

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

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WASHINGTON, D.C. 20004-1710

May 28, 2014

SECRETARY OF LABOR, :
MINE SAFETY AND HEALTH :
ADMINISTRATION (MSHA) :
 :
v. : Docket Nos. VA 2010-81-R, et al.¹
 :
KNOX CREEK COAL CORPORATION :

BEFORE: Jordan, Chairman; Young, Cohen, Nakamura, and Althen, Commissioners

DECISION

BY: Jordan, Chairman; Nakamura, and Althen, Commissioners

This proceeding arises under the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 801 et seq. (2012) (“Mine Act” or “Act”). The Administrative Law Judge concluded that five citations issued by the U.S. Department of Labor’s Mine Safety and Health Administration (“MSHA”) to Knox Creek Coal Corporation were not significant and substantial (“S&S”).² Slip op. at 61-64, 79-82, 97-98, No. VA 2010-81-R (Dec. 27, 2010) (ALJ) (“*ALJ Dec.*”).³ The Commission granted the Secretary of Labor’s petition for discretionary review challenging the Judge’s decision. For the reasons that follow, we vacate in part the Judge’s decision, conclude that four of the five violations were S&S, and remand for further consideration consistent with our decision.

¹ The relevant docket numbers involved in this proceeding are listed in an appendix attached to this decision.

² Section 104(d)(1) of the Act authorizes the Secretary to make a special finding if a violation “is of such nature as could significantly and substantially contribute to the cause and effect of a coal or other mine safety or health hazard.” 30 U.S.C. § 814(d)(1).

³ The Judge’s decision was not published in the Commission’s Blue Books, its official reporter. However, the Judge’s decision can be found on the Commission’s website (www.fmsshrc.gov). All citations to the Judge’s decision are to the slip opinion.

I.

Facts and Proceedings Below

Knox Creek's Tiller No. 1 Mine, an underground bituminous coal mine located in Tazewell County, Virginia, liberates in excess of 900,000 cubic feet per hour of methane in a 24-hour period and is subject to section 103(i)⁴ spot inspections every 10 days. *ALJ Dec.* at 4, 51. In January 2009, the mine had a face ignition. *Jt. Ex. 1, Stip. 21; G. Ex. 132; Tr. 1332.* This resulted in a change in the mine's ventilation plan. *ALJ Dec.* at 60; *Tr. 1448.* However, as the Judge noted, MSHA was still concerned about elevated methane readings at the face and the potential for ignitions, given the gassy nature of the mine. *ALJ Dec.* at 60.

At issue in this proceeding are five violations which the Judge found were not significant and substantial ("S&S"). *ALJ Dec.* at 61-64, 79-82, 97-98. The citations for these violations were issued between October 30 and November 20, 2009. *Id.* at 50, 80, 95. On December 27, 2010, the Judge issued his written decision, which the Secretary appealed. Below, these consolidated proceedings involved 37 dockets concerning 35 violations and their associated penalties, of which only five citations are currently under consideration by the Commission on appeal.⁵

II.

Disposition

The fundamental issue on appeal is whether the Judge erred in determining that the five violations in question were not S&S. As explained below, three of the violations (Citation Nos. 8170363, 8170375 and 8169155) involve the Secretary's standard requiring that certain equipment be "permissible." Another violation (Citation No. 8169156) involves the standard governing the safety of power cables, and the remaining violation (Citation No. 8170394) involves the accumulation of combustible materials on a conveyor belt. In section A below, we discuss the relevant facts and legal principles pertaining to the three permissibility violations. In section B, we address the facts and legal principles pertaining to the power cable violation, and in section C, we do the same for the accumulations violation.

⁴ Section 103(i) of the Act provides in pertinent part that a coal or other mine liberating in excess of one million cubic feet of methane or other explosive gases during a 24 hour period is subject to a minimum of one spot inspection every five working days, and a mine that liberates in excess of five hundred thousand cubic feet of methane or explosive gases during a 24 hour period is subject to a spot inspection every 10 working days at irregular intervals. 30 U.S.C. § 813(i).

⁵ The remaining citations and their penalties generally settled, were not appealed or were denied review. Knox Creek's petition for review of seven of the citations (Nos. 8170360, 8170391, 8170398, 8169126, 8169147, 8170374 and 8169146) was denied by the Commission on February 4, 2011.

Applying Commission case law setting forth the test for determining whether a violation is S&S, we conclude that each of the three permissibility violations and the accumulations violation were properly designated as S&S by the Secretary. Accordingly, we reverse the Judge's decision as to the S&S nature of these violations and remand the case for the reassessment of penalties. As to the power cable violation, we affirm the Judge's determination that this violation is not S&S.

The S&S terminology is taken from section 104(d)(1) of the Mine Act, 30 U.S.C. § 814(d)(1), and refers to more serious violations. 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. See *Cement Div., Nat'l Gypsum Co.*, 3 FMSHRC 822, 825 (Apr. 1981). In *Mathies Coal Co.*, 6 FMSHRC 1 (Jan. 1984), the Commission further explained:

In order to establish that a violation of a mandatory safety standard is significant and substantial under *National Gypsum*, the Secretary of Labor 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 (footnote omitted); accord *Buck Creek Coal, Inc. v. MSHA*, 52 F.3d 133, 135 (7th Cir. 1995); *Austin Power, Inc. v. Secretary of Labor*, 861 F.2d 99, 103 (5th Cir. 1988) (approving *Mathies* criteria). It is the contribution of the violation to the cause and effect of a hazard that must be significant and substantial. *U.S. Steel Mining Co.*, 6 FMSHRC 1834, 1836 (Aug. 1984). An evaluation of the reasonable likelihood of injury should be made assuming continued normal mining operations. See *U.S. Steel Mining Co.*, 7 FMSHRC 1125, 1130 (Aug. 1985).

