Youghiogheny & Ohio Coal Co.*, 9 FMSHRC 673, 678 (April 1987).

Rather, the test under the third prong of *Mathies* is whether there is a reasonable likelihood that the hazard contributed to by the violation . . . will cause injury. *Knox Creek*, 811 F.3d at 161, citing *Musser Engineering*, 32 FMSHRC at 1281, where the Commission assumed the existence of the relevant hazard and considered only “evidence regarding the likelihood of

injury as a result of the hazard.” Although the Commission’s decision in *Ziegler Coal Co.*, 15 FMSHRC 949, 953 (1993), supports the argument that evidence of the likelihood of the hazard is relevant at prong three, as the Fourth Circuit noted, that position is flatly contradicted by more recent Commission precedent in *Musser*, 32 FMSHRC at 1281, and by the unanimous voice of the Fourth, Fifth and Seventh Circuits. See *Knox Creek*, 811 at 164; see also *Peabody Midwest* 762 F.3d at 616 (holding that the question is not whether it is likely that the hazard would have occurred, but only if the hazard occurred, regardless of likelihood, it was reasonably likely that a reasonably serious injury would result); *Knox Creek*, 811 F.3d at 161 (*Skidmore* deference applied to Secretary’s litigating positions 1) that 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, and 2) the existence of the relevant hazard should be assumed); *Buck Creek*, 52 F.3d at 135 (the third prong of *Mathies* is satisfied where the ALJ determined that in the event of the hazard, a reasonably serious injury would result); *Austin Power*, 861 F.2d at 103-04 (finding third prong of *Mathies* satisfied where the hazard “would almost certainly result in serious injury,” without requiring evidence that the hazard itself was likely); cf. *Cumberland Coal*, 71 F.3d at 1027-28 (Secretary’s interpretation that decision maker should assume the existence of an emergency when evaluating whether the violation of an emergency safety standard is S&S is not inconsistent with *Mathies* or Commission precedent).

I credit inspector Lampley’s testimony that the violation, parking the impermissible truck with unapproved electrical components in return air, contributed to a methane ignition or explosion hazard that was reasonably likely to result in an injury to the four miners working at the face. Tr. 156-63. The Commission has long recognized that a methane ignition or explosion is likely to result in a fatal injury to exposed miners. See *Consolidation Coal*, 35 FMSHRC at 2337 (affirming judge’s determination that the lack of a permissible light on a roof bolter would contribute to the hazard of a methane gas ignition or explosion, which is reasonably likely to cause a permanently disabling or fatal injury); *Black Diamond Coal Mining*, 7 FMSHRC 117, 1120 (1985)(“We have previously noted Congress’ recognition that ignitions and explosions are major causes of death and injury to miners”); *Jim Walter Res., Inc.*, 37 FMSHRC 1968, 1976 (Sept. 2015)(“horrific mine explosion[s took] the lives of 12 miners at Sago Mine”); *Sec’y of Labor v. Performance Coal Co.*, 34 FMSHRC 587, 588 (2012) (ALJ) (explosion at longwall section due to an ignition of methane propagated by coal dust resulted in deadliest U.S. mine disaster in 40 years, killing 29 miners); cf. *Knox Creek*, 811 F.3d at 163 (permissibility violations where a mine’s atmosphere contains explosive concentrations of methane contribute to a methane ignition or explosion hazard that is reasonably likely to result in an injury-producing event). Accordingly, I find that the third prong of *Mathies* was satisfied.

d. There was a Reasonable Likelihood That the Injury in Question Will Be of a Reasonably Serious Nature

With regard to the fourth *Mathies* factor, I find a reasonable likelihood that any injury from a methane explosion would be of a reasonably serious nature. A methane-related explosion contributed to by the violation was reasonably likely to result in fatal injuries to the four miners working at the face. *Consolidation Coal Co.*, 35 FMSHRC at 2337; *Black Diamond Coal Mining*, 7 FMSHRC at 1120; *Jim Walter Res., Inc.*, 37 FMSHRC at 1976; *Sec’y of Labor v.*

Performance Coal Co., 34 FMSHRC at 588. Fatal injuries are necessarily serious in nature. Thus, I find the fourth *Mathies* factor satisfied.

In sum, considering all relevant factors, I find the violation was S&S.

3. Respondent's Negligence is Reduced from High to Moderate

I find that Respondent's negligence should be reduced from "high" to "moderate." It was not unreasonable for Crum, an agent of the operator, who was visually estimating distances, to mistake 144 feet for 150 feet and to park the hood of his truck slightly in return air. I find this honest mistake to be a mitigating circumstance that supports a reduction in Respondent's negligence from high to moderate.

4. Civil Penalty for Citation No. 8451651

Applying the penalty assessment criteria set forth in section 110(i) of the Mine Act, I find that Respondent, Mach Mining, Inc., operates the Mach Mining No. 1 Underground Mine, which mined 7,528,061 tons of bituminous coal in 2012. The parties stipulated that the originally proposed penalty of \$16,867 will not affect Respondent's ability to remain in business. MSHA recognized Respondent's good-faith compliance in abating the citation. I have affirmed MSHA's gravity and S&S determinations. I have modified MSHA's negligence determination from high to moderate. After consideration of the penalty assessment criteria set forth in section 110(i) of the Act, I assess a \$5,081 civil penalty against the Respondent for Citation No. 8451651.

VI. Citation No. 8439446

A. Findings of Fact

1. Inspector Stanley's Testimony

After determining that Respondent's methane monitor attached to a roof bolting machine failed to register explosive concentrations of methane, Inspector Phillip Wayne Stanley¹⁹ issued Citation No. 84539446 for a violation of 30 C.F.R. § 75.342(a)(4). Tr. 465-66. The cited standard requires that methane monitors be maintained in proper operating condition. Tr. 465. Properly operating monitors de-energize electrical equipment when methane concentrations reach 2.0 percent or when the monitor is not operating properly. 30 C.F.R. § 75.342(c); Tr. 465. Stanley determined that the violation was S&S and contributed to a methane ignition hazard that was reasonably likely to result in flash burns affecting two miners, as a result of Respondent's moderate negligence. Tr. 156, 162-63. The Secretary proposed a penalty of \$1,412.

¹⁹ At the time of the hearing, Stanley had been a coal mine inspector for MSHA for four years and eight months. Tr. 461. Starting in December 1990, Stanley worked in potash mining for sixteen to seventeen years. *Id.* Thereafter, he worked in coal mining for approximately eight years. *Id.* Stanley graduated from high school in 1980, worked in the military for four years, and completed his training at the National Mine Safety and Health Academy. Tr. 461-62.

On August 6, 2013, Stanley conducted a regular inspection at Mach Mining. Tr. 461-62. As part of that inspection, Stanley tested the methane monitor attached to roof bolter #4 on the eighth headgate panel. Tr. 462, 464. Stanley conducted the inspection with a calibrator that displayed a digital readout, which listed the methane level. Tr. 464-65. When Stanley applied 2.5% methane to the monitor, it only read as high as 1.6 % methane. *Id.* The roof bolter is programmed to automatically de-energize at 2.0 %. Tr. 465. With an inaccurate methane monitor, the machine would likely fail to de-energize in explosive levels of methane. Tr. 468.

Under MSHA regulation, methane readings must be taken every twenty minutes during the process of roof bolting. Tr. 466, 496; 30 C.F.R. §75.362(d)(2). If a roof bolter lacks a methane monitor, readings must be taken with a probe at the deepest point of the cut approximately a foot from the roof or face. Tr. 467, 493-94. If the roof bolter has a methane monitor, readings can be taken within sixteen feet of the front of the machine. Tr. 466-67, 494-95. Stanley opined, but was not positive, that the methane monitor on the bolter did not run all day and was only used when a reading was taken. Tr. 495.

Stanley issued Citation No. 8439446 for a violation of 30 C.F.R. § 75.342(a)(4). Tr. 465-66. The cited standard requires that methane monitors be maintained in proper operating condition. Tr. 465. Properly operating monitors de-energize electrical equipment when methane concentrations reach 2.0 percent or when the monitor is not operating properly. 30 C.F.R. § 75.342(c); Tr. 465.

Stanley marked the citation as “reasonably likely” to result in an injury because the machine would not de-energize when encountering an explosive concentration of methane. Tr. 468. The mine liberated two million cfm of methane in a 24-hour period, and the eighth headgate panel itself released 25,000 cfm of methane in a 24-hour period. *Id.* Although more methane is released during extraction, some methane is released during roof bolting. Tr. 496. Because methane is lighter than oxygen, it accumulates in the top third of the entry where bolting occurs. Tr. 472-73. The methane monitor was placed on the automated temporary roof support system (ATRS) to gather readings in this accumulation zone. Tr. 468-69, 492. Additionally, the area near the roof of the mine was susceptible to sparking because the carbide tips of the bolter’s drill bits encountered materials such as sandstone, limestone, and shale. Tr. 469. The roof bolter also created sparks when its wrench and bolt rotated against a steel-bearing plate. *Id.* Stanley referred to a 2012 ignition at Prosperity Mine to demonstrate the hazard resulting from a malfunctioning methane monitor on a roof bolter. Tr. 470.

Given the malfunctioning methane monitor, the likelihood and location of methane accumulation, and the potential for sparking, Stanley expected resulting injuries from an ignition to manifest as flash burns. *Id.* Stanley determined that these injuries would result in lost workdays or restricted duty and would affect the two machine operators. Tr. 470-71.

At the time of the citation, Respondent’s ventilation system met regulatory standards. Tr. 490-92. Looking inby, the system ventilated the roof bolter with air traveling from right to left, and included a line curtain to assist with ventilation. *Id.* This air acted to render harmless or remove noxious and hazardous gases and dust. *Id.*, Tr. 505. However, ventilation systems may

be inadequate where methane bleeders are encountered. Tr. 505-06. Bleeders are pockets of methane pressured under the strata. *Id.* They may continually replace explosive concentrations of methane faster than the ventilation can sweep the air. *Id.*

In deference to Respondent's implementation of seven-day checks on its methane monitors rather than the thirty-one day intervals required by the regulations, Stanley determined that Respondent's negligence was moderate. Tr. 471.

2. The Testimony from Respondent's Witnesses

a. Mark Schilke's Testimony

Schilke accompanied Stanley during his inspection of the roof bolter. Tr. 552. At the time of inspection, the bolter was pulled back approximately eighty feet from the face and outby the feeder break or last open crosscut. Tr. 555-56. The roof bolter is typically pulled in to secure unsupported roof after the continuous miner takes a fresh cut at the face. Tr. 557-58.

