

No. 13-3322

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IN THE UNITED STATES COURT OF APPEALS  
FOR THE SIXTH CIRCUIT

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HOPKINS COUNTY COAL, LLC,

Petitioner,

v.

SECRETARY OF LABOR, MINE SAFETY  
AND HEALTH ADMINISTRATION

and

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION,

Respondents.

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ON PETITION FOR REVIEW OF A DECISION OF THE FEDERAL  
MINE SAFETY AND HEALTH REVIEW COMMISSION

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BRIEF FOR RESPONDENT THE SECRETARY OF LABOR

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TABLE OF CONTENTS

	<u>Page</u>
TABLE OF CONTENTS .....	i
TABLE OF AUTHORITIES .....	iii
JURISDICTIONAL STATEMENT .....	1
STATEMENT OF THE ISSUES .....	2
STATEMENT OF THE CASE .....	2
A. Nature of the Case and Statutory Framework .....	2
B. Course of the Proceedings and Disposition Below .....	6
C. The Judge's Decision .....	9
D. Statement of Facts .....	15
SUMMARY OF ARGUMENT .....	30
ARGUMENT	
I. APPLICABLE LEGAL PRINCIPLES AND STANDARD OF REVIEW .....	32
II. SUBSTANTIAL EVIDENCE SUPPORTS THE JUDGE'S FINDINGS THAT DISTRICT MANAGER BOONE'S ACTIONS IN REQUIRING THE DISPUTED VENTILATION PLAN PROVISIONS WERE NOT ARBITRARY OR CAPRICIOUS .....	36
A. The Requirement for a Minimum Air Velocity of 7,000 Cubic Feet Per Minute Behind the Line Curtain At All Times While The Continuous Mining Machine is Cutting Or Loading Coal .....	39

B. The Requirement For A Minimum 7,000 Cubic Feet Per Minute Scrubber Air Capacity .....	43
C. The Requirement That The Line Curtain Be Set Back From The Face No More Than 40 Feet.....	48
III. HCC'S ASSERTION THAT THE JUDGE IMPROPERLY RELIED ON THE COMMISSION'S STATEMENT IN <i>TEXASGULF</i> THAT METHANE IS IGNITABLE AT CONCENTRATIONS OF ONE TO TWO PERCENT IS UNAVAILING.....	52
CONCLUSION .....	64
CERTIFICATE OF COMPLIANCE .....	65
CERTIFICATE OF SERVICE.....	66

## TABLE OF AUTHORITIES

<u>CASES</u>	<u>Page</u>
<i>Baltimore Gas &amp; Elec. Co. v. Natural Resources Defense Council, Inc.</i> , 462 U.S. 87 (1983).....	34
<i>Burlington Truck Lines, Inc. v. United States</i> , 371 U.S. 156 (1962).....	36
<i>Chaney Creek Coal Corp. v. FMSHRC</i> , 866 F.2d 1424 (D.C. Cir. 1989).....	32
<i>City of Cleveland v. Ohio</i> , 508 F.3d 827 (6th Cir. 2007) .....	34
<i>Cox v. Standard Ins. Co.</i> , 585 F.3d 295 (6th Cir. 2009) .....	35, 54
<i>East Kentucky Power Co-op v. FERC</i> , 489 F.3d 1299 (D.C. Cir. 2007).....	34
<i>EthylCorp. v. EPA</i> , 541 F.2d 1 (D.C. Cir.) (en banc), <i>cert. denied</i> , 426 U.S. 941 (1976) .....	34, 41
<i>Farhner v. United Transportation Union Discipline Income Protection Program</i> , 645 F.3d 338 (6th Cir. 2011).....	34
<i>FCC v. WNCN Listeners Guild</i> , 450 U.S. 582 (1981).....	34
<i>Highway J Citizens Group v. Mineta</i> , 349 F.3d 938 (7th Cir. 2003), <i>cert. denied</i> , 541 U.S. 974 (2004) .....	43, 51
<i>Motor Vehicle Mfrs Association of U.S., Inc. v. State Farm Mutual Auto Ins. Co.</i> , 463 U.S. 29 (1983).....	35, 36, 43, 51

<i>National Cement Co. v. FMSHRC</i> , 27 F.3d 526 (11th Cir. 1994) .....	32
<i>National Truck Equipment Ass'n v. National Highway Traffic Safety Admin.</i> , 711 F.3d 662 (6th Cir. 2013) .....	35
<i>Olson v. FMSHRC</i> , 381 F.3d 1007 (10th Cir. 2004) .....	33
<i>Peabody Coal Company</i> , 17 FMSHRC 26 (1995) .....	
<i>Pendley v. FMSHRC</i> , 601 F.3d 417 (6th Cir. 2012) .....	32, 33
<i>Sec'y of Labor v. C.W. Mining Co.</i> , 18 FMSHRC 1740 (1996).....	5, 33
<i>Sec'y of Labor v. Carbon County Coal</i> , 7 FMSHRC 1367 (1985) .....	6
<i>Sec'y of Labor v. Monterey Coal Company, Inc.</i> , 7 FMSHRC 996 (1985) .....	38
<i>Sec'y of Labor v. Peabody Coal</i> , 15 FMSHRC 381 (1993).....	5
<i>Sec'y of Labor v. Peabody Coal Co.</i> , 18 FMSHRC 686 (1996), <i>aff'd sub nom Peabody Coal Co. v. FMSHRC</i> , 11 F.3d 963 (D.C. Cir. 1997) (table).....	33
<i>Sec'y of Labor v. Texasgulf Inc.</i> , 10 FMSHRC 498 (1988).....	52
<i>State of North Carolina v. FERC</i> , 112 F.3d 1175 (D.C. Cir. 1997), <i>cert. denied</i> , 522 U.S. 1108 (1997) .....	35, 63

*Thunder Basin Coal Co. v. Reich*,  
510 U.S. 200 (1994).....4

*Twentymile Coal*,  
30 FMSHRC 736, 2008 WL 4287782 (2008).....33

*United Mine Workers of America [UMWA] v. Dole*,  
870 F.2d 662 (D.C. Cir. 1989).....6

*United States v. Blue Diamond Coal Co.*,  
667 F.2d 510 (6th Cir. 1981), *cert. denied*, 456 U.S. 1007 (1982) .....18, 19

*Zeigler Coal Co. v. Kleppe*,  
536 F.2d 398 (D.C. Cir. 1977).....5, 6

**STUTUTES AND REGULATIONS**

Federal Mine Safety and Health Act of 1977  
30 U.S.C. § 801 *et seq.* .....2

Section 2(a), 30 U.S.C. § 801(c) .....2

Section 3(k), 30 U.S.C. § 802(k) .....4

Section 101(a), 30 U.S.C. § 811(a).....3

Section 101(c), 30 U.S.C. § 811(c) .....3

Section 103(a), 30 U.S.C. § 813(a).....3

Section 103(i), 30 U.S.C. § 813(i) .....3, 11

Section 103(j), 30 U.S.C. § 813(j) .....4, 16, 19, 40

Section 103(k), 30 U.S.C. § 813(k) .....4, 20

Section 104, 30 U.S.C. § 814 .....3

Section 105(d), 30 U.S.C. § 815(d) .....1, 3

Section 106, 30 U.S.C. § 816 .....1, 4

Section 106(a)(1), 30 U.S.C. § 816(a)(1).....32

Section 113(d), 30 U.S.C. § 823(d) .....1, 3

Section 113(d)(1), 30 U.S.C. § 823(d)(1).....1

Section 113(d)(2)(A)(ii), 30 U.S.C. § 823(d)(2)(A)(ii) .....1

Section 303(o), 30 U.S.C. 863(o).....5, 34

30 C.F.R. § 75.370.....	5, 6
30 C.F.R. § 75.370(a)(1).....	8, 30

MISCELLANEOUS

<i>Dictionary of Mining, Mineral, and Related Terms</i> , U.S. Bureau of Mines, U.S. Dept. of Interior (2nd Ed.) (1997).....	8
---------------------------------------------------------------------------------------------------------------------------------	---

H.R. Rep. No. 91-563, 91st Cong., 1st Sess. 21, <i>reprinted in</i> Senate Subcomm. on Labor, Comm. on Human Res., Part I Legislative History of the Federal Coal Mine Health and Safety Act of 1969, at 1051 (1975) (“1969 <i>Leg. Hist.</i> ”).....	18
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

S. Rep. No. 91-411, 91st Cong. 1st Sess. at 26-31 (1969), <i>reprinted in</i> Senate Subcomm. on Labor, Comm. on Human Res., Part I Legislative History of the Federal Coal Mine Health and Safety Act of 1969, at 152-4 (1975) (“1969 <i>Leg. Hist.</i> ”).....	19, 36, 60
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------

S. Rep. No. 95-181, 95th Cong., 1st Sess. 25 (1977), U.S. Code Cong. & Admin. News 1977, p. 3425.....	5
----------------------------------------------------------------------------------------------------------	---

S. Rep. No. 95-181, 95th Cong. 1st Sess. 41 (1977), <i>reprinted in</i> Senate Subcommittee on Labor, Committee on Human Resources, 95th Cong., 2d Sess. Legislative History of the Federal Mine Safety and Health Act of 1977, at 629 (1978) .....	34, 57
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## JURISDICTIONAL STATEMENT

This Court has jurisdiction over proceedings for review of decisions of the Federal Mine Safety and Health Review Commission (“Commission”) under Section 106 of the Federal Mine Safety and Health Act (“Mine Act”), 30 U.S.C. § 816. The Commission had jurisdiction over the matter under Sections 105(d) and 113(d) of the Mine Act, 30 U.S.C. §§ 815(d) and 823(d). The decision of the administrative law judge in this case was issued on January 18, 2013. Pursuant to Section 113(d)(2)(A)(ii) of the Mine Act, 30 U.S.C. § 823(d)(2)(A)(ii), Hopkins County Coal (“HCC”) timely filed with the Commission a petition for discretionary review of the judge's decision on February 15, 2013. The Commission denied the petition on February 25, 2013. Pursuant to Section 113(d)(1) of the Mine Act, 30 U.S.C. § 823(d)(1), the decision of the judge became the final decision of the Commission forty days after it was issued, *i.e.*, on February 27, 2013. HCC timely filed a petition for review of the Commission's decision on March 19, 2013.