A. Permissibility Violations

The first three violations involve 30 C.F.R. § 75.503,⁶ the standard requiring all face⁷ equipment to be maintained in permissible condition. “Permissible” means “all electrically operated equipment taken into or used in by the last open crosscut of an entry . . . are designed,

⁶ Section 75.503 provides that “[t]he operator of each coal mine shall maintain in permissible condition all electric face equipment required by §§ 75.500, 75.501, 75.504 to be permissible which is taken into or used in by the last open crosscut of any such mine.” 30 C.F.R. § 75.503.

⁷ A “working face” is “any place in a coal mine in which work of extracting coal from its natural deposit in the earth is performed during the mining cycle. . . .” 30 U.S.C. § 878(g)(1); 30 C.F.R. § 75.2. See also *Dictionary of Mining, Mineral, and Related Terms* 407 (1968) (defining “face” as “[t]he solid surface of the unbroken portion of the coalbed at the advancing end of the working place”).

constructed, and installed, in accordance with the specifications of the Secretary, to assure that such equipment will not cause a mine explosion or mine fire, and . . . to prevent, to the greatest extent possible, other accidents in the use of such equipment.” 30 C.F.R. § 75.2.

The permissibility requirements are designed to ensure that ignitions occurring within enclosures on mining equipment which contain electrical circuits will not escape into the mine atmosphere. Specifically, the requirements are intended to prevent the ignition of an explosive air-methane mixture surrounding mine equipment. An ignition inside the enclosure will generate hot gases. When the equipment is permissible, these gases will escape through a flame-arresting path built into the enclosure and will cool as they pass through. Consequently, the gas escaping into the surrounding atmosphere will not ignite any external explosive air. G. Ex. 4 at 4.

On October 30, 2009, MSHA Inspector Jason Hess issued Citation No. 8170363, alleging an S&S violation on the continuous mining machine located on the 005 MMU for an opening in excess of .004 inches in the trailing cable junction box.⁸ G. Ex. 75; *ALJ Dec.* at 54-55.

On November 4, 2009, Inspector Hess issued Citation No. 8170375, alleging an S&S violation on the 005 MMU continuous miner because it had an opening exceeding .004 inches in the conveyor motor cover. G. Ex. 78; *ALJ Dec.* at 56.

On November 20, 2009, MSHA Inspector Michael Colley issued Citation No. 8169155, alleging an S&S violation on the continuous mining machine located on the 003 MMU due to an opening in excess of .004 inches in the plane flange joint of the lead junction box. G. Ex. 71; *ALJ Dec.* at 53-54.

The Judge concluded that each of the three permissibility violations was not S&S. *ALJ Dec.* at 61-64. He rejected the Secretary’s argument that there should be an assumption of the occurrence of an explosion within the enclosure housing the electrical components on the equipment when considering the S&S designation of permissibility violations. *Id.* at 57-59. Applying *Mathies*, he held that for each of the three permissibility violations, the Secretary had proved the first, second, and fourth elements, i.e., Knox Creek committed a violation of a mandatory safety standard, the violation contributed to a safety hazard, and the resulting injury would be of a reasonably serious nature. *Id.* at 59.

As to the third *Mathies* element, the Judge found that, given the gassy nature of the mine, sudden methane buildups in the explosive range could reasonably be expected to occur. However, he concluded that the Secretary had failed to establish the reasonable likelihood of an ignition inside of the enclosures. *Id.* at 61-64. He found that the Secretary had failed to produce any evidence concerning the frequency with which the electrical malfunctions of the equipment

⁸ In the citations, the MSHA inspectors referenced 30 C.F.R. § 18.31, which sets forth the requirements for explosion-proof enclosures on electric motor-driven mine equipment. G. Exs. 71, 75, 78. Section 18.31 bases the enclosure requirements on the internal volumes of the empty enclosure. 30 C.F.R. § 18.31(a)(6). Enclosures with more than 124 cubic inches of internal volume, with the joint all in one plane, must have a maximum clearance of .004 inches. *Id.*

causing sparking or arcing described by the inspectors occurred. *Id.* He therefore concluded that the Secretary had failed to prove that there was a reasonable likelihood that the hazard would result in an injury to miners. *Id.*⁹

On appeal, the Secretary maintains that the Judge erred by failing to assume the occurrence of an explosion inside the enclosures housing the electrical components on the cited equipment. We agree with the Secretary that the Judge erred in finding that these three permissibility violations were not S&S. We arrive at our conclusion that the violations were S&S based on the correct application of *Mathies* and relevant Commission precedent.

The Judge erred by limiting his consideration of the violative conditions as they existed at the time of the inspection, taking a “snapshot” approach to the issue of an arc or spark within the subject enclosures. The Commission has clearly held that the Judges must consider the violative conditions as they existed both prior to and at the time of the violation and as they would have existed had normal mining operations continued. *Youghiogeny & Ohio Coal Co.*, 9 FMSHRC 673, 677-78 (Apr. 1987); *U.S. Steel*, 7 FMSHRC at 1130; *U.S. Steel Mining Co.*, 6 FMSHRC 1573, 1574 (July 1984) (rejecting the mine operator’s argument that a significant and substantial violation should be determined based solely on the condition as it exists at the precise moment of inspection); *Black Beauty Coal Co.*, 34 FMSHRC 1733, 1740 (Aug. 2012); *Bellefonte Lime Co., Inc.*, 20 FMSHRC 1250, 1255 (Nov. 1998) (holding that judge failed to consider whether there was reasonable likelihood of injury during the “operative time frame . . . [of when the] violative condition existed prior to the citation”). Here, the impermissible equipment that was cited was expected to be put into service in its violative condition on the next shift. *ALJ Dec.* at 53-56. The Judge should have considered the inspectors’ and expert witness’ extensive testimony addressing the conditions expected to result from continued mining.