Schilke testified that prior to positioning the roof bolter, the roof bolt operators would take a methane reading. Tr. 553. A separate handheld methane monitor was attached to the probe and extended at least fifteen feet beyond the bolter. Tr. 553, 629-630, 635. The bolter operators repeated these readings every twenty minutes with a probe. Tr. 553, 624, 644. Schilke testified that having a methane monitor attached to the bolter did not affect the nature of the twenty-minute gas checks in any way. Tr. 629-632. There was no evidence to suggest errors in the equipment or data derived from these regular methane checks. Tr. 554.

Both Stanley and Schilke wore methane spotters and neither reported methane near the face. Tr. 559. Schilke testified that although the cited methane monitor failed to deenergize the machine, it did emit a warning during the methane test. Tr. 552, 628-29. Schilke also emphasized that methane monitors were an optional safety precaution. Tr. 552-53.

During roof bolting, Respondent ran a curtain to the tail of the bolter, to facilitate the flow of approximately 3000 cfm of intake air. Tr. 556-57. This ventilation system directed the air towards the face and across the bolter to remove gas and dust from the bolter. Tr. 556-58. Schilke admitted that the amount of ventilation would not diminish the necessity of twenty-minute gas checks. Tr. 633.

b. Johnny Robertson's Testimony

General Manager Johnny Robertson²⁰ testified that methane was only liberated when the continuous miners or the longwall shearers cut coal. Tr. 710-11, 742. Robertson testified that

²⁰ Robertson had thirty-two years of experience in mining. For six years before commencement of employment with Mach Mining, Robertson was employed at Foresight Energy, which owns Mach Mining. Tr. 706. Before that, he worked for Massey Energy for twenty-six years, and held positions in engineering, safety, and operations. *Id.* He supervised multiple mine sites and was president of one of Massey Energy's large resource groups. Tr. 706-07. He was certified in

methane is less likely encountered during roof bolting than mining, and is usually only present when roof bolting into a coal seam. Tr. 716. Robinson testified that during his four years of tenure with Respondent, there were no reports of methane released from the roof or during bolting. Tr. 718-19.

According to Robertson, the regularity of spot inspections is determined by the amounts of methane and intake air in the mine. Tr. 743. Higher volumes of intake air reduce the methane content within the mine. Tr. 743-44. Robertson explained that Respondent's ventilation plan required a minimum of 3000 cfm of intake air blowing against a line curtain and across the back of the roof bolters. Tr. 711. Although Respondent met the ventilation requirements, its methane levels nonetheless required five-day spot inspections. Tr. 709-10, 743-44. Robertson conducted weekly methane readings where methane accumulated at the bleeder system behind the longwall. Tr. 710. He testified that during his time as general manager, neither his readings, nor any readings reported to him, were above 0.7 % methane. Tr. 711.

Robinson confirmed that Respondent used a continuous miner to carve out entryways. Tr. 717. After it cut forty feet of coal and withdrew, the roof bolter moved in to support the roof. *Id.*, Tr. 742-43. Robertson testified that the light on the monitor was generally visible to the operator when the continuous miner cut and loaded coal. Tr. 723-24. He testified that the operator stood in front of the methane monitor. Tr. 745. He acknowledged, however, that the operator might turn away from the monitor while the cutter drum cut coal, whenever the shuttle car approached and loaded coal. Tr. 723-25, 745. Under such circumstances, the methane monitor was not visible for a few seconds. Tr. 723-25, 746. The continuous miner was not programmed to automatically de-energize in concentrations of one-percent methane. Tr. 746-47. Instead, it was de-energized manually. *Id.*

Robertson also confirmed that when the roof bolter had a methane monitor attached to the ATRS, the operators probe sixteen feet in front of the bolter. Tr. 719. These methane checks were repeated every twenty minutes during roof bolting. *Id.* If the bolter did not have an attached methane monitor on the ATRS, these checks would occur with a different handheld monitor at the deepest point of penetration about twelve inches from the face and roof. Tr. 720.

B. Analysis and Disposition

1. The Violation of § 75.342(a)(4)

Section 75.342(a)(4) requires that operators maintain methane monitors in permissible and proper operating condition and calibrate them with a known air-methane mixture at least once every 31 days. A methane monitor in permissible and proper operating condition shall automatically de-energize electric equipment or shut down diesel equipment on which it is mounted when the methane concentration reaches 2.0 percent or when the monitor is not operating properly. 30 C.F.R. § 75.342(c).

Ohio, New Mexico, and Illinois as a foreman or mine manager. Tr. 707. Robertson was a MSHA instructor with certifications in dust and noise. Tr. 707. He has a Bachelor's Degree from Marshall University in West Virginia. *Id.* Robertson served in the Army Special Forces. *Id.*

Respondent admitted the violation. Tr. 552. See R. Br. 12. The methane monitor failed to de-energize the machine when methane concentrations reached 2% and failed to provide readings higher than 1.6 %. Tr. 464-65. Respondent argues that the violation was not S&S, that its negligence was less than moderate, and that the proposed penalty calculation is inappropriate.

2. The Violation was Significant and Substantial

a. There was a Violation of a Mandatory Safety Standard

For the reasons explained above, I have found and Respondent admits the underlying violation of a mandatory safety standard, i.e., § 75.342(a)(4).

b. The Violation Contributed to a Discrete Measure of Danger to Safety

As stated previously, the second Mathies factor requires a showing that the violation created a discrete safety hazard, “which implicitly requires a showing that the violation is at least somewhat likely to result in harm.” *Knox Creek*, 811 F.3d at 16, citing *Black Beauty Coal Co.*, 34 FMSHRC at 1741, n. 12, *aff’d sub nom. Peabody Midwest*, 762 F.3d 611 (7th Cir. 2014); *Cumberland*, 33 FMSHRC at 2368, *aff’d sub nom. Cumberland*, 717 F.3d 1020; *E. Associated Coal Corp.*, 13 FMSHRC at 183; *Utah Power & Light Co.*, 12 FMSHRC at 970. Where a violation poses a risk of fire or explosion, this likelihood is demonstrated by the presence of a “confluence of factors,” such as possible ignition sources, the presence of methane, and the type of equipment in the area. *Excel Mining, LLC*, 37 FMSHRC at 465, slip op. at 7, (Mar. 2015); *Utah Power & Light Co.*, 12 FMSHRC at 970-71; *Texasgulf*, 10 FMSHRC at 501-03. For example, in *Consolidation Coal*, the Commission found that a methane ignition was reasonably likely because methane was emitted during roof bolting, the bolter was located near the gob and far from the bleeder fans, and the mine was gassy. *Consolidation Coal Co.*, 35 FMSHRC at 2337.

A properly functioning methane monitor is expected to automatically de-energize electrical equipment in two percent methane to avoid the potential ignition of explosive levels of methane at the 5-15% range. The monitor at issue in the present citation did not detect two percent methane when tested, and would not automatically de-energize the roof bolter in rising concentrations of methane, thus contributing to the likelihood of a methane ignition should methane accumulate to an explosive level during continued normal mining operations. Consequentially, I find that the hazard contributed to by the violation was a methane-related ignition caused by undetected explosive levels of methane where ignition sources were present.

The risk of excessive methane in Respondent’s mine nearly parallels the risk cited in *Consolidation Coal*. Methane was liberated during roof bolting. Tr. 469. Due to its weight, the methane accumulated near the top third of the entry where bolting occurred. Tr. 468-69. The potential for bleeders increased the possibility of dangerous methane concentrations. Tr. 505-06.

Furthermore, the Commission has held that if a mine liberates high levels of methane there may be an even greater potential for a methane ignition to occur and that this may be considered in a confluence-of-factors analysis. *Excel Mining, LLC*, 37 FMSHRC 465, slip op. at 7, (Mar. 2015); *Knox Creek Coal Corp.*, 36 FMSHRC at 1134. As stated previously, the Mach

Mining No. 1 Underground Mine is a gassy mine that is on a five-day spot inspection schedule. Tr. 35. The mine liberates over two million cfm methane in a 24-hour period and approximately 35,000 cfm methane at the eighth head-gate panel. Tr. 468. I find that the confluence-of-factors test is satisfied here and that the violation created a discrete safety hazard, which was at least somewhat likely to result in harm.

Citing facts discussed in the *Consolidation Coal* ALJ decision, Respondent argues in its response to the Secretary's Post-Hearing brief that the risk of excessive methane in the present case is substantially different from the risk of excess methane in *Consolidation Coal*. R. Resp. Br. 6-7. According to Respondent, respondent Consolidation Coal had higher levels of methane because the roof bolters and continuous miners shut down four to five times in a cycle, and a curtain was removed by a foreman, thus raising methane levels to 7.7%. *Id.* However, the facts that Respondent relies on were not determinative in *Consolidation Coal*. Instead, the Commission cited *only* three factors when establishing a sufficiently dangerous risk for a methane ignition. *Consolidation Coal Co.*, 35 FMSHRC at 2337 (emphasis added). The Commission cited the emission of methane while roof bolting, the location of the roof bolter near the gob and further from the bleeder fans, and the fact that the mine was gassy. *Id.* (“[T]he Robinsons Run mine liberates more than a million cfm of methane during a 24-hour period and is subject to five-day methane spot inspections”). Given the cited conditions, the Commission quoted the inspector's testimony that “it would only take a roof-fall for the gob air to ... create an explosive amount of methane.” *Id.* at 2336. With the additional danger of encountering pockets of methane bleeders, the present risk factors are nearly identical to those enumerated by the Commission in *Consolidation Coal*. Accordingly, I do not find Respondent's argument persuasive.

Respondent also cites Judge Zielinski's decision in *Ohio County Coal* for the proposition that a malfunctioning methane monitor is not S&S where the mine has low levels of methane concentrations. *Ohio County Coal Co.*, 32 FMSHRC 220 (Feb. 2010)(ALJ). *Ohio County Coal* is distinguishable from the present case in at least one major way. The mine in *Ohio County Coal* did not liberate excessive quantities of methane, as noted by Judge Zielinski in his analysis. 32 FMSHRC at 224 (comparing Freedom mine to mines that liberate greater quantities of methane and are subject to spot inspections). Instead, the mine in that case emitted a mere 12,000 to 13,000 cfm methane in a 24-hour period, in comparison to Respondent's liberation of one million cfm methane in a 24-hour period. *Id.*

In short, Respondent roof bolted with a malfunctioning methane monitor in an area of methane emission and accumulation within a gassy mine. The inspector credibly testified that sparks released from roof bolting in excess methane concentrations will cause an ignition. I find that this combination of risk factors satisfies the confluence-of-factors test for a methane ignition hazard and supports a finding that the hazard is at least somewhat likely to occur. Accordingly, I find that the second *Mathies* factor is satisfied.

c. The Violation Contributed to a Hazard That was Reasonably Likely to Result in Injury

As stated previously, federal appellate law and Commission precedent have sufficiently established that a methane explosion is reasonably likely to result in injuries. *See Buck Creek*, 52 F.3d at 135; *Consolidation Coal Co.*, 35 FMSHRC at 2337; *Black Diamond Coal Mining*, 7 FMSHRC at 1120; *Jim Walter Res., Inc.*, 37 FMSHRC at 1976; *cf. Knox Creek*, 811 F.3d at 164-65. Accordingly, I find that the third *Mathies* factor is met.

d. There was a Reasonable Likelihood That the Injury in Question Will Be of a Reasonably Serious Nature

With regard to the fourth *Mathies* factor, I find a reasonable likelihood that any injury from a methane explosion would be of a reasonably serious nature. The record establishes that a methane-related ignition contributed to by the violation was reasonably likely to result in a serious injury or illness to at least two miners working with the bolter, who would suffer flash burns from a methane ignition. I find that the designation of “lost workdays or restricted duty” was appropriate for this violation.