## STATEMENT OF THE ISSUES

1. Whether substantial evidence supports the judge's findings that the District Manager's actions in requiring the disputed ventilation plan provisions were not arbitrary or capricious.

2. Whether HCC's assertion that the judge improperly relied on the Commission's statement in *Texasgulf* that methane can be ignited at concentrations of one to two percent is unavailing.

## STATEMENT OF THE CASE

### A. Nature of the Case and Statutory Framework

The Mine Act was enacted to improve and promote safety and health in the Nation's mines. 30 U.S.C. § 801. In enacting the Mine Act, Congress stated that "there is an urgent need to provide more effective means and measures for improving the working conditions and practices in the Nation's \* \* \* mines \* \* \* in order to prevent death and serious physical harm, and in order to prevent occupational diseases originating in such mines." 30 U.S.C. § 801(c). Titles II and III of the Act establish interim

mandatory health and safety standards. Section 101(a) of the Act authorizes the Secretary of Labor (“Secretary”) to promulgate improved mandatory health and safety standards for the protection of life and prevention of injuries in coal and other mines. 30 U.S.C. § 811(a).

Under Section 103(a) of the Act, inspectors from the Mine Safety and Health Administration (“MSHA”), acting on behalf of the Secretary, regularly inspect mines to ensure compliance with the Act and with standards. 30 U.S.C. § 813(a). Under Section 103(i) of the Act, MSHA must make frequent “spot” inspections of mines that liberate excessive amounts of methane. 30 U.S.C. § 813(i).

Section 104 of the Act provides for the issuance of citations and orders for violations of the Act or of standards. 30 U.S.C. § 814. Under Sections 105(d) and 113(d) of the Act, 30 U.S.C. §§ 815(d) and 823(d), a mine operator may contest a citation, order, or proposed civil penalty before the Commission, an independent adjudicatory agency established under the Act to provide trial-type administrative hearings and appellate review in cases arising

under the Act. *See Thunder Basin Coal Co. v. Reich*, 510 U.S. 200, 204 (1994). Final Commission action is subject to judicial review by an appropriate United States Court of Appeals. 30 U.S.C. § 816.

Section 103(j) of the Act requires mine operators, in the event of an “accident,” to notify MSHA of the accident and to take appropriate measures to prevent the destruction of evidence. 30 U.S.C. § 813(j). Section 3 of the Act defines the term “accident” to include a “mine ignition.” 30 U.S.C. § 802(k).

Section 103(k) of the Act authorizes MSHA, in the event of an accident, to “issue such orders as [MSHA] deems appropriate to insure the safety of any person in the \* \* \* mine,” and requires the mine operator to obtain the approval of MSHA “of any plan to \* \* \* return affected areas of such mine to normal.” 30 U.S.C. § 813(k).

Section 303(o) of the Act requires the operator of an underground coal mine to adopt “a ventilation system and methane and dust control plan and revisions thereof suitable to the conditions and the mining system of the coal mine” and

“approved by the Secretary.” 30 U.S.C. § 863(o). Ventilation plans are to be used not to impose general requirements on mine operators, but "rather to assure that there is a comprehensive scheme for realization of the statutory goals in the particular instance of each mine." *Zeigler Coal Co. v. Kleppe*, 536 F.2d 398, 407 (D.C. Cir. 1977). Section 303(o) is implemented by 30 C.F.R. § 75.370, which delegates the Secretary’s authority to approve ventilation plans to MSHA’s District Managers.

A ventilation plan is “individual [in] nature” and “mine-specific.” *Sec’y of Labor v. Peabody Coal Co.*, 15 FMSHRC 381, 385-86 (1993). If the District Manager objects to any provision in the operator’s proposed plan, the parties must negotiate in good faith. *See Sec’y of Labor v. C.W. Mining Co.*, 18 FMSHRC 1740, 1746-47 (1996) (*citing United Mine Workers of America v. Dole*, 870 F.2d 662, 669 n.10 (D.C. Cir. 1989)). Ultimately, the District Manager must exercise his judgment with respect to the content of such plans in finally approving or disapproving a plan. *Id.*; *see also* S. Rep. No. 95-181, 95th Cong., 1st Sess. 25 (1977), U.S. Code Cong. & Admin. News 1977, p. 3425 (“the Secretary must

independently exercise his judgment with respect to the content of such plans in connection with his final approval of the plan”). If good-faith negotiations yield an impasse, the operator may obtain adjudication of the dispute by notifying MSHA of its intent to implement a non-approved plan, implementing the non-approved plan momentarily, and receiving from MSHA a “technical” citation alleging a violation of Section 75.370. *See, e.g., Sec’y of Labor v. Carbon County Coal*, 7 FMSHRC 1367, 1371 (1985). The citation is adjudicated before the Commission. Once a ventilation plan is approved by the Secretary and adopted by the mine operator, its provisions are enforceable as mandatory standards. *UMWA v. Dole*, 870 F.2d at 667 n. 7; *Zeigler Coal Co.* 536 F.2d at 409.

B. Course of the Proceedings and Disposition Below

Good-faith negotiations between HCC and MSHA District Manager Carl Boone yielded an impasse over whether, in response to a January 14, 2010, mine ignition at HCC’s Elk Creek Mine, the third ignition in four years, HCC needed to amend its ventilation plan to include three provisions that MSHA District Manager Boone believed were necessary to adequately ventilate

the face to remove accumulations of fuel sources for ignitions. The first disputed plan revision required HCC to maintain a minimum air velocity of 7,000 cubic feet per minute behind the end of the line curtain<sup>1</sup> at all times during mining. *See* GX9, A340. (The ventilation plan in place at the time of the ignition required HCC to maintain a minimum air velocity of 7,000 cubic feet per minute behind the line curtain when the scrubber<sup>2</sup> on the continuous mining machine was on, but only a minimum of 5,800 cubic feet per minute of air behind the line curtain when the scrubber was off. Tr. at 177, A175.) The second disputed plan provision required the minimum scrubber air capacity to be 7,000 cubic feet per minute. *See* GX9, A340. (The ventilation plan in place at the time of the ignition required the minimum scrubber air capacity to be 5,000 cubic feet per minute. Tr. at 336, A233) The third

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<sup>1</sup> A line curtain is a piece of material that is used to deflect air toward the face. *See* Dec. at 11, 12, A62, 63; Tr. at 155, A156.

<sup>2</sup> The scrubber is located inside the continuous mining machine. Dec. at 13, A64; Tr. at 164, A165. The scrubber pulls air out of the hood of the miner through duct work and toward a screen. The air is sprayed with water to settle the dust that collects on the screen. Tr. at 164-165, A165-66. The scrubber also reduces methane in the atmosphere. Tr. at 165, A166. *See also Peabody Coal Co.* 17 FMSHRC 26, 27 n.3 (1995).

disputed plan provision required the line curtain to be set back from the face<sup>3</sup> no more than 40 feet. *See* GX9, A340. (The ventilation plan in place at the time of the ignition required the line curtain to be set back from the face no more than 45 feet. Tr. at 178, A401.)

HCC agreed to amend the Elk Creek Mine's ventilation plan to include the disputed plan provisions on the condition that MSHA issue a technical citation so that HCC could litigate the issue of whether the disputed provisions were arbitrary and unrelated to the accident. GX 9, A340. Consequently, MSHA issued HCC a technical citation alleging a violation of 30 C.F.R. § 75.370(a)(1) consisting of failing to follow an approved ventilation plan. GX 12, A348-50. HCC timely contested the citation, and a hearing was held before a Commission administrative law judge.

On January 18, 2013, the judge issued a decision affirming the citation. A52. On February 15, 2013, HCC timely petitioned

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<sup>3</sup> The face of a mine is the surface of an unbroken coal bed at the advancing end of the working place. *See Dictionary of Mining, Mineral, and Related Terms*, U.S. Bureau of Mines, U.S. Dept. of Interior (2nd Ed.) 198 (1997).

for review of the judge's decision by the Commission. The Commission denied review on February 25, 2013. A92. Consequently, the judge's decision became a final Commission decision on February 27, 2013.

C. The Judge's Decision

The judge found that the Secretary did not act arbitrarily or capriciously in requiring HCC to include the three disputed provisions in its ventilation plan. In doing so, the judge emphasized that an ignition in a coal mine occurs when you have "the fire triangle:" an ignition source, a fuel source, and oxygen. Dec. at 9, A60 (*citing* Tr. at 94, 133, A121, 142). She further emphasized that methane, coal dust, or a combination of coal dust and methane can serve as a fuel source in an underground coal mine. *Id.*

The judge found that MSHA's investigation revealed "strong evidence" that coal dust played a role in the ignition. Dec. at 9, A60. She further found that there was inconclusive evidence as to methane's role in the ignition and that it was "entirely possible that the ignition was caused by a spike in methane." Dec. at 8, 9,

A59-60. In doing so, the judge determined that it is "impossible to know how much methane was present at the time of ignition, given the unreliability of the methane monitor and its 5-6 foot distance from the face." Dec. at 8, A59.