Additionally, the Judge’s focus upon the absence of quantitative proof of the frequency of malfunctions within the enclosures is contrary to uncontradicted testimony regarding the likelihood of such malfunction, and thus, to the *Mathies* test. See *Amax Coal Co.*, 19 FMSHRC 846, 848-49 (May 1997) (declining to impose a “more probable than not” standard when considering the third *Mathies* element), citing *U.S. Steel Mining Co.*, 18 FMSHRC 862, 865 (June 1996). By requiring the Secretary to prove essentially a statistical frequency of a spark occurring inside the compartments housing the electrical connections on the face equipment, the Judge imposed on the Secretary an unwarranted standard beyond reasonable likelihood.

⁹ The Judge found other facts supportive of a reasonable likelihood of a methane ignition in the mine, including that the .001 inch excess gap would permit ignited methane to enter the mine’s atmosphere. He found: “[E]ach violation contributed to a safety hazard in that the testimony overwhelmingly establishes the cited openings could have allowed methane to enter the subject compartment[s], an electrical malfunction in [the] compartment[s] could [have] ignite[ed] the methane[, t]he flame[s] could [have traveled] out of the compartment[s] into the atmosphere surrounding the cited equipment, and if the methane concentration outside the equipment were in the explosive range of 5 [%] to 15 [%], the result could [have been] an [ignition] and [perhaps] explosion, causing serious burn injuries to [the] equipment operators and to those operating equipment immediately behind[.]” *ALJ Dec.* at 59.

The Commission has expressly rejected a similar argument. See *Musser Engineering Inc. and PBS Coals, Inc.*, 32 FMSHRC 1257, 1281 (Oct. 2010) (in supporting an S&S designation, Secretary not required to produce evidence that, at other mines, reliance on mine maps that were not final had resulted in breakthroughs and injuries). Similarly, in this case, the Secretary was not required to produce quantitative evidence of the frequency of malfunctions within these types of enclosures in order to establish that arcing or sparking was reasonably likely.

Applying the correct standard under *Mathies* and considering the specific facts and circumstances of this case, we conclude that the Judge erred in finding that the Secretary did not prove an ignition was reasonably likely to occur.¹⁰ *ALJ Dec.* at 64. We instead conclude that the evidence compels the conclusion that the permissibility violations could have contributed significantly and substantially to the cause and effect of a methane ignition or explosion at the Tiller Mine. See *American Mine Servs., Inc.*, 15 FMSHRC 1830, 1834 (Sept. 1993) (remand not necessary when record supports no other conclusion).

As a threshold matter, when evaluating evidence to determine whether permissibility violations are S&S, the Commission has considered the particular circumstances present in the mine. In cases involving violations which may contribute to the hazard of methane explosions or ignitions, the Commission has held that the likelihood of an injury resulting from the hazard depends on whether a “confluence of factors” exists that could trigger an explosion or ignition. *Texasgulf, Inc.*, 10 FMSHRC 498, 501 (Apr. 1988).¹¹ Some of the factors to be considered include the presence of methane, possible ignition sources, and the types of equipment operating in the area. See *Utah Power & Light Co., Mining Div.*, 12 FMSHRC 965, 970-71 (May 1990); *Texasgulf*, 10 FMSHRC at 501-503. Consideration of the particular circumstances in the mine is an acknowledgement of the complex nature of permissibility violations, which may pose a serious

¹⁰ When reviewing an administrative law judge’s factual determinations, the Commission is bound by the terms of the Mine Act to apply the substantial evidence test. 30 U.S.C. § 823(d)(2)(A)(ii)(I). “Substantial evidence” means “such relevant evidence as a reasonable mind might accept as adequate to support [the Judge’s] conclusion.” *Rochester & Pittsburgh Coal Co.*, 11 FMSHRC 2159, 2163 (Nov. 1989) (quoting *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938)). In reviewing the whole record, an appellate tribunal must consider anything in the record that “fairly detracts” from the weight of the evidence that supports a challenged finding. *Midwest Material Co.*, 19 FMSHRC 30, 34 n.5 (Jan. 1997) (quoting *Universal Camera Corp. v. NLRB*, 340 U.S. 474, 488 (1951)).

¹¹ The factual circumstances in the instant case are readily distinguishable from those in *Texasgulf*. The mine in *Texasgulf* contained only miniscule amounts of methane and had never had a methane ignition or explosion. 10 FMSHRC at 501. By contrast, as discussed above, the record in this case establishes that the Tiller Mine was subject to section 103(i) spot inspections because of its excessive liberation of methane and that a face ignition had recently occurred. Tr. 1239, 1242, 1320.

risk of a mine ignition or explosion during normal operations in the presence of certain conditions.¹²

MSHA witnesses testified to a “confluence of factors” that could trigger an ignition. In particular, the inspectors and expert witness testified that under normal wear and tear, the subject equipment would tend to break down or malfunction, thereby providing an ignition source. *ALJ Dec.* at 53-56, 61-64; Tr. 1270-72, 1287-88, 1323-24. They also testified that because of the impermissible gaps around the enclosures, methane could enter the enclosures. Should the equipment malfunction, resulting in a spark, the gap could permit the ignition to reach the mine atmosphere. *ALJ Dec.* at 53-56, 61-64; Tr. 1287-88, 1321. Significantly, the inspectors testified that this mine was known to liberate excess methane, i.e., it was subject to section 103(i) spot inspections, and that it had a history of face ignitions. Tr. 1239, 1242, 1271-72, 1288, 1320. Thus, an ignition within the enclosure could escape to the mine atmosphere and contribute to a greater explosion, resulting in serious injury and potential fatalities. Tr. 1288-90, 1326-27.