In sum, considering all the relevant factors, I find that the violation was properly designated as S&S.

3. Respondent’s Negligence was Appropriately Designated as Moderate

Based on the testimony and briefs, I do not find considerable mitigating circumstances that would justify reducing the negligence designation from moderate to low. Respondent knew or should have known of the violation. Respondent’s ventilation and weekly methane monitor calibrations are mitigating circumstances that support a moderate negligence designation. However, Respondent highlighted no action that *considerably* mitigated the likelihood or severity of a methane ignition during roof bolting without a properly functioning methane monitor. In these circumstances, I conclude that the Secretary properly designated Respondent’s negligence as moderate.

4. Civil Penalty for Citation No. 8439446

Applying the penalty assessment criteria set forth in section 110(i) of the Mine Act, I find that Respondent mined 7,528,061 tons of bituminous coal in 2012. The parties stipulated that the originally proposed penalty of \$1,412 will not affect Respondent’s ability to remain in business. MSHA recognized Respondent’s good-faith compliance in abating the citation. I have affirmed MSHA’s gravity, negligence, and S&S determinations. After consideration of the penalty assessment criteria set forth in section 110(i) of the Act, I assess a \$1,412 civil penalty against the Respondent for Citation No. 8439446.

V. Citation No. 8432319

A. Findings of Fact

1. Inspector Bretzman's Testimony

After observing the absence of an auxiliary methane alarm light on a longwall shearer, MSHA inspector Robert L. Bretzman²¹ issued Citation No. 8432319 for a violation of 30 C.F.R. § 75.342(b)(2), which requires that “[t]he warning signal device of the methane monitor shall be visible to a person who can de-energize electric equipment or shut down diesel-powered equipment on which the monitor is mounted.” Tr. 409. Bretzman determined that the violation was unlikely to contribute to a methane ignition hazard, but that any injuries that did result from the hazard would result in lost work days or restricted duty affecting three miners, as a result of Respondent’s low negligence. Tr. 409-411. The Secretary proposed a penalty of \$117.

On September 11, 2013, Bretzman was among several inspectors who conducted a quarterly inspection of Respondent’s longwall. Tr. 396-97. Bretzman testified that the longwall was probably producing coal when he arrived, but he could not say for sure. Tr. 418. During the inspection, Bretzman noticed that there was no auxiliary alarm light on the longwall shearer. Tr. 398. In Bretzman’s experience, longwall shearers always have auxiliary alarm lights. Tr. 407, 410. The shearer at issue has an electric panel with a four to six-inch LED screen, which constantly displays the current concentration of methane. Tr. 439-440. This methane reading flashes when methane levels reach a certain percentage. Tr. 440-441. When methane concentrations reach one percent, an alarm light turns on to alert the shearer operator of excessive methane. Tr. 441. This alarm light is located in the bottom right-hand corner of the panel and is approximately the size of a quarter. Tr. 411-412, 441; S. Ex. 102.

Respondent usually has two longwall shearer operators, a headgate operator and a tailgate operator, and each has a remote control box that can de-energize the shearer. Tr. 404-05, 433. The shearer also has an emergency stop button that can be operated by anyone in the area, including the stage loader operator. Tr. 434-36. Bretzman testified that the stage loader operator works in a stationary position at the headgate of the longwall. Tr. 435-36. Bretzman testified that the only way to see the alarm on the shearer is to stand directly in front of the monitor. Tr. 402, 413. Respondent failed to present any testimony that the stage loader operator could see the auxiliary light on the longwall shearer.

²¹ Inspector Bretzman was employed by MSHA as a special investigator for two and a half years, and as an electrical specialist for five years. Tr. 394. Bretzman worked in mining since 1977. Tr. 395. He held positions as a belt maintenance worker, a shieldman, a mechanic, and a maintenance foreman. *Id.* Additionally, Bretzman worked for a short time in the electrical department for Joy Technologies, a mine manufacturing company. *Id.* Bretzman holds an Associate’s degree and received his Bachelor’s degree from Southern Illinois University in work force education and training. Tr. 396. He was a certified mine examiner, who possessed a federal electrical card. Tr. 398.

Bretzman did not observe the longwall in operation and did not know for certain where the operators stood that particular day. Tr. 437-438, 442. However, Bretzman testified that it was highly unlikely that a miner would stand where he could see the monitor because from that location he would be unable to see the cutting drums. Tr. 402-403. At any given time, an operator may stand anywhere along the shearer, up to twenty-five feet from the monitor. Tr. 412-15, 438-439, 447. Upon questioning headgate operator Mike Skelton, Bretzman learned that he was positioned outby the headgate drum when it traveled towards the headgate. Tr. 446; *see* S. Ex. 100, p. 3. This location confirmed Bretzman's suspicion that the shearer operator would not see the warning light. Tr. 446. Bretzman's notes from the day of the inspection do not indicate the tailgate operator's usual location, although Bretzman opined that Skelton would have volunteered that information if it was exculpatory. Tr. 456-57.

Bretzman returned to MSHA and verified that alarm lights were required on the shearer. Tr. 405, 408, 443. Bretzman decided, and the MSHA field office supervisor agreed, that a citation was appropriate. Tr. 444. Bretzman returned to the mine the next day and issued the citation. Tr. 408. The cited standard requires that "[t]he warning signal device of the methane monitor shall be visible to a person who can de-energize electric equipment or shut down diesel-powered equipment on which it is mounted." 30 C.F.R. § 75.342(b)(2); *see also* Tr. 409. Bretzman determined that the operator could not see the monitor during normal mining operations unless he was in the direct line of sight of the readout. Tr. 409, 412, 441. As a result, the operator would not have accurate methane readings during mining. Tr. 409. However, Bretzman conceded that the standard does not specifically say that the monitor must be visible to the headgate or tailgate operator. Tr. 436-37. Any person assigned to watch the monitor would be sufficient. Tr. 437, 439. To Bretzman's knowledge, no one stood at the center of the shearer. Tr. 447. Furthermore, Bretzman could not recall anyone from Respondent telling him that the indicator light could be seen by a person who could de-energize the machine. Tr. 446.

Respondent argues that the lack of previous citations from past inspections suggests that the condition was not a violation. Tr. 725-27. Since 2006, Respondent developed longwall panels for three miles and was subject to many inspections, including E01 inspections, spot inspections, and permissibility certifications for 2G longwall equipment. Tr. 422-442. Bretzman testified that the 2G approvals were irrelevant because they only certified diagrams and plans of the mine, and not the ways in which equipment was actually used. Tr. 451-452. For instance, Bretzman recalled a similar citation at the same mine requiring an auxiliary alarm light on a stage loader. Tr. 406. In that case, the stage loader satisfied 2G permissibility requirements if one assumed that the operator was in view of the methane alarm. Tr. 451-52. In practice, however, MSHA inspectors observed that the operators were not always in position to view the alarm and therefore issued a citation. *Id.* Bretzman could not recall if he had spoken with Respondent previously about the failure to place a light on the shearer, although he believed he had. Tr. 422, 431. Bretzman testified that every longwall shearer that Bretzman worked with at Consol, and most of the ones at Joy Technologies had auxiliary alarm lights. Tr. 407.

Bretzman determined that the unlikely injury that would result from the alleged violation was lost work days or restricted duty for three miners. Tr. 410-11. He testified that there was normally a high concentration of coal dust at the site. Tr. 411. Excessive methane in an environment with coal dust creates an ignition hazard. *Id.* As a result, Bretzman determined that

the shearer operators and shieldman were at risk for burns. *Id.* Bretzman wrote the citation as unlikely because mining had stopped and he had no evidence to suggest that methane was present. Tr. 410, 420. Furthermore, Respondent's ventilation pushed over 100,000 cfm of intake air over the headgate, and the shearers were designed to automatically de-energize at 2.5 % methane. Tr. at 417-21. The monitors designed to shut off the shearers worked properly at the time of the citation. Tr. 421.

To abate the alleged violation, Respondent ordered the equipment necessary to install an auxiliary alarm light on the shearer. Tr. 412. Respondent installed a new, two-inch flashing light that was visible to the shearer operators. Tr. 448. The citation was terminated by another inspector. Tr. 457-58.

2. The Testimony from Respondent's Witnesses

a. James Key's Testimony

James Key was a shearer operator for the Respondent.²² Key explained that a longwall shearer is a piece of equipment with two drums, one at the head and one at the tail end. Tr. 649-650. As the shearer passes from the headgate to the tailgate, the tail drum cuts the top, and the head drum cuts the bottom. *Id.* The headgate operator runs the head drum with a remote control as cuts are made, while the tailgate operator does the same with the tail drum. Tr. 650-52. The remotes have stop buttons that can turn off, but not de-energize, the machine. Tr. 651. Instead, the shearer has an emergency stop that de-energizes the machine. Tr. 652.

When the shearer moves from the headgate to the tailgate, the tailgate operator typically stands approximately six to seven feet to the right of the alarm light in the direction of the tailgate. Tr. 653, 664. Key further testified that the alarm light was visible to the tailgate operator, if he turned his head. Tr. 664. According to Key, the headgate operator was usually in a variety of locations, including anywhere from right behind the tailgate operator to the back of the head drum. Tr. 653-54, 664-65, 668. Key testified that the headgate operator could also see the light, if he turned his head. Tr. 664.

Key testified that when the shearer moved in the opposite direction, the tailgate operator typically stood on the head side of the drum. Tr. 655, 666-68. The headgate operator was usually located closer to the alarm light, although neither operator remained in a certain location. Tr. 666-68. Although the light was usually visible, the operators might not have been in position to see the light at any given moment. Tr. 666. Key admitted that there was not always someone standing in front of the light during mining. Tr. 674.