In determining that it was impossible to know precisely the amount of methane present at the time of the ignition, the judge noted that the methane monitor on the continuous mining machine read .8 percent methane before the ignition and 1.7 percent methane after the ignition. Dec. at 8, A59. The judge also found that when the sniffer cap on the methane monitor gets stopped up, it will give a false reading. *Id.*

In concluding that it was possible that methane was a fuel source for the ignition, the judge rejected HCC's assertion that because eyewitnesses to the ignition stated that the flame produced by the ignition was orange, methane could not have been present. The judge noted the testimony of MSHA Ventilation Specialist Wayne Doyle Sparks that the color of a flame is not determinative of whether it is burning methane and that Sparks' testimony was corroborated by HCC's own witness, Safety

Technician Troy Johnson. Dec. at 3, A54 (*citing* Tr. at 290, 101-03, A219, 126-27).

In concluding that the Secretary did not act arbitrarily or capriciously in requiring the three disputed provisions, the judge noted that, at the time of the ignition, Elk Creek was liberating 995,000 cubic feet of methane during a 24-hour period and, because of the excessive amount of methane liberated, was required to be inspected every five days under Section 103(i) of the Act, 30 U.S.C. § 813(i). Dec. at 2, A53. The judge also noted testimony that Elk Creek was a “very gassy” mine and was probably the gassiest mine in MSHA District 10. Dec. at 10, A61.<sup>4</sup> In addition, the judge found that the vast majority of mine ignitions have a combination of coal dust and methane as a fuel source. Dec. at 8, A59. The judge also noted the testimony of District Manager Boone that the ignition itself would have burned off "a lot of the dust" and "a lot of the methane" that was in the area. Dec. at 10, A61.

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<sup>4</sup> District 10 includes coal mines in western Kentucky. There are approximately 15 active underground coal mines and 37 surface mines in District 10.

Noting abundant record testimony that increasing the quantity of air maintained at the end of the line curtain better sweeps the face of dust and methane, the judge held that MSHA's requirement that the ventilation plan be changed to require the amount of air at the end of the line curtain to be 7,000 cubic feet per minute at all times was not arbitrary and capricious. Dec. at 11-12, A63-64. In doing so, the judge noted that during its investigation, MSHA took an air reading at the end of the line curtain and measured the velocity of air to be 5,600 cubic feet per minute, and that MSHA took a second air reading at the end of the line curtain and measured it to be 6,700 cubic feet per minute. Dec. at 11, A62. Noting that at the time of the ignition HCC was in compliance with its ventilation plan, but still had an ignition, and MSHA's determination that the requirements for air at the end of the line curtain therefore needed to be increased to sweep away methane and dust from the face to avoid future ignitions, the judge found that the 7,000 cubic feet per minute air requirement was rationally related to the fact of the ignition and was not arbitrary and capricious. Dec. at 12, A63.

The judge also found that MSHA was not arbitrary or capricious in requiring that the line curtain setback distance from the face be decreased from 45 feet to 40 feet. Dec. at 12-13, A63-64. In doing so, the judge relied on testimony from MSHA Ventilation Specialist Supervisor David West and District Manager Boone that moving a line curtain closer to the face will better control methane and dust at the face. Dec. at 13, A64 (*citing* Tr. at 162, 189, 192, 263, A163, 186, 403, 416 ). The judge stated that “HCC had an ignition due to coal dust and, arguably methane. It was therefore rational for MSHA to decrease the curtain setback distance to better sweep coal dust and methane from the face.” Dec. at 13, A64.

Similarly, the judge found that MSHA was not arbitrary or capricious in requiring that the minimum air capacity of the scrubber be 7,000 cubic feet per meter. In doing so, the judge relied on Ventilation Specialist Supervisor West’s testimony that it is important for the volume of air over a scrubber to mirror the volume of air at the end of the line curtain. Dec. at 14, A65 (*citing* Tr. at 170, A170). The judge also noted the testimony of

District Manager Boone and the testimony of West that increasing the minimum volume of air over the scrubber would better sweep away dust and methane at the face. Dec. at 14, A65 (*citing* Tr. at 170, 179-81, A170).

In concluding that the Secretary did not act arbitrarily or capriciously in requiring the revised plan provisions, the judge specifically noted HCC General Manager Bill Adelman's acknowledgement that HCC's objections to the provisions were not because of the substance of the provisions, but because he thought MSHA added the revisions in an underhanded way. The judge also highlighted Adelman's acknowledgement that the provisions did not affect production costs, manpower, or money. Dec. at 14-15, A65-66 (*citing* Tr. at 589, A324).

Finally, the judge rejected HCC's argument that the provisions were arbitrary and capricious because MSHA did not require them to apply to all parts of the mine. In doing so, the judge credited the testimony of MSHA District Manager Boone that although he initially required the revisions to apply to the entire mine, and would have liked for them to apply to the entire

mine, he sacrificed that requirement in order to further negotiations. Dec. at 15, A66 (*citing* Tr. at 253, 266-67, A207, 213-14).

D. Statement of Facts

HCC operates the Elk Creek Mine, an underground coal mine outside of Madisonville, Kentucky. Tr. at 33-34, A99-100. On January 14, 2010, at approximately 5:30 p.m., there was an ignition in the face of the No. 8 Entry of the mine's No. 4 Unit.<sup>5</sup> Dec. at 1, A52; Tr. at 47, 247, A102, 201. As continuous mining machine operator Kenneth Myers was cutting coal at the face, he observed a fireball approximately two feet high rolling back approximately 10 or 12 feet across the top of the continuous mining machine. Tr. at 58, A109. Shuttle car operator Jason Ipo, who was operating the car being loaded by the continuous

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<sup>5</sup> Ventilation Specialist Sparks testified that the No. 4 Unit refers to a super section of the Elk Creek Mine in which two mechanized mining units, one operating on the right side of the section and the other operating on the left side of the section, are mining coal simultaneously. Tr. at 38-44, A376-382. A "fishtail" system of ventilation is used to ventilate the super section. The air is brought into the unit down two entries and is split to ventilate both mechanized mining units. Tr. at 38-39, A376-77.

mining machine, testified that upon observing the fireball, he and Myers "kind of looked at each other real quick and jumped up and r[a]n back." Ipox testified that the ignition was a "scary thing." Tr. at 416, 423-24, A261, 264-65.

The Elk Creek Mine opened in 2005. Tr. at 241, 557, A197, 434. The ignition was the third ignition at the mine. Tr. at 241, A197. At the time of the ignition, Elk Creek liberated 995,000 cubic feet of methane in a 24-hour period. Dec. at 10, A61; Tr. at 139, A147. Because of the excessive amount of methane liberated, MSHA inspected the mine every five days under Section 103(i) of the Mine Act, 30 U.S.C. § 813(j). Tr. at 137, A146. District Manager Boone<sup>6</sup> described the mine as "[v]ery gassy"; Ventilation

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<sup>6</sup> Carl Boone was an MSHA District Manager from 1993 until his retirement in 2010. Tr. at 236-39, A411-14. Boone is an engineer who began his career in the mining industry in 1965 and has 48 years of mining experience. Tr. 232, A407. Boone began working for the Bureau of Mines, the predecessor agency to MSHA, in 1970, and was employed in various capacities until 1993 when he was promoted to District Manager. Tr. at 230-239, A405-14. Boone has directed the National Mine Rescue Competition and has participated in several recovery operations. *Id.*

Specialist Supervisor West<sup>7</sup> testified that, at the time of the hearing, the Elk Creek was probably the gassiest mine in MSHA District 10. Tr. at 137, 241, A146, 197.

District Manager Boone testified that an ignition in an underground coal mine is a “big event” that is unacceptable. Tr. at 264, A264. Boone explained that if the fireball had travelled back ten or more feet, it could have been fatal. Tr. at 264, A211. HCC General Manager Adelman agreed that the ignition was a “big deal” that was “absolutely” serious. Tr. at 580, A320. Boone also explained that although there was not an explosive amount of methane present at the time of the ignition, that could change with the “next inch” of mining. Tr. at 265, A212.

Consistent with Boone’s testimony, this Court has recognized that the legislative history of the Federal Coal Mine Health and Safety Act of 1969, the predecessor statute to the Mine Act, “reflects congressional concern for the danger of explosions

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<sup>7</sup> David West is MSHA’s ventilation supervisor in Madisonville, Kentucky. Tr. at 123, A385. West is an engineer and has over 28 years of experience in the mining industry. Tr. at 123-29, A385-91.

resulting from ignition of undetected accumulation of methane in coal mines.” *United States v. Blue Diamond Coal Co.*, 667 F.2d 510, 513 (6th Cir. 1981), *cert. denied*, 456 U.S. 1007 (1982). The history recognizes that:

The most hazardous condition that can exist in a coal mine, and lead to disaster-type accidents, is the accumulation of methane gas in explosive amounts. Methane can be ignited with relatively little energy and there are, even under the best mining conditions, numerous potential ignition sources always present \* \* \* . Men working in the face areas where coal is mined and where fresh methane can be emitted in large volumes due to the disturbance of the coal bed, are required to take numerous safety precautions to insure that methane is not present in explosive amounts \* \* \* . When, on examination, methane concentrations exceed 1 volume per centum, changes must be made in the ventilation to reduce the methane content. When the methane concentration exceeds 1.5 volume per centum, the electricity must be shut off in the section affected, and men withdrawn from the section until the methane content is reduced.

H.R. Rep. No.91-563, 91st Cong., 1st Sess. 21, *reprinted in* Senate Subcomm. on Labor, Comm. on Human Res., Part I Legislative History of the Federal Coal Mine Health and Safety Act of 1969,

at 1051 (1975) (“1969 *Leg. Hist.*”) (cited and quoted in *Blue Diamond*, 667 F.2d at 513).<sup>8</sup>

Within minutes of learning of the January 14, 2010, ignition, at approximately 5:35 p.m., MSHA orally issued an order pursuant to Section 103(j) of the Mine Act, 30 U.S.C. § 813(j), prohibiting any activity at the scene that was not necessary to prevent or eliminate an imminent danger. *See* RX 2, A351.