Kenneth Porter, MSHA’s chief electrician and expert witness, submitted an expert report in which he explained that although there is normally no active arcing or sparking in the enclosures for the three pieces of equipment at issue, vibration could loosen electrical connections, leading to arcing or sparking or increased heat. G. Ex. 4 at 4-8. He explained that the insulation on conductors can be damaged by rubbing against other insulation or against the case of the enclosure, creating an increased likelihood of an arc or spark within the enclosure. *Id.* at 5. Also, water can enter the enclosure, causing degradation. *Id.* at 5-6. Porter explained that during continued mining operations, conveyor motors for the continuous miner machines were especially subject to failure because of vibration, shock, water, and loading. *Id.* at 8. He also testified that typical failures create the likelihood of an arc or spark. *Id.* at 5-6.

Turning to Citation No. 8170363 – an opening in excess of .004” in the trailing cable junction box on the continuous miner on the 005 MMU – Inspector Hess testified that the leads were bolted together in such a way that those connections could become loose, resulting in increased current draw heating the wiring, melting insulation, and allowing a short circuit and spark or arc to ignite methane. *Id.* at 55; Tr. 1287-88. In addition to the evidence of face

¹² Congress recognized the inherent dangers of mining and in particular the potentially catastrophic consequences of such violations when, after much debate, it extended the permissibility requirements of electrical equipment to both gassy and non-gassy underground coal mines. S. Rep. No. 91-411, at 25-35 (1969), *reprinted in* Senate Subcomm. on Labor, Comm. on Labor and Public Welfare, Part I *Legislative History of the Federal Coal Mine Health and Safety Act of 1969*, at 151-61 (1975); H. Conf. Rep. No. 91-761, at 83 (1969), *reprinted in Legis. Hist.* at 1527. Congress acknowledged the need for these permissibility requirements for electrical equipment to control face ignitions and explosions by “preventing the emission of a spark or arc which could cause a mine fire or explosion.” S. Rep. No. 91-411, at 68-69 (1969), *reprinted in Legis. Hist.* at 194-95; *see also Sewell Coal Co.*, 3 FMSHRC 1402, 1405-06 (June 1981) (discussing legislative history of permissibility provisions of the Mine Act). Sections 305 and 318(i), 30 U.S.C. § 865 and 878(i), which address permissibility requirements for electrical equipment, remain unchanged from the 1969 Coal Act to the present time.

ignitions, the inspector testified that in the past, methane readings in the explosive range had been detected at the face. *ALJ Dec.* at 55; Tr. 1290-91.

With regard to Citation No. 8170375 – an opening in excess of .004” in the conveyor motor cover on the continuous miner on the 005 MMU – Inspector Hess testified that the equipment was used in the prior shift, and was to be used on the next shift. *ALJ Dec.* at 56; Tr. 1318-19. The inspector also testified that the motor cover was within ten feet of the face where methane is liberated during the mining process and also close to the mine floor, which also liberates methane. Tr. 1319-20, 1327. He explained that methane liberated from the mine floor could enter the motor compartment at an explosive level before traveling to the other side of the machine and being detected by the methane monitor. *ALJ Dec.* at 56; Tr. 1327-28. Inspector Hess further testified that although he did not open the conveyor motor cover, a photograph taken by Knox Creek after the MSHA inspection showed wear and an absence of insulation on one of the connection points where a power lead connects to the machine. *ALJ Dec.* at 56; Tr. 1321-24; G. Ex. 80. Hess testified that the wearing could lead to arcing within the motor during normal continuous mining operations. Tr. 1324.

Regarding Citation No. 8169155 – an opening in excess of .004” in the plane flange joint of the lead junction box on the continuous mining machine on the 003 MMU – the evidence indicates that, while the equipment was not in use at the time of the inspection because it was a maintenance shift, it was used on the prior shift, and the operator planned to use it on the next shift, which was a production shift. *ALJ Dec.* at 54; Tr. 1263-64. Inspector Colley testified that rust and corrosion showed that there was moisture inside the box. Tr. 1269-70. He said this is highly dangerous around electrical connections because it could wear away the protective tape covering the cables and lead to a spark or arcing, triggering an explosion. Tr. 1269-72. The inspector also testified that the electrical connections could come loose due to the moisture, causing a similar problem. Tr. 1272.

As is relevant with each of the permissibility violations, the mine was subject to section 103(i) spot inspections due to excessive liberation of methane, and the record establishes that this mine previously experienced face ignitions. *ALJ Dec.* at 60; Tr. 1239, 1242, 1271-72, 1288, 1290-91, 1320. Significantly, for each violation, the Judge concluded that the Secretary had proved that an accumulation of methane in the explosive range was reasonably likely and that the gap would permit an ignition within the equipment to enter the mine atmosphere. *ALJ Dec.* at 61-63.¹³

Knox Creek’s witnesses testified that the wires at issue (located inside of the equipment) were covered with tape and/or sleeves and adequately insulated (*id.* at 54-56; Tr. 1457-59, 1473, 1476-77, 1494), and as the inspectors admitted at trial, at the time of the inspection, no defects or elevated methane levels were found (Tr. 1274-75, 1278, 1299, 1304). However, Knox Creek did not refute the Secretary’s witnesses’ testimony regarding the potential dangers posed by the violative conditions. Moreover, the Judge specifically discounted the prophylactic effect of the O

¹³ As the Judge explained in his decision, the explosive range of methane is 5 – 15%. *ALJ Dec.* at 59.

rings relied on to secure the enclosures, stating that even if the rings were in perfect condition, he could not find that they would have prevented methane from entering the enclosures or prevented flames from escaping. *ALJ Dec.* at 59. The Judge credited the testimony of MSHA's expert Kenneth Porter that the rings were designed to keep out moisture, not gas and flames, and that the rings would deteriorate over time. *Id.*; Tr. 1340-42, 1361.