Key was familiar with the methane monitor and the lights on the display. Tr. 661. Key had worked for a different coal company with a similar longwall system, which had the monitor

²² Key had been employed by Mach Mining since January 2007. Tr. 647. At the time of the citation, Key was certified as a mine examiner and mine manager. Tr. 648. Prior to that, Key worked as a shearer operator on the longwall at American Coal's Galatia Mine for 20 months. Tr. 646-48. Key had twenty years of mining experience. Tr. 647.

in the same location. Tr. 669. According to Key, the light, which turned on when methane levels reached one percent, was “pretty bright.” Tr. 662-63, 665. The light was approximately an inch in circumference. Tr. 663. It was located within an enclosure that jutted out around the edges. Tr. 673. The raised edges limited the light’s visibility at certain angles from the monitor. Tr. 673-74.

b. Johnny Robertson’s Testimony

General Manager Robertson was familiar with the methane monitor on the longwall shearer. Tr. 720-21. Robertson testified that in one percent methane, a yellow light turned on. Tr. 722, 746. Further, given adequate ventilation, the operator merely had to stop mining to halt methane liberation. Tr. 722. Once methane levels dropped below one percent, the operators could resume mining. *Id.*

Robertson testified that Respondent had never received a citation for the location of the auxiliary alarm light on the shearer during the prior six years when Respondent used the longwall. Tr. 725-27. Additionally, Robertson testified that Massey Energy used the same methane display and never received a citation during his four years as a general manager there. Tr. 725-28. Until the instant inspection, Robertson had never heard of a citation for this issue. Tr. 729. Robertson testified that, apart from the issuance of the citation, Respondent suffered no reported negative consequences from the location of the alarm light. Tr. 751-53. Respondent abated the citation by ordering an alarm light and installing it on a Saturday, when the longwall was down. Tr. 756.

Robertson testified that approximately five years before the date of the hearing, MSHA inspector, Dean Cripps, issued a similar citation for lack of visibility on a monorail methane monitor.²³ Tr. 728-30, 749-50. Robertson testified that Cripps’ concern about the location of the alarm light was limited to the monorail because Cripps did not issue a citation for the alarm light on the longwall shearer. Tr. 730. According to Robertson, Cripps informed Robertson’s supervisor, Anthony Webb, that any change in policy for the shearer methane monitors would be accompanied by written verification from MSHA. Tr. 730, 738. Robertson testified that Respondent never received verification in writing on this issue until the issuance of the citation. Tr. 738-41.

Robertson further testified that two years ago, Webb and Robertson determined that installing the light required partially dismantling the shearer, and therefore, any necessary alterations to the alarm light would occur when the shearer was rebuilt for another mining panel. Tr. 730-32, 749-50. Robertson, however, admitted that Respondent did not have to rebuild the shearer to install the light for abatement purposes. Tr. 752.

²³ Both Robertson and Bretzman referred to a prior similar citation. Tr. 728-30, 749-50. Bretzman testified that the alarm light in the prior instance was on a stage loader, and Robertson testified that the citation was for a monorail alarm light. *Id.* The particular equipment is not determinative in the present case.

Robertson relayed his conversations with Cripps and Webb to Bretzman. Tr. 733, 739-40.

B. Analysis and Disposition

1. Respondent had Adequate Notice of the Requirements for § 75.342(b)(2)

Respondent argues that it did not have fair notice of the standard before receiving the citation. R. Br. 25-27. Respondent asserts that a previous MSHA inspector (Cripps) assured Respondent that a change in policy on the methane monitors would be accompanied by written notification. Tr. 730, 738. Respondent contends that Cripps' assurance, coupled with a lack of previous citations on the longwall shearer's methane monitor, establish that Respondent did not receive fair notice of the standard.

Due process considerations prevent the adoption of an agency's interpretation of a regulation that "fails to give fair warning of the conduct it prohibits or requires." *LaFarge North America*, 35 FMSHRC 3497, 3500-01 (Dec. 2013)(citing *Gates & Fox Co. v. OSHRC*, 790 F.2d 154, 156 (D.C. Cir. 1986)). The Commission has held that adequate notice is provided where a regulation has clear meaning and is not inconsistent with MSHA's Program Policy Manual (PPM). *Jim Walter Res., Inc.*, 28 FMSHRC 579, 594-95 (Aug. 2006). Where a regulation is not expressly defined, the Commission has found adequate notice where clarification is found in MSHA policy publications. *See e.g., Dolese Brothers Co.*, 16 FMSRHC 689, 693-94 (Apr. 1994)(where MSHA's PPM and a policy letter clarified the applicable standard).

Here, the language of the regulation is clear when it states that the "[t]he warning signal device of the methane monitor shall be visible to a person who can deenergize electric equipment or shut down diesel-powered equipment on which the monitor is mounted." § 75.342(b)(2). This standard is further explained in MSHA's Program Policy Manual (PPM) for machines operated by remote controls. Thus, even assuming some ambiguity in the regulatory language, the PPM was sufficiently clear regarding the requirements of the standard. *See Coal Employment Project v. Dole*, 889 F. 2d 1127, 1130 n. 5 (D.C. Cir. 1989)(PPM, although not binding, is an accurate guide to current MSHA policies and practices); *accord Mettiki Coal Corp.*, 13 FMSHRC 760, 766-67 & nn. 6 & & (May 1991). For such machines, the PPM requires that methane warning devices be installed "in such a location that [it] can be readily seen or heard by...the machine operator...at *all* locations from which the machine is operated." V MSHA, U.S. Dep't of Labor, *Program Policy Manual*, Part 75.342 at 41(2015) (emphasis added). I find that the plain language of the regulation, coupled with the accompanying explanation in the PPM, provided clear and fair notice to Respondent regarding the interpretation of the cited standard. That is, MSHA requires that methane warning devices for remote-controlled machinery be visible from all locations from which the operator is located. 30 C.F.R. 75.342(b)(2).

Respondent's argument that it detrimentally relied on inspector Cripps' assurances that a change in policy on the methane monitors would be accompanied by written notification is not persuasive. Essentially, Respondent argues that MSHA should be estopped from issuing a citation on the methane warning light on the longwall shearer because of Cripps' assurances and lack of previous enforcement. The Commission has declined to apply equitable estoppel against

the government, or in this case, its agents. *King Knob Coal Co.*, 3 FMSHRC 1417, 1421 (June 1981). Generally, “those who deal with the Government are expected to know the law and may not rely on the conduct of government agents contrary to law.” *Heckler v. Community Health Services*, 467 U.S. 51, 63 (1981). The Commission has held that “an inconsistent enforcement pattern by MSHA inspectors does not prevent MSHA from proceeding under an application of the standard that it concludes is correct.” *Mach Mining*, 34 FMSHRC 1769, 1774 (Aug. 2012) (citing *Austin Powder Co.*, 29 FMSHRC 909, 920 (Nov. 2007)).

I have credited Bretzman’s testimony that MSHA requires visible alarm warnings on methane monitors on longwall shearers. Bretzman recognized an alleged violation and verified the applicability of the regulation with his supervisor at MSHA. Tr. 444. I have found that the plain language of the regulation, coupled with the accompanying explanation in the PPM, provided clear and fair notice to Respondent regarding the interpretation of the cited standard. Accordingly, I conclude that Respondent had adequate notice of the requirements of 30 C.F.R. § 75.342(b)(2).

2. The Violation of § 75.342(b)(2)

Section 75.342(b) provides that the warning signal device of the methane monitor must be visible to a person who can de-energize the equipment on which the monitor is mounted. 30 C.F.R. § 75.342(b)(2). The regulations require the monitor to give this alarm signal when methane concentrations reach one percent. 30 C.F.R. § 75.342(b)(1). At that point, the miner must de-energize or shut down the equipment. 30 C.F.R. § 75.342(b)(2).

The Commission and the D.C. Circuit have previously examined the application of this regulation to longwall methane monitors. *Consolidation Coal Co.*, 136 F.3d 819 (D.C. Cir. 1998) affirming *Consolidation Coal Co.*, 18 FMSHRC 1903 (Nov. 1996). The D.C. Circuit determined that a visible alarm is essential because it alerts miners of dangerous concentrations of methane should other safety measures fail. *Id.* at 822. The warning functions as a fail-safe to ensure that miners respond to potentially hazardous situations. *Id.* at 823. The D.C. Circuit Court concluded that the Secretary’s interpretation of § 75.342(b) which requires that a warning signal be visible at all times to a miner who can “react to increasing methane levels and, if necessary, de-energize mining equipment,” was appropriate. *Id.* at 822.

Respondent attempts to distinguish the present case from *Consolidation Coal* on the basis of notice. R. Resp. Br. 25-26. In that case, the Commission found actual notice where MSHA reiterated the requirement in seven meetings over the course of one year. *Consolidation Coal, Co.*, 18 FMSHRC at 1907. Those facts do not prevent a finding of fair notice in the present case, for the reasons explained above.

I credit Bretzman’s testimony that the longwall shearer operators would not be able to see the alarm light from various positions. Tr. 446. Although Key described the warning light as bright, both he and Bretzman testified that it was quite small, only up to an inch in circumference. Tr. 412, 661. Furthermore, the control panel in which the alarm light was contained had raised edges, which further limited its visibility at certain angles. Tr. 673-74.

Finally, Bretzman credibly testified that the operators worked up to twenty-five feet from the warning light. Tr. 415.

Respondent argues that because Bretzman did not observe an operator working thirty feet from the monitor, the citation was inappropriate. R. Resp. Br. 26. However, Key corroborated Bretzman's testimony that the operators were not stationary during mining. Tr. 664-668. Further, Key acknowledged that the alarm was not in the line of sight of the operators at certain locations or angles. Tr. 666. Bretzman determined that the operator could not see the monitor during normal mining operations unless he was in the direct line of sight of the readout. Tr. 409, 412, 441. Therefore, I find that the Secretary proved by a preponderance of the evidence that the small methane alarm light on the longwall shearer was not visible from all locations where the machine was operated, to a person, especially a machine operator working up to twenty-five feet from the control panel, who could de-energize the equipment. Indeed, a light the size of a quarter and located within the enclosure described, would not be visible at much shorter distances. Respondent failed to rebut the Secretary's case by establishing that a person could see the alarm light from all locations from which the machine was operated remotely. Further, Bretzman could not recall anyone from Respondent telling him that the indicator light could be seen by a person who could de-energize the machine. Tr. 446. Accordingly, I find a violation of § 75.342(b)(2).