MSHA Lead Accident Investigator and Ventilation Specialist

Wayne Doyle Sparks,<sup>9</sup> Ventilation Specialist Felix Caudill,<sup>10</sup> and

Ventilation Specialist Supervisor West travelled to the mine to

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<sup>8</sup> Similarly, in passing the Coal Act, Congress recognized the critical importance of preventing ignitions in underground mines. *See* S. Rep. No. 91-411, 91st Cong. Sess. 26-31 (1969), 1969 *Leg. Hist.* at 26-27. In addition, Congress recognized that mines, even those in which there has never been an ignition and in which methane has never been detected at concentrations of more than 0.25 percent, “do suddenly have sufficient accumulations of methane to cause ignitions and explosions.” *Id.* at 27.

<sup>9</sup> Ventilation Specialist Sparks has approximately 30 years of experience in the mining industry, including eight years as a coal mine inspector for the State of Kentucky. Sparks began working for MSHA in 2005. Tr. at 23-28, A371-375.

<sup>10</sup> Ventilation Specialist Caudill has more than 40 years of experience in the mining industry. Caudill began working for MSHA in 1998. Tr. at 328-31, A375-78.

investigate the accident. The MSHA accident investigation team arrived on the surface of the mine at approximately 7:25 p.m. and was underground at the accident site by approximately 9:30 p.m. Tr. at 53-54, 81, A105-06, 120.

On arriving at the mine, Ventilation Specialist Sparks converted the Section 103(j) order to an order under Section 103(k) of the Mine Act, 30 U.S.C. § 813(k). To protect the safety of all persons in the affected area, the Section 103(k) order required HCC to obtain MSHA approval before restoring operations in the affected area. RX 2, p.2, A352.

As part of its investigation, MSHA interviewed miners, inspected the area where the ignition occurred, and inspected the continuous mining machine that was cutting coal at the time of the ignition. Tr. at 142-148, 153, 340, A150, 154, 236, 392-97. Ventilation Specialist Supervisor West explained that an ignition occurs when you have an ignition source, a fuel source, and oxygen (the “fire triangle”). Tr. at 133, A142. Ventilation Specialist Caudill observed pyritic inclusions in the section. Tr. at 340, A236. A pyritic inclusion is a form of hard rock also known as a “head” or

a “kettlebottom.” Dec. at 2, A53; Tr. at 63, 105, A113, 129.

Ventilation Specialist Supervisor West observed a pyritic inclusion that was cut in half 26 inches from the head of the miner. Tr. at 153, A154. MSHA concluded that the ignition source for the January 14 ignition was a spark emitted when one of the bits of the continuous mining machine made contact with a pyritic inclusion in the coal seam. Dec. at 2, A53; Tr. at 95, A383.

MSHA's investigation revealed that at the time of the ignition, HCC was not in compliance with its ventilation plan because eight of 39 water sprays on the continuous mining machine were clogged. Tr. at 71, A116. MSHA issued HCC a citation for the violation of the ventilation plan. *Id.*

MSHA concluded that a combination of methane and coal dust were fuel sources for the ignition. Tr. at 94, 295, A121, 417. Coal dust is generated when a continuous mining machine cuts the face and the bits of the machine grind the coal. Tr. at 151, A152. Methane is liberated at the face when the continuous mining machine bits rip coal. Tr. at 458, A277.

Before the ignition, continuous mining machine operator Bud Myers observed the continuous mining machine's methane monitor to read .8 percent methane. Dec. at 3, A54; Tr. at 385-86, A249-50. Myers acknowledged that the amount of methane could have spiked very quickly if a bleeder were hit. Tr. at 409-10, A258-59. Ventilation Specialist Supervisor West testified that the reading observed by Myers did not reflect the amount of methane at the face because the methane monitor's sniffer was mounted six or eight feet away from the face. Dec. at 8, A59; Tr. at 222, A192. *See also* Tr. at 459, A278 (Elk Run Mine Safety Director Johnson). After the ignition, Myers observed that the methane monitor read 1.7 percent methane. Tr. at 221, A191. Ventilation Specialist Supervisor West explained that the 1.7 percent methane reading, even if otherwise reliable, would not accurately reflect the amount of methane present at the time of the ignition because the ignition itself would have burned off methane. Tr. at 221, A191.

During its investigation, MSHA detected that the continuous miner's methane monitor was out of calibration. Tr. at 248,

A202.<sup>11</sup> When the methane monitor was exposed to a known concentration of 2.5 percent methane, the monitor registered 3.0 percent methane. Tr. at 70, A115. Both District Manager Boone and Ventilation Specialist Supervisor West testified that the fact that the methane monitor read high on one occasion after the ignition did not mean that it read high on all occasions. Dec. at 3, A54; Tr. at 290, A219 (Boone) and Tr. at 101-03, A125-27 (West).

During the investigation, Ventilation Specialist Supervisor West measured the velocity of air at the end of the line curtain to be 5,600 cubic feet per minute. Ventilation Specialist Caudill measured the velocity to be 6,700 cubic feet per minute. Dec. at 11, A62. At the time of the ignition, Elk Creek's ventilation plan required HCC to maintain a minimum air velocity of 5,800 cubic feet per minute at the end of its line curtains when the continuous mining machine's scrubber was off, and a minimum air velocity of 7,000 cubic feet per minute when the scrubber was on. Tr. at 177, A175.

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<sup>11</sup> MSHA issued HCC a citation because of the non-calibrated methane monitor. Tr. at 70, A115.

During the investigation, Ventilation Specialist Caudill measured the air capacity of the scrubber to be 5,039 cubic feet per minute. The ventilation plan in effect at the time of the ignition required the air capacity of the scrubber to be a minimum of 5,000 cubic feet per minute. Tr. at 336, A233. During the investigation, Caudill examined the scrubber screen and found that it was “somewhat dirty.” Tr. at 72-73, A117-18. After the screen was cleaned, the air capacity of the scrubber increased to approximately 7,900 cubic feet per minute. Tr. at 317, A420; GX8, A330.

At the time of the ignition, the line curtain was 35 feet from the deepest point of penetration of the entry face. GX 8, A330. The ventilation plan in effect at the time of the ignition required the curtain to be set back no more than 45 feet from the deepest point of penetration. Tr. at 178, A401.

Ventilation Specialist Sparks testified that the MSHA investigation team remained at the mine until 3:30 or 4:00 a.m. on January 15, 2010. Tr. at 75, A119. Before leaving the mine, Sparks modified the Section 103(k) order to permit HCC to

perform maintenance work on the No. 4 Unit. The modification prohibited production on the No. 4 Unit until HCC submitted to MSHA District Manager Boone an addendum to its ventilation plan indicating “what the operator intended to do to try to prevent this type of accident from happening again.” GX 1, p.3, A329.

Throughout the day on January 15, 2010, HCC and MSHA negotiated about the plan revisions. Dec. at 5, A56; Tr. at 244-254; 567-69, 574, A198-208, 315-17, 436. As part of those negotiations, HCC submitted a proposed plan addendum to MSHA that would have amended the mine’s ventilation plan to require one additional water spray on the continuous mining machine, would have addressed pyritic inclusions, would have addressed broken bit lugs and bit blocks on the continuous mining machine, and would have provided for more frequent inspections and mandatory cleanings of the continuous mining machine’s scrubber screens. *See* GX 8, p. 3-7, A332-336.

By letter dated January 15, 2010, District Manager Boone rejected the proposed plan revisions as insufficient. In doing so, Boone pointed out information that MSHA had learned about

during its investigation of the ignition, including information that HCC had told MSHA about mine conditions at the time of the ignition. Specifically, Boone pointed out that at the time of the ignition:

1. The line curtain was 35 feet from the deepest point of penetration of the #8 entry, where the ignition occurred.
2. 6700 cubic feet per minute of air was present at the end of the line curtain where the ignition occurred.
3. The deepest point of penetration of the #8 entry face was 31 feet in by the last row of bolts.
4. The volume of air passing through the wet scrubber was 5039 cubic feet per minute before the scrubber was cleaned.
5. The volume of air passing through the wet scrubber was 7932 cubic feet per minute after the scrubber and filter were cleaned.
6. There was 19766 cubic feet per minute of air present in the last open crosscut on the #4 Unit when the ignition occurred.
7. The methane monitor on the continuous miner was out of calibration.
8. The water sprays on the continuous miner had not been checked prior to mining #8 entry faces. Eight (8) water sprays or 20 % of the sprays were stopped up.

GX 8, p.1, A330.

Boone explained that he believed HCC's proposed revisions were insufficient to address the ignition because, "*if an ignition could not be prevented with the above parameters (especially items 1, 2, 3, and 6) supposedly in place at the time of the ignition,* then MSHA District 10 believes the mine operator must revise the plan with parameters more stringent than or at least the provisions listed in item 1,2,3, and 6 above as minimum provisions." *Id.* (emphasis in original).

Boone's letter then set forth Boone's position that to properly ventilate the working face while the continuous mining machine is cutting or loading coal, the line curtain should be set back no more than 35 feet, a minimum air velocity of 7,000 cubic feet per minute should be maintained behind the line curtain, the minimum scrubber volume should be at least 7,000 cubic feet per minute, and the minimum volume of air in the last open crosscut should be maintained at 14,000 cubic feet per minute. GX8 p.2, A331.