In prior cases, the Commission has upheld S&S determinations for permissibility violations in analogous circumstances. For example, in *U.S. Steel Mining Co., Inc.*, 6 FMSHRC 1866 (Aug. 1984), the Commission upheld an S&S finding for a permissibility violation involving headlights, even though at the time of the violation there appeared to be adequate ventilation in the mine, and mining was not taking place at the precise moment the citation was issued. *Id.* at 1869. The mine at issue was classified as gassy and had a history of methane ignitions. The Commission held that substantial evidence supported the judge's conclusion that sparking occurs within the equipment. This was based on the testimony of the inspector, who stated that although sparking with headlights is not "normal," it is "frequent" and can be caused by a number of factors. *Id.* at 1868.

Similarly, in *U.S. Steel Mining Co., Inc.*, 8 FMSHRC 1284 (Sept. 1986), the Commission affirmed the judge's S&S findings regarding a permissibility violation involving electric face equipment. The inspector had observed a bolt missing on the cover plate of the control compartment of a shuttle car. The control plate was designed to keep an ignition confined and the missing bolt could permit methane to enter the control compartment, causing an ignition. *Id.* at 1289-90. This mine liberated more than one million cubic feet of methane in a twenty-four hour period, and there had been a methane ignition there in the year preceding the hearing. The Commission concluded that this was sufficient to uphold the S&S designation.

We must assume, in the absence of contrary evidence, that these three pieces of equipment would be used in coal production during the continuation of normal mining operations beginning on the next shift. We conclude that the operator's evidence does not rebut the Secretary's showing that deteriorating conditions were reasonably likely to create an ignition hazard in a gassy mine. As stated by Kenneth Porter in his report, the whole purpose of the permissibility requirements is to ensure that all electrical circuits which are in by the last open crosscut of an underground coal mine shall be maintained in enclosures which are "explosion-proof." G. Ex. 4 at 2. The record as a whole compels the conclusion that these permissibility violations significantly and substantially contributed to the hazard of a methane ignition or explosion, which would reasonably likely result in serious injury to miners.¹⁴ Accordingly, we reverse the Judge's S&S findings.

¹⁴ Substantial evidence supports the Judge's other S&S findings as to these permissibility violations. The parties stipulated to the violations (*ALJ Dec.* at 56; Jt. Ex. 1, Stip. 16), and the Judge specifically found that an ignition or explosion within the housing compartments could result in a serious burn to the equipment operators or to those operating equipment immediately behind. *ALJ Dec.* at 59; see *Black Diamond Coal Mining Co.*, 7 FMSHRC 1117, 1120 (Aug. 1985) (recognizing that "ignitions and explosions are major causes of death and injury to miners"). The parties did not dispute these facts below or the Judge's findings on appeal.

B. Trailing Cable Violation (30 C.F.R. § 75.517)

On November 20, 2009, Inspector Colley issued Citation No. 8169156, alleging an S&S violation of 30 C.F.R. § 75.517,¹⁵ which requires that power wires and cables be adequately insulated and fully protected. The citation alleged that the trailing cable of a continuous mining machine had a one-half inch opening in the cable, exposing the insulated power conductors. *ALJ Dec.* at 79-80; G. Ex. 97. The conductors were covered by shielding and the opening was located ten feet from the machine. The citation also states that the mine floor in this section where the continuous miner was located was wet and that the cable was handled by miners during the course of each shift. *ALJ Dec.* at 79-80; G. Ex. 97.

The Judge found that the Secretary established the first, second, and fourth *Mathies* elements. However, he found that the violation was not S&S because the evidence did not support the conclusion that miners were exposed to the hazard before the inspection or that there was a reasonable likelihood that miners would be exposed to an injury-causing hazardous event when mining resumed. With respect to the third *Mathies* element, the Judge found no miners were exposed to the hazard and miners would not have been reasonably likely to be exposed to a shock hazard because, as a result of ongoing repair work, the opening in the cable would have been found and repaired before the equipment was put back into service. *Id.* at 81.

We conclude that substantial evidence supports the Judge's conclusion that there was not a reasonable likelihood that the condition of the cable would have caused a shock hazard to a miner under the specific circumstances of this case.¹⁶ Two witnesses testified with respect to this citation – Inspector Colley and Mark White, Knox Creek's maintenance foreman. Inspector Colley testified that the machine was being repaired. Tr. 1712, 1717. He further testified that the conductors within the cable were shielded and that he did not find any defects in the shielding. Tr. 1708-09, 1722-23. He conceded that the shielding would have insulated the cable during the course of the repairs unless an accident occurred. Tr. 1724. In addition to acknowledging the machine was undergoing repairs, Inspector Colley testified that such repairs would be completed in accord with a Knox Creek action plan (Tr. 1719-20) and acknowledged that the cut was obvious

¹⁵ Section 75.517 states that “power wires and cables, except trolley wires, trolley feeder wires, and bare signal wires, shall be insulated adequately and fully protected.” 30 C.F.R. § 75.517.