Bretzman determined that because production had halted and because he had no evidence of methane present at the time of the citation, the violation was unlikely to result in an injury. Tr. 410, 420. Under extant Commission precedent, I lack authority to modify the non-S&S designation and make it S&S.²⁴

3. Respondent's Negligence was Appropriately Designated as Low

The Secretary argues that Respondent's negligence was low, citing the lack of previous enforcement as a mitigating factor in the inspector's analysis. P. Post Hr'g Br. 3-4 (quoting *Mach Mining, LLC*, 34 FMSHRC 1769, 1744 (Aug. 2012), citing *Austin Powder Co.*, 29 FMSHRC 909, 920 (Nov. 2007)). In determining the weight to be given the lack of enforcement, I note that Commission judges are not bound to apply the levels of negligence definitions that are designated by potential mitigating circumstances in the Secretary's regulations. *Brody*, 37 FMSHRC at 1701; *Mach Mining*, 809 F.3d at 1263-64. While the Commission has held that inconsistent enforcement is not a defense to liability, it is relevant to the determination of negligence, and may be cited as a mitigating factor in reducing said negligence. *Mach Mining*, 34 FMSHRC at 1744 (citing *King Knob Coal Co.*, 3 FMSRHC 1317, 1422 (June 1981), *aff'd sub nom Mach Mining, LLC v. FMSRHC*, 809 F.3d 1259 1259 (D.C. Cir. 2016) (inconsistent enforcement of a regulation may reduce the level of negligence and detrimental reliance on MSHA's incorrect interpretation of a regulation is properly considered in mitigation of penalty).

Both this citation and the previous citation involve violations of the same standard. While the similarity between the citations might result in comparable negligence determinations,

²⁴ *Mechanicsville Concrete, Inc. t/a Materials Delivery*, 18 FMSHRC 877, 880 (June 1996).

the precedent cited above permits consideration of inconsistent prior enforcement at this juncture to determine the appropriate level of negligence. I credit Robinson's testimony that MSHA overlooked the violation of §75.342(b)(2) on the instant shearer for years before issuing a citation on the date of the inspection. Tr. 725-27. Given the lack of previous enforcement, I find that the Secretary properly designated Respondent's level of negligence as low.

4. Civil Penalty for Citation No. 8432319

Applying the penalty assessment criteria set forth in section 110(i) of the Mine Act, I find that Respondent mined 7,528,061 tons of bituminous coal in 2012. The parties stipulated that the originally proposed penalty of \$117 will not affect Respondent's ability to remain in business. MSHA recognized Respondent's good-faith compliance in abating the citation. I have affirmed MSHA's gravity and negligence determinations. After consideration of the penalty assessment criteria set forth in section 110(i) of the Act, I assess a \$117 civil penalty against the Respondent for Citation No. 8432319.

VII. Citation No. 8439454

A. Findings of Fact

1. Inspector Stanley's Testimony

On August 15, 2013, Stanley returned to the mine to conduct a regular inspection of the surface of the property, including any underground equipment found on the surface. Tr. 472. Stanley inspected a Kubota 10, a two-seater diesel Road Taxed Vehicle (RTV), used to transport men or material underground. Tr. 473. Stanley did not know who operated the Kubota, but thought that it was Schilke. Tr. 499. Stanley examined the steering components of the vehicle as the operator turned the steering wheel. Tr. 474, 482. Stanley inspected the Kubota again in the repair shop. Tr. 486. Stanley testified that both times, he observed impermissible play in the lower left ball joint. *Id.*

Stanley observed and concluded that there was excessive wear and play in the lower left ball joint for three reasons. Tr. 474-75, 482. First, the tires did not simultaneously turn with the steering wheel. Tr. 474-75, 508. Stanley described this as hesitation or delay in the steering. Tr. 474-75. Second, there were areas of shine on the ball joint. Tr. 474, 508. Stanley observed that the shiny area was more than an eighth of an inch. Tr. 483. He testified that this shine occurs when the tie-rod end wears on the ball. Tr. 474. Finally, Stanley observed that there was in excess of an eighth of an inch of play on the joint. Tr. 474, 480.

Stanley did not use a dial indicator or any other tool to assist his measurements during either inspection. Tr. 483, 487, 507. Instead, he examined for separate movement in steering components. Tr. 474-75, 487, 498. Stanley testified that an excess of an eighth of an inch of play contravenes MSHA out-of-service criteria. Tr. 507-08. Stanley was unable to verify where the standard for an eighth of an inch of play could be found in writing. Tr. 511-12. Stanley further testified that the day before the hearing, he learned from Kubota's service personnel that a steering linkage component with any play must be replaced immediately. Tr. 475, 507, 510.

After observing excessive wear on the ball joint of a Kubota vehicle, inspector Stanley issued Citation No. 8439454 for a violation of 30 C.F.R. § 75.1914(a), which requires that all diesel equipment be maintained in proper operating condition. Tr. 465, 476. Stanley determined that the violation was S&S and contributed to a loss of steering hazard that was reasonably likely to result in a lost workdays or restricted duty injury for one miner as a result of Respondent's moderate negligence. P. Ex. 107; Tr. 476-77. The Secretary proposed a penalty of \$1,026.

The Kubota was driven at speeds up to approximately 21 miles per hour (mph) in the mine. Tr. 500, 503. When underground, the Kubota was driven on a rough, concrete travel road, with potholes and a steep decline of approximately 3000 feet. Tr. 477, 501-02. Stanley described the slope as having at least an eight-percent grade. Tr. 478. He testified that an excessively worn and unrepaired ball joint will cause "the steer tire [to] most likely fold over and lay down... [resulting in a] complete loss of steering on the vehicle." Tr. 477. Stanley determined that such a hazard was likely to cause injury to the Kubota operator or one of the pedestrian miners clearing coal near the conveyor belt along the travelway. Tr. 477-79. The latter type of injury would result from the Kubota either striking a miner or pinching a miner against other structures. Tr. 478. Stanley testified that the brakes on the Kubota were in good working condition, and that operators generally drove at speeds consistent with road conditions. Tr. 499-500.

Stanley opined that the condition needed more than one day to develop. Tr. 479. He further testified that the wear would not likely be discovered during weekly inspections. *Id.* Stanley did not recall whether Respondent's miners made any statements about mitigating factors when he issued the citation. Tr. 488. Without evidence indicating how long the condition actually existed, Stanley classified the Respondent's negligence as moderate. Tr. 479.

The citation was abated later that day when the tie-rod end and the ball joint were replaced. Tr. 480, 488. Stanley did not take measurements after abatement, although he did go under the Kubota to examine the repair. Tr. 498.

2. The Testimony from Respondent's Witness

a. Schilke's Testimony

As noted, Schilke accompanied Stanley during the inspection. Tr. 560. Schilke testified that he did not recall if Stanley initially examined the vehicle. Tr. 563. Schilke then testified that Stanley observed the steering while Jeff Wilkins, the Kubota operator, was directed to turn the steering wheel. Tr. 560, 563-64.

According to Schilke, after Stanley's inquiry, Wilkins told Stanley that Wilkins had checked the Kubota prior to use and found no issues with the steering. Tr. 560-61, 624, 627. Stanley then directed Wilkins to drive the Kubota to the repair shop. Tr. 561-62. Schilke observed no problems with the steering as Wilkins drove the vehicle to the shop. *Id.*, Tr. 624. At the shop, the vehicle was lifted and the ball joints were examined. Tr. 561, 567. There Schilke observed movement in the ball joint, although neither he nor Stanley used an instrument to quantify how much movement was present. Tr. 561-62, 567-68, 621, 625. Schilke opined

that the movement was less than an eighth of an inch, or less than the thickness of a quarter. Tr. 568, 622, 625. Schilke conceded that the movement would get worse over time if not repaired. Tr. 625.

Schilke testified that the Kubota that Wilkins drove was very similar to the Kubota that Schilke drove. Tr. 565-66; *see* R. Ex. 5 (photograph of Schilke's Kubota). Schilke described the brakes on the Kubotas as "pretty good." Tr. 566. The Kubotas have hydrostatic transmissions, which slow down the vehicles when pressure is removed from the gas pedal. *Id.* Finally, Schilke described the concrete slope in the mine as rougher than an interstate, with a rutted and grooved surface. Tr. 636.

When asked on direct examination to offer any mitigating circumstances, Schilke testified that the movement of the ball joint had little impact on the steering. Tr. 569. He also mentioned that any impact on steering was further reduced by the soft tread of the tires on the soft clay floor of the mine. *Id.* Finally, Schilke reiterated that Wilkins had driven the Kubota down to the seals of the mine and back, and that Wilkins had found no difficulty with steering. *Id.*

Schilke also testified that he spoke with a mechanic for Respondent after Stanley issued the citation. The mechanic did not testify at hearing. Schilke testified that the mechanic told him that he would not have allowed an unsafe Kubota to go underground. Tr. 627, 637. According to Schilke's testimony, the mechanic was of the opinion that the Kubota was safe because Wilkins had told him that the steering worked fine. *Id.* Schilke further testified that the mechanic told him that although the Kubota manufacturer wants no movement in the ball joint, in practice, vehicles that are used in a mine experience similar movement. Tr. 561-62, 566. Schilke later conceded on cross-examination that the steering in a private vehicle is very different from the steering in a Kubota. Tr. 620.

b. Jeff Wilkins' Testimony

Jeff Wilkins was a mine examiner for Respondent.²⁵ Tr. 683. Wilkins operated the Kubota in question every day. Tr. 685-686, 697. On the date of the inspection, Wilkins conducted a pre-operational check of the Kubota. Tr. 687. This check included an examination of the steering, which he performed by turning the wheel back and forth to ascertain any slack.²⁶ Tr. 687-88. Wilkins stated that a visual inspection of the ball joint while the wheel was turned was not necessary to detect movement in the ball joint. Tr. 688-89. Instead, the movement would manifest as play in the steering wheel. *Id.* Wilkins testified that without turning the

²⁵ Wilkins was employed with Respondent for seven and a half years. Tr. 683. Apart from his position as an examiner, Wilkins worked as an outby laborer and foreman. *Id.* Prior to his employment with Respondent, Wilkins worked at three separate mines: Willow Lake Mine, Eagle Valley Mine, and Sahara Mine. Tr. 683-84. Wilkins was a certified examiner with an electrical card. Tr. 685.

²⁶ When the wheel turned, suspension rose and descended, pivoting the ball joint that was threaded in the tie rod. Tr. 701-03. The ball joint had a nut and cotter pin that were intact. *Id.*

wheel, he would not notice wear in the ball joint, unless it was substantial. Tr. 699. Wilkins claimed that he would notice gradual slack in the Kubota's steering over time. Tr. 698. Wilkins further testified, consistent with Schilke's account, that Wilkins did not notice any problems with the steering during his pre-operational check of the vehicle. *Id.*

After concluding his pre-operational check, Wilkins drove his Kubota underground for approximately one hour. Tr. 689-90. He described the underground path driven as a fairly steep slope, with smooth and rough patches, with rough conditions encountered where rocks fell off beltlines and along intake ways. Tr. 695-96. He testified that the Kubota was a slow-moving vehicle and he experienced no problems with the steering or the brakes. Tr. 690-91, 701.