Boone also requested provisions relating to cutting pyritic inclusions, examining the methane monitor, and cleaning the scrubber screen before mining each cut. *Id.*

After receiving Boone's letter, on January 15, 2010, HCC submitted a second proposed addendum to the plan. *See* RX 8, A357. The letter accompanying the proposed addendum set forth HCC's view that the January 14 ignition was an unplanned dust ignition that occurred because eight water sprays were inoperative at the time the continuous mining machine encountered the pyritic inclusion. RX8, A357. HCC therefore proposed increasing by three the number of water sprays on the continuous mining machine, addressing concerns raised by District Manager Boone about pyritic inclusions, addressing broken bit sleeves and bit blocks, adding measures to address face ventilation when pyritic inclusions are encountered, and requiring more examinations and cleaning of the scrubber screen. *Id.*

Later that day, District Manager Boone advised HCC that the proposed ventilation addendum was still not acceptable. Tr. at 537, A297. MSHA and HCC continued negotiating about the contents of the plan. Tr. at 538, A298.

District Manager Boone testified that as part of the negotiation process, and after the parties "kept going around and

around,” he agreed not to require the disputed provisions to apply to the whole mine. Tr. at 253, A207. Boone explained that HCC was protesting having the disputed provisions apply to the whole mine and that MSHA was trying to “get a plan that we felt like we could live with and that would absolutely protect the safety of the miners in the Elk Creek Mine from a methane or dust ignition.” Tr. at 253, A207. Boone also agreed not to require that the minimum volume of air in the last open crosscut be set at 14,000 cubic feet per minute. Tr. at 307, A419. In addition, Boone agreed to a maximum line curtain setback distance from the face of 40 feet, rather than 35 feet as he had initially requested. Tr. at 313, A228.

Despite Boone’s concessions, HCC and MSHA reached an impasse over the disputed plan provisions. As a result, on January 15, HCC submitted a revised ventilation plan under protest to MSHA that included the three disputed provisions for the No. 4 Unit. District Manager Boone approved the revised plan. GX 9, A36-40.

By letter dated January 19, 2010, HCC informed MSHA that it was no longer complying with the approved ventilation plan and requested a technical citation so that the matter could be litigated. GX 11, A346. MSHA Ventilation Specialist Caudill therefore issued a technical citation to HCC alleging a violation of 30 C.F.R. § 75.370(a)(1).

### **SUMMARY OF ARGUMENT**

Substantial evidence supports the judge's findings that, in response to the ignition at HCC's Elk Creek Mine, District Manager Boone's actions in requiring the disputed ventilation plan provisions were not arbitrary and capricious. The Secretary presented abundant evidence establishing that Boone reasonably concluded that the ignition indicated that the ventilation plan in effect at the time of the ignition was not adequately ventilating the face of the mine and was allowing a fuel source to accumulate, whether that fuel source was coal dust, methane, or a combination of dust and methane. The Secretary also presented abundant evidence establishing that the disputed plan provisions were

reasonably aimed at better sweeping the face of methane and coal dust.

HCC's assertion that the judge erred in relying on the Commission's statement in *Texasgulf* that methane is ignitable at concentrations of one to two percent is unavailing for several reasons. First, the record is not inconsistent with the Commission's statement in *Texasgulf*. In any event, even if the judge improperly relied on the Commission's statement, such reliance would be harmless error. The judge's findings that District Manager Boone's requirements were not arbitrary and capricious does not turn on the judge's finding that methane could have played a role in the ignition. The judge found, and the evidence compels the conclusion, that Boone required the disputed plan provisions because the fact of the ignition indicated that the ventilation plan in effect at the time of the ignition was not adequately ventilating the face, and therefore was allowing a fuel source to accumulate -- a conclusion that does not depend on whether the fuel source that caused the ignition was dust, methane, or a combination of dust and methane.

## ARGUMENT

### I.

#### APPLICABLE LEGAL PRINCIPLES AND STANDARD OF REVIEW

The Court's review of the Commission's decision is governed by the Mine Act and general administrative law principles. *Pendley v. FMSHRC*, 601 F.3d 417, 422 (6th Cir. 2012). The Court applies a deferential standard of review to the Commission's factual determinations because the Mine Act requires that "[t]he findings of the Commission with respect to questions of fact, if supported by substantial evidence on the record considered as a whole, shall be conclusive." *Id.* (quoting 30 U.S.C. § 816(a)(1)). "Substantial evidence is determined by evaluating whether there is such relevant evidence as a reasonable mind might accept as adequate to support the [Commission's] conclusion." *Id.* at 422-23 (citing *National Cement Co. v. FMSHRC*, 27 F.3d 526, 530 (11th Cir. 1994) (quoting *Chaney Creek Coal Corp. v. FMSHRC*, 866 F.2d 1424, 1431 (D.C. Cir. 1989) (quotation marks omitted)). The Court reviews the Commission's application of law de novo.

*Pendley*, 601 F.3d at 423 (*citing Olson v. FMSHRC*, 381 F.3d 1007, 1011 (10th Cir. 2004) (citations omitted)).

As HCC acknowledges (*e.g.* Br. at 17), the Secretary's actions in the plan approval process are reviewed under an arbitrary and capricious standard. *See* Br. at 17; (*citing inter alia, Secretary of Labor v. Peabody Coal Co.*, 18 FMSHRC 686, 692 (1996), *aff'd sub nom. Peabody Coal Co. v. FMSHRC*, 11 F.3d 963 (D.C. Cir. 1997) (table); *Secretary of Labor v. Twentymile Coal*, 30 FMSHRC 736, 2008 WL 4287782 (2008) (opinion of Commissioners Jordan and Cohen)). *See also Secretary of Labor v. C.W. Mining Co.* 18 FMSHRC 1740, 1746 (1996) ("absent bad faith or arbitrary action, the Secretary retains the discretion to insist upon the inclusion of specific provisions as a condition of the plan's approval").<sup>12</sup>

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<sup>12</sup> Ventilation plans are reviewed under the arbitrary and capricious standard because Section 303(o) of the Mine Act entrusts the approval or disapproval to the Secretary's judgment:

. . . The plan shall show the type and location of mechanical equipment installed and operated in the mine, such additional equipment *as the Secretary may require*, the quantity and velocity of air reaching each working face, and such other information *as the Secretary may require*. Such plan shall be reviewed by the operator and the Secretary at least every six months.

“The arbitrary and capricious standard is the least demanding form of judicial review of administrative actions.”

*Farhner v. United Transportation Union Discipline Income Protection Program*, 645 F.3d 338, 342 (6th Cir. 2011) (internal quotation marks omitted). “Under this deferential standard, when

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30 U.S.C. § 863(o) (emphasis added). The italicized language, “as the Secretary may require,” unmistakably confers broad discretion on the Secretary. *E.g.*, *City of Cleveland v. Ohio*, 508 F.3d 827, 842 (6th Cir. 2007). It is well established that when a court reviews an agency's discretionary determinations, the "arbitrary and capricious" standard of review should be applied. *E.g.*, *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 104 (1983); *FCC v. WNCN Listeners Guild*, 450 U.S. 582, 596 (1981).

The "arbitrary and capricious" standard of review is particularly appropriate when, as here, an agency's actions involve reliance on its own expertise (*Ethyl Corp. v. EPA*, 541 F.2d 1, 34-35 (D.C. Cir.) (en banc), *cert. denied*, 426 U.S. 941 (1976)) and entail what are in essence "legislative" and "policy judgments" by the agency. *East Kentucky Power Co-op v. FERC*, 489 F.3d 1299, 1306 (D.C. Cir. 2007). The "arbitrary and capricious" standard is also particularly appropriate in reviewing the Secretary's actions in the plan approval process because Congress specified that that standard applies to MSHA's promulgation of mandatory standards (*see* S. Rep. No. 95-181, 95th Cong., 1st Sess., at 21 (1977)), and MSHA's actions regarding mine plans involve the same sort of policy judgments as MSHA's promulgation of mandatory standards.

it is possible to offer a reasoned explanation, based on the evidence for a particular outcome, that outcome is not arbitrary or capricious.” *Cox v. Standard Ins. Co.*, 585 F.3d 295, 299 (6th Cir. 2009). “As a general matter, agency action is arbitrary or capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *National Truck Equipment Ass’n v. National Highway Traffic Safety Admin.*, 711 F.3d 662, 667 (6th Cir. 2013) (citing *Motor Vehicle Mfrs Association of U.S., Inc. v. State Farm Mutual Auto Ins. Co.*, 463 U.S. 29, 43 (1983)).

Under the arbitrary and capricious standard, an agency need not “have perfect information before it takes action.” *State of North Carolina v. FERC*, 112 F.3d 1175, 1190 (D.C. Cir. 1997), *cert. denied*, 522 U.S. 1108 (1997) (internal quotation marks and citation omitted). “In the face of `serious uncertainties’ an agency need only `explain the evidence which is available, and offer a

`rational connection between the facts found and the choice made” *Id.* (citing and quoting *Motor Vehicle Mfrs*, 462 U.S. at 53 (citing and quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962))).

## II.

### SUBSTANTIAL EVIDENCE SUPPORTS THE JUDGE’S FINDINGS THAT DISTRICT MANAGER BOONE’S ACTIONS IN REQUIRING THE DISPUTED VENTILATION PLAN PROVISIONS WERE NOT ARBITRARY OR CAPRICIOUS

Substantial evidence plainly supports the judge’s findings that, in light of the January 14, 2010, ignition, District Manager Boone’s actions in requiring the three disputed ventilation plan provisions were not arbitrary or capricious. It is undisputed that the January 14, 2010, ignition was the third ignition at the Elk Creek Mine in four years. Tr. at 241, A196. It is also undisputed that mine ignitions are extremely serious events that are unacceptable. Tr. at 264, A211. *See also* S. Rep. No. 91-411 at 26-31, *1969 Leg. Hist. at 26-31* (Congress recognizing the critical importance of preventing ignitions in underground mines). It is likewise undisputed that mine ignitions occur when there is an

ignition source, a fuel source, and oxygen (the “fire triangle”). Tr. at 133, A142.