¹⁶ The parties dispute whether the equipment was energized, thereby potentially exposing miners to the hazard. The Secretary relies on the inspector's testimony that, when he first observed the continuous mining machine, it was energized while miners were *working on it* (“putting power in, taking power out, and repositioning the machine to make repairs to the part”). S. Reply Br. at 14-15 (citing Tr. 1171). Knox Creek's maintenance foreman Mark White testified that although the machine was energized, it was only energized as a courtesy for the inspector. *ALJ Dec.* at 80; Tr. 1923-24. The Judge's finding that no miners were exposed or would have been exposed to the hazard is consistent with White's testimony.

and easy to find. Tr. 1717. He did not present any testimony that the cut existed in the cable while the machine was in use for mining.

Mark White, the Knox Creek maintenance foreman, testified that the machine had been down for repairs for the two prior days and that the interior conductors were properly insulated. White testified that the machine was locked out. Tr. 1453, 1925, 1931. He also provided details regarding the repair action plan acknowledged by Inspector Colley but about which the inspector did not provide detailed information. White testified that the machine would have been inspected with the power off prior to being put back into service. This inspection would include running a hand down the entire length of the cable to look for gashes or cuts. Tr. 1927-28. He testified that the cut was obvious, and that the cut would have been found and fixed during that part of the action plan repair process.

Based upon this evidence, the Judge found that the machine had been unused with its power off for two days before the citation was issued. Therefore, there was no way of knowing whether the opening in the cable occurred before the cable was last moved. *ALJ Dec.* at 81. The Judge further found that both the inspector and operator witness testified that before the machine would have been returned to service, the cable would have been inspected according to the Knox Creek action plan. Thus, the Judge found that because the machine was being repaired at the time of the inspection according to that action plan, the obvious cut would have been noticed and corrected before the machine was returned to service. According to the Judge, the opening would have been found and repaired so that no miner would have been exposed to the cut when mining continued. *Id.*

Our finding that substantial evidence supports the Judge with respect to this violation contrasts with our resolution of the citation for accumulation of combustible materials discussed immediately below. The trailing cable violation involved circumstances where the machine was shut down and was already undergoing active repairs. Unlike the cases cited in the dissent, remedial efforts were already underway when the inspector arrived. We also disagree with our dissenting colleagues that a cut that went halfway around the circumference of the cable, and in a part of the cable that was, in their words “handled frequently by miners,” would nevertheless not be repaired during the ongoing repairs and that the cable would be permitted to deteriorate over time.¹⁷ Slip op. at 16. Substantial evidence supports the Judge’s implicit finding that the only possibility through which miners could have been exposed to a hazard from the cut in the cable was if a mine repairman were willfully grossly neglectful in completing repairs under an action plan that was underway. The possibility of such willful gross neglect in ongoing repairs does not provide grounds to overturn the Judge’s finding that that the Secretary did not carry his burden of proof.

Accordingly, we affirm the Judge’s conclusion that Citation No. 8169156 is not S&S.

¹⁷ The dissent candidly concedes away its position by acknowledging that it would not find S&S if the repairmen had made a written notation of the cut before the inspection occurred. Slip op. at 16. We do not find S&S to turn upon whether repairmen note every item needing repair before beginning repairs under a specific and orderly plan.

C. Accumulation Violation (30 C.F.R. § 75.400)

On November 9, 2009, Inspector Hess issued Citation No. 8170394, alleging an S&S violation of 30 C.F.R. § 75.400,¹⁸ due to accumulations of combustible material on the 1A conveyor belt. *ALJ Dec.* at 95-96; G. Ex. 114. The belt was turning in the accumulations, which were dry. *Id.*; Tr. 2000-034, 2007. Although a pre-shift report indicated that the belt needed cleaning, when the inspection took place at the start of the next oncoming production shift, no cleaning had begun. *ALJ Dec.* at 96; G. Ex. 114.

The citation states that accumulations of combustible material consisting of coal fines, float coal dust, and coal were present on and around the 1A conveyor belt. The citation specifically charged that: (1) accumulations were four inches to eight inches deep for the width of the belt at the secondary scraper where the belt was running against the accumulations; (2) accumulations were in two piles, 10 inches and 12 inches deep under the belt's rollers, where the rollers and belt were turning in the accumulations; (3) accumulations were up to 12 inches deep and were stacked on the frame and metal braces of the belt structure; (4) accumulations were four inches to six inches deep and extended the width of the belt under the take up roller where the belt was turning in the accumulations; and (5) other parts of the metal frame and the belt drive were covered with float coal dust. *ALJ Dec.* at 95-96; G. Ex. 114.

The parties stipulated to the violation. *ALJ Dec.* at 97. The Judge found that the Secretary had established the first, second, and fourth *Mathies* elements. As to the second element, the Judge found that the violation contributed to the hazard of a potential explosion – the belt rollers were turning in accumulations and the friction points were potential ignition sources. *Id.* As to the fourth element, the Judge found that if an ignition occurred, two miners working downwind would have suffered from smoke inhalation and possible asphyxiation. *Id.* However, the Judge found that the violation was not S&S because there had been no coal production, and thus no ignition sources, on November 7 and 8, the two days prior to the inspection. *Id.* at 98. At the time of the inspection, the accumulations had been reported in the pre-shift report and miners were on their way to clean them up. The Judge reasoned that as mining continued, the accumulations would have been cleaned up very shortly. *Id.*

Considering the evidence based on the continuation of normal mining conditions, we conclude that substantial evidence does not support the Judge's conclusion that the Secretary failed to establish the third *Mathies* element. The Judge credited the inspector's testimony as to the conditions of the accumulations. *ALJ Dec.* at 97. At the time of the inspection, the belt was on, and coal was turning in the rollers. The Judge found that these friction points were potential ignition sources. *Id.* at 97-98. The inspector testified that the accumulations were significant and that it took three miners 40 to 45 minutes to clean up the accumulations. *Id.* at 96.