Wilkins contrasted his trip on the day of the citation with an earlier experience that he had driving a Kubota with faulty steering. Tr. 692. In the later instance, Wilkins noticed the steering arm loosen and jerk when he drove over a rough area. *Id.* He testified that without repair, such a steering arm may disconnect from the steering jack, forcing the vehicle to halt instantly. *Id.* Wilkins testified that the Kubota automatically stops when the wheel is turned and the operator removes his foot from the gas. Tr. 693.

Contrary to Schilke's testimony, Wilkins testified that he did not operate the Kubota around Stanley. Tr. 696. Rather, Wilkins testified that he left the Kubota after returning to the surface. Tr. 693-94. Wilkins was not present for Stanley's initial inspection of the vehicle or for the inspection that occurred in the repair shop. *Id.* When Wilkins returned to the vehicle, Stanley and Schilke had already decided to relocate the vehicle to the repair shop. *Id.*

B. Analysis and Disposition

1. The Violation of § 75.1914(a)

Section 75.1914 imposes two duties upon an operator: (1) to maintain machinery and equipment in safe operating condition, and (2) to remove unsafe equipment from service. Derogation of either duty violates the standard. *Peabody Coal Co.*, 1 FMSHRC 1494, 1495 (Oct. 1979). The Kubota cited by inspector Stanley was mobile equipment. It is undisputed that such mobile equipment was in service when cited. The dispute is whether the Kubota was maintained in safe operating condition. I find that the Kubota was not maintained in safe operating condition and was not removed from service. Accordingly, I find the violation.

Equipment is in unsafe operating condition when a reasonably prudent person familiar with the factual circumstances surrounding the alleged hazardous condition, including any facts peculiar to the mining industry, would recognize a hazard warranting corrective action within the purview of the applicable regulation. *Ambrosia Coal & Construction*, 18 FMSHRC 1552, 1557 (Sept. 1996) (citing *Alabama By-Products Corp.*, 4 FMSHRC 2128, 2129 (Dec. 1982) (applying identical standard in underground coal mines)).

The Commission has recognized that movement in steering linkage ball joints alone can rise to the level of a hazardous defect. *See LaFarge North America*, 35 FMSHRC at 3500 (applying § 56.14100(c), which concerns defects that make continued operation hazardous, and

remanding to determine amount of movement in ball joints and whether such amount constitutes a hazardous defect). Stanley credibly testified that MSHA finds violations where there is excess play in the ball joint. Tr. 507. Both Stanley, and through Schilke's hearsay admission, Respondent's mechanic, reported that the Kubota manufacturer requires no movement in the ball joint. Tr. 475, 561. In addition, I take administrative notice of the North American Standard Out-of-Service Criteria, issued by the *Commercial Vehicle Safety Alliance*.²⁷ This manual provides that a vehicle is to be taken out of service if any of its ball and socket joints exhibit "any motion, other than rotational, between any linkage member and its attachment point of more than 1/8 inch (3.2 mm) measured with hand pressure only" or if any tie rod exhibits "any looseness in any threaded joint." *Commercial Vehicle Safety Alliance*, North American Standard Out-of-Service Criteria, at 44 (revised April 2010).

I credit inspector Stanley's testimony that there was impermissible movement in the lower left ball joint. A simple visual inspection by Stanley as the operator turned the wheel revealed a hesitation in steering, while the shine on the ball joint itself supplied physical evidence of wear. Tr. 474. Schilke corroborated the play in the ball joint when recalling the examination conducted in the repair shop. Tr. 561-62. The operator, Wilkins, used the Kubota after conducting a pre-operational examination, which he admits did not include a visual examination of the ball joint, and failed to reveal the play in the ball joint. Tr. 687-89.²⁸ Neither side disputes that, if left unchecked, the movement would grow worse over time. Tr. 477, 625. Accordingly, I find that excess play in the ball joint as visually observed by inspector Stanley constitutes a hazard making continued operation of the Kubota unsafe and requiring its removal from service.

I discredit the recollection of Respondent's witnesses concerning the ball joint examination. Respondent's witnesses contradict themselves and each other with regard to the Kubota's inspection. Schilke alleged that he could not recall Stanley's examination of the Kubota's steering, and then immediately proceeded to describe the inspection. Tr. 563-64. Although Wilkins did not remember participating in the inspection, both Stanley and Schilke confirmed the participation of Wilkins during Stanley's inspection. Tr. 482, 560-64, 693.

Based on my review of the testimony, I find that the Secretary proved by a preponderance of the evidence that Respondent violated § 75.1914(a) by failing to maintain the Kubota in safe operating condition, and by failing to remove it from service.

²⁷ This manual is relied on and cited by the United States Department of Transportation. 49 C.F.R. Pt. 385.4(b)(1)(2013); 79 F.R. 27766, (May 15, 2014). Under Commission precedent, judicial notice can be taken of the existence or truth of a fact or other extra-record information that is not the subject of testimony, but is commonly known, or can safely be assumed, to be true. *Union Oil*, 11 FMSHRC 289, 300 n.8 (Mar. 1989).

²⁸ Although Respondent was not cited for an inadequate pre-operational inspection, I have determined in previous cases that a proper pre-operational inspection of a ball joint requires one person monitoring the steering linkage while another person moves the steering wheel. *Extra Energy*, 36 FMSHRC 2733, 2743 (Oct. 2014)(ALJ). Wilkins failed to conduct a visual inspection of the ball joint while another person turned the wheel, or vice versa.

2. The Violation was Significant and Substantial

a. There was a Violation of a Mandatory Safety Standard

For the reasons explained above, I find the underlying violation of mandatory safety standard § 75.1914(a).

b. The Violation Contributed to a Discrete Measure of Danger to Safety

My finding of a violation supports a finding of a discrete measure of danger to safety as the standard violated requires a failure to maintain mobile equipment in safe operating condition. Accordingly, if the Kubota is not maintained in safe operating condition, there is necessarily a discrete measure of danger to safety. This conclusion is supported by the fact that MSHA, the Kubota manufacturer, and the North American Standard Out-of-Service Criteria manual require that vehicles with ball joints exhibiting excessive wear must be immediately repaired or removed from service. Tr. 507, 475. Furthermore, Stanley credibly testified that such a ball joint, if left unrepaired, would fail and result in compromised steering and control over the vehicle. Tr. 477. Accordingly, I find that the second *Mathies* factor is satisfied.

c. The Violation Contributed to a Hazard That was Reasonably Likely to Result in Injury

Regarding the third *Mathies* factor, the Secretary demonstrated that the hazard contributed to by the violation, i.e., loss of steering of a Kubota within the mine, was reasonably likely to result in an injury. Schilke and Wilkins testified that Kubotas are slow to a stop when pressure is removed from the gas pedal. Tr. 499, 692-93. However, a Kubota driven at speeds up to approximately twenty-one miles an hour on rough mine roads at an eight degree slope with undiscovered excess wear on the ball joint, is reasonably likely to contribute to compromised steering and loss of control of the Kubota, which hazard is reasonably likely to result in injury to the driver or injury to a miner working nearby. The driver is exposed to injury due to the excessive wear in the ball joint, which contributes to a compromised or loss-of-steering-control hazard that would likely result in collision with an object or rib and injury to the driver. Further, Stanley's testimony credibly establishes that miners working along the conveyer belt adjacent to the travelway were exposed to injury from a collision due to the loss of control of the Kubota. In these circumstances, the loss-of-control hazard contributed to by the violation, was reasonably likely to result in injury during continued operation of the Kubota with excessive wear in the ball joint.

d. There was a Reasonable Likelihood That the Injury in Question Will Be of a Reasonably Serious Nature

With regard to the fourth *Mathies* factor, I find a reasonable likelihood that any such injury would be of a reasonably serious nature. The loss-of-control hazard contributed to by the failure to maintain the Kubota in safe operation condition was reasonably likely to result in a collision with associated serious or fatal injury to the Kubota operator or pedestrian miners working nearby. The Kubota is large enough to seat two people and has a dump bed in the back.

See R. Ex. 5. A collision with a miner, the rib, or other equipment would likely be serious or fatal. A miner struck by the Kubota and pinned against the vertical supports within the mine would likely suffer serious injuries. Accordingly, the Secretary has shown a reasonable likelihood that an injury resulting from the hazard contributed to by the violation was reasonably likely to be serious or fatal.

3. Respondent's Negligence was Appropriately Designated as Moderate

As discussed above, a reasonably prudent operator engaging in appropriate buddy-checks of steering linkage components should have been aware of the cited condition. Based on the testimony and briefs, I do not find considerable mitigating circumstances that would justify reducing the negligence designation from moderate to low. Respondent's assertion that the soft floor of the mine would reduce the impact of malfunctioning steering is not persuasive. There was no evidence that the floor disturbed the speed or performance of a Kubota in safe operating condition. Therefore, I discredit Schilke's inference that the same floor would hinder a Kubota with compromised steering. Tr. 569. Further, the assertion that the Kubota's operator (Wilkins) noticed no defect in the steering that day does not eliminate the likelihood of the danger. Rather, the insufficient examination procedure supports at least a moderate negligence designation. Respondent's Kubota operator failed to perform any visual examination the vehicle, much less while another person turned the wheel. Tr. 699. In these circumstances, I find that the Secretary properly designated the Respondent's level of negligence as moderate.

4. Civil Penalty for Citation No. 8439454

Applying the penalty assessment criteria set forth in section 110(i) of the Mine Act, I find that Respondent mined 7,528,061 tons of bituminous coal in 2012. The parties stipulated that the originally proposed penalty of \$1,026 will not affect Respondent's ability to remain in business. MSHA recognized Respondent's good-faith compliance in abating the citation. I have affirmed MSHA's gravity, negligence, and S&S determinations. After consideration of the penalty assessment criteria set forth in section 110(i) of the Act, I assess a \$1,026 civil penalty against the Respondent for Citation No. 8439454.

VII. Citation No. 8452203

A. Findings of Fact

1. Inspector Horseman's Testimony

After observing a missing portion of an emergency lifeline, MSHA inspector Steven Paul Horseman²⁹ issued Citation No. 8452203 for a violation of 30 C.F.R. § 75.380(d)(7)(i), which

²⁹ At the time of hearing, inspector Horseman had been employed with MSHA for one year and eleven months. Tr. 515. Apart from a four-year stint with a phone company, Horseman had worked in mining since 1991. Tr. 516. He has experience in longwall and continuous mining

requires that lifelines be installed and maintained throughout the entire length of the escapeway. Tr. 465, 476. Stanley determined that the violation was S&S and contributed to an inability-to-timely-escape hazard that was reasonably likely to result in injuries affecting thirty miners as a result of Respondent's moderate negligence. Tr. 156, 162-63. The Secretary proposed a penalty of \$13,268.