MSHA and HCC agreed that the ignition source for the January 14, 2010, ignition was a spark emitted when one of the bits of the continuous mining machine contacted a pyritic inclusion in the coal seam. Dec. at 2, A53; Tr. at 95, 180-81, A177-78. As a result, both HCC and MSHA agreed that HCC’s plan needed to be amended to try to reduce the likelihood of sparking when encountering pyritic inclusions.<sup>13</sup> HCC and MSHA disagreed, however, on whether Elk Creek Mine’s ventilation plan also needed to be amended to include the three disputed

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<sup>13</sup> MSHA therefore agreed to HCC’s proposed amendments requiring additional water sprays on the continuous mining machine that would cool and wet down areas where sparks would be created. GX8, GX9, Tr. 246, 565-66, A200, A313-14. HCC and MSHA also agreed that the ventilation plan needed to be amended to require that the number of lifts in a cut be increased when pyritic inclusions are encountered (GX8, GX 9, A339-343), to address bit and head maintenance on continuous mining machines (Tr. 246, 257, A200, 415), and to require more frequent examinations and cleaning of the wet bed scrubber screens in continuous mining machines. Tr. 184, 246-57, A181, 200,-210, 415. *See also* GX9, A337; RX 8, A357.

provisions that would reduce the accumulation of methane and coal dust at the face -- potential fuel sources for an ignition.

Ventilation Specialist Sparks testified that the usual reason for a mine ignition is a lack of ventilation causing methane and coal dust to build up. Tr. at 32, A98. It is undisputed that increasing the amount of air flow at the face of a mine will help sweep away methane and dust from the face. Tr. at 586-87, A321-22 (HCC General Manager Adelman ); Tr. at 513-15, A282-84 (Elk Creek Mine Safety Director Matt Pride). District Manager Boone testified that because there was an ignition, there was an accumulation of either methane or dust, and more air was "absolutely" needed to sweep the face. Tr. at 255-56, 209-10, A209-10, 404a-404b . Consistent with Boone's testimony, the Commission has recognized that "the hazards associated with inadequate ventilation, especially at working faces, are among the most serious in mining." *Secretary of Labor v. Monterey Coal Co.*, 7 FMSHRC 996, 1000 (1985).

Ventilation Specialist Supervisor West testified that to ventilate the workplace, the air behind the line curtain must be

kept at a certain quantity, the line curtain must be a certain distance from the face, and the quantity of air travelling through the scrubber must be maintained. Tr. at 157, 163, 176, 183, 189, A158, 164, 174, 180, 186.

A. The Requirement for a Minimum Air Velocity of 7,000 Cubic Feet Per Minute Behind the Line Curtain At All Times While The Continuous Mining Machine Is Cutting Or Loading Coal

Line curtains are used to direct air into working places. Dec. at 11, A62; Tr. at 155-157, A156-58. Ventilation Specialist Supervisor West explained that increasing the amount of air maintained behind the line curtain increases the rate at which dust and methane are swept out of working places. Tr. at 151-161, A152-62. West testified that the more air there is behind the line curtain, the more air will sweep the corners of the face. Tr. at 157, 160-61, A158, 161-62. West also explained that air is supposed to deflect from the line curtain, sweep the face, remove dust and methane from the corners of the face, and flow out of the mine. Tr. at 154-55, A155-56. He explained that if the amount of air behind the curtain is too low, the air will go into the last open

crosscut instead of going to the face and sweeping away dust and methane. Tr. at 154, A155.

During MSHA's investigation of the ignition, Ventilation Specialist Supervisor West measured the velocity of air at the end of the line curtain to be 5,600 cubic feet per minute; Ventilation Specialist Caudill measured the velocity to be 6,700 cubic feet per minute.<sup>14</sup> Tr. at 201, A404. West testified that at the time of the ignition, the air maintained at the end of the line curtain was too low to render harmless and carry away gases and dust. Tr. at 183-184, A180-81. Consistent with his explanation to HCC while negotiating about the disputed provisions, District Manager Boone testified that given the fact of the ignition, and given the fact that, at the time of the ignition, the air velocity behind the line curtain was within the parameters of the dust plan that was in effect at the time, he believed that the velocity of air required to be

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<sup>14</sup> Significantly, HCC asserted that, apart from backing up the continuous mining machine, as required under Section 103(j) of the Act, it did not disturb the accident scene before MSHA's investigation. *E.g.*, Tr. at 390-91, A254-55. *See also* Tr. at 304, A224. Thus, it was appropriate for MSHA to rely on air velocity readings obtained during the accident investigation as representative of conditions in the mine around the time of the accident.

maintained behind the curtain had to be increased. Tr. at 255-56, A209-10; GX 8, A330 .

HCC nonetheless asserts that the judge erred in finding that the 7,000 cubic feet per minute requirement was not arbitrary and capricious because the “ALJ decision validates ‘a’ choice” -- *i.e.*, increasing the ventilation behind the line curtain -- but “does not validate or establish that MSHA justified ‘the’ choice made by Boone,” *i.e.*, increasing the air requirement when the scrubber is off by 300 cubic feet per minute to 7,000 cubic feet per minute. *See* Br. at 20-21. HCC’s argument reflects a fundamental misunderstanding both of the evidence and of the arbitrary and capricious standard.

Contrary to HCC’s position, “[the courts] will not demand rigorous step-by-step proof of cause and effect” where, as here, a statute is “precautionary in nature” and “designed to protect the public health,” and the relevant evidence is “difficult to come by, uncertain, or conflicting because it is on the frontiers of scientific knowledge.” *Ethyl Corporation v. EPA*, 541 F.2d at 27-29.

District Manager Boone explained that the increase was necessary

because the evidence indicated that at the time of the ignition, the velocity of air behind the curtain was 6,700 cubic feet per minute and there needed to be more air. Tr. at 255-56, 305, A209-10, 225. Based on his experience and expertise, Boone determined that a small increase of 300 cubic feet per minute when the scrubber was off was necessary. *Id.*<sup>15</sup>

Significantly, although during the negotiations HCC broadly protested that there was no need to increase face ventilation at all because the accident was "an unplanned dust ignition which occurred as a result of 8 water sprays being inoperative at the time the miner encountered a pyritic inclusion (head) in the roof," HCC does not assert that it brought to District Manager Boone's attention any evidence that the specific 300 cubic feet per minute increase requested by Boone was inappropriate. Indeed, as the judge pointed out, HCC General Manager Adelman acknowledged that the requested change would not pose any harm to the mine. Dec. at 15, A66; Tr. at 589, A324. Accordingly, there is no

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<sup>15</sup> Boone testified that the scrubber is not always on when the continuous mining machine is cutting coal. Tr. at 302-04, A223, 224, 418.

assertion that, in requiring the 7,000 cubic feet per minute minimum air velocity behind the line curtain, Boone “relied on factors which Congress has not intended [him] to consider, entirely failed to consider an important aspect of the problem, offered an explanation for [his] decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *See Motor Vehicle Manufacturers*, 463 U.S. at 43; *Highway J Citizens Group v. Mineta*, 349 F.3d 938, 958 (7th Cir. 2003), *cert. denied*, 541 U.S. 974 (2004) (“arbitrary and capricious” review is “focused on the full administrative record that was before the Secretary *at the time he made his decision*”) (internal quote omitted). As a result, HHC’s assertion that substantial evidence does not support the judge’s finding that the requirement was not arbitrary and capricious is unpersuasive.

B. The Requirement For A Minimum 7,000 Cubic Feet Per Minute Scrubber Air Capacity

It is undisputed that the continuous mining machine scrubber reduces dust and methane. Dec. at 13, A64, Tr. at 73; 164-65, A118, 165-66. *See also Peabody Coal Co.*, 17 FMSHRC 26,

27 n.3 (1995). To work properly, the scrubber requires a certain amount of air to be sucked off the cutting drum. Dec. at 13, A64; Tr. at 165, A166. MSHA therefore requires that a minimum volume of air blow through the scrubber while the continuous mining machine cuts coal. Tr. at 166, A167. This minimum volume of air is known as the minimum scrubber capacity. Dec. at 13, A64; Tr. at 166, 167.

District Manager Boone testified that the greater the volume of air blowing through the scrubber, the better the corners of the face area are ventilated -- areas that are particularly hard to ventilate. Tr. at 264-65, A211-12. Boone and Ventilation Specialist Supervisor West both testified that the quantity of air that is flowing through the scrubber should be about the same as the amount of air that is maintained behind the line curtain. Tr. at 174-75, 189, 316, A172-73, 186, 231. Continuous mining machine operator Myers agreed. Tr. at 405, A431. West explained that if the air flow at the end of the line curtain matches what the scrubber pulls, there is a greater likelihood that air will reach farther into the face and sweep dust out to where the

scrubber can pick it up. Tr. at 170, A170. West explained that dirty air will recirculate in a working place if more air is being discharged by the scrubber than is being maintained behind the line curtain. Tr. at 173, A171.

At the time of the ignition, HCC's ventilation plan required the air capacity of the scrubber to be 5,000 cubic feet per minute. Dec. at 14, A65. During its investigation of the ignition, MSHA tested the scrubber capacity and determined that it was 5,039 cubic feet per minute. Tr. at 336, A233. After the scrubber was cleaned, the air capacity measured 7,932 cubic feet per minute. Tr. at 337, A234.

Ventilation Specialist Supervisor West testified that one of the reasons for the ignition was that the scrubber was not properly pulling the methane and dust from the face. Tr. at 179-81, A176-78. West also testified that the manufacturer of the continuous mining machine operating at the time of the ignition likely recommended a minimum capacity of between 7,000 cubic feet per minute and 10,000 cubic feet per minute. Tr. at 167, A168.