¹⁸ Section 75.400 provides: "Coal dust, including float coal dust deposited on rock-dusted surfaces, loose coal, and other combustible materials, shall be cleaned up and not be permitted to accumulate in active workings, or on diesel-powered and electric equipment therein." 30 C.F.R. § 75.400.

We agree with the Secretary that the Judge erred in assuming that the accumulations would have been abated when determining whether the violation was S&S.¹⁹ The Commission has emphasized that the proper approach is to assume the continuation of normal mining conditions. *U.S. Steel*, 6 FMSHRC at 1574; *U.S. Steel*, 7 FMSHRC at 1130. While the Judge accepted the operator's argument that abatement had begun because miners had been assigned to clean the accumulations, there were no miners actually working to remove the accumulations when the inspector noted the violation. There was no order directing that production not resume until the accumulations were resolved and no evidence that miners had made any efforts to abate the violation during the preceding maintenance shift.

Knox Creek's argument that the violation was not S&S because a cleanup was underway therefore has no merit.²⁰ Knox Creek contends that at the start of the oncoming production shift, when the citation was issued, miners were assigned to clean the accumulations and were in fact on their way when the inspector issued the citation. The Commission has expressly rejected the argument that "accumulations of combustible materials may be tolerated for a 'reasonable time.'" *Old Ben Coal Co.*, 1 FMSHRC 1954, 1957-58 (Dec. 1979); see also *Utah Power & Light Co.*, 12 FMSHRC 965, 968 (May 1990) (section 75.400 "was directed at preventing accumulations in the first instance, not at cleaning up the materials within a reasonable period of time after they have accumulated") (citations omitted), *aff'd*, 951 F.2d 292 (10th Cir. 1991); *Black Beauty Coal Co. v. FMSHRC*, 703 F.3d 553, 558-59 (D.C. Cir. 2012).

The Judge thus erred in concluding that the condition was being actively abated. See *U.S. Steel Mining Co.*, 6 FMSHRC 1834, 1838 n.4 (Aug. 1984) ("relying on [the] skill and attentiveness of miners to prevent injury 'ignores the inherent vagaries of human behavior'"). Similarly, we cannot assume that miners assigned to a task would have completed the clean-up prior to production resuming, without the presence of the inspector to ensure that the abatement was timely and satisfactorily completed.

The Judge found that miners working in the shop area downwind from the accumulations would have been affected if a belt fire resulted, suffering from serious smoke inhalation or even death by asphyxiation. *ALJ Dec.* at 97. Accordingly, substantial evidence supports the

¹⁹ The Judge also erred in failing to account for the entire relevant period in his S&S analysis. While the judge found that there was no coal production on November 7 or 8, the fact is that the accumulations must have occurred during production. If rollers were turning in coal on November 9 despite no production for two days, that simply means that at some point on a production shift prior to November 7, the coal accumulations reached the dangerous condition Inspector Hess found during his inspection. See *Bellefonte Lime Co.*, 20 FMSHRC 1250, 1255 (Nov. 1998) (error in failure to consider existence of violation prior to issuance of citation). Because we reverse on other grounds, we do not need to remand for consideration of this time period by the Judge.


²⁰ This fact would have been relevant if MSHA had alleged an "unwarrantable failure" to comply with mandatory health or safety standards under section 104(d)(1) of the Mine Act, because it relates to the operator's negligence.


conclusion that the hazard of a mine fire would be reasonably likely to result in serious injury in this case. Based on the foregoing, we conclude that the record compels the conclusion that this violation was S&S. *See American Mine Servs.*, 15 FMSHRC at 1834.

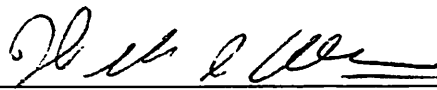
III.

Conclusion

For the foregoing reasons, we reverse and vacate the Judge's decision that Citation Nos. 8169155, 8170363, 8170375, and 8170394 did not involve S&S violations, and remand for reassessment of the penalties. As to Citation No. 8169156, we affirm the Judge's decision that the violation is not S&S.


Mary Lu Jordan, Chairman


Patrick K. Nakamura, Commissioner


William I. Althen, Commissioner

Commissioners Young and Cohen, concurring in part and dissenting in part:

We join our colleagues in sections A and C of the majority opinion and the decision to reverse the Judge's findings that the permissibility and coal accumulations violations were not S&S. However, we respectfully disagree with their opinion on the trailing cable violation addressed in section B. We believe that the Judge erred by assuming that the violative condition would have been detected and corrected before the equipment was returned to use. We thus conclude that the record compels the conclusion that the trailing cable violation was S&S.

It is undisputed that the trailing cable of the continuous mining machine had a one-half-inch-wide opening running three inches around the six-inch circumference of the cable, exposing the inner insulated leads. *ALJ Dec.* at 80; Tr. 1709. The opening was located ten feet from the machine, and the cable would be handled frequently by miners during use. *ALJ Dec.* at 80; Tr. 1709, 1711-12. Due to wet conditions of the mine floor, the opening in the outer covering of the cable would have permitted water to penetrate and deteriorate the inner shielding tape around the conductors and lead to rust and corrosion, causing the possibility of electrical shock and also creating an ignition hazard. *ALJ Dec.* at 80; Tr. 1710-15.