On September 8, 2013, Horseman conducted an EO2 section 103(i) spot inspection, while being accompanied by safety manager Schilke. 30 U.S.C. §813(i); Tr. 517; P. Ex. 109. On the way toward headgate seven, Horseman lost sight of the lifeline along the East Mains travel road. Tr. 517. He asked Schilke to pull over and the two of them located the lifeline one entry over in the secondary escapeway. Tr. 517, 529. They returned to their vehicle and followed the lifeline until they found a break in the line. *Id.* The lifeline dangled from the ceiling, approximately five feet above the ground. Tr. 517-18. The other end of the line was located approximately 160 feet away. Tr. 518. Horseman measured the gap between the ends of the lifeline, while Schilke found replacement line. *Id.* With the extra line, Horseman and Schilke connected the two ends of the lifeline. *Id.*, 525-26.

Horseman issued Citation No. 8452203 for a § 75.380(d)(7)(i) violation. Tr. 519. §75.380(d)(7)(i) requires lifelines to be installed and maintained throughout the entire length of the escapeway. *Id.* A lifeline is typically a durable, nylon rope. In the event of an emergency, a lifeline provides disoriented miners with a tactile method of escape if the entry fills with smoke. Tr. 520. The lifeline has cones and reflective lights that direct the miner towards the exit near the slope. Tr. 543-45; 30 C.F.R. § 75.380(d)(7)(iii-v).

Horseman opined that all lifeline citations are not automatically S&S. Tr. 526. He designated the instant violation as S&S because he determined that the violation contributed to a hazard that was reasonably likely to result in fatal injuries affecting 30 miners. Tr. 523-24. With respect to likelihood, Horseman testified that the lifeline would only be used in the event of an emergency. Tr. 523. If a fire or explosion occurred, Horseman testified that it would not be unusual for ventilation control devices to fail. *Id.* With failed ventilation, Horseman testified that miners would inhale toxic fumes from smoke, or find themselves in a buildup of carbon monoxide. *Id.* Even assuming sufficient time to don self-contained self-rescuers (SCSRs), Horseman noted the reduced efficacy of these devices should the miners panic or fumble during the emergency. Tr. 523. He recalled an incident from his own experience as a miner when a smoke-filled entry limited visibility to the point where "you could not see your hand in front of your face." Tr. 521. He testified that in such conditions, 160 feet of missing lifeline would prevent a miner from locating the other end of the lifeline and escaping the mine. *Id.* Additionally, he testified that the miners may not have been aware that the lifeline changed entries, which left them susceptible to further disorientation. Tr. 522. Given these conditions, Horseman believed that fatal injuries were reasonably likely. Tr. 523. With respect to the number of persons affected, Schilke informed Horseman that three loading crews comprised of ten miners apiece were working inby the missing lifeline. Tr. 524.

and has held various positions, including equipment operator, examiner, IT specialist, electrician, and mine supervisor. *Id.*

Horseman designated the Respondent's negligence as moderate. *Id.* He made this designation because he could not determine how long the condition existed. Tr. 524-25. He conceded that of the 35,000 feet of secondary escapeway, he found only 160 feet of the lifeline that was missing. Tr. 542-43. He confirmed that Respondent held escape drills for miners to familiarize themselves with using the escapeways. Tr. 547. Additionally, Respondent's vehicles had tethers. *Id.* A tether allows miners to stay attached to one another in case a single miner grows disoriented. Tr. 547-49.

2. The Testimony from Respondent's Witnesses

a. Schilke's Testimony

Schilke confirmed that a portion of the lifeline was missing in the East Mains #1 travelway. Tr. 570-72. Schilke did not know how the condition occurred, or for how long it had existed prior to discovery by Horseman. Tr. 601-02. Schilke admitted that he traveled that route daily and had not discovered the condition. Tr. 615. The mine records did not contain any notations regarding the missing lifeline. Tr. 602. The cited condition was in an area where tractors were driven all day long, including the third-shift tractors, which had passed through the area before the inspection. Tr. 602-03. Schilke did not find the disconnected section of the lifeline and speculated that it could have been dragged away by a passing vehicle. Tr. 612-15. The remaining ends of the lifeline, normally at shoulder height, were on the ground. Tr. 613-14.

Schilke testified about the location of the missing lifeline. If one walked towards the exit of the mine, the lifeline primarily followed the direction of the travel road. Tr. 600. The travel road headed north before turning west into the #3 entry of the East Mains #1 route. *Id.* The lifeline did not turn with the travel road, but continued into the #2 entry before turning west. Tr. 601. This detour ran parallel to the travel road and past three crosscuts. *Id.* The gap in the lifeline occurred within this detour in the #2 entry. Tr. 578, 599-601. The detour turned south down the #29 crosscut to rejoin the travel road in the #3 entry. Tr. 597-601; *see* R. Ex. 11. A miner, who followed the lifeline into the #2 entry, needed to walk through two crosscuts to find the other end of the line. Tr. 574-75.

Schilke testified that the miners were aware of the detour because the lifeline had followed that path since the area was developed. Tr. 610. He conceded, however, that miners would not be expecting the section of the lifeline to be missing. Tr. 611. Schilke opined that miners, who encountered a gap in the lifeline, would continue forward following the flow of air rather than choose to retrace their path to rejoin the travel road. Tr. 608. However, he admitted that in an emergency, the direction of air can change, thus preventing miners from using air courses as directional indicators. Tr. 616. Nonetheless, he opined miners would know which direction they were walking because the mine graded up as it headed outby. Tr. 616-17.

According to Schilke, if the miner could not find the other end of the line, he or she would eventually hit stoppings placed west and north of the detour through the #2 entry.³⁰ Tr.

³⁰ There was a stopping in the #2 entry in by the # 29 crosscut, which prevented miners from walking further westward. Tr. 595-96. There were additional stoppings that blocked access to

596, 608. Thus, disoriented miners would eventually be forced to turn south or return east in the direction from which they came. Tr. 596-98, 608. When choosing between these options, Schilke opined that the miners would not return east in the direction from where smoke traveled. Tr. 608. The remaining direction, south, would lead the miners to the travel road. Tr. 596-97, 608.

The self-contained self-rescuers (SCSRs) are equipped to last from forty-five minutes to an hour. Tr. 617. Schilke recalled that the nearest self-rescuer caches were approximately 2,500 feet inby the missing lifeline, and 3,000 feet outby the missing lifeline. Tr. 640-42. As noted, the height of the mine is generally nine to ten feet. Tr. 619. Schilke estimated that it would take approximately an hour to travel about 5,700 feet, although some miners may move more slowly than others. Tr. 619, 637, 644. Additionally, disoriented or lost miners may take longer to reach a cache. Tr. 644-45. According to Schilke, the distance from the three working sections to the missing lifeline was 15,000 feet. Tr. 618. The distance between the missing lifeline and the slope exit of the mine was about another 15,000 feet. Tr. 617-18. On foot, it would take a miner nearly three hours to reach the slope from the missing lifeline. Tr. 619, 637.

Schilke opined that directional signals on the lifeline and Respondent's safety protocols reduced the danger of the violation. On either end of the missing lifeline section, Respondent's lifeline had cones and reflectors that indicated the direction towards the exit. Tr. 572-73, 614. The reflectors were visible in the cited area. Tr. 573-74. Reflectors were spaced every twenty-five feet and were attached to either a cone or the lifeline itself. Tr. 573. Schilke recalled that the cones were spaced every 100 feet. Tr. 573. The cones were situated on the lifelines so that a miner's hand would slide smoothly over the tip of the cone towards the base as the miner traveled towards the exit. Tr. 573. If a miner traveled in the wrong direction, the miner's hand would stop against the base of the cone. Tr. 573.

Additionally, Schilke testified that escaping miners would not rely solely on lifelines during an emergency situation. Tr. 609. He testified that in the event of an emergency, the ideal method for escape was by vehicle. Tr. 574, 604-05, 609. He further testified that an escaping vehicle would continue along the main travelway, rather than detour into the adjacent entry to follow the lifeline. Tr. 574. Depending on the level of smoke, however, Schilke was uncertain whether the vehicle could drive down the secondary escapeway. Tr. 611-12. Schilke opined that a pedestrian miner would exit the mine along the main travelway, rather than follow the lifeline. Tr. 574-576. He conceded, however, that a miner might become disoriented, panic, and become lost in an emergency. Tr. 611, 644-45.

Schilke confirmed that Respondent held escapeway drills every ninety days and instructed miners to use tethers to keep together during a mine evacuation. Tr. 603-605, 609, 611. Additionally, he testified that signs labelling the crosscut numbers would indicate a miner's location. Tr. 573-74. Schilke maintained that these precautions, combined with the miner's

the crosscuts and entries to the north of the #2 entry. One of the stoppings in the crosscuts north of the #2 entry had a man door. Tr. 596. A man door allow miners to cross through a stopping. *Id.* During normal production, man doors are closed. Tr. 595-96.

knowledge of the mine's topography and air flow, were sufficient for miners to find their way out of the mine in an emergency situation. Tr. 608-10.

B. Analysis and Disposition

1. The Violation of § 75.380(d)(7)(i)

Section 75.380(d)(7)(i) provides that a continuous directional lifeline must be installed and maintained throughout the entire length of each escapeway. 30 C.F.R. § 75.380(d)(7)(i). Neither side contests that a portion of the lifeline was missing. Tr. 572; *see* R. Ex. 14 (missing lifeline denoted in red). The missing portion of the line was approximately 160 feet. Tr. 518. A missing portion or gap in the lifeline makes it non-continuous under the plain meaning of the standard and creates a violation of § 75.380(d)(7)(i).

Respondent argues that the violation was not S&S because the missing portion of the lifeline was relatively small compared to the full length of the line, and because additional safety measures were adequate to ensure the safe evacuation of the miners.

2. The Violation was Significant and Substantial

a. There was a Violation of a Mandatory Safety Standard

For the reason explained above, I find the underlying violation of mandatory safety standard § 75.380(d)(7)(i).

b. The Violation Contributed to a Discrete Measure of Danger to Safety

With regard to the second *Mathies* factor, the violation created a discrete safety hazard or measure of danger to safety. The Commission has found that an accurate description of the hazard contributed to by an inaccessible lifeline is “the danger of not being able to access or use the lifeline in the event of an emergency where visibility is reduced and miners must rely upon the tangible nature of the lifeline to quickly and safely escape the mine.” *Black Beauty Coal Co.*, 36 FMSHRC 1121, 1124 (May 2014). This description supports the Commission’s earlier understanding of the hazard as “miners not escaping quickly in an emergency with attendant increased risk of injuries due to a delay in escape.” *Cumberland*, 33 FMSHRC at 2346, *aff’d sub nom.*, *Cumberland Coal Res., LP v. FMSHRC*, 717 F.3d 1020 (D.C. Cir. 2013). I find that a 160-foot gap in the lifeline is a significant and substantial hindrance that contributes to the hazard of not being able to use the lifeline to escape the mine in an emergency situation.