The Secretary thus presented abundant evidence establishing that District Manager Boone's requirement that the air capacity of the scrubber be maintained at 7,000 cubic feet per minute was not arbitrary or capricious. The evidence established that increasing the air capacity over the scrubber better sweeps the face of dust and methane, eliminating fuel sources for ignitions. *See* Dec. at 14, A65. The evidence also established that to adequately ventilate the face, it was important to have the air capacity of the scrubber approximate the amount of air maintained behind the line curtain. *Id.* Because HCC's ventilation plan required HCC to maintain the air velocity behind the line curtain at 7,000 cubic feet per minute, substantial evidence plainly supports the judge's finding that Boone's decision to require that the air capacity of the scrubber be maintained at 7,000 cubic feet per minute was not arbitrary and capricious.

HCC's argument that the requirement was arbitrary and capricious because Boone failed to explain the significance of his specific request for 7,000 cubic feet per minute thus fails. *See* Br. at 20-21. As set forth above, the Secretary presented abundant

and essentially undisputed testimony that it was important to have the scrubber air capacity approximate the 7,000 cubic feet per minute line curtain air requirement, and that that was a basis for Boone's request. Tr. at 174-75, 189, 316, A172-73, 186, 231.

HCC's assertion that the foregoing evidence should be rejected because the scrubber air requirement was "connect[ed]" to the requirement that the velocity of air behind the line curtain be maintained at 7,000 cubic feet per minute at all times, and that requirement was arbitrary and capricious, is flawed for several reasons. *See* Br. at 23-24. First, the evidence demonstrating the importance of maintaining the air scrubber capacity to be roughly equivalent to the velocity of air behind the line curtain concerns the velocity of air behind the line curtain when the scrubber is on. *See* Tr. at 170-73, A170-71, 398, 399. The requirement for a minimum air velocity of 7,000 cubic feet per minute behind the line curtain when the scrubber is on was in effect at the time of the January 14, 2010, ignition. Indeed, the requirement was part of the ventilation plan submitted by HCC on December 4, 2010, and approved by MSHA on January 4, 2010. *See* RX11, A437,

RX12 at 1, A438; Tr. at 177, A175. There is no contention in this case, and no evidence, that the requirement for a minimum air velocity of 7,000 cubic feet per minute behind the line curtain when the scrubber is on was arbitrary and capricious.

In any event, even if the requirement that the air capacity of the scrubber be maintained at 7,000 cubic feet per minute were connected to the requirement for a minimum velocity of 7,000 cubic feet per minute behind the line curtain when the scrubber is not on -- which it is not -- the substantial evidence set forth above supports the judge's conclusion that that requirement was not arbitrary or capricious.

#### C. The Requirement That The Line Curtain Be Set Back From The Face No More Than 40 Feet

A line curtain is a piece of material hung on mine walls that is supposed to drape from the top of the mine to the floor of the mine. Dec. at 12, A63; Tr. at 155, A156. Ventilation Specialist Supervisor West testified that the closer the line curtain is to the face, the more air will reach the face. Tr. at 162, A163.

West explained that, at the time of the ignition, Elk Ridge was engaged in "deep cut" mining, which permits cuts that are

greater than 20 feet deep. West explained that deep cut mining decreases ventilation because the curtain is farther from the face. Dec. at 13, A64; Tr. at 162-163, A163-64. West testified that reducing the distance the line curtain is set back, and increasing the amount of air maintained behind the line curtain to 7,000 cubic feet per minute at all times, decreases the amount of methane and coal dust at the face and reduces the occurrence of ignitions. Tr. at 189-90, A18687. West also testified that it would not be difficult to comply with the 40-foot curtain setback requirement. Tr. at 191, A188. HCC General Manager Adelman acknowledged that it is common knowledge in the mining industry that a line curtain closer to the face will better ventilate the working place. Tr. at 587, A322.

At the time of the ignition, the ventilation plan required the curtain to be set back 45 feet from the deepest point of penetration. Dec. at 13, A64. District Manager Boone testified that the ventilation plan's original 45-foot setback requirement was the largest setback requirement allowed in the District. Tr.

at 214, A189. At the time of the ignition, the curtain was 35 feet from the deepest point of penetration of the entry face. GX 8.

Contrary to HCC's argument (Br. at 22), District Manager Boone testified explicitly as to the basis for his decision to require that the line curtain setback distance be reduced to 40 feet. Boone explained that given the fact of the ignition, he believed that the plan needed to be amended to require that the curtain be at least as close to the face as it was at the time of the ignition, i.e., 35 feet from the face. Tr. at 313-314, A228-29. Boone explained that although he initially requested the 35-foot setback requirement, he was willing, after negotiating with HCC, to agree to a 40-foot or less setback requirement. Tr. at 313, A228. Boone explained that, given the requirement in his approval letter that the curtain not be advanced any closer than the second full row of bolts outby the face, the requirement set a maximum curtain setback distance that approximates the distance between the curtain and the face at the time of the ignition. Tr. at 313-314, A228-29. *See also* RX 10, A365.

Apart from its general contention that ventilation of the face did not need to be increased because the ignition was caused by clogged water sprays (*see* RX8, A357), HCC does not assert that during the negotiation process it brought to District Manager Boone's attention any evidence that the specific decrease in the curtain setback requirement from 45 feet to 40 feet requested by Boone was not suitable to the mine. As with the other disputed provisions, HCC General Manager Adelman acknowledged that the new setback requirement would not adversely affect the mine. Dec. at 15, A66; Tr at 589, A324. Accordingly, there is no evidence supporting HCC's suggestion that, in requesting the 45-foot setback, Boone failed to consider an important aspect of the problem, and no evidence that Boone's decision was "so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *See Motor Vehicle Manufacturers*, 463 U.S. at 43; *Highway J Citizens Group v. Mineta*, 349 F.3d at 958. Accordingly, substantial evidence plainly supports the judge's finding that the 40-foot setback requirement was not arbitrary or capricious.

### III.

#### HCC'S ASSERTION THAT THE JUDGE IMPROPERLY RELIED ON THE COMMISSION'S STATEMENT IN *TEXASGULF* THAT METHANE IS IGNITABLE AT CONCENTRATIONS OF ONE TO TWO PERCENT IS UNAVAILING

HCC asserts that because Ventilation Specialist Supervisor West testified that in the presence of coal dust, methane is ignitable “down to 2 percent” concentrations, the judge committed reversible error by relying on the Commission’s statement in *Secretary of Labor v. Texasgulf Inc.*, 10 FMSHRC 498, 501 (1988), that methane is ignitable at one to two percent concentrations. *See* Br. at 24-26 (*citing* Tr. at 151-52, A152-53). The assertion is unavailing for several reasons.

First, although it is true that Ventilation Specialist Supervisor West’s testimony is arguably inconsistent with the Commission’s statement in *Texasgulf* that methane is ignitable at one to two percent concentrations, HCC’s assertion overlooks Ventilation Specialist Sparks’ testimony that MSHA inspectors are “typically” taught that, *in the presence of coal dust*, methane may be ignitable at less than a two percent concentration. Tr. at 121-22, A140-41. Sparks’ testimony is consistent with the

Commission's statement in *Texasgulf*, at least under the undisputed facts in this case establishing that coal dust was present at the time of the ignition. Thus, contrary to HCC's suggestion, the judge's reliance on the Commission's statement in *Texasgulf* is not inconsistent with the record evidence in this case.<sup>16</sup>

In any event, even if the judge improperly relied on the Commission's statement in *Texasgulf*, such reliance would be harmless error. The judge found that, given the unreliability of the methane monitor and the fact that it was located five to six feet from the face, it was impossible to know how much methane was in the area at the time of the ignition. Dec. at 8, A59. The judge also found that the facts indicated that methane could have played a part in the ignition. *E.g.*, Dec. at 14, A65.

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<sup>16</sup> The relevant part of the Commission's decision in *Texasgulf* states, "As the judge found, methane is ignitable at a 1.0 to 2.0 percent concentration and is explosive at a 5.0 to 15.0 percent concentration. At the time the violations at issue were cited, the methane levels were .005, .009 and .009 percent, well below the 1.0 percent concentration necessary for an ignition." 10 FMSHRC at 501 (citations omitted).

Contrary to the premise of HCC's argument, the judge's finding that District Manager Boone's requirements were not arbitrary and capricious does not turn on the judge's finding that methane could have played a role in the ignition. The judge found, and the evidence compels the conclusion, that Boone required the disputed plan provisions because the fact of the ignition indicated that the ventilation plan in effect at the time of the ignition was not adequately ventilating the space, and therefore was allowing a fuel source to accumulate -- a conclusion that does not depend on whether the fuel source that caused the January 14, 2010, ignition was dust, methane, or a combination of dust and methane. Thus, contrary to HCC's argument, the question of whether Boone "offered a reasoned explanation, based on the evidence," for the requests is not dependent on the judge's finding that methane could have been a fuel source for the ignition. *See Cox*, 585 F.3d at 299.

Boone explained that he did not believe HCC's initial proposed changes were adequate because, "We had an ignition, *be it methane or dust*, and it wasn't sufficient parameters in the plan

to cover that.” Tr. at 247, A201 (emphasis added). Later in the hearing, Boone elaborated as follows:

Q: Now, these seven or eight things we’ve talked about that you communicated in your first letter, why did you believe that these things were necessary to control the dust and the methane that was present in that mine?

A: *We had ignition of something, methane or dust, whatever you want to call it.* The parameters, if you listen to everybody, except for having the bits knocked off and some spray stopped up, nothing is there.

Why did this accumulate? We didn’t have enough air in there. We didn’t have air close enough. We needed more air and more curtain closer to the face.

Tr. at 255-56, A209 (emphasis added). *See also* Tr. at 183, 189, 191-92, 265, A180, 186, 188, 212, SA (Boone and West testifying that reducing the amount of air maintained at the end of line curtain helps reduce and render harmless methane *and* dust); Tr. at 189, 192, A186, 403 (West testifying that the curtain setback distance from the face needed to be decreased from to 45 feet to 40 feet to decrease gasses *and* dust); Tr. at 170, A170 (West testifying that that the air capacity of the scrubber needed to match the air flow behind the line curtain because “then there’s a better chance

that the air at the end of that line curtain is going to reach up into the face further and sweep that dust out to where the scrubber can pick it up.” Tr. at 170, A170. *See also* Tr. at 265, A212 (Boone testifying that the amount of air being pulled through the scrubber helps reduce methane and dust.)

Consistent with District Manager Boone’s explanation for requiring the disputed provisions, the judge, in determining that Boone's requirements were not arbitrary and capricious, found that each of the requirements was aimed at decreasing the amount of methane *and* decreasing the amount of coal dust at the face. *See* Dec. at 11, A62 (“The quantity of air maintained at the end of the line curtain affects the amount of methane and coal dust at the face.”); Dec. at 12, A63 (“MSHA determined that the ventilation plan requirements for the end of the line curtain needed to be increased to better sweep away coal dust and methane from the face and to lessen the chance of another ignition.”); Dec. at 13, A64 (“the requirement for HCC to reduce its curtain setback distance is a rational plan revision that will better sweep the face of coal dust and methane”); Dec. at 14, A65

“Increasing the volume of air over the scrubber will also better clean the face of dust and methane and decrease the likelihood of an ignition.”<sup>17</sup> Consistent with Boone’s testimony, the judge also found that “the ignition was caused by poor ventilation of the face.” Dec. at 14, A65. In addition, the judge found that “[t]he revisions requested by the District Manager bear a rational relationship to the facts because the revisions increase the air flow at the face, which dilutes the concentration of methane and accumulated dust, lowering the risk of a methane ignition and propagation of a fire.” Dec. at 14, A65.

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<sup>17</sup> Both Boone’s testimony and the judge’s findings are consistent with Congress’ recognition in enacting the Mine Act’s statutory ventilation standards that:

[V]entilation of a mine is important not only to provide fresh air to miners, and to control dust accumulations, but also to sweep away methane before it can reach the range where the gas could become explosive. In terms then of the safety of miners, the requirement that a mine be adequately ventilated becomes one of the more important safety standards under the . . . Act.

S. Rep. No. 95-181, 95th Cong. 1st Sess. 41 (1977), *reprinted in* Senate Subcommittee on Labor, Committee on Human Resources, 95th Cong., 2d Sess. Legislative History of the Federal Mine Safety and Health Act of 1977, at 629 (1978).

Accordingly, even if the judge's finding that methane could have played a part in the ignition is not supported by substantial evidence because the judge improperly relied on the Commission's *Texasgulf* statement, the error was harmless. Even if dust were the only fuel source for the ignition, the evidence established, as the judge found, that District Manager Boone reasonably concluded that the fact of the ignition indicated that the ventilation plan was not adequately ventilating the face because, under the plan, a fuel source had accumulated at the face. In response, Boone reasonably required the disputed provisions in order to better ventilate the face and sweep away methane and dust. Boone's requirements therefore had a rational relationship to the cause of the accident and were not arbitrary and capricious -- regardless of whether the fuel source for the ignition was coal dust, methane, or a combination of coal dust and methane.<sup>18</sup>

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<sup>18</sup> It is true, as HCC points out, that the judge stated, "Since the facts indicate that methane could have played a part in the ignition, I find that the District Manager's explanation for including the contested revisions bears a rational connection to the facts." *See* Dec. at 14, A65. For the reasons set forth above, however, the judge's finding that the required provisions were not arbitrary and capricious does not turn on that finding.

In any event, even if the question of whether the District Manager Boone's actions in requiring the disputed provisions were arbitrary and capricious depended on whether the evidence supported a finding that methane could have been a fuel source for ignition -- which it does not -- and even if the judge in so finding erred in relying on the Commission's statement in *Texasgulf*, the judge's error would be harmless. If, as HCC's argument suggests, the judge were required to rely on Ventilation Specialist Supervisor West's testimony that methane in the presence of dust is only ignitable down to two percent concentrations,<sup>19</sup> the evidence would nonetheless compel the conclusion that methane could have been a fuel source for the ignition, and that MSHA reasonably believed it was.

It is undisputed that the Elk Creek Mine was a very gassy mine, liberating almost a million cubic feet of methane every 24 hours. Dec. at 2, 10, A53, 61; Tr. at 137, 139, 241, A146, 147, 197.

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<sup>19</sup> Although HCC Engineering Manager Brian Kelly testified "that he had not heard of" methane igniting at levels less than two percent, he acknowledged that methane in the presence of coal dust can be ignited at "much lower" levels than five to fifteen percent. Tr. at 550, A433.

In passing the predecessor statute to the Mine Act, the Coal Act, Congress recognized that even in mines in which there has never been an ignition, and in which methane has never been detected at concentrations of more than 0.25 percent, there may suddenly be sufficient accumulations of methane to cause ignitions and explosions. S. Rep. No. 91-411 at 27-31, *1969 Leg. Hist.* at 27-31. The January 14, 2010, ignition was the third ignition at the Elk Creek Mine in four years. Tr. at 241, A197.

As already stated, Ventilation Specialist Supervisor West testified that, in the presence of coal dust, methane can ignite at a two percent concentration. Tr. at 152, A153. West testified that he suspected that there was a lot of methane at the time of the ignition -- he was sure methane was present. Tr. at 221-22, A191-92. Ventilation Specialist Sparks testified that the usual reason for a mine ignition is a lack of ventilation causing methane and coal dust to build up. Tr. at 32, A98. The State of Kentucky's Office of Mine Safety and Licensing investigated the ignition and concluded that the cause of the accident was "the miner head

com[ing] into contact with kettlebottoms in the mine roof.

Possible dust/methane ignited.” RX13, A444, Tr. at 511, A432.

Before the ignition, continuous mining machine operator Myers observed the continuous mining machine's methane monitor to read .8 percent methane. Dec. at 3, A54; Tr. at 385-86, A249-50. Myers acknowledged that the amount of methane could have spiked very quickly if a bleeder were hit. Tr. at 409-10, A258-59. Ventilation Specialist Supervisor West testified that the methane monitor did not reflect the amount of methane at the face because the methane monitor's sniffer was mounted six or eight feet away from the face. Dec. at 8, A59; Tr. at 222, A192. As the judge found, and as Elk Ridge Safety Director Johnson acknowledged, the methane concentration at the face can be much higher than the reading displayed on the monitor. Dec. at 3, A54; Tr. at 459, A278.

After the ignition, the methane monitor registered 1.7 percent. Dec. at 3, A54; Tr. at 221, 385-86, A191 349-50. Ventilation Specialist Supervisor West explained that that reading, even if otherwise reliable, would not accurately reflect

the amount of methane present because the ignition itself would have burned off methane. Tr. at 221, A191. District Manager Boone likewise testified that the ignition would have burned off a lot of the methane that was in the area. Tr. at 296-97, A221-22. Although equivocating on whether methane was present during the ignition, Safety Director Johnson agreed on cross-examination that methane burned off during the ignition. Tr. at 452, A274.

Although it is true that, at the time of the investigation, the continuous miner's methane monitor was out of calibration and, during a test, gave a reading that was .5 percent high (Tr. at 70, 248, A115, 202), the judge accepted District Manager Boone's and Ventilation Specialist Supervisor West's testimony that the fact that the monitor read high on one occasion did not mean that it read high on all occasions. Dec. at 3, A54 (*citing* Tr. at 290, A219 (Boone) and Tr. at 101-103, A125-27 (West)).<sup>20</sup> As the judge

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<sup>20</sup> Based on the testimony of Ventilation Specialist Sparks that the color of the flame is not determinative of whether the ignition is burning methane -- testimony that was corroborated by the testimony of HCC's own witness, Safety Technician Johnson -- the judge also rejected HCC's argument that methane was not involved in the ignition because the ignition's flame was orange. Dec. at 4, A55 (*citing* Tr. at 96-97, 455-56, A122-23, A275-76).

found, given the placement of the sniffer and the improper calibration of the methane monitor, it is impossible to know the exact amount of methane present at the time of the ignition. Dec. at 8, A59.

It is well recognized that under the arbitrary and capricious standard, an agency need not “have perfect information before it takes action.” *State of North Carolina v. FERC*, 112 F.3d at 1190 (internal quotation marks and citation omitted). The evidence in this case compels the conclusion that even if methane is not ignitable below a two percent concentration, there was a rational basis, given the evidence that was available to MSHA about the ignition, for MSHA to conclude that methane was a fuel source for the ignition. Accordingly, even if the question of whether the disputed plan provisions were arbitrary and capricious turned on whether methane could have played a part in the ignition, or on whether MSHA reasonably believed that it did, the evidence would compel a conclusion that the Secretary did not act arbitrarily or capriciously in requiring the disputed provisions.

## CONCLUSION

For all of the foregoing reasons, the Court should affirm the judge's findings that the Secretary's actions in requiring the disputed ventilation plan provisions were not arbitrary and capricious and deny HCC's petition for review.

Respectfully submitted,

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## CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(a)(7) and Sixth Circuit Rule 32(a), I hereby certify that this Response Brief for the Secretary of Labor contains 12,578 words as determined by the word count of the word processing system used to prepare the brief.

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## CERTIFICATE OF SERVICE

This will certify that I electronically filed the foregoing brief into the Court's record of this action on June 3, 2013, by using the Court's CM/ECF Electronic Filing System, which will send notice to:

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