We agree with the Secretary that the Judge erred in concluding that the violation was not S&S because the Judge assumed that the operator would have detected and corrected the cut in the trailing cable before returning the continuous miner back to service. This is contrary to Commission case law establishing that S&S determinations must be made without any assumptions as to abatement. See *Consolidation Coal Co.*, 35 FMSHRC 2326, 2337 (Aug. 2013) (rejecting operator's argument that violative condition would have been detected in next equipment inspection); *Jim Walter Res., Inc.*, 28 FMSHRC 579, 604 (Aug. 2006) (holding that it is "improper to rely on later circumstances to find that the violation was not S&S"); *U.S. Steel*, 6 FMSHRC 1573, 1574 (July 1984) (rejecting the mine operator's argument that a significant and substantial violation should be determined based solely on the condition as it exists at the precise moment of inspection); *Crimson Stone v. FMSHRC*, 198 Fed. Appx. 846, 851 (11th Cir. 2006) ("[a]ny assumptions about how and when [the equipment] would have been repaired do not alter the significant and substantial nature of the violation").

The parties dispute whether the equipment was energized, thereby potentially exposing miners to the hazard. However, even if substantial evidence supported the Judge's finding that the equipment was not energized at the time the citation was issued, the Judge erred in assuming that the condition would have been corrected before being put back into service and in concluding that no miners would have been exposed prospectively to the hazardous condition under continued normal mining conditions. See *U.S. Steel Mining Co.*, 6 FMSHRC 1834, 1838 & n.4 (Aug. 1984) (in concluding that injury was reasonably likely to result from operator's violation, the Commission explained that "relying on [the] skill and attentiveness of miners to prevent injury 'ignores the inherent vagaries of human behavior'" (quoting *Great W. Elec. Co.*, 5 FMSHRC 840, 842 (May 1983)); see also *Eagle Nest, Inc.*, 14 FMSHRC 1119, 1123 (July 1992) (a miner's exercise of caution is not a factor in considering whether violation is S&S). Having already found that the violation contributed to a serious hazard posing a risk of serious injury, the Judge should have concluded that the Secretary had established the third *Mathies* element.

The majority assumes that the cut in the cable would have been detected in the examination to be performed on the equipment before it was returned to service. Slip op. at 10-11. However, such assumption fails to acknowledge that human error could fail to observe the cut or that the operator could fail to correct the condition even if it were detected before being put back into operation. That is precisely why the Commission has rejected such explanations and arguments by operators in past cases. *See supra*.

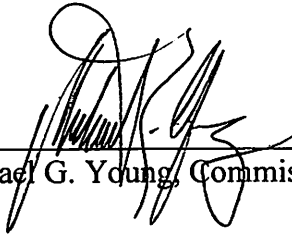
Critically, there is no evidence in the record that the operator was aware of this violative condition prior to MSHA's inspection. While the continuous mining machine was down for repairs, there is no evidence that the cut in the cable was expressly cited as one of the repairs the operator was to perform on the continuous miner. We concede that circumstances would be different if the violative condition was tagged or otherwise identified as an item needing repair at the time the machine was being worked on.¹ But absent MSHA's inspection and citation, the machine might have been put back in operation without correcting the defect, exposing miners to the hazardous condition of shock or electrocution or allowing the condition to be a potential ignition source during production.

The assumptions made by the majority are therefore in direct contravention of Commission precedent requiring the consideration of continued normal mining conditions and without reliance on human intervention. *See Consolidation Coal Co.*, 35 FMSHRC at 2337 ("all violations could be defended against as to whether they are S&S by maintaining that they would have been recognized in the next pre-shift examination"); *U.S. Steel*, 6 FMSHRC at 1574; *U.S. Steel Mining Co.*, 6 FMSHRC at 1838 & n.4. We must disagree that substantial evidence supports the Judge's conclusion that the Secretary failed to establish the third *Mathies* element because that conclusion rests on a misapprehension of the law.


As the Judge found, the violation posed a discrete safety hazard – insulation on the inner phase conductors could have worn away or deteriorated from moisture so that a miner could have been seriously shocked or electrocuted. *ALJ Dec.* at 80. Inspector Colley testified that during the course of the shift, the cable had to be moved as the continuous mining machine made its cuts; the machine was to be put back into production on the next shift. *Id.* at 80; Tr. 1711-12, 1719. Inspector Colley also testified to the potential danger of electric shock because the insulation on the inner cable could deteriorate through normal use, handling and exposure to water, thereby creating a danger to miners operating the equipment and handling the cable. *ALJ Dec.* at 80; Tr. 1713-14.

¹ In that case, abatement would not be assumed but would actually be underway.

Thus, the record compels the conclusion that the hazard would reasonably likely result in an injury. Accordingly, we would conclude that the violation was S&S and would reverse the Judge's finding. *See American Mine Servs., Inc.*, 15 FMSHRC 1830, 1834 (Sept. 1993).



Michael G. Young, Commissioner



Robert F. Cohen, Jr., Commissioner

APPENDIX

VA 2010-81-R
VA 2010-82-R
VA 2010-83-R
VA 2010-84-R
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VA 2010-86-R
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VA 2010-111-R
VA 2010-112-R
VA 2010-113-R
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VA 2010-131-R
VA 2010-132-R
VA 2010-133-R
VA 2010-166
VA 2010-214

*The Judge's December 27, 2010 decision inadvertently omitted from the case caption Docket Nos. VA 2010-102-R and VA 2010-130-R. We hereby amend the case caption to include Docket Nos. VA 2010-102-R and VA 2010-130-R.

Docket No. VA 2010-102-R involves Order No. 8170395, a non-assessable section 104(b) withdrawal order related to Citation No. 8170387, which is the subject of contest proceeding Docket No. VA 2010-103-R and penalty proceeding Docket No. VA 2010-166. Both violations were contested by the operator and the underlying Citation No. 8170387 was ultimately settled by the parties. *ALJ Dec.* at 104-05.

Docket No. VA 2010-130-R involves Citation No. 8169132 and is related to penalty proceeding Docket No. VA 2010-166. The parties likewise settled this citation. *Id.* at 102; Tr. 67-68.

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