Respondent argues that an S&S designation is inappropriate because 160 feet of missing lifeline is a small percentage of the length of the entire lifeline. R. Br. 20-21. The percentage of uninterrupted line is essentially immaterial to the impact that a 160-foot break in the line would have on escaping miners. In *Black Beauty*, the Commission found that 110 feet of inaccessible lifeline was reasonably likely to contribute to an inability-to-timely-escape hazard that would result in injury. *Black Beauty*, 36 FMSHRC at 1124-25. Given the greater length of missing

lifeline in the present case, I find that 160 feet of missing lifeline supports my S&S finding for this violation.

Respondent also argues that its miners would use quicker alternatives to escape, and that their knowledge of the primary escapeway would keep them on the quickest path towards the exit, allowing them to disregard the lifeline entirely. I reject this argument. Although the Commission has not yet defined the weight that must be given to the presence of additional safety precautions, the Commission discounts the argument that additional safety measures prevent an S&S finding. See *Brody Mining*, 37 FMSHRC at 1691 (stating that evidence of redundant safety measures has been consistently rejected as irrelevant); *Black Beauty*, 36 FMSHRC at 1125 n.5 (stating that additional safety measures do not prevent a finding of S&S); *Cumberland*, 33 FMSHRC at 2369 (stating that allowing redundant safety measures to provide a defense to a finding of S&S would defeat the purpose of any safety protection, and citing *Buck Creek*, 52 F.32 at 136). Thus, alternative safety protocols do not undercut the significant and substantial contribution that violations of mandatory standards have toward discrete safety hazards.

In the present case, I examine the impact of a missing lifeline on a miner that must rely upon said lifeline to quickly and safely exit the mine in an emergency situation. In short, I find that the hazard contributed to by the violation was the prevention of a quick escape from the mine by miners who were entitled to rely on a continuous lifeline when escaping the mine during an emergency. Accordingly, the second *Mathies* factor is satisfied.

c. The Violation Contributed to a Hazard That was Reasonably Likely to Result in Injury

I find that the violation contributed to the hazard that miners would become lost, disoriented, or otherwise unable to quickly escape from the mine because of a compromised lifeline, and that such hazard was reasonably likely to result in injury. The Commission requires its judges to examine the S&S factors for lifeline violations within the context of emergency conditions. *Cumberland*, 33 FMSHRC at 2357, *aff'd Cumberland Coal Res., LP v. FMSHRC*, 717 F.3d 1020 (D.C. Cir. 2013). The Commission has discussed different hazards that are reasonably likely to result in an injury because of a lifeline violation in an emergency situation. *Black Beauty*, 36 FMSHRC at 1125 (inaccessible lifelines contribute to injuries that are reasonably likely to result from hazards such as tripping or stumbling, an interruption of ventilation, miner panic and disorientation during an emergency, and excessive smoke filling a corridor as a result of an a fire inby). In the present case, should miners follow the lifeline into the secondary escapeway, and should the secondary escapeway fill with smoke, visibility may be completely compromised. Because the gap in the lifeline occurs within the secondary escapeway, miners will be unable to use the lifeline to navigate out of the secondary escapeway in conditions of reduced visibility, re-enter the primary escapeway and continue exiting the mine via the primary escapeway. Tr. 522; R. Ex. 11. Inspector Horseman testified that he personally experienced a situation where smoke within the mine was so thick that he could not see his hand in front of his face. Tr. 521. With such reduced visibility, locating a lifeline 160 feet away is a staggering and time-intensive obstacle to overcome. A miner with little to no visibility and no lifeline is likely to be disoriented or lost.

The Commission has discussed different ways a lifeline violation in an emergency situation was reasonably likely to result in injury. *Black Beauty*, 36 FMSHRC at 1125 (inaccessible lifelines contribute to injuries that may result from hazards such as tripping or stumbling, an interruption of ventilation, miner panic and disorientation during an emergency, and excessive smoke filling a corridor as a result of an a fire inby). Should ventilation fail in an emergency, miners may breathe toxic air or a buildup of carbon monoxide. Tr. 523. The miners carry portable ventilation self-rescuers that only last for forty-five minutes to an hour. Tr. 617. This time is reduced if the miners fumble or panic in an emergency. Tr. 523. In an emergency, time spent lost or disoriented due to a missing lifeline reduces precious air supply, may prevent miners from reaching the next self-rescuer supply cache, or may thwart them from escaping the mine entirely.

Respondent put on evidence that it has adequate safety protocols and training to ensure that miners will not panic in an emergency. Tr. 608-10. However, the Commission has reasoned that even experienced miners “panic and become disoriented in an emergency.” *Black Beauty*, 36 FMSHRC at 1124. I find it likely that panic will exacerbate the consequences of reduced visibility or limited ventilation.

I conclude that a miner who becomes lost, disoriented, or delayed in locating a missing portion of the lifeline in order to escape during a mine emergency is reasonably likely to suffer injury from smoke inhalation, carbon monoxide inhalation, or entrapment during the emergency. Accordingly, the third *Mathies* factor is satisfied.

d. There was a Reasonable Likelihood That the Injury in Question Will Be of a Reasonably Serious Nature

With regard to the fourth *Mathies* factor, any such injury from a delayed escape from the mine is reasonably likely to be of a serious nature. *Black Beauty*, 36 FMSHRC at 1125 (“The hazard of delayed or no escape at all due to an inaccessible lifeline in an emergency is reasonably likely to result in serious or fatal injuries”); *Cumberland*, 717 F.3d at 1029 (“[T]he lifeline violations at issue here would delay miners from escaping from an emergency and that such a delay would be reasonably likely to cause serious injuries or death”). The hazard of a delayed escape is supported by inspector Horseman’s testimony. He reasonably determined that limited air supply from the self-rescuers in a corridor filled with smoke and carbon monoxide, miner panic and disorientation during an emergency, and reduced visibility are reasonably likely to inhibit a timely escape from the mine. Tr. 523-24. I credit his testimony that the prolonged inhalation of smoke and carbon monoxide during such an escape from the mine is reasonably likely to be of a reasonably serious nature or fatal. *Id.* Accordingly, the Secretary has demonstrated a reasonable likelihood that any injury resulting from the hazard contributed by the violation would be serious or fatal.

3. Respondent’s Negligence is Raised from Moderate to High

I find that Respondent’s negligence should be raised from moderate to high. Respondent knew or should have known of the missing lifeline and there are no mitigating circumstances.

Initially, I note that escapeways must follow “the most direct, safe and practical route to the nearest mine opening suitable for the safe evacuation of miners.” 30 C.F.R. § 75.380(d)(5). The lifeline followed a circuitous route used by drivers to avoid a belt drive that was once installed in the main travelway. Tr. 610. However, at the time of the citation, the belt was no longer within the travelway. Tr. 610. Respondent’s failure to move the line to the primary travelway indicates that Respondent paid little to no attention to the path of the line after the belt drive was removed. Furthermore, Respondent failed to discover the condition of the lifeline for an undetermined length of time.

The violation before me presents more than a lifeline that was merely in poor condition. A portion of the primary escapeway did not have a lifeline because the lifeline took a detour into the secondary escapeway that was costly in both time and distance for a miner escaping on foot. Within that detour, 160 feet of lifeline was entirely absent. Schilke testified that he traveled the route daily and did not notice the condition. Tr. 615. Respondent’s inability to definitively explain why the line was missing or for how long the violation existed is not a mitigating circumstance, but instead, is further evidence of a cavalier lack of care towards a condition that is essential to the survival of miners in an emergency situation. Further, Respondent’s ignorance raises the concern that a similar section of the lifeline could go missing again without discovery. Finally, Respondent has not justified its failure to maintain an intact lifeline -- a failure that jeopardized the lives of thirty miners. I find that the Respondent should have known of the violative condition and corrected it immediately as a top priority. Accordingly, Respondent’s negligence is raised from moderate to high.

4. Civil Penalty

Applying the penalty assessment criteria set forth in section 110(i) of the Mine Act, I find that Respondent mined 7,528,061 tons of bituminous coal in 2012. The Secretary originally proposed a penalty of \$13,268 and the parties have stipulated that the total proposed penalty from all seven citations equaling \$39,500 will not affect Respondent’s ability to remain in business. MSHA recognized Respondent’s good-faith compliance in abating the citation. I have affirmed MSHA’s S&S determination. I have modified MSHA’s negligence determination from moderate to high for the reasons stated above. After consideration of the penalty assessment criteria set forth in section 110(i) of the Act, I assess a \$25,000 civil penalty against the Respondent for Citation No. 8452203. Respondent’s new total penalty from the combined citations is now \$32,636. Given that this is lower than the total amount which Respondent stipulated will not affect its ability to remain in business, I find that this increase in penalty is appropriate and justified for the gravity and severity of the violation and would not affect Respondent’s ability to remain in business.

VIII. ORDER

WHEREFORE, the joint motion for settlement presented at hearing is **GRANTED**.

It is **ORDERED** Citation No. 8445731 be **MODIFIED** to reduce the level of negligence from “moderate” to “low.”

It is **ORDERED** Citation No. 8445758 be **MODIFIED** to reduce the level of from “moderate” to low,” and

It is **ORDERED** Citation No. 8451650 be **MODIFIED** to reduce the number of persons affected from “twelve” to “six.”

It is further **ORDERED** that Citation No. 8451651 be **MODIFIED** to reduce the level of negligence from high to moderate.

It is **ORDERED** that Citation No. 8439446 be **AFFIRMED**, as written.

It is **ORDERED** that Citation No. 8432319 be **AFFIRMED**, as written.

It is **ORDERED** that Citation No. 8439454 is **AFFIRMED**, as written.

It is **ORDERED** that Citation No. 8452203 be **MODIFIED** to raise the level of negligence from moderate to high.

It is further **ORDERED** that the operator pay a total penalty of \$43,280³¹ within thirty days of this decision.³²

Thomas P. McCarthy

Thomas P. McCarthy
Administrative Law Judge

Distribution:

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³¹ As noted herein, I assess a penalty of \$5,081 for Citation No. 5481651, \$1,412 for Citation No. 8439446, \$117 for Citation No. 8432319, \$1,026 for Citation No. 8439454, and \$25,000 for Citation No. 8452203.

³² Payment should be sent to: Mine Safety & Health Administration, U.S. Department of Labor, Payment Office, P.O. Box 790390, St. Louis, MO 63179-0390.